Conflicts of Laws in Cyberspace: Rethinking International Copyright in a Digitally Networked World

by Paul Edward Geller*

INTRODUCTION: FROM GEOGRAPHICAL SPACE TO CYBERSPACE

Digital media increasingly convey works of the mind through global networks. What law or laws should govern how these works are protected when they cross borders?¹ I will illustrate this issue with a hypothetical which I will revisit at different levels of my analysis.

Suppose that, without any right-holders' consent, a media enterprise headquartered in the United States colorizes Buster Keaton's classic film work *The General* and makes this version accessible in digital format through a trans-Atlantic network. End-users in France and Germany can order the work through the network, while the enterprise is paid through credit-card accounts for providing this access. In the United States, copyright in this work has lapsed; in France, moral rights protect it, but not economic rights; in Germany, all rights in it still subsist.²

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^{*} Attorney, Los Angeles; Adjunct Professor, International Intellectual Property, University of Southern California Law Center. This article represents a revised and expanded version of a paper initially presented at the Royal Colloquium organized by the Institute for Information Law of the University of Amsterdam on July 6 and 7, 1995, and published with the other papers and proceedings of this Colloquium in The Future of Copyright in a Digital Environment by Kluwer Law and Taxation Publishers in 1996. For their comments on prior versions of this article, I thank Norman Alterman, Lorin Brennan, Ivan Cherpillod, Thomas Dreier, Bernard Edelman, Mihály Ficsor, Ysolde Gendreau, I. Trotter Hardy, André Kerever, Henri-Jacques Lucas, Henry H. Perritt, Jr., Richard Solomon, J.A.L. Sterling, and Alain Strowel.

^{1.} See generally Paul Edward Geller, The Universal Electronic Archive: Issues in International Copyright, 25 INT'L REV. OF INDUS. PROP. & COPR. L. [I.I.C.] 54 (1994) [hereinafter Geller, Electronic Archive] (anticipatory analysis of implications of digitally generated networks for international copyright).

^{2.} Compare Judgment of April 24, 1974 (French Keaton decision), Cour d'appel, 1re (Paris), 83 REV. INT'L DU DROIT D'AUTEUR [RIDA] 106 (1975), English trans. in 7 I.I.C. 130 (1976), aff'd, Judgment of Dec., 15 1975, Cass. civ. 1re, 88 RIDA 115 (1976) (holding that lapse of copyright in the United States results in expiry of economic rights in France) with Judgment of Jan., 27 1978 (German Keaton decision), Bundesgerichtshof, 1979 GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT — INTERNATIONALER TEIL [GRUR INT.] 50, English trans. in 10 I.I.C. 358 (1979) (holding that Keaton's works are still protected in Germany). See also CODE DE LA PROPRIÉTÉ INTELLECTUELLE art. L.121-1 (1992) ("perpetual" moral right) (Fr.).

This hypothetical case might remind us of the conflict of laws already notorious in satellite broadcasting.³ If the law of the transmitting country, the United States, applied to the entire case, the media enterprise could market Keaton's work in France or Germany with impunity. If the law of each of these receiving countries applied to reception in that country, the media enterprise would have to obtain rights to market the work country by country. 4 But this case differs critically in its fact pattern from broadcasting which, like publishing, communicates works from active centers outwards to passive receivers. By contrast, a work in digital format, once received at a computer terminal, can be reworked and retransmitted to one or any number of other terminals anywhere. Thus digital media allow transmitters and receivers to switch roles interactively, and to be linked among themselves in fluid and variegated patterns. This flexibility can impact on both creation and dissemination at any and all points in increasingly global networks.5

We are caught here between geographical space and cyberspace. Copyright was born in the eighteenth century, into a world of print and live theater, where courts could easily pinpoint the territories in which works originated and were disseminated as books or plays. Even in the twentieth century, courts have continued to tie the choice of law to points fixed in geographical space, most often dealing with works published or broadcast from known centers to surrounding audiences. However, now, at the threshold of the twenty-first century, diverse authors located

^{3.} Compare Mihály Ficsor, Direct Broadcasting by Satellite and the "Bogsch Theory," 18 INT'L BUS. LAW. 258 (1990) (favoring the application of laws of receiving countries) with Gunnar W.G. Karnell, A Refutation of the Bogsch Theory on Direct Satellite Broadcasting Rights, 18 INT'L BUS. LAW. 263 (1990) (favoring the application of law of transmitting country). See also Adolf Dietz, Copyright and Satellite Broadcasts, 20 I.I.C. 135, 144-50 (1989) (questioning whether law of receiving country is not more appropriate in cases such as those involving differing terms or colorization of work); Jane C. Ginsburg, Global Use/Territorial Rights: Private International Law Questions of the Global Information Infrastructure, 42 J. Copyright Soc'y USA 318, 322-23, 337-38 (1995) (proposing "combination" of laws of forum and of transmitting country, despite "risk" of "forum shopping" and of transmission "from the least protective country").

^{4.} Compare Judgment of Nov. 30, 1989 (Directsatellitensendung decision), Oberlandesgericht (Vienna), 1990 GRUR INT. 537, 539, aff'd, Judgment of June 16, 1992, Oberster Gerichtshof, 1992 GRUR INT. 933, English trans. in 24 I.I.C. 665 (1993) (localizing satellite broadcast in receiving country, because that approach would discourage transmission from countries with lowest levels of protection) (Austria) with E.C. Council Directive 93/83 of 27 September 1993 on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission, 1993 O.J. (L 248/15), recitals 9-15 and art. 1.2 [hereinafter Satellite and Cable Directive] (localizing satellite broadcast in transmitting country, because that approach would avoid need to obtain licenses for all E.C. countries).

^{5.} See ITHIEL DE SOLA POOL, TECHNOLOGIES OF FREEDOM 213-17 (1983). But cf. W. RUSSELL NEUMAN, THE FUTURE OF THE MASS AUDIENCE 104-13, 158-63 (1991) (analyzing the political economy of the new media).

continents apart can collaborate in creating the same work, and global networks can make works simultaneously accessible worldwide. It is no longer possible to localize works at any single point in transterritorial cyberspace, which William Gibson prophetically called the "space that wasn't space."

The near future of this media change, say, the next decade, will be mixed. The Internet ties together digitally generated networks worldwide largely through telephone wires, while the so-called information superhighway would mix this system with other media such as coaxial and fiber-optic cables. Computers are necessary, not only as servers and routing devices in such networks, but at terminals to reconstitute data into textual or multimedia works, to reprocess such data into new works, and to redirect it to other terminals. Of course, computers, fiber-optic cables, and related media resources will be allocated worldwide in mixed patterns, depending on factors ranging from geography to wealth. While waiting for fully global coverage, and perhaps afterwards, good old media like live performances and hard copies will remain part of the mix.⁷

As we move into this future, more works will be crossing more borders more rapidly. As a result, the courts will increasingly face cases of conflicts of laws in copyright and related cases. In our initial hypothetical case of Keaton's classic film, the judge has the following options: apply the law of the United States and grant no protection, apply French law and protect moral rights, or apply German law and protect all rights—or some Solomonic mix of some or all of these laws. In any event, with increasing conflicts of laws, judges acquire new power and responsibilities, because their choices will determine which dictates of national legislators will have effect in the cases, if at all.

How should the judges exercise their inherent power to resolve conflicts of laws in these cases in the next decade? To start, I shall explain how courts will have to shift theoretical frameworks in which they analyze conflicts of laws in cyberspace. Next, I shall explore how to expand such frameworks to comprehend, not only conflicts between copyright laws, but between these and other types of law. After that, I shall consider how, in international copyright, notably in the Berne Union, this shift may begin to be codified. Finally, I will indicate how judges, in resolving conflicts in hard cases, will have to rethink international copyright.

^{6.} WILLIAM GIBSON, COUNT ZERO 38 (1986).

^{7.} Compare Nicholas Negroponte, Being Digital 46-48, 180-183, 227-228 (1995) (anticipating the increasingly global spread of computer-driven, digitally generated networks) with Richard Lick, La juste communication 28-29 (1988) (observing the cumulation of media, not replacement of older by newer media, through history).

I. FROM CATEGORICAL TO FUNCTIONAL CHOICE-OF-LAW ANALYSIS

As the media have extended their reach, private parties have increasingly extended their transactions across borders. For example, since the introduction of print into Europe, publishers in one country have distributed their books in other countries. At the same time, rising nation-states promulgated the doctrine of territoriality, namely that laws were effective only within their respective national territories.⁸

Courts in nation-states have, as a result, had to choose which law should govern border-crossing transactions: that on one side of this or that national border or another? I shall consider the distinct frameworks of analysis which have been developed to respond to this question: categorical analysis and, then, functional analysis. I shall argue that, to respond to the shift from geographical space to cyberspace, courts may have to move from categorical to functional analysis.

A. CATEGORICAL ANALYSIS

In the nineteenth century Friedrich Karl von Savigny crystallized choice-of-law analysis just as nation-states were finishing the process of drawing boundaries across the European geographical space. Hence, to quote Savigny, parties to border-crossing transactions were, inside this compartmentalized space, sure to encounter "the possibility of . . . entrance into the territory of a rule of law alien to" their own home law.⁹

Savigny starts with a basic distinction between forum laws applicable in any event and all other laws which, when they conflict in a case, are subject to choice. On the one hand, Savigny recognized that the forum state, where the court sits, must apply certain of its own laws based on "moral grounds" or "on reasons of public interest (publica utilitas)." On the other hand, the court may serve as a neutral arbiter choosing either its own or foreign laws in cases where no such public interests come into play. In such cases, the relations of private individuals are subject to legal regimes such as property, contract, and tort. 11

^{8.} See Paul Alliès, L'invention du territoire, pt. 2 (1980). Cf. Nicholas K. Bromley, Law, Space, and the Geographies of Power, ch. 3 (1994) (noting that rising nation-states started mapping their territories with greater precision).

^{9.} FRIEDRICH CARL VON SAVIGNY, A TREATISE ON THE CONFLICT OF LAWS, § 345, at 55 (Wm. Guthrie, trans., 2d ed. 1880).

^{10.} Id., § 349, at 78. But cf. YVON LOUSSOUARN & PIERRE BOUREL, DROIT INTERNATIONAL PRIVÉ, §§ 129-31, at 177-83 (3rd ed. 1988) (commenting that distinctions between lois de police, d'ordre public, politiques, and d'application immédiate are often difficult to draw in concrete cases).

^{11.} See SAVIGNY, supra note 9, §§ 360-61, at 132-42.

Savigny then focused on this latter class of cases that supposedly turned only on private legal relations. As desiderata, he posited that courts should not discriminate against foreign parties and should choose the same law in the same or similar categories of cases. With these aims in mind, Savigny correlated the distinct, legally governed relations between private parties, such as property and tort, with the territories to which these relations seemed by nature to be most appropriately connected. For example, a property claim would apparently be best ruled by the law of the state on whose territory the property at issue was situated, and a tort claim would be so connected to the territory of the state where the tortious act took place. It would then become indispensable to characterize any claim raised in a case as falling into a given category before knowing to which state to look for dispositive law. 13

Professor Troller, after indicating why this framework of analysis does not easily fit over intellectual property, tried to readjust it. ¹⁴ In theory, the immaterial objects of intellectual property are ubiquitous, susceptible of appearing everywhere at once. In practice, however, the law, ultimately the police, only seems capable of controlling material objects inside the territories of nation-states. Troller posited that the objects of intellectual property, notably works and inventions, could only be misappropriated in the form of material things, such as books or machines. These things could then be localized within the territories on which they are actually produced, marketed, or used, and the laws of these territories would apply to these transactions. In short, the territoriality of intellectual property results from the fact that it is enforced within geographical space. ¹⁵

This approach fails to take account of the possibility of misappropriating works as pure data.¹⁶ Specifically, in a digital environment, while we can make hard copies of works, for example, on disks, tape, or paper,

^{12.} See id., § 348, at 69-70.

^{13.} See id., § 348, at 70; § 366, at 174-81; §§ 372-73, at 221-33. See also 1 ERNST RABEL, THE CONFLICT OF LAWS: A COMPARATIVE STUDY 54-55 (2d ed. 1958) (positing that any conflicts rule connects facts of case to jurisdiction whose law governs specific claim arising out of facts, but that claim "must be susceptible of interpretation" in terms of both forum and foreign laws).

^{14.} See Alois Troller, Das internationale Privat- und Zivilprozebrecht im gewerblichen Rechtsschutz und Urheberrecht 39-67 passim (1952).

^{15.} See id. at 44-45, 61-67. See also JACQUES RAYNARD, DROIT D'AUTEUR ET CONFLITS DE LOI: ESSAI SUR LA NATURE JURIDIQE DU DROIT D'AUTEUR 406-11 (1990) (remarking that copyright-protected work, while ubiquitous, is "addressed to senses" in specific national territories).

^{16.} Cf. Egbert J. Dommering, An Introduction to Information Law: Works of Fact at the Crossroads of Freedom and Protection, in PROTECTING WORKS OF FACT: COPYRIGHT, FREEDOM OF EXPRESSION AND INFORMATION LAW 1, 13-15, 18 (Egbert J. Dommering & P. Bernt Hugenholtz, eds. 1991) (conceptualizing works as original arrangements of signs subject to digital appropriation).

we can also address them as soft data packets to terminals across the world almost instantaneously by giving our computers simple commands. Here courts can no longer play the game of localizing infringement under the shell of one national law or another, since the same act can put the same work, not just in one country at a time, but in many countries at once. To choose between such laws when they conflict in cyberspace, courts might consider a more flexible analysis.¹⁷

B. FUNCTIONAL ANALYSIS

In the twentieth century, Brainerd Currie led the American revolution in choice-of-law analysis. He would have found it meaningless to ask whether copyright "by nature" should be governed either by the law of the country of origin or by the law of the country of ultimate use. Currie dismissed any such categorical "choice-of-law rule" as an "empty and bloodless thing," to the extent that its application would turn on theoretical debates more than practical results.¹⁸

Currie effectively collapsed Savigny's distinction between, on the one hand, forum laws that must be applied in any event because of compelling public interests and, on the other hand, other forum and foreign laws subject to choice because they protect only private interests. Currie instead posited that "economic and social policies," what he called "governmental" interests, would motivate all rules of law and, therefore, potentially affect the resolution of all conflicts of laws. ¹⁹ A court dealing with any such case would then have to sort out the interests that its own forum state, as opposed to those of foreign states, had in the outcome of the case. ²⁰

According to Currie, where all such interests at stake in a case pointed to the same decision, there would be a "false conflict" and the court could reach that decision without making any choice of law.²¹ By contrast, there is the broader, perhaps less well-defined, group of cases than that

^{17.} Cf. Judgment of May 28, 1991 (Tele-Uno II decision), Oberster Gerichtshof, 1991 GRUR INT. 920, English trans. in 23 I.I.C. 703, 707 (1992) ("alongside the law of the country of emission, in addition the copyright provisions of all those countries must be applied, which are situated at least to a considerable extent within the regular reception scope of such broadcasts") (italics in original) (Austria).

^{18.} Brainerd Currie, On the Displacement of the Law of the Forum, in Selected Essays on the Conflict of Laws 3, 52 (1963) [hereinafter Selected Essays].

^{19.} See id. at 62-65. But cf. Thomas G. Guedj, The Theory of the Lois de Police, A Functional Trend in Continental Private International Law — A Comparative Analysis with Modern American Theories, 39 Am. J. Comp. L. 661 (1991) (criticizing the collapsing of European distinctions in undifferentiated interest analysis).

^{20.} See CURRIE, Notes on Methods and Objectives in the Conflict of Laws, in SELECTED ESSAYS, supra note 18, at 178-81.

^{21.} See id. at 180; CURRIE, Married Woman's Contracts: A Study in Conflict-of-Laws Method, in SELECTED ESSAYS, supra note 18, at 107-10.

in which Savigny's analysis might find forum laws that are necessarily applicable, namely cases in which compelling interests of the forum state are implicated in decisions to be made.²² In such cases, Currie concludes, the court must defer to these policy-based interests of the forum state in choosing that state's law; otherwise, absent such interests, the court may accommodate the interests of foreign states in choosing their laws to reach the outcomes that their interests tend to favor.²³ This method changes the focus of the threshold question of characterization that we encountered in our initial example of the transmission of the colorized classic film work from the United States to Europe: *inside* what country do acts subject to copyright in the work take place? Interest analysis, rather than limiting itself to the acts subject to the particular rights asserted in a case, tends to focus on the remedies sought to vindicate those rights, asking whether interests at stake in the case are served by such remedies.²⁴

As Professor Vivant points out, in cases of intellectual property, the sense of territoriality varies depending on where courts may effectuate judicial remedies.²⁵ On the one hand, a court might limit itself to exercising jurisdiction, and enjoining infringement, inside the forum state to the extent it doubted its ability to police an injunction outside that state's territory. On the other hand, a court might decide to take jurisdiction over a party located inside the forum state, for example, to impose damages on that party for infringement that it committed in transactions crossing that state's borders or even taking place altogether outside that state's territory. Vivant acknowledges that, since they have been empowered by the Brussels Convention on jurisdiction, European

^{22.} See generally Guedj, supra note 19, at 681-691 passim (commenting that, despite affinities between categorical analysis in its references to lois de police or ordre public and functional analysis in its references to governmental interests, the former analysis applies to a small range of cases, with more precision, than the latter).

^{23.} Compare CURRIE, Notes on Methods and Objectives in the Conflict of Laws, in SELECTED ESSAYS, supra note 18, at 180-84 (arguing that only when forum has no interest in applying its own law should it apply foreign law) with DAVID F. CAVERS, THE CHOICE-OF-LAW PROCESS 73-102 passim (1965) (looking to rules that help to accommodate purposes behind both forum and foreign laws).

^{24.} See Currie, The Silver Oar and All That: A Study of the Romero Case, in Selected Essays, supra note 18, at 364-73. See also Albert A. Ehrenzweig, Characterization in the Conflict of Laws: An Unwelcome Addition to American Doctrine, in XXTH CENTURY COMPARATIVE AND CONFLICTS LAW: LEGAL ESSAYS IN HONOR OF HESSEL E. YNTEMA 395 (Kurt H. Nadelmann, Arthur T. von Mehren, & John N. Hazard, eds. 1961) [hereinafter XXTH CENTURY COMPARATIVE AND CONFLICTS LAW] (positing that characterization is nothing but interpretation of legal rules, ultimately in terms of their purposes).

^{25.} See MICHEL VIVANT, JUGE ET LOI DU BREVET 201-02 (1977).

courts in different countries adhering to this treaty may now cooperate to enforce injunctions in appropriate cases across borders.²⁶

Of course, courts can best control the use of works by granting relief on the territory where their agents, ultimately the police, can enforce their orders.²⁷ It nonetheless remains unclear how judicial relief, such as injunctions or damages, can be made effective in a digitally networked world, where works can be made virtually present almost everywhere at once. In particular, injunctions may have effects on diversely localized computers that operate as crucial servers in networks, either for disseminating the works or for collecting monies for delivery across borders. It falls to the courts to explore such effects by asking: how might choosing this or that law impact on the interests at stake in granting specific remedies in the case at hand?²⁸

C. RESOLVING OLD DILEMMAS

I do not contend that the shift from geographical space to cyberspace is decisive with regard to the ultimate validity of categorical or functional choice-of-law analysis. No doubt, categorical analysis generated relatively reliable rules for dealing with recurrent cases of conflicts in the tightly compartmentalized European geographical space of the nineteenth century. If I now propose to shift to a more functional analysis, it is merely to open up new lines of judicial inquiry into the hard cases increasingly arising in the digitally generated cyberspace of the twenty-first century. It is matter of adapting "old rules to new border-line cases."²⁹

To test this more flexible analysis, turn back to our initial example. Recall that, hypothetically, a media enterprise digitized and colorized Buster Keaton's classic film work *The General*, loaded it into a database, and put it on-line. Suppose that Keaton's successors in interest sue the enterprise in the United States, asking the court to enjoin it from making this work accessible from the United States. The enterprise

^{26.} See MICHEL VIVANT & JEAN FOYER, LE DROIT DES BREVETS 54-56 (1991). But cf. Heleen Bertrams, The Cross-Border Prohibitory Injunction in Dutch Patent Law, 26 I.I.C. 618 (1995) (critical analysis of Dutch injunctions prohibiting patent infringement outside the Netherlands).

^{27.} But cf. I. Trotter Hardy, The Proper Legal Regime for "Cyberspace," 55 U. PITT. L. REV. 993, 1052-53 (1994) (questioning the bases on which sanctions may be appropriately imposed on parties whose torts have impacts across transferritorial networks).

^{28.} Cf. DIETER STAUDER, PATENVERLETZUNG IM GRENZÜBERSCHREITENDEN WIRTSCHAFTSVERKEHR 182-97 passim (1975) (weighing interests of patent-granting and patent-free states in analysis of which border-crossing acts should be enjoined or subject to liability in the former).

^{29.} Moffatt Hancock, Three Approaches to the Choice-of-Law Problem: the Classificatory, the Functional and the Result-Selective, in XXTH CENTURY COMPARATIVE AND CONFLICTS LAW, supra note 24, at 378.

objects that copyright law in the United States justifies no such remedy because it no longer protects the work at issue. But end-users in France and Germany can only enjoy the work after interactively requesting it to be transmitted and after paying by credit card. On the basis of their acts, it is argued that French and German laws, which still protect the work, should apply to the case.³⁰

The court does not have to reinvent the wheel in resolving the conflicts of laws in this case. It is true, of course, that European and American courts will take account of conflicts-relevant interests within very different frameworks of analysis.³¹ Still, in adhering to the Berne Convention and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), most countries have reached a consensus on the interests that these treaties serve. 32 To start, the Berne Convention, to quote the Preamble of its Paris Act, confirms the common interest in protecting authors' rights "in as effective and uniform a manner as possible" throughout the Berne Union. Further, the TRIPs Agreement, incorporating Berne provisions, also calls for border-control procedures, at least with regard to hard copies, in the interest of preventing pirates from raiding intellectual property in global markets.³³ Finally, the Berne Convention imposes the principle of national treatment, which requires that courts govern copyright claims in Berne-protected works by choosing the law of the Berne country where copyright protection is sought.34

^{30.} See supra text accompanying notes 1-4. Cf. Paul Katzenberger, Urheberrechtsfragen der elektronischen Textkommunication, 1983 GRUR INT. 895, 914-17 (transborder broadcasting and network communication subject to distinct choice-of-law analyses, the latter with reference to acts triggering transmissions).

^{31.} Compare LOI FÉDÉRALE SUR LE DROIT INTERNATIONAL PRIVÉ DU 18 DÉCEMBRE 1987 (Switzerland), arts. 13 (foreign public laws), 15 (law with "closest tie" to case), 17 (ordre public), 18-19 (laws with mandatory application by virtue of purposes) with RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 6(2) (1971) (United States) (balancing "needs of international systems" along with "policies" of forum, those of "other interested states," and those "underlying the particular field of law").

^{32.} Berne Convention for the Protection of Literary and Artistic Works, Paris Act of 1971 [hereinafter Berne Convention], S. TREATY DOC. NO. 27, 100th Cong., 1st Sess. (1989), reprinted in 3 SOURCES OF INTERNATIONAL UNIFORM LAW E325 (Konrad Zweigert & Jan Kropholler, eds. 1973); Agreement on Trade-Related Aspects of Intellectual Property Rights, including Trade in Counterfeit Goods, Dec. 15, 1993, GATT Doc. MTN/FA II-A1C [hereinafter TRIPs Agreement], 33 I.L.M. 1199 (1994), reprinted in 25 I.I.C. 209 (1994).

^{33.} See Paul Edward Geller, Intellectual Property in the Global Marketplace: Impact of TRIPS Dispute Settlements?, 29 INT'L LAW. 99, 104-05 (1995) [hereinafter Geller, TRIPS Dispute Settlement].

^{34.} Berne Convention, *supra* note 32, at art. 5(1). See EUGEN ULMER, INTELLECTUAL PROPERTY AND THE CONFLICT OF LAWS 6-14 (English trans. 1978); SAM RICKETSON, THE BERNE CONVENTION FOR THE PROTECTION OF LITERARY AND ARTISTIC WORKS: 1886-1986, at 193-95 (1987).

The difficulty posed by our hypothetical case is that of identifying such protecting countries. It is not self-evident whether protection is sought in the United States, where the film work at issue is stored in a database controlled by a computer, or in France or Germany where this work is received. To resolve this difficulty, it must be kept in mind that Berne national treatment secures authors' moral stakes in their works such as their reputations, as well as right-holders' economic stakes in media markets, within each Berne country, respectively. At the same time, both Berne and TRIPs provisions that preclude other countries from serving as pirate havens imply the desiderata of catching infringing acts in as seamless and coherent a web of remedies and sanctions worldwide as possible.35 To localize protecting countries, we then have to ask: where might moral or economic rights, for example, in authorial reputations or in media markets, need remedies from infringing acts? In our hypothetical suit, there are no longer any rights in the United States, while moral rights are protected and threatened in France, as are both moral and economic rights in Germany. A court in the United States, with jurisdiction over the enterprise controlling access to the work, may apply the laws of France or Germany to protect the work in these other countries.36

For example, the court could issue an order that allowed continuing communication of the film work in the United States but compelled reprogramming the computer which runs the database, so that the work could not be communicated in colorized form to France nor in any form to Germany. The defendant would then have to calculate what is more cost-effective: either programming the computer to send the colorized work to addresses only in the United States or obtaining authorization to send it to French and German addresses. Of course, the law of the forum, here the law of the United States where suit is brought, would govern the procedure for obtaining and policing any such order. Still, the laws of the protecting countries, in our case France and Germany, would provide the substantive legal bases for the order.³⁷

Suppose that the film work were, like the proverbial cat, let out of the bag, that is, already transmitted across the Atlantic to numerous end-

^{35.} See Paul Edward Geller, International Copyright: An Introduction, § 3[1][b][ii] [hereinafter Geller, International Copyright: An Introduction], in 1 INTERNATIONAL COPYRIGHT LAW AND PRACTICE (Melville B. Nimmer & Paul Edward Geller, eds. 1995) [hereinafter INTERNATIONAL COPYRIGHT LAW AND PRACTICE].

^{36.} See, e.g., London Film Prod. Ltd. v. Intercontinental Communications, Inc., 580 F. Supp. 47 (S.D.N.Y. 1984) (rejecting argument that a federal court in the United States should not exercise jurisdiction over infringement claims subject to foreign laws because it could not properly apply these laws).

^{37.} See, e.g., Judgment of May 23, 1990 (Hersocovici c. Société Karla et Société Krizia), Trib. grande instance (Paris), 146 RIDA 325 (1990) (issuing remedies against infringing use of Magritte picture on sweaters made in Italy under Italian law and sold in France under French law).

users. The court could still award damages for reputation and markets lost in countries where rights were still in effect, notably, in our hypothetical case, France and Germany. Other remedies are imaginable: for example, since the enterprise's network business depends on payment through some transnational credit-card system, the court might issue injunctive relief regarding credits that accrue to the enterprise's account from its unauthorized uses in each protecting country. Indeed, the court could order the enterprise not to draw on its credits from Germany until infringement was fully adjudicated.³⁸

II. CONFLICTS OF COPYRIGHT WITH OTHER LAWS IN CYBERSPACE

This shift from categorical to functional analysis might seem to leave courts adrift in cyberspace, without any doctrinal guidance system. If only to provoke debate, I shall formulate some "principles of preference" to help courts in choosing laws in cases arising in the digital environment. Professor Cavers initially contemplated such principles, ostensibly to bring together the best of Savigny's conceptualist heaven and Currie's realist hell. These principles are neither choice-of-law rules nor substantive rules, but rather "guides for decision, leaving ample room for independent judgment to any courts that resorted to them."

Return to the distinction between geographical space and cyberspace. In geographical space, mass media trace lines of communication that tend to radiate out from active centers of publishing, broadcasting, or cablecasting to passive audiences. In cyberspace, digital media weave lines of communication together in multifarious combinations and permutations between possibly hundreds of millions of nodes. This process results in increasingly dense, interconnected, and far-reaching networks, in which human relationships overlap in novel patterns, thus increasing the chances of conflicts, not only between copyright laws themselves, but between copyright laws and other laws. Since, by definition, it is a matter of transterritorial issues, legislation short of treaty-making cannot resolve the underlying conflicts; only judges can, on a case-by-case basis. I shall then consider principles of preference for judicially resolving such conflicts of laws in any global network on three levels: privacy, contract, and competition laws.

^{38.} Cf. Reebok Int'l, Ltd. v. Marnatech Enters., Inc., 970 F.2d 552 (9th Cir. 1992) (freezing alleged infringer's bank account in United States, on basis of preliminary showing of transborder trademark infringement from Mexico to United States).

^{39.} CAVERS, supra note 23, at 136.

^{40.} See Geller, Electronic Archive, supra note 1, at 60.

A. PRIVACY RIGHTS VERSUS COPYRIGHT

The most basic level of law in networks is that of privacy. Consider another variation on our hypothetical case of Keaton's classic film work. Suppose that a small group of end-users, as dilettante artists, digitally reprocess pieces of the film work into multimedia works that they exchange over the network. Assume that these exchanges are limited to the artists themselves, each addressing only the others, with the general understanding that no versions should be released to outsiders, much less the public at large, without their common consent. Should a court enjoin such private reprocessing or exchanges of copyright materials?

Privacy rights, broadly conceived, entitle individuals to control how their expression is communicated and who may access it.⁴¹ In print media, such rights, like common-law copyright and the moral right of divulgation, are exercised most often by all-or-nothing decisions to release hard copies on the open market or not. In digital media, as in face-to-face communication, the exercise of privacy rights may be more graduated, since creators may test their experiments against feed-back from close colleagues in small networks, akin to literary or artistic coteries, but assert rights to control wider dissemination into ever-larger networks.⁴² Privacy is generally recognized as a basic human right intimately bound up with freedom of expression, although not without its tensions with other rights and not without variations from one jurisdiction to another. I propose to start with a principle of preference for laws favoring privacy, and disfavoring its waiver, in global networks.⁴³

^{41.} See generally Stefano Rodotà, Protecting Informational Privacy: Trends and Problems, in Information Law Towards the 21st Century 261, 262-63 (Willem F. Korthals Altes, Egbert J. Dommering, P. Bernt Hugenholtz, & Jan J.C. Kabel, eds. 1992) [hereinafter Information Law Towards the 21st Century] (privacy being redefined with new "stress on the aspect of circulation and control").

^{42.} Compare Prince Albert v. Strange, 64 Eng. Rep. 293, aff'd, 41 Eng. Rep. 1171 (1849) (with note) (enjoining the disclosure of privately made and held pictures, even in a catalog listing them) (U.K.) with Judgment of March 14, 1900 (the Whistler case), Cass. Civ., 1900/1 DALLOZ PÉRIODIQUE 497 (holding that an artist, after having already shown a portrait briefly, may withhold it from the party commissioning it, but is precluded from showing it again with the model's likeness, thus protecting both the artist's and the model's interests in controlling disclosure) (Fr.).

^{43.} See Universal Declaration of Human Rights, Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, art. 12, EUROP. T.S. no. 5; International Covenant on Civil and Political Rights, Dec. 16, 1966, art. 17, 999 U.N.T.S. 171. Compare STIG STRÖMHOLM, RIGHT OF PRIVACY AND RIGHTS OF THE PERSONALITY, A COMPARATIVE SURVEY (1967) (doctrinal variations between jurisdictions) with COLIN J. BENNETT, REGULATING PRIVACY: DATA PROTECTION AND PUBLIC POLICY IN EUROPE AND THE UNITED STATES (1992) (convergences and divergences in legislative projects). Cf. YSOLDE GENDREAU, LA PROTECTION DES PHOTOGRAPHIES EN DROIT D'AUTEUR FRANÇAIS, AMÉRICAIN, BRITTANIQUE ET CANADIAN 285-303 passim (1994) (comparative analysis of case laws, noting that courts have largely subordinated copyright in photographs to the privacy rights of

To apply this principle, we have to distinguish between the private leakage and the public hemorrhaging of copyright materials.44 The principle tends to shield individuals who might leak the works of others by privately copying them and retransmitting them to small numbers of other individuals. In particular, courts will be reluctant to order discovery, much less impose injunctions, that would require them to police copying and like uses of works on the level of private end-users.⁴⁵ However, a principle of preference favoring privacy need not protect pirates who hemorrhage works by making them accessible to the public on large-scale networks, usually but not necessarily for profit. Of course, authors and media enterprises can use technological fences, to use Professor Mackaay's suggestive term, to reduce both leakage and hemorrhaging on the public marketplace.46 They can weave dataheaders into digital copies, encrypt transmissions of works, or arm terminals with copy-control and use-monitoring systems. Such measures identify unauthorized copies, condition enjoyment of a work on crediting the right-holder's account, or otherwise control uses.⁴⁷

Suppose that a media enterprise encrypts a work before making it available through a network to end-users authorized to decode it. Of course, the original author's personal privacy right in the work is distinguishable from the enterprise's commercial interest in granting access only to paying end-users. Furthermore, the author's very personal interest in turn could be argued to be progressively waived as increasingly wider groups of end-users are addressed, up to the public at large. Nonetheless, the principle of preference favoring privacy would limit

persons photographed or of the owners of things photographed).

^{44.} See Pamela Samuelson, Copyright and Digital Libraries, 38 COMMUNICATIONS OF THE ACM 15, 21 (Apr. 1995). Cf. United States v. LaMacchia, 871 F. Supp. 535, 544-45 (D.Mass. 1994) (distinguishing single copies made by "home computer users" from "willful, multiple infringements").

^{45.} Cf. Judgment of May 29, 1964 (the Personal Identification case), Bundesgerichtshof, 1965 GRUR 104, 106-108 (reasoning that a copyright claim may not form a basis for an obligation to identify users of copying devices used in private circles). See generally Paul Edward Geller, Reprography and other Processes of Mass Use, 38 J. COPYRIGHT SOCY 21, 31-32 (Fall 1990) [hereinafter Geller, Reprography] (noting that statutory schemes to provide relief for private copying tend to avoid giving copyright owner right to injunction).

^{46.} Ejan Mackaay, The Economics of Emergent Property Rights on the Internet, in The Future of Copyright in a Digital Environment 13, 16-25 passim (P. Bernt Hugenholtz, ed., 1996) [hereinafter Future of Copyright]. See also Charles Clark, The Answer to the Machine Is in the Machine, in id. at 139 (computer-automated methods of collecting copyright revenues on subscription and per-use bases).

^{47.} See Branko Gerovac & Richard J. Solomon, Protect revenues, not bits: identify your intellectual property, in 1 Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment 49 (1994); Ryoichi Mori & Masaji Kawahara, Superdistribution: The Concept and the Architecture, E73/7 Transactions of the Inst. of Electronics, Information and Communication Engineers 1133 (1990) (Special Issue on Cryptography and Information Security).

such waiver to just such groups as the enterprise had chosen to address, providing a basis for relief against the unauthorized marketing of decoders to the public at large. An encrypted transmission would be treated like a sealed envelope in the post, even one containing a widely known publication. More generally, our principle of preference supports the presumption that all communications within global networks are confidential.⁴⁸

B. Contracts versus Copyright

In the middle level of law in networks, parties control the flow of messages by contract. Return to our hypothetical group of dilettante artists who, from all over the world, collaborate over the global network to create their multimedia works. Suppose, for example, that they decide on-line to license their works to a media enterprise for use in video games and then, also on-line, reach an agreement to that effect with the media enterprise. What laws should apply to govern the contracts allocating copyrights, on the one hand, among the authors themselves and, on the other, between them and the media enterprise?

Until now, authors have most often collaborated among themselves, or worked for media enterprises, in their home countries. Faced with a conflict of laws, a court would normally apply that home country's copyright-contract rules only to its own local authors and media enterprises in local endeavors. ⁴⁹ Courts might then rightly hesitate to apply copyright-contract rules, most often fashioned for author-enterprise transactions in only one locality, to agreements stretched across any global network. Only where copyright, notably moral right, precludes contractual alienation as a matter of public policy are courts likely to set aside freedom of contract. ⁵⁰ In effect, national laws vary considerably in their rules governing, *inter alia*, the following issues: in whom does copyright initially vest? should mandatory copyright-contract rules supersede the actual agreements of parties? what presumptions, if any,

^{48.} But cf. BBC Enters. Ltd. v. Hi-Tech Xtravision Ltd., 9 R.P.C. 167, 183 (1992) (Ch. Div.), rev'd, id. at 183-93 (Court of Appeals), reversal aff'd, id. at 194-203 (House of Lords) (privacy argument raised, considered skeptically by lower U.K court in obiter dictum, but not ruled upon by higher courts).

^{49.} See, e.g., Judgment of Feb. 1, 1989 (Anne Bragance c. Michel de Grèce), Cour d'appel, 1re (Paris), 142 RIDA 301 (1989) (declining to apply French copyright-contract law to agreement to ghost-write book negotiated, concluded, and performed in United States, where contract contained a clause selecting New York law to govern its terms).

^{50.} See, e.g., Judgment of May 28, 1991 (Asphalt Jungle case), Cass. civ. 1re, 149 RIDA 197 (1991) (setting aside United States contracts regarding authorship status to allow director and screen writer to sue as authors on French moral right which had "imperative application"), followed on remand, Judgment of Dec. 19, 1994, Cour d'appel, chs. réunies (Versailles), 164 RIDA 389 (1995) (enforcing French moral right as a matter of ordre public).

should apply to points on which agreements are silent? I shall propose related principles of preference to help resolve resulting conflicts of laws.⁵¹

The issue of the first owner of copyright is by far the most difficult. The laws of different countries often initially vest copyright quite differently in natural persons or corporate enterprises. In addition, the rules governing who first owns copyright often turn on characterizing the work in question; for example, while multimedia works might resemble collective, audiovisual, or software-related works, they do not consistently fall into any one of these categories.⁵² There are three possible solutions to the conflicts of laws that might well arise on this point: first, apply the law of the country of origin of the work; second, apply the law of the country of ultimate use of the work, that is, where protection is sought; third, presume that rights vest in the natural persons who actually create the work, no matter where they do so.53 The first and second solutions, being territorial in the strict geographic sense, may prove difficult to apply in many cases arising in any global network, leaving the third solution as the default position for any principle of preference governing first ownership of copyright in cyberspace.⁵⁴ Of course, this default position is merely presumptive, leaving claimants free to argue that, for reasons arising out of contract-conflicts analysis, the allocation of rights between creators and employers located in a given country is best governed by writer-for-hire or like rules in specific cases.⁵⁵

The issues regarding contracts between authors and enterprises are somewhat easier. The interests that have motivated national rules concerning local author-enterprise relationships no longer coherently come into play for a double reason. Not only do the digital media make

^{51.} See generally ULMER, supra note 34, at 36-54 (considering solutions of copyright-contract conflicts in anticipation of 1980 Rome Convention on the law applicable to contractual obligations). Compare Raynard, supra note 15, at 517-666 passim (French approach to conflicts) with Paul Katzenberger, Urheberrechtsverträge im Internationalen Privatrecht und Konventionsrecht, in URHEBERVERTRAGSRECHT: FESTGABE FÜR GERHARD SCHRICKER 225 (1995) (German approach).

^{52.} See Bernard Edelman, L'oeuvre multimédia, un essai de qualification, 1995 RECUEIL DALLOZ SIREY CHRONIQUE (15e cahier) 109.

^{53.} See generally Ginsburg, supra note 3, at 328-29, 331-32 (reviewing positions); Geller, International Copyright: An Introduction, supra note 35, §§ 4[2][a][i], 6[3][a] (offering critical analyses of positions).

^{54.} Cf. Adolf Dietz, The Concept of Author under the Berne Convention, 155 RIDA 2 (1993) (arguing in favor of vesting rights in human creators on the basis of Berne principles). But cf. Jacqueline M.B. Seignette, Challenges to the Creator Doctrine: Authorship, copyright ownership and the exploitation of creative works in the Netherlands, Germany and the United States, chs. 3-6 passim (1994) (explaining policies and principles in favor of initial vesting of rights in possibly corporate producers).

^{55.} See generally Geller, International Copyright: An Introduction, supra note 35, § 6[2][b] (arguing that presumptive allocation of rights in employer is justified where relation with employee is located wholly in country applying such a rule of vesting).

cultural production increasingly transnational, but, as Professor Goldstein has predicted, these media will transform author-enterprise relations, as well as those among creators themselves.⁵⁶ In particular, teams of authors will less and less need coordination, manufacturing, and marketing done by publishing houses located in geographical centers such as New York and Paris, but will be able to collaborate and market directly through global networks. As a result, there will less frequently be reason to apply contract rules fashioned for purely local relationships, and courts will find themselves thrown back to the default principle of preference for choosing law to govern contracts in general: freedom of contract.⁵⁷ Freedom of contract would assure authors and media enterprises of the chance to elaborate consensual relations appropriate to networks. In our example, if the artists can collaborate over global networks in creating works, they can make their deals there too.⁵⁸

A rather straightforward presumption seems appropriate to copyright contracts in global networks. If a contract is silent on specific points, the parties have not exercised their freedom to make a deal on these points. In global networks, contracts will often be concluded between relative strangers, outside local customs and prior dealings. By the same token, in such networks, third parties will often rely only on the face of contracts, not knowing their original contexts or purposes. Another principle of preference could favor presumptions of restrictive construction: if the terms of a contract do not specify a right, that right is not transferred — in short, what you see of the contract on screen is what you get. Adapted to commerce on global networks, this principle of preference could well govern all transfers along the chain of title. ⁵⁹

^{56.} See Paul Goldstein, Copyright's Highway: The Law and Lore of Copyright From Gutenberg to the Celestial Jukebox 234-36 (1994). See also P. Bernt Hugenholtz, Adapting Copyright to the Information Superhighway, in Future of Copyright, supra note 46, at 81, 84 (predicting new roles for authors, other information producers, publishers, users, etc., in global networks).

^{57.} See 3 Albert A. Ehrenzweig & Erik Jayme, Private International Law 15-19 (1977). But cf. Loussouarn & Bourel, supra note 10, §§ 176-78, at 262-70 (different approaches to freedom of contract).

^{58.} Cf. Hardy, supra note 27, at 1028-36 passim (describing the ease of resolving legal issues in networks by contract).

^{59.} But cf. André Lucas, Traité de la propriété littéraire et artistique 426-29 (1994); Paul Katzenberger, Anwendungsbereich, in Urhebberrecht: Kommentar 1207, 1254-55 (Gerhard Schricker, ed. 1987) (both explaining that rules of restrictive construction developed to protect only authors as weaker parties to copyright contracts).

C. COMPETITION LAW VERSUS COPYRIGHT

At the top level, that is, the most publicly accessible level, networks can form marketplaces. Copyright law maintains order inside the market for information by preventing creative works from being pirated. Copyright law avoids conflicts with law governing competition on the marketplace, especially antitrust law, when it excludes ideas and raw data from protection and excuses dealings or uses such as Anglo-American law calls "fair" and such as Continental European law specifically exempts, for example, as illustrative quotation, criticism, or parody. Professor Reichman has asked: could media enterprises in global networks impose contracts on end-users that override such copyright limitations to endanger competition in the marketplace?⁶⁰

Let us vary our initial hypothetical example and then contrast it with a rather different example. On the one hand, suppose that the media enterprise, while providing access to a colorized version of Keaton's work, contractually prohibits end-users from retransmitting even black-andwhite extracts of that work, in which it has no copyright. 61 On the other hand, consider as well a case in which an enterprise conditions access to its geophysical statistics, that is, nothing but raw data, on the contractual promise not to retransmit even small sets of data for research purposes to third parties. Across the spectrum of such cases, courts will face manifold conflicts of laws: for example, what law or laws of intellectual property draw lines between protected and public-domain materials that, inter alia, can affect the use of raw, but valuable data?62 In cases where contract terms restrict access to otherwise freely usable materials, courts will have to ask: what competition or contract laws determine whether these terms are invalid as abusive of dominant market positions or contractually adhesive? To deal with all such conflicts, it seems necessary to refer to principles of preference favoring interests common to copyright and competition laws. Such interests include enhancing the variety of works, or optimizing data flow, on the marketplace.63

^{60.} See Jerome H. Reichman, Electronic Information Tools — The Outer Edge of World Intellectual Property Law, 24 I.I.C. 446, 461-67 (1993).

See supra text accompanying notes 1-2.

^{62.} Compare Council Directive 96/9 of 11 March 1996 on the legal protection of databases, 1996 O.J. (L 77) ___, ch. III (sui generis protection against unauthorized extraction and utilization of raw data) with ProCD, Inc. v. Zeidenberg, 908 F. Supp 640 (W.D. Wisc. 1996) (no copyright protection for raw data, collected at cost of millions of dollars, but then extracted from CD-ROM and put on Internet).

^{63.} Compare Paul Edward Geller, Toward an Overriding Norm in Copyright: Sign Wealth, 159 RIDA 2, 42-43 (1994) [hereinafter Geller, Sign Wealth] (copyright criteria of enhancing variety of, and access to, works) with Ejan Mackaay, An Economic View of Information Law, in Information Law Towards the 21st Century, supra note 41, at 56-58 (competition criteria for intellectual property look to enhancing data flows).

It is unfortunately not clear how this principle, however appealing in the abstract, might apply to concrete cases. In the spectrum of cases in question, enterprises might have invested heavily in organizing digitally exact versions of creative works or systematic bodies of valuable but raw data. What results if, among the laws of many states that a global network covers, a court chooses law to invalidate contractual terms imposed by an enterprise which, from a dominant market position, sought to monopolize information?⁶⁴ Consistently with the principle of preference for law which enhances the variety of works and data flow, such a choice of law might suffice to unblock access to the particular works or data at issue in our examples. However, just such a precedent, weakening contractual leverage, might inhibit enterprises from releasing their media productions freely in global networks. This same tension arises in trying to determine what privileges of end-users to make fair or exempted uses of works or data may be contractually waived. On the one hand, if clearly mandated by rights in free expression and inquiry, such copyright privileges would seem to be inalienable. On the other hand, a clear line tracing the limits of contract on point would facilitate copyright commerce.65

Consider a rather different case: an enterprise owns a key system in a network, either cables coupled with routing hardware or standard enduser software. There is a concern that such an enterprise might abuse its dominant market position by preventing third parties from making their own works available on the network, thereby limiting copyright content. In this context, the following issue arises: whose law governs whether an enterprise running a widespread communication system is liable or not for torts, including copyright infringement, if it conveys materials introduced by third parties?⁶⁶ The principle of preference for laws

^{64.} Compare Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 267-70 (5th Cir. 1988) (striking down, as adhesive, license precluding certain uses of works and holding state law, insofar as it provides a basis for license clause, to be preempted by federal law, leaving copyright law dispositive) and Judgment of April 6, 1995 (RTE, ITP v. Magill TV Guide Ltd.), Joined Cases C-241/91P and C-242/91 P, 1995 E.C.R. I-743 (finding refusal to license data abusive of dominant market position and imposing duty to offer license of data on reasonable terms) (E.C.).

^{65.} Cf. Egbert J. Dommering, Information Law and the Themes of this Book, in INFORMATION LAW TOWARDS THE 21ST CENTURY, supra note 41, at 4-5 (favoring balance between exclusivity and free flow); Mackaay, An Economic View of Information Law, id. at 54-61 passim (emphasizing need to make information a transferable commodity in order to facilitate data flow on market).

^{66.} Compare Cubby, Inc. v. Compuserve, Inc., 776 F. Supp. 135, 139-40, 142-43 (S.D.N.Y. 1991) (holding service not liable for defamation if it posts others' messages without inspecting or editing them) and Religious Technology Center v. Netcom Online Communication Services, Inc., 907 F. Supp. 1361 (C.D. Cal. 1995) (refusing to grant preliminary injunction or summary judgment against service for posting by users of copyright-infringing material) with Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552, 1555-59 (M.D. Fla. 1993); Sega Enters. v. Maphia, 857 F. Supp. 679, 682-88 (N.D. Cal. 1994)

enhancing the variety of works that such systems make accessible provides guidance for crafting rules allocating liability for such torts, although it is far from decisive for deciding all cases. On the one hand, it has been argued that systems would more readily become common carriers, making an unrestricted variety of works accessible, if they were exempt from vicarious tort liability.⁶⁷ On the other hand, the goal of enhancing variety and data flow would seem to preclude discouraging all enterprises from holding to such editorial practices as they deem fit.⁶⁸

In all these cases, the relevant market will be tend to be worldwide. Thus choosing the law of any one state as the site of the relevant market will not be feasible. It would be even more arbitrary to choose the law of the country where the enterprise in question is headquartered. It takes no gift of prophecy to anticipate that, even more than applying copyright law, the application of competition law, especially antitrust law, to global networks will generate hard, borderline cases. For that reason, cases in which both laws apply together will prove most frustrating for any attempt to confine them within the established categories of choice-of-law analysis such as territoriality. The courts may then more cogently ask how their choices might serve the hopefully converging policies of copyright and competition laws.⁶⁹

III. AN INTERIM BERNE SOLUTION AND POSSIBLE CONSEQUENCES

To this point I have considered only judicial options. At most, I have invoked the Berne Convention as implementing governmental interests to guide the courts in resolving conflicts of laws. To But how might this chief instrument of international copyright be formulated to assure the reliable choice of law in the digital environment? I shall here consider how a Berne protocol could reach interim solutions by interpreting already existing Berne provisions for a digitally networked world. Beyond my horizon lies the perspective of a full Berne revision, which could bring a definitive solution by establishing sufficiently uniform minimum

⁽finding that services infringe copyright in making works publicly accessible).

^{67.} See Niva Elkin-Koren, Copyright Law and Social Dialogue on the Information Superhighway: The Case Against Copyright Liability of Bulletin Board Operators, 13 CARDOZO ARTS & ENT. L.J. 345, 405-10 (1995) (arguing against liability because it might hamper information flow through such intermediaries as bulletin boards).

^{68.} Cf. Hardy, supra note 27, at 1002-08, 1041-48 (noting difficulty of deciding on general liability rule to govern diverse carriers on network).

^{69.} Cf. Hanns Ullrich, TRIPS: Adequate Protection, Inadequate Trade, Adequate Competition Policy, 4 PAC. RIM L. & POLY J. 153, 196 (1995) ("antitrust is by no means bound to take intellectual property-based territorial divisions as sacrosanct").

^{70.} See supra text accompanying notes 32-35.

rights, enforceable in all Berne countries, to minimize true conflicts between their copyright laws.⁷¹

A. OLD RIGHTS FOR NEW NETWORKS

Since the eighteenth century, rights have been distinguished according to media. The seminal copyright laws recognized reproduction rights with regard to book publishing and public-performance rights with regard to live theater. During this century, we have responded to new media by adding minimum rights to the Berne Convention, for example, to control sound recording, broad- and cable-casting, and the cinema; now, at the threshold of a new century, digital technology is consolidating prior media while globalizing them. These distinct Berne rights continue to have relevance as long as the older media remain in separate use; nonetheless, a new Berne provision could clarify that they also apply, admittedly in new combinations and permutations, in digitally generated, global networks. Such a provision would be purely declaratory, much as article 9 of the Paris Act only explicates the reproduction right already implicit in prior Berne Acts.

Dr. Ficsor, of the World Intellectual Property Organization, points out that, if considered separately and out of context, each of the presently formulated Berne rights does not stretch across the full range of multimedia works that digitization makes possible. In the Paris Act of the Berne Convention, for example, article 11 concerns dramatic and musical works and article 14 concerns cinematographic works, while article 2 lists categories of works, but not multimedia works that fall into many categories at once. One solution would lie in extending any distinct Berne right to any multimedia work that displayed features of the categories for which the right was fashioned, say, article 11 to multimedia works including dramatic or musical materials even if these works did not fall exclusively into these categories. Another solution would be to extend all the Berne rights under article 14 to multimedia works by assimilating them to cinematographic works.

^{71.} See Geller, Electronic Archive, supra note 1, at 56 and 68-69.

^{72.} See Paul Edward Geller, New Dynamics in International Copyright, 16 COLUM.-VLA J. L. & ARTS 461, 464-70 (1993).

^{73.} See RICKETSON, supra note 34, at 369-70; WILHELM NORDEMANN, KAI VINCK, & PAUL W. HERTIN, INTERNATIONAL COPYRIGHT AND NEIGHBORING RIGHTS LAW: COMMENTARY WITH SPECIAL EMPHASIS ON THE EUROPEAN COMMUNITY 107 (Eng. version by Dr. Gerald Meyer) (Trans. R. Livingston 1990) (1977).

^{74.} Mihály Ficsor, Towards a Global Solution: The Digital Agenda of the Berne Protocol and the New Instrument — The Rorschach Test of Digital Transmissions, in Future of Copyright, supra note 46, at 111, 123-35 passim.

^{75.} See generally NORDEMANN, VINCK, & HERTIN, supra note 73, at 141-46 (explaining rights under article 14).

Dr. Ficsor has proposed "an umbrella provision" for a Berne protocol applicable to any work but subject to "legal qualification" under "national legislation." Thus, while obligated to protect copyright in all works on global networks. Berne countries would be free to characterize that copyright as comprised of reproduction, public-performance or communication, or distribution rights, or any combination of such rights. Necessarily, to formulate the umbrella provision, so that it encompassed any and all such rights, Berne drafters would have to resort to abstract, open-ended notions such as the "making works available to the public," whether in material or immaterial forms, or "network dissemination."77 Courts could, in turn, only give such notions concrete meaning by interpreting them to require adequate means of redress relative to unauthorized uses in global networks that a Berne protocol might, but need not, specify with more or less precision. This approach has the advantage of side-stepping current and, to my mind, rather scholastic debates about the "nature" or "essence" of copyright in cyberspace. These debates nonetheless seem inevitable as long as diverse legal cultures conceptualize rights differently.⁷⁸

Thus, following the conflicts perspective I outline above, this "umbrella" Berne provision should help courts to focus, not merely on abstract rights, but on concrete remedies. ⁷⁹ It remains to be seen what might constitute adequate means of redress relative to acts of disseminating works within networks and how far they should be extended. Of course, such remedies would include civil damages and injunctions, but it may be necessary to make explicit that they may apply to both primary and secondary acts of infringement. For example, the right to control public communication, most notably under article 11bis of the Paris Act of the Berne Convention, and a fortiori under any more-inclusive right to control network dissemination, should allow the right-

^{76.} Mihály Ficsor, International Harmonization of Copyright and Neighboring Rights, in WIPO WORLDWIDE SYMPOSIUM ON COPYRIGHT IN THE GLOBAL INFORMATION INFRASTRUCTURE, MEXICO CITY, MAY 22 TO 24, 1995, 369, 376-77 (1995). See also Ficsor, supra note 74, at 136-37 (more elaborately formulating possible language for the "umbrella solution").

^{77.} Cf. Report, Committee of Experts on a Possible Protocol to the Berne Convention, 6th Sess., at 24-36 passim, WIPO Doc. BCP/CE/VI/16 - INR/CE/V/14 (Feb. 9, 1996) (discussing various formulations). Note, however, that the term "communication to the public" comes freighted with meanings already developed in the contexts of both the Berne and Rome Conventions.

^{78.} Compare Jaap H. Spoor, The Copyright Approach to Copying on the Internet: (Over)Stretching the Reproduction Right?, in FUTURE OF COPYRIGHT, supra note 46, at 67, 69-71, 77-79 (critique, from European perspective, of applying reproduction right across digitally generated networks); Hugenholtz, supra note 56, at 101-102 (proposing, from European perspective, a right of communication to the public); Elkin-Koren, supra note 67, at 380-90 (criticizing, from United States perspective, distinctions between rights in networks).

^{79.} See supra text accompanying notes 29-38.

holder to control the act of communication from beginning to end. In particular, there should be no doubt that remedies are required, not only against primary acts of commencing network delivery of a work without authorization, but also against secondary acts intended to circumvent the right-holders' intervening control of such delivery, such as acts of selling unauthorized devices to interfere with encryption or other copy-control systems.⁸⁰

B. THE PROBLEM OF LIMITING NETWORK RIGHTS

Even if existing minimum Berne rights, once appropriately consolidated, might respond to the digital environment, existing Berne exceptions and limitations pose special difficulties. For example, the exceptions to the Berne right of reproduction are vague and open-ended, while the Berne right of public communication by broadcasting or cablecasting may be made subject to variable conditions, including legal licenses in appropriate cases. These conditions evolved in response to dissemination from central points out to passive audiences, and their application to the potentially more complex, interactive patterns of networks remains uncertain. Furthermore, the right of distribution is variably subject to the first-sale doctrine or exhaustion, and it is not clear whether or at what point in network dissemination this right or limitation should come into play.

As long as Berne countries are free to characterize rights at different phases of network dissemination, their respective legal systems and cultures will push their law-makers to limit these rights, or provide exceptions to them, differently.⁸³ There seems to be little choice, at this juncture in Berne harmonization, but to let law-makers follow their respective methodologies of characterizing rights and, accordingly, of conditioning the scope of these rights. For example, while legislators in Europe might limit some rights definitionally by applying them only to

^{80.} See, e.g., North American Free Trade Agreement, Oct. 7, 1992, ch. 17, art. 1707, 32 I.L.M. 296, 670, 672 (providing for civil and criminal measures against commerce in pirate decoders of satellite-relayed telecasts). Such a provision would clarify an issue that the courts have not fully understood. See, e.g., Preliminary Order of Dec. 18, 1986 (Canal Plus c. GE), Trib. cantonal (Vaud), 1987 Rev. Suisse de la prop. industrielle et du droit d'auteur 257, 262 (refusing to enjoin sales of pirate decoders for failure to characterize such sales as acts of "public communication") (Switzerland).

^{81.} See generally NORDEMANN, VINCK, & HERTIN, supra note 73, at 108-10, 126-30, 141-42 (exceptions, respectively, to Berne rights in arts. 9, 11bis, and 14).

^{82.} See generally Hugenholtz, supra note 56, at 95-98 (also pointing out occasional application of exhaustion doctrine to the rights of public communication).

^{83.} See generally ALAIN STROWEL, DROIT D'AUTEUR ET COPYRIGHT: DIVERGENCES ET CONVERGENCES 144-49, 290-91 (1993) (noting differences between Anglo-American and Continental European legal systems in legislative and judicial techniques for determining the scope of copyright).

"public" communication or access, judges in the United States might experiment with the exception of "fair use" for all rights on the network. Hat said, I propose to refer to overriding interests specific to international copyright, as well as principles of preference relating copyright to other general fields of law, to guide such developing limitations and exceptions into convergent paths. However, while examining the scope of copyright in the light of principles favoring privacy, freedom of contract, and the free flow of information, I do not intend to imply that they are the only principles relevant for this purpose. The same statement of the same

Consider the distinction between public and private. Law-makers need only define the "public" to the point necessary to establish the media acts over which copyright law itself gives right-holders exclusive control. For example, in the case of a hotel operator who routes work-carrying transmissions to clients in hotel rooms, the act of routing may be subject to copyright because the clients constitute a public, but that characterization in no way renders their enjoyment in their rooms less private.86 If there is any need for copyright legislators to consider what lies on the other side of the threshold of the public marketplace, it is only to avoid intrusions into the privacy of either the author creating works or the ultimate end-user enjoying works. For example, end-user copying and one-to-one retransmissions more clearly lie beyond the pale of efforts to police copyright than do retransmissions within closed user groups, socalled intranets, which remain shadowy zones between public and private use.87 In contemplating criminal sanctions, it is necessary to focus on commerce intended to circumvent technological self-help measures or, more generally, to criminalize only electronic piracy in the public marketplace. Thus the principle of preference favoring privacy in global networks will be respected.88

Other limitations allow transformative uses of works. These include the distinctions between protected expression or form and unprotected

^{84.} Compare Hugenholtz, supra note 56, at 93-95, 100-02 (suggesting that it is more elegant to delimit the scope of network rights definitionally to avoid interference with legitimate end-users' rights than to carve out miscellaneous exceptions) with Elkin-Koren, supra note 67, at 369-71 (criticizing the exception of fair use as applied to uploading and downloading works by end-users on network).

^{85.} See also Hugenholtz, supra note 56, at 94-95 (noting other policies such as safeguarding cultural heritage, protecting academic freedoms, and serving educational purposes). But cf. Dirk J.G. Visser, Copyright Exemptions Old and New: Learning from Old Media Experiences, in FUTURE OF COPYRIGHT, supra note 46, at 49, 52-56 (diverse policies play out differently with regard to library exemptions in the digital environment).

^{86.} See Bernard Edelman, Le télédistribution dans les chambres d'hôtel, 1994 RECUEIL DALLOZ SIREY CHRONIQUE (27e cahier) 209.

^{87.} See generally Hugenholtz, supra note 56, at 90-91 (pointing out that different national laws define "public" differently in such contexts).

^{88.} See supra text accompanying notes 41-48.

ideas or facts, as well as doctrines of fair use, fair dealing, and free utilization.⁸⁹ This family of limitations allows prior works to be transformed in creating new works, for example, to quote prior works while commenting or criticizing them, to treat them historically, or to parody them. Law-makers have thus limited the scope of prior authors' copyrights to avoid imposing copyright remedies that would restrict new authors' freedom of expression by preventing the latter authors from elaborating materials from prior works while they create new ones. 90 In effect, judges best balance the claims of prior and new authors to copyright and freedom of expression, respectively, by considering the creative options singularly at stake in the works at issue on a case-bycase basis. Such cases will become more frequent with the advent of digital media that facilitate the retrieval of prior works across global networks and their reworking into newer works. 91 Thus judges will need to retain full latitude to apply the idea-expression distinction and the doctrines of fair use, fair dealing, and free utilization. This latitude is also consistent with the principle of preference for laws favoring the free flow of information.92

It is possible to distinguish between limitations to copyright that judges apply flexibly to allow transformative uses and exceptions that legislators best define in narrowly construed terms. 93 Article 13 of the TRIPs Agreement allows recognition of only such "limitations or exceptions" in "certain special cases" as do not prejudice the "normal exploitation of the work" or the "legitimate interests of the right holder." Admittedly, these criteria, drawn from the Berne provision on the reproduction right, are not closely tailored to other Berne rights, such as broadcasting or cable-casting, that might apply in global networks.⁹⁴ Nonetheless, they preclude any arbitrary characterization of rights for the purposes of instituting a limitation or exception that would make little economic sense, for example, characterizing network dissemination as broadcasting or cable transmission to justify imposing legal licenses under article 11bis(2) of the Berne Convention. 95 In digital networks, especially in the on-demand delivery of works, end-users can be individually and interactively addressed, so that their reception of works

^{89.} See generally IVAN CHERPILLOD, L'OBJET DU DROIT D'AUTEUR 152-71 passim (1985) (comparing Anglo-American and Continental European laws in this regard).

^{90.} See Geller, Sign Wealth, supra note 63, at 89-93.

^{91.} See Geller, Electronic Archive, supra note 1, at 63-66.

^{92.} See supra text accompanying notes 61-69.

^{93.} See Paul Edward Geller, Legal Transplants in International Copyright: Some Problems of Method, 13 UCLA PA. BASIN L.J. 199, 221-29 (1994).

^{94.} Cf. Geller, TRIPS Dispute Settlement, supra note 33, at 112-13 (critically reading article 13 of TRIPs Agreement).

^{95.} See also Thomas Dreier, The Cable and Satellite Analogy, in FUTURE OF COPYRIGHT, supra note 46, at 57, 59-61 (criticizing analogy to cable retransmission in this regard).

may be easily licensed by contract. Legal licenses would therefore contravene normal modes of network exploitation, to which the principle of preference favoring freedom of contract would optimally apply.⁹⁶

C. BACK TO CONFLICTS OF LAWS

Any umbrella provision would then allow Berne countries some discretion in fashioning rights with regard to network dissemination. Accordingly, it would not yet achieve the utopia of a Berne revision that would standardize copyright laws internationally and thus avoid true conflicts between such laws. Persisting variations in rights from country to country will continue to give rise to cases in which judges will confront conflicts between national copyright laws. However, in the digital environment, the principle of territoriality will not provide reliable guidance in sorting out these conflicts of laws. The Berne principle of national treatment will nonetheless continue to require the choice of the law of the country where protection is sought. It implies, I have argued, the application of the law effective where remedies take effect.⁹⁷

Consider, by contrast, the alternative solution which the European Commission has proposed. On the analogy of satellite broadcasts, it would have the law of "the country of origin," more precisely the country of origin of the transmission, applied at least to trans-Community network dissemination.98 Factually, however, the analogy is far from convincing: while any broadcaster alone decides whether to transmit a work via satellite from any one country, end-users interactively trigger on-demand transmissions of works through any network, and they may do so from any number of countries in a network at once. There is also no necessary analogy between the fact that the broadcast via satellite originates from a studio or antenna fixed in a specific country and the fact that on-demand transmissions through any network take place from some computer controlling a database:99 that computer, the so-called server, can be quite portable, or itself networked, across any number of countries in the network. Most importantly, legally, any rule tied to any country of origin or origination, for example, the country where the transmitting entity has business headquarters or where it organizes the

^{96.} See supra text accompanying notes 56-59.

^{97.} See supra text accompanying notes 35-38.

^{98.} See Commission of the European Community, GREEN PAPER ON COPYRIGHT AND RELATED RIGHTS IN THE INFORMATION SOCIETY, COM (95) 382 final, 19 July 1995, at 41-42 [hereinafter GREEN PAPER]. But cf. Judgment of April 21, 1994, Landgerichts (Stuttgart), 1995/1 ZEITSCHRIFT FÜR URHEBER- UND MEDIENRECHT 58 (German court applying German law to Swiss broadcast relayed by satellite into Germany).

^{99.} *Cf.* Dreier, *supra* note 95, at 63 (discussing the uncertainty of localizing infringing "reproductions" in network, while apparently assuming that any initial "storage acts" necessarily "only take place within one jurisdiction").

transmission, would prompt pirates to establish their headquarters or "to upload [works] from the least protective country possible" as long as countries differed in their levels of protection. 100

One argument in favor of applying the law of the country of origin or emission is that of simplicity. Purportedly, such a rule would lead to legal certainty because it would allow the courts to apply only one law in cases where works cross many borders. Also, hopefully, it would simplify licensing by allowing the authorization to disseminate a work from one country to operate for all the countries where the work is received. 101 These arguments, however, fade the moment the objection is raised that the rule would allow countries with low levels of protection or enforcement to serve as pirate havens. The European Commission asks, as if in response: if a primary rule dictating the choice of the law of some "country of origin" raises such a difficulty, then why not devise a secondary "safeguard" rule to apply the law of some other country to obviate that difficulty?¹⁰² This maneuver is much like that of the Ptolemaic astronomers who compounded their primary hypotheses of formally perfect heliocentric circles with endless secondary hypotheses of epicentric circles on circles in order to fit their empirical observations. The difficulties of any primary rule, tying the choice of law to any single connecting factor fixed in geographical space, would only be compounded by new difficulties raised by secondary rules multiplying alternative factors of the same type. As a result, this maneuver would undercut any argument for the legal certainty of any such formally simple choice-oflaw rule by creating a potentially complex set of exceptions that could swallow up the rule itself. Fixing on any single connecting factor cannot lead to legal certainty in cyberspace for the simple reason that it ignores the ultimately global scope of network exploitation covering many countries at once. 103

Indeed, the very notion of "a country of origin" is but an outmoded vestige of the last century. As defined by the Berne Convention, this notion has already become unworkable because of changes in its definition in the course of Berne revisions, as well as in national copyright terms. ¹⁰⁴ Conceived on the paradigm of authorship and publication involving hard copies that can be localized geographically,

^{100.} Ginsburg, supra note 3, at 322-23. See also Dreier, supra note 95, at 63-64 (indicating the difficulty of following satellite analogy absent harmonized laws).

^{101.} See Satellite and Cable Directive, supra note 4, recitals 9-15. But cf. Geller, International Copyright: An Introduction, supra note 35, § 6[3][a][iii] (noting the resulting problems for contractual chain of title).

^{102.} See, e.g., GREEN PAPER, supra note 98, at 42 (proposing safeguard rule for transmissions coming from outside the Community).

^{103.} But see Ginsburg, supra note 3, at 337-38 (proposing complex system of alternative choice-of-law rules).

^{104.} See RICKETSON, supra note 34, at 210-19.

this notion becomes misleading in the digital environment where creation and dissemination can take place across cyberspace all at once. For example, if the country of origin is determined by the nationality of the author, where is this country when a team of authors from the four corners of the world create a work together over a global network and national criteria define collaboration differently from country to country? If it is determined by first publication or like dissemination, where is the country of origin when a work is first communicated instantaneously in a hundred countries at once through a global network, especially where it is not clear whether hard copies are generated at all the terminals at which it is received? Fortunately, Professor Ulmer prepared the way in the Paris Act for amputating this problematic notion from the Berne system by making qualification for Berne protection independent of the country of origin. 105

The Berne principle of national treatment dictates the basic choice-oflaw rule as between Berne countries. Assuming that Berne minimum rights did not suffice to create sufficient uniformity to avoid all conflicts between laws, the law of each country where protection is sought would apply. I have proposed considering each such protecting country as that where means of redress for infringement take effect, for example, where unauthorized exploitation would be stopped by an injunction or where a lost market would be compensated by damages. 106 Thus construed, this rule would provide certainty to authors and their successors, for the simple reason that it focuses on the actual markets over which copyright is to give them control, but it would not necessarily simplify the law. In a complex case of transborder infringement, as is likely in the digital environment, it might not be obvious in which country or countries, out of a number of possible protecting countries, specific remedies take effect. In that event, the Berne goal of protecting authors' rights "in as effective and uniform a manner as possible" suggests a principle of preference: apply the law that most effectively protects the work at issue. 107

IV. JUDICIALLY RETHINKING INTERNATIONAL COPYRIGHT

The Berne umbrella provision now being considered would mandate courts to devise adequate copyright remedies in global networks. At the same time, I just proposed the principle of preference for choosing the law or laws most effectively protecting the work at issue in any given case of network dissemination. Of course, since remedies are just what

^{105.} See Eugen Ulmer, Points de rattachement et Pays d'origine dans le système de la Convention de Berne, 36 NORDISKT IMMATERIELLT RÄTTSSKYDD 208, 214-216 (1967).

^{106.} See supra text accompanying notes 35-38.

^{107.} See Berne Convention, supra note 32, Preamble.

make rights effective, the notion of "adequate remedies" overlaps with that of "effective protection." Accordingly, in resolving conflicts of law in hard cases, the courts will have to rethink these overlapping notions as they relate to each other in international copyright.

A. From the Threshold of Suit

What remedies would provide a minimally adequate level of copyright protection internationally in the digital environment? As already indicated, such remedies would have to prevent pirates from raiding copyright-protected works on global markets. That is, copyright owners should be able, at the threshold of suit, to stop the unauthorized release of protected works into global networks. The reason is simple: such release can quickly result in the complete loss of control over all subsequent dissemination of a work in digital form. In brief, at the threshold, remedies are needed to keep leakage of the work from turning into its uncontrollable hemorrhaging in cyberspace. 109

Publishing and network dissemination are quite different in this regard. Typically, the first publication of a work involves the public offering of hard copies for sale country by country or language by language. Once hard copies are put into commerce, it becomes necessary to track them from publishers to book-sellers to end-users who, from their hard copies, can repeatedly re-access a work in private. 110 The premise is that any hard copy can only be accessed where it is to be found in geographical space, so that the law effective in any one national space will provide the basis for remedies, such as seizure, relative to that copy. Thus, to stop the pirating of a work at the source, the copyright owner may sue to obtain preliminary injunctions both to cease making copies and to seize existing copies on the ground in any one country under its own law.111 By contrast, where there is the unauthorized release of a work in digital format on a global network, the point at which the work is initially stored and transmitted need not coincide with points of access or enjoyment in cyberspace. There, potentially, as many laws apply as countries in which there is access and enjoyment. 112

This situation poses a procedural difficulty at the threshold of a legal action. It is extremely cumbersome to seek preliminary remedies on the basis of multiple laws. As soon as a copyright action begins, counsel and

^{108.} See supra text accompanying notes 32-35.

^{109.} See supra text accompanying note 44.

^{110.} See Spoor, supra note 78, at 76.

^{111.} See, e.g., Berne Convention, supra note 32, art. 15 ("infringing copies... liable to seizure in any country of the [Berne] Union where the work enjoys legal protection," irrespective of whether the copies originated in "a country where the work is not protected, or has ceased to be protected").

^{112.} See supra text accompanying notes 35-38.

the court often have to consider a preliminary injunction quickly, in anywhere from a few hours to a few days. On such short notice, they will find it difficult to establish the tenor of all the laws of all the countries through which the work might pass inside a global network. The principle of preference for the most effectively protective law, in such a situation, could allow the court to base the preliminary injunction on any law under which the work at issue is protected in any of these countries served by the network. Consider our initial hypothetical case:¹¹³ plaintiff holds all claims in Buster Keaton's classic film works; defendant, without plaintiff's consent, colorized Keaton's classic film The General and, from its database in the United States, made this version digitally accessible in a trans-Atlantic network. The economic components of German copyright entitle the plaintiff to exploit the market for the work in Germany; the moral components also protect the reputation of the author, whom plaintiff represents, in Germany. 114 Assuming suit in a court in the United States with sole jurisdiction over the defendant. the refusal to exercise jurisdiction, just like applying only the law of the United States, would result in no protection at all. The public interests in preventing piracy globally, however, would support the preliminary injunction on the basis of German law. 115

Once the preliminary injunction has stopped the uncontrolled release of the work at issue into the global network, counsel and the court have the time to explore more differentiated solutions in the light of all possibly applicable laws. In our example, faced with plaintiff's asserting German copyright law, which protects the work in at least part of the global network, defendant could counter by invoking the law of the United States, under whose law the work is no longer protected. There is also the possibility, for example, in countries such as France, that economic rights have expired, but moral rights subsist, so that, in these countries, defendant might be free to disseminate the original black-andwhite version of the work, but not a colorized version. 116 Thus the court and the parties may re-tailor injunctive relief that would result in reprogramming defendant's server, for example, not to transmit the work to countries such as Germany with still-effective rights, but allow transmission to addresses in the United States. As already suggested, damages could be differentiated as well, according to the rights that are, or are not, effective in given markets. 117

^{113.} See supra text accompanying note 2.

^{114.} See Adolf Dietz, Germany, §§ 4[2][a], 7, and 8[1], in 1 INTERNATIONAL COPYRIGHT LAW AND PRACTICE, supra note 35.

^{115.} See supra text accompanying notes 32-35.

^{116.} See André Lucas, France, §§ 7[1][c][ii] and 7[3], in 1 INTERNATIONAL COPYRIGHT LAW AND PRACTICE, supra note 35.

^{117.} See supra text accompanying note 38.

B. TO THE LIMITS OF COPYRIGHT

It is crucial, before proceeding further, to avoid a basic misunder-standing. In the hypothetical case just considered, the law chosen coincidentally protected the private copyright claimant's interests at the threshold of suit. However, the criterion of "effective" protection was not satisfaction of this private claimant's interests, but rather the public interests in maintaining an effective international copyright regime free of piracy. Indeed, in both European categorical and American functional choice-of-law analyses, the criterion would not be private but rather public interests that, in pushing and pulling toward granting one remedy or another under one law or the other, result in hard cases. 118

Hard cases especially arise at the limits of copyright, where policies intrinsic to this field of law sometimes overlap and sometimes conflict with those central to other fields of law. For example, the Berne umbrella provision which we considered was limited to the making accessible or network dissemination of works to the "public," but the threshold between such public transactions and the private sphere was left undefined. Thus, in considering remedies to enforce copyright at this threshold, it would be up to the courts to take account of the often-constitutional interests in avoiding intrusions into the sphere of privacy. Significantly, the N.I.I. White Paper, proposing new copyright legislation for the United States, already traces one outer limit that privacy imposes on the scope of copyright expanded for digital media. It states that "the transmission of a copyrighted work from one person to another in a private e-mail message would not constitute a distribution to the public." 120

There are, however, diverse shadowy zones between private communication and public dissemination on global networks. In particular, courts will have to face many hard cases falling between clearly exempt one-to-one electronic mail and the clearly actionable act of making a work available to anyone who would pay for access through a global network. Consider a digital variation on a recent case in the United States: a transnational enterprise, with research offices in the Netherlands and Switzerland, transmits scientific articles to its research personnel from corporate headquarters in the United States through a private network, a so-called intranet. Depending on whether, and at

^{118.} See supra text accompanying notes 29-31.

^{119.} See supra text accompanying notes 76-78, 86-87.

^{120.} Bruce A. Lehman (Chair), Information Infrastructure Task Force, Report on Intellectual Property and the National Information Infrastructure 215 (1995).

^{121.} See supra text accompanying notes 87-88.

^{122.} Cf. American Geophysical Union v. Texaco, Inc., 802 F. Supp. 1 (S.D.N.Y. 1992), aff'd, 60 F. 3d 913 (2d Cir.), cert. dismissed, 116 S. Ct. 592 (1995) (prohibiting corporation from copying and distributing learned journals for research use in house).

what points territorially, this course of conduct is characterized as involving reproduction or transmission or both, the current laws of these countries might arguably, but not always clearly, allow the copyright owner to prevent some, if not all, phases of this conduct. Optimally, however, the characterization of these acts, along with the choice of laws applicable to them, should be pursued in the light of some overall grasp of the public policies at work in the global network. The remedies to which the possibly conflicting laws tend to lead the court will determine what policies are concretely at stake and how they impact on the case. 124

On the one hand, the copyright policy lies in securing the marketplace for works, which the potentially chain-letter effect of the private retransmission of works threatens to undercut on global networks. That is, private retransmission from one party to a number of parties opens up the possibility that each of these recipients could retransmit the work to a number of subsequent parties who, exponentially, could in turn retransmit the work to still others. On the other hand, the public interests in maintaining privacy preclude relief that would intrude on the confidentiality both of the enterprise itself and its personnel, even beyond the clearly private case of one-to-one communication. For example, to obtain a basis for damages, the court could statistically sample the flow of copyright materials in the corporate network, independently of its personal participants, while maintaining such data in confidence. 125

Whenever new conflicts of laws are resolved, rights may indeed be evolving in the form of new remedies. In our last hypothetical, the laws concerning uses of copyright works inside organizations are in various stages of development in the Netherlands, Switzerland, and the United States. What can a court do if faced with the task of providing remedies for such uses by a transnational corporation using works in all three countries via an internal but global network? The court will optimally resolve conflicts between all these laws in flux by looking to results consistent with policies that, *inter alia*, support both "effective" copyright and privacy protection. It is thus at the limits of copyright, where larger public policies come into play, that the judges in such cases will most

^{123.} See Herman Cohen Jehoram, Netherlands, § 8[2][b][ii][B], in 2 INTERNATIONAL COPYRIGHT LAW AND PRACTICE, supra note 35; François Dessemontet, Switzerland, § 8[2][a], id.; David Nimmer, United States, § 8[2][a], id.

^{124.} See generally Geller, International Copyright: An Introduction, supra note 35, § 3[1][b][iii] (analyzing policies in context of telecommunications). Cf. Mike Curb v. MCA Records, Inc., 898 F. Supp. 586, 593-96 (M.D. Tenn. 1995) (reading statutory definition of infringing acts in the light of underlying policies).

^{125.} Cf. Geller, Reprography, supra note 45, at 35-36 (statistical sampling possible means to evaluate uses where privacy claims or data costs preclude per-use monitoring).

crucially have to rethink the interplay of such policies with the remedies being sought. 126

CONCLUSION

In the nineteenth century, there was a movement to institute a "universal law of copyright . . . [in] a single code, binding throughout the world." In the twentieth century, Berne revisions have incrementally approached this utopia by compelling Berne countries to assure increasingly broader and stronger minimum rights. Media progress, which largely stimulated this revision process, is now digitally networking the world and, inexorably, necessitating more comprehensive minimum rights. ¹²⁸

I have here addressed the task of resolving conflicts of laws that will continue to arise as copyright laws are harmonized, but not yet standardized, worldwide. Choice-of-law analysis has traditionally led courts to look to the territorial situs of the acts that copyright law theoretically entitles authors and their successors to control. However, in the shift from geographical space to cyberspace, I have argued, judges may better apply the laws in effect on the territories where remedies, in practice, can most adequately redress the violation of rights. In any event, as default law-makers, judges are inevitably the first to face what Dr. Boytha called the "core problem" of international copyright, now posed in its ultimate form in global networks, that is, "the dissolution of territoriality." 129

I have also commented on proposals for interim Berne provisions. They should assure adequate judicial remedies for copyright in a digitally networked world pending a full Berne revision. Indeed, one test of these so-called Protocol provisions is whether they facilitate progress toward a full Berne revision, to start, by cutting short the squabbles resulting from the copyright provincialism that leads to insisting on universalizing merely local solutions. Furthermore, they should be coupled with a principle of preference that would apply the most protective copyright law in any given case absent any showing that countervailing public policies dictate a different choice of law. Whether courts followed this principle on the basis of treaty language or as a matter of judicial policy, it would lead them to rethink the balance between copyright and other rights most appropriate in global networks. In the interim, this remedial

^{126.} Cf. James L. Oakes, Copyrights and Copyremedies: Unfair Use and Injunctions, 38 J. COPYRIGHT SOC'Y 63 (Winter 1990) (emphasizing need to balance policies behind copyright protection and free expression in fashioning remedies).

^{127.} WILLIAM BRIGGS, THE LAW OF INTERNATIONAL COPYRIGHT 162 (1906).

^{128.} See Geller, Electronic Archive, supra note 1, at 68-69.

^{129.} Györy Boytha, Fragen der Entstehung des international Urheberrechts, in WOHER KOMMT DAS URHEBERRECHT UND WOHIN GEHT ES? 182 (Robert Dittrich, ed. 1988).

approach should assuage the fears of authors and media enterprises that their copyrights might be, to use Professor Dommering's apt phrase, "washed away through the electronic sieve." ¹³⁰

^{130.} Egbert J. Dommering, Copyright Being Washed Away through the Electronic Sieve: Some Thoughts on the Impending Copyright Crisis, in FUTURE OF COPYRIGHT, supra note 46, at 1, 1.