FROM PATCHWORK TO NETWORK: STRATEGIES FOR INTERNATIONAL INTELLECTUAL PROPERTY IN FLUX*

PAUL EDWARD GELLER**

I. INTRODUCTION

Laws of intellectual property define what is bought and sold on media and technology markets, notably works, trademarks, and inventions. Laws and treaties have traditionally been made and enforced by nation-states operating in a patchwork of territories. Now, the media and technology marketplace is being globalized in digital networks. The law is only beginning to respond to this change.¹

To analyze this process in the field of intellectual property, this Article will consider the following questions: To start, how is the patchwork of national laws lagging behind new networks in this field? Next, how does the international regime of intellectual property leave these laws in conflicts relative to the emerging global marketplace? Further, what strategies are available to private parties for dealing with legal uncertainties that are emerging in the short term? Lastly, how can these strategies be coordinated in the long term?

II. THE SHIFT FROM PATCHWORK TO NETWORK

How do the patchwork and network models apply in the field of intellectual property? A patchwork consists of differentiated units,

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¹ See, e.g., Paul Edward Geller, New Dynamics in International Copyright, 16 COLUM.-VLA J.L. & ARTS 461 (1992) (correlating changes in international copyright with changes in the media).

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each separated from the other by clear-cut borders in space. A network consists of individuals at terminals, each linked and interactively communicating with others across space, while networks themselves tend to interconnect with each other globally.\(^2\) Until recently, national laws of intellectual property, along with corresponding markets, fit within the patchwork model. Now, media technologies are shifting the marketplace to the network model.

Laws of intellectual property have formed a patchwork country by country. Treaties in the field set out minimum rights, but in flexible terms so that each right may be implemented with more or less discretion.\(^3\) Otherwise, these treaties, starting with the Berne and Paris Conventions, provide for national treatment, requiring each member-state to protect foreign treaty claimants like domestic claimants. Thus, while differing from country to country, much the same legal rules have governed most competitors in media and technology markets within each set of borders.\(^4\) Industries have tended to group within such borders: for example, publishers have gravitated to centers such as Paris, London, and New York. Hard copies and products have been marketed outward from such centers within national territories.

Now, however, markets are being globally networked. Computers are releasing creation and production from the constraints of geographical space. For example, they allow writers to ready text for publishing, composers to synthesize music, and designers to shape products, all at their desk tops. Telecommunication media, like the fax and the Internet, enable teams of creators from the four corners

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of the earth to collaborate instantaneously across cyberspace.\textsuperscript{5} The World Wide Web opens up new interactive channels between creators and producers, on the one hand, and mass and specialized markets, on the other. More generally, the communication of media productions, marketing symbols, and technologies is being decentralized and enriched between points of input and end-use.\textsuperscript{6}

\textbf{III. HOW THE SHIFT LEAVES LAWS IN CONFLICTS}

Patchwork law lags behind the networked marketplace. It suffices to focus on one basic problem to dramatize this lag: What law or laws of intellectual property should a court choose to govern cross-border infringement? In the patchwork, enforcement country by country usually stopped illicit manufacturing or pirate presses, as well as commerce in infringing products or hard copies. Upon suit in any one country, the court there simply applied its own law to such products or copies within its jurisdiction. But what if, today, a court applied the law of any one country to network transactions crossing borders into other countries?\textsuperscript{7} That law could provide too much or too little protection, and that country could become either a choke point or a pirate haven.

For example, what law should govern transmitting raw data from a European database via the Internet to the United States or China? The European Union has now directed its member-states to institute sui generis property rights in raw data compiled into databases.\textsuperscript{8}


pose that a court considers unauthorized transmissions of raw data from Europe as completely localized inside Europe, effectively at the point of transmission. Then a European law granting property rights in the data might be chosen, at the source, to apply to the transmissions worldwide and, accordingly, to those received in the United States and China. That choice of law might well hinder, indeed choke off, data flow at points within the global network that policies in these countries, among others, would still leave open. Suppose, in turn, that a court localizes the infringing acts in the United States or China, where data is received but not strongly protected. Then, to European eyes, pirates may find havens in these countries, from which they might more or less freely retransmit data.

Such conflicts of laws are potentially quite volatile. The alternative resolutions just broached in the hypothetical data case parallel differing approaches to choosing laws to govern the broadcasting of works via satellite across multiple borders. If suits for illicit satellite broadcasts were brought in different jurisdictions, the results could vary, say, if one court applied the law of the transmitting country and another the laws of receiving countries. Furthermore, not only do

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10. Compare National Basketball Assoc. v. Motorola, Inc., 105 F.3d 841, 848-853 (2d Cir. 1997) (not protecting raw data at issue, but opining that raw data may be protected against misappropriation as hot news), with Guangxi Broad. & T.V. Newspaper v. Guangxi Coal Workers’ Newspaper, 1996 CHINA L. REP. 843 (Liuzhou Intermediate People’s Court), noted in Guo Shoukang, China § 2[1][b], in 1 INT’L COPYRIGHT LAW & PRACTICE, supra note 7, at CHI-16 (holding it legitimate to reprint television-program data for the same and next day, but not necessarily for other uses).

11. See generally Geller, International Copyright, supra note 7, § 3[1][b][iii] at INT-50 to INT-53 (providing framework of analysis and citing authorities). Compare ROBERTO MASTROIANNI, DIRITTO INTERNAZIONALE E DIRITTO D’AUTORE 413-25 (1997) (attempting to reconcile the alternative approaches to resolving conflicts of laws in cases of both satellite-relayed broadcasts and on-line dissemination), with JEAN-SYLVESTRE BERGÉ, LA PROTECTION INTERNATIONALE ET COMMUNAUTAIRE DU DROIT D’AUTEUR: ESSAI D’UNE ANALYSE CONFLICTUELLE 221-26, 300-01, 394-98 (1996) (considering that the alternative approaches remain distinct and perhaps differently applicable to satellite-relay and on-line cases).

laws of intellectual property vary from country to country, but so do laws governing the ownership and transfer of such property, compounding the chances that different laws might be dispositive of similar cases of transfers of worldwide rights. Finally, different courts follow different methods of resolving conflicts of laws: for example, European courts tend to apply categorical rules often codified in statutes and treaties, while North American courts may more easily take account of public policies in choosing laws. Special conflicts analyses have been proposed to reduce such uncertainties in network cases, but they do not necessarily compel choosing the same laws in similar cases.

To respond to this problem, among others, the goal of a supranational code has been contemplated in the field of intellectual property for over a century. Such a code would impose sufficiently uniform law worldwide that courts would not have to choose between conflicting laws on critical issues that typically arise in this field of law. The Berne and Paris Conventions have gradually approached this goal by dictating minimum rights that may be implemented with
more or less variation in each member-state.\textsuperscript{17} Most recently, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) represents new progress, treating most branches of intellectual property in one text applicable to most countries.\textsuperscript{18} However, the TRIPS Agreement is not yet a systematic code, but it rather incorporates and supplements Berne and Paris provisions piece-meal.\textsuperscript{19} The TRIPS Agreement thus still leaves patchwork law lagging behind an increasingly networked marketplace.

IV. TRANSITIONAL STRATEGIES FOR PRIVATE PARTIES

Hence the urgent question: What strategic options are available during this shift from patchwork to network? Distinguish the following levels of strategies: first, self-help; second, systems; and third, enforcement. In the transition from patchwork law, analysis at each of these levels takes place against the receding horizon of reliable network law. The following strategies are being outlined precisely to cope with this admittedly frustrating, interim perspective.

A. Self-Help Strategies

The first level is that of self-help strategies. Most simply, landlords build fences around their lands to prevent trespass, or herders brand cattle or sheep to keep rustling in check and, perhaps more importantly, to keep their livestock from being mixed up into their neighbors’ herds on the way to market. Creators, innovators, and producers can use self-help measures, such as digital fences or brands, to manage what they originate, as well as to keep out or to help catch infringers.\textsuperscript{20}

\textsuperscript{17} See supra text accompanying notes 3-4. See generally \textsc{Wilhelm Nordemann et al.}, \textsc{International Copyright and Neighboring Rights Law: Commentary with Special Emphasis on the European Community} 15-19 (R. Livingston trans., 1990) (indicating parameters of Berne rights); \textsc{G.H.C. Bodenhausen, Guide to the Application of the Paris Convention for the Protection of Industrial Property} 11-16 (1968) (indicating parameters of Paris rights).

\textsuperscript{18} Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, \textsc{Legal Instruments - Results of the Uruguay Round} vol. 31; \textsc{33 I.L.M.} 81 (1994) [hereinafter TRIPS Agreement].

\textsuperscript{19} See generally \textsc{J.H. Reichman}, \textsc{The TRIPs Component of the GATT’s Uruguay Round: Competitive Prospects for Intellectual Property Owners in an Integrated World Market}, \textsc{4 Fordham Intell. Prop., Media & Ent. L.J.} 171, 179-80 (1993) (critiquing TRIPs language as riddled with “untried, stopgap provisions, a few serious lacunae, and lots of loopholes”).

\textsuperscript{20} See generally \textsc{Ejan Mackaay}, \textsc{The Economics of Emergent Property Rights on the Internet}, in \textsc{The Future of Copyright}, supra note 14, at 13, 16-25 (analyzing relations between
Media productions, marketing symbols, technologies, and data, once digitized, can be copied perfectly and transmitted repeatedly worldwide. In copyright circles there is a slogan regarding self-help measures against the resulting threat of digital piracy: the answer to the machine is in the machine.21 That is, increasingly, new systems are being developed to fence in and to brand packets of digitized information and, more broadly, to manage its exploitation. Since the state of the art is rapidly changing, it would be futile to inquire into all possible strategies at this level.22 Consider, instead, one oversimplified, hypothetical example.

Suppose that an epic feature film is produced at the cost of fifty-million dollars. Commonly, more money is charged for access to such films upon initial release and less as the market is saturated. It is then crucial to release the film subject to self-help measures that keep it from being uncontrollably retransmitted throughout the marketplace. The film can be encrypted, and an initial signal sent to end-users’ terminals to trigger feedback to verify that these terminals would only decode the film for viewing upon compliance with programmed conditions.23 At the threshold, end-users could only access the film in decoded form on the condition that their credit-card accounts be debited for viewing the film. At the lowest price, the terminal would destroy all trace of the film after displaying it once; at higher prices, the terminal would allow specified, subsequent uses. An interface would articulate such options among which the end-user could choose.24

The mere fact that claimants resort to such fences does not imply any right to stop others from jumping over them. Such rights turn on whether or not the law deems what lies on the other side of any given fence to be protected, for example, as property. It is true that different courts have invoked diverse laws as the bases for remedies against commercial attempts to circumvent self-help measures.25

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24. See id. at 144-53.
Nonetheless, even with new treaty provisions on point, it remains uncertain how far the law should allow such actions, in particular against providers of devices that might facilitate circumvention of self-help measures but that are not exclusively designed for that purpose.

B. System Strategies

The second level is that of system strategies. Self-help measures are nothing more than elements in larger system strategies. Return to the hypothetical example of the fifty-million dollar film. To encrypt, deliver, and get paid for this film in the networked marketplace, its producer needs computer-driven systems. Such copyright-management systems must fit into some still-larger system, now effectively the Internet, that links rights-holders, credit-card accounts, and end-users. Indeed, diverse hardware and software systems, themselves programmed to run according to complex sets of rules, converge to form the networked marketplace. Because such systems tend to become entangled with legal rules, they offer strategic options. Consider system strategies in a multidimensional analysis. The following distinctions can be drawn:

1. Program and legal rules. Computer-program rules can be distinguished from legal rules, including those which contractually bind parties. In the example of the film exploited thanks to computerized systems, program rules control its actual encryption and delivery on demand and, thus, end-users’ access signals on basis of unfair competition), with BBC Enterprises Ltd. v. Hi-Tech Xtravision, Ltd. [1992] R.P.C. 167 (Ch. D.IV.), rev’d, id. at 183-93 (Court of Appeals), reversal aff’d, id. at 194-203 (House of Lords) (U.K.) (prohibiting such commerce on basis of copyright statute).


27. See supra text accompanying notes 23-25.

to it. Legal rules come into play to determine whether or not end-users contractually accept such rules as are programmed into these systems.

2. Service and transactional rules. Rules will vary in the extent to which they apply either throughout a given service or transaction by transaction. In the case of films delivered and enjoyed on demand and on-line, some rules may generally apply to all films delivered by a specific service, such as those governing participation or modes of payment. Others may change from particular transaction to transaction, such as the actual prices for access or re-access to the film. Of course, all such rules would be tailored according to the kind of works or data to which the public gains access.

3. Surface and background rules. As a matter of fact, end-users differ in their knowledge of program and legal rules in any given system. To analyze their varying awareness, we shall treat as surface rules those which are relatively obvious to end-users and as background rules those which remain obscure to them. In the case of the hypothetical film, most end-users would understand the surface program rule that entering an option on a menu, or clicking on an icon on screen, allows them to see the film, as they would the surface legal rule that they then owe money on their credit cards for such access. By contrast, program rules controlling encryption remain background rules for most users, as do the full set of legal rules governing the credit-card system.

These distinctions can cut across each other to varying effects. Program rules drive copyright-management systems, such as those controlling access to the hypothetical film. Depending on applicable legal rules, a contract may arise when an end-user subscribes to an on-line service generally or pays for access to a media production like the film in a specific transaction. End-users can be put on notice of surface rules by user-interfaces that will appeal to the mass market to the extent that they are simple and easy to operate, but it might be necessary to resort to interfaces that articulate more complex contractual rules, especially in moving to more specialized, so-called niche markets. For example, a developer of specialized software, in

29. See supra text accompanying notes 23-25.
30. Compare Fred M. Greguras et al., Software Marketing, Licensing and Distribution in Cyberspace, 1 CYBERSPACE L. 4 (describing current state of software transactions on the Internet), with Stefik, supra note 23, at 145-52 (distinguishing rules for situations
marketing to clients via the Internet, would do well to settle such terms as specifications, upkeep after initial delivery, and payment schedules. To the extent that market segments, such as mass and niche markets, are themselves networked, rules in one segment might impact on others. This possibility now troubles legislative initiatives concerning electronic commerce.\[31\]

That said, it would oversimplify matters to suggest that simple assent suffices to validate such contractual arrangements. It is already quite common, especially in technologically complex settings, for end-users to agree to standard-form contracts. Whether parties should be legally bound by contractual terms at the surface of such transactions will depend on overriding laws and policies.\[32\] Of course, standardization might facilitate network transactions, but it can arise for a host of other, possibly contingent reasons as well, among them the anticompetitive practices of parties in dominant market positions.\[33\] In any event, legal principles and public policies at work in various jurisdictions and fields of law, ranging from intellectual property to freedom of expression and antitrust, may also prove relevant to validating, or invalidating, contract terms.\[34\] Courts may apply such principles or policies with erratic effects from case to case, or statutory instruments may codify their effects by enumerating categorically unenforceable contract terms.\[35\]

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There is the hope, or fear, that intellectual property will be eclipsed by technological and contractual systems of control. Accordingly, some cyber-prophets have announced the death of intellectual property, but news of this death might be premature. To start, older media are never fully swallowed up by newer media: just as live public performances are still attended, hard copies will continue to be read. At a minimum, intellectual property will continue to play default roles that it has already developed with regard to older media, even as these feed newer media. Further, intellectual property would only become superfluous within the networked marketplace if all productions and data on-line were fully fenced in, both technologically and contractually. Not only are such fences not necessarily without technical glitches or gaps, but nothing obligates right-holders to use them to control access to materials that they input into networks.

For example, a poet, looking for sympathetic readers, might post her texts on her web-site and, at the same time, indicate that certain poems may be gratuitously retransmitted as long as they are attributed to her and not changed. Suppose that a popular singer adapts one of these poems into the lyrics of a song exploited at great profit: the poet may assert her copyright or author’s rights to obtain royalties or respect for her authorship. Similarly, trademark and patent or hybrid rights provide lines of defense against network exploitation (invalidating contractual terms that purport to prohibit decompilation).


37. See generally Richard Lick, LA JUSTE COMMUNICATION 28-29 (1988) (observing the cumulation of media, not replacement of older by newer media, through history).


39. Cf. NEAL BOWERS, WORDS FOR THE TAKING: THE HUNT FOR A PLAGIARIST (1997) (telling the tale of plagiarism of poetry, albeit in print, and dramatizing how such takings violate the poet’s moral interests, by presenting one’s intimate thoughts and feelings in corrupted texts and passing them off as another’s).

both of marketing symbols and of technological processes and data.41

C. Enforcement Strategies

After self-help and system strategies, the next level is that of enforcement. The law ultimately controls behavior by virtue of threats of enforcement. Most notably, pirates face civil and criminal remedies, and businesses negotiate contracts with an eye toward their relative force in arbitration or court. Civil litigation between private parties has the advantage of highlighting specific strategic options regarding enforcement in the transition from patchwork to network.42 These include selecting a court, putting pressure on points where systems converge, and attacking and defending at these points.

Think again of the hypothetical fifty-million dollar film.43 Suppose that a pirate cracks the encryption system and is retransmitting the film for profit across borders. The rights-holder then faces an initial strategic question: In what court or courts to bring suit against the pirate? Indeed, confronted by conflicts of laws, European and North American courts may well choose laws differently.44 They may also choose whether to exercise jurisdiction and extend the territorial scope of their orders according to quite different considerations. In Europe, the Brussels and Lugano Conventions may come into play, while courts in the United States look both to common-law doctrines such as forum non conveniens and to special concerns regarding federal jurisdiction.45

The next pair of questions are interrelated: What laws to choose? And what preliminary orders to request from the court?46 The film pirate has to rely on converging delivery and credit-card systems, as does the film provider, to market the film electronically and

41. See generally Torsten Bettinger, Trademark Law in Cyberspace: The Battle for Domain Names, 28 INT’L REV. INDUS. PROP. & COPYRIGHT L. 508, 519-42 (1997) (analyzing significance of trademarks, trade names, and related interests for securing Internet domain names); Burk, supra note 6, at 28-36 (highlighting the relevance of software and process patents in network contexts); Reichman, supra note 34, at 468-75 (arguing for new rights in such contexts).

42. Cf. TRIPS Agreement, supra note 18, arts. 41-61 passim (providing for enforcement measures, in particular at national borders in geographical space, but not expressly in cyberspace); Geller, TRIPS Dispute Settlements?, supra note 4, at 101-02, 106-12 (questioning whether TRIPS decision-makers may fill such gaps).

43. See supra text accompanying notes 23-25.

44. See supra text accompanying notes 13-14.


46. See Geller, Conflicts in Cyberspace, supra note 14, at 112-16; Geller, Conflicts and Internet Remedies, supra note 15.
to get paid. One strategic option is to attack at this point of convergence, say, by asking the court to so choose laws that it will order the delivery-service provider to reprogram its system to block access to the pirated work or the credit-card system to block payments to the pirate pending trial. Distinct issues arise regarding remedies here: On the one hand, may content providers obtain court orders compelling service providers to reprogram systems to avoid infringement? On the other hand, may content providers make service providers liable to pay damages for infringement? Defenses are developing on this point: services that ignore content are proving rather resistant to damage suits.

This legal environment is like a dense and tangled jungle. Content providers can here spring surprise litigation attacks from forums that they have shopped, while service providers risk being caught unaware on the defensive or in cross-fire between right-holders and pirates. Depending on their varying interests, parties subject to such attacks may ask themselves whether they are better off conforming their conduct to the laws effective within the most protective jurisdictions in the global network or within its most profitable market segments or, in the alternative, whether they can get away with taking advantage of the lack of protective laws in data havens. Stray facts can also bear on survival: for example, damages in one small country might be tolerable, but not on a continental scale, or it might be easy to reprogram a system to comply with an order in one case, but diff-

47. Cf. Reebok International, Ltd. v. Mamatech Enterprises, Inc., 970 F.2d 552 (9th Cir. 1992) (freezing alleged infringer’s bank account in United States, on basis of showing of cross-border trademark infringement from Mexico to United States).


50. See, e.g., Scientology v. X S4A LL., Order of March 12, 1996, President District Court, The Hague (Netherlands), reported in 1996 MEDIAFORUM B59 (declining, at initial stage, to hold Internet providers liable for access to copyright materials placed on their servers’ websites without their knowledge), translated in Dirk J.G. Visser, Netherlands, in A LA I: COPY RIGHT IN CYBERSPACE, supra note 40, at 139.

51. See supra text accompanying notes 43-50.

52. See supra text accompanying notes 8-12.
cult in another.

In any event, as the costs and dangers of fighting increase in this worldwide jungle of patchwork law, its denizens might start to dream of an orderly garden of reliable network law. Such law might include procedures to handle claims of cross-border infringement, to block access or payment in easily confirmed cases of piracy, and to refer difficult cases to arbitration and, ultimately, to the courts. These utopian thoughts bring us to the task of coordinating the self-seeking strategies of private parties in the light of global public policies.

V. THE LARGER INTERNATIONAL PERSPECTIVE

Patchwork law continues to serve as the default structure within which network law will evolve in the foreseeable future. In the interstices of this patchwork structure, national laws come into play with increasing risks of conflicts in the globally networked marketplace. In the systems converging to form this marketplace, computer-program rules are proliferating, but it remains to be seen how these may best feed into legal rules. The following criteria are provisionally ventured to help coordinate the strategies previously proposed to cope with this transition from patchwork to network:

1. **Avoid falling back into the default position of patchwork law.** Nation-states typically legislate to solve locally defined problems. They thus tend to overload existing legal structures with endemically differentiated national laws. The first criterion is then merely cautionary, directing analysis away from old sources of such patchwork law and toward more suitable sources of network law.

2. **Organize private-public initiatives to elaborate transnational net-

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55. See supra text accompanying notes 7-15.

56. See supra text accompanying notes 28-35.
work law. Diverse parties, ranging from private individuals and enterprises to public entities, including nation-states, build and participate in network systems. Along with end-users, ultimately the public at large, these parties all have interests in the orderly and reliable operation of their internationally converging systems. The second criterion favors initiatives that bring such parties together to elaborate transnational law for global networks.

3. Formulate such law compatibly with diverse cultures. In the patchwork, diverging legal conceptions can cohabit on the opposite sides of borders. In digital networks, such divergences risk being compounded as contractual and other legal rules proliferate from system to system. The third criterion requires that, rather than being cast in a Babel of cyber-jargons, basic principles of network law make sense across cultural lines.

The domain-name crisis illustrates these criteria. The same trademark may be used by different parties in different places or on different goods. Each domain name is used on the World Wide Web across territorial lines as a unique address. The first criterion, just listed above, was only partially satisfied in the initial cases involving domain names. In these cases, trademark owners invoked patchwork national laws to challenge domain names that were similar to their marks.\(^5\) In line with the second criterion, initiatives are now seeking to increase the variety of higher-level domain names available internationally. At the same time, private and public parties, including the World Intellectual Property Organization (WIPO), are establishing procedures for resolving disputes concerning such names.\(^6\) Now, domain names often serve as trade names, which the Paris

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Convention protects along with trademarks, but without prioritizing all these symbols.\textsuperscript{59} To satisfy the third criterion, a rule governing relations between such symbols needs to be formulated compatibly with laws worldwide.

Treaty provisions may well remain the best instruments for harmonizing the relations between such symbols from country to country.\textsuperscript{60} Indeed, in the field of intellectual property generally, international treaties, such as the Berne and Paris Conventions, have proved effective in forestalling many, though far from all, of the conflicts to which patchwork law is susceptible. Admittedly, the new, transnational initiatives contemplated here will not be without their own disadvantages and difficulties.\textsuperscript{61} Hence the question: How to build on the strengths of the time-tested Berne-Paris regime in pursuing initiatives to elaborate network law? To begin inquiry, it will prove useful to apply the three criteria for such initiatives in another branch of intellectual property, namely copyright.

A. Beyond the Default Position

The first criterion of avoiding patchwork law will encounter resistances in the area of copyright. Law-making is here pushed and pulled by a perplexing variety of interest groups and passions. For example, authors haggle with producers, but both groups join in opposing users as diverse as broadcasters and libraries and, most recently, end-users on the global network. Further, copyright provincialisms, arising out of cultural tensions, prompt groups to favor local laws, to demonize unfamiliar foreign laws, and to attempt transplanting their notions worldwide.\textsuperscript{62}

Such groups clashed at the Diplomatic Conference which WIPO

\textsuperscript{59} See Paris Convention, supra note 3, art. 8. See generally Bodenhausen, supra note 17, at 133-34 (explaining that rules protecting trade names, notably relative to trademarks, may vary).

\textsuperscript{60} Cf. Frederick W. Mostert, Well-Known and Famous Marks: Is Harmony Possible in the Global Village?, 86 Trademark Rptr. 103 (1996) (considering treaty provisions on well-known marks as the basis for a harmonizing approach).

\textsuperscript{61} See, e.g., infra text accompanying notes 61-66 (noting doctrinal tensions between systems that make harmonization difficult) and 73-78 (noting the risk of hyper-regulation of networks by multiple, uncoordinated law-makers).

held at the end of 1996. The Conference then compromised on controversial points in drafting the WIPO treaties. So-called agreed statements, along with these treaties themselves, now leave the rights of reproduction and communication to the public open-ended and contemplate new exceptions in digital media.\(^{63}\) Unfortunately, the distinctions between such rights specifically, as well as between rights and exceptions generally, diverge systematically at the deepest levels from one copyright law to another.\(^{64}\) For example, France and Germany formulate all rights broadly in terms of reproduction and communication, while drawing exceptions in narrowly construed statutory terms.\(^{65}\) By contrast, the United States enumerates these rights with others in a closed list and exempts fair use in elastic, judicially crafted terms.\(^{66}\)

The new WIPO Copyright Treaty and Performances and Phonograms Treaty have not reconciled these very different approaches to rights and exceptions. Both treaties employ sufficiently vague language on point to allow member-states some room to vary rights and exceptions according to local predilections.\(^{67}\) Most critically, the right which these treaties specifically articulate for network systems, the right to control communication to the public, is not coupled with any definition of the private sphere that would limit its scope. Furthermore, under the so-called umbrella reading of this right, each country may implement it with rights that are either broadly conceptualized according to the Continental European approach or narrowly enumerated according to the Anglo-American approach, and varying

\(^{63}\) See WIPO Copyright Treaty, Preamble, supra note 26, prmb., arts. 8, 10; A greed Statements Concerning the WIPO Copyright Treaty, supra note 26, arts. 1(4), 8, 10; WIPO Performances and Phonograms Treaty, supra note 26, prmb., arts. 7, 10, 11, 14, 16; A greed Statements Concerning the WIPO Performances and Phonograms Treaty, supra note 26, arts. 7, 11, 16.

\(^{64}\) See generally ALAIN STROWEL, DROIT D'AUTEUR ET COPYRIGHT: DIVERGENCES ET CONVERGENCES 144-49, 290-91 (1993) (noting differences between Continental European and Anglo-American legal systems in legislative and judicial techniques for determining the scope of copyright).

\(^{65}\) See André Lucas, France §§ 8(1)[b]-8(2), in 1 INT'L COPYRIGHT LAW & PRACTICE, supra note 7, at FRA-110 to FRA-123; A dolf Dietz, Germany §§ 8(1)[b]-8(2), in 2 INT'L COPYRIGHT LAW & PRACTICE, supra note 7, at GER-93 to GER-109.

\(^{66}\) See David Nimmer, United States §§ 8(1)[b]-8(2)[a], in 2 INT'L COPYRIGHT LAW & PRACTICE, supra note 7, at USA-129 to USA-144.

overlaps with the reproduction right are possible.\textsuperscript{68} Under the new WIPO Treaties, nation-states may thus continue to make patchwork law in this branch of intellectual property. What initiatives might prepare the way for network law?

B. Transnational Initiatives

The second criterion of organizing private-public initiatives addresses needs specific to global networks. The present analysis has already broached some of the problems that such initiatives could help to solve in these new media environments. For example, one type of initiative could standardize copyright-management systems, both technologically and contractually, to assure their seamless use across borders.\textsuperscript{69} As another example, consider initiatives to establish dispute-settlement procedures that, coupled with new judicial procedures, would expedite handling claims of cross-border infringement.\textsuperscript{70}

Such private-public initiatives would not fit neatly within the traditional distinctions of international law. Private parties have usually exercised decentralized powers of choice in the marketplace, while public authorities in centralized nation-states have ratified and limited these powers as rights under patchwork law. The private international laws of such states have then normally accorded most rights of nationals to foreign parties,\textsuperscript{71} while public international law in treaties such as the Berne and Paris Conventions has specified state obligations to assure such private rights in the field of intellectual property.\textsuperscript{72} However, mutant rule-making creatures are now evolving in the globally networked marketplace that no longer fit comfortably on one side or the other of such traditional distinctions between private rights and public laws and treaties.\textsuperscript{73} In particular,

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\textsuperscript{69} See supra text accompanying notes 21-29.

\textsuperscript{70} See supra text accompanying notes 54, 57-59. Another initiative would network databases in patent and trademark offices worldwide to facilitate transnational searches and examinations. See Charles Berman, Moving the patent process into the 21st century, MANAGING INTELL. PROP., Mar. 1997, at 24.


\textsuperscript{72} See generally Ferenc Majoros, LE DROIT INTERNATIONAL PRIVÉ 8-10 (3d ed. 1990) (indicating that rules governing conflicts of laws are often dictated by treaty).

\textsuperscript{73} It suffices to glance at reference works in the field to see the difficulty of characterizing
ostensibly private enterprises can sometimes impose rules in their network systems, as if they were public authorities, for example, by excluding rebellious or misbehaving parties from such systems. Furthermore, private-public initiatives have been developing the Internet, and the enterprises and agencies investing in these initiatives have serious interests in assuring the orderly operation of this global system.

The patchwork of jurisdictional competencies of nation-states does not fully catch these new rule-making creatures within its grasp. For example, it remains unclear how national courts may oversee international domain-name registries or review arbitral decisions settling disputes with regard to such names. More generally, diverse pressure groups can be expected to prompt national legislatures to elaborate public laws to regulate network commerce that affects local consumers or business interests. Such schemes will overlay the patchwork of laws recognizing private rights, such as those sounding in intellectual property, that already tend to enter into conflicts in applying to cross-border transactions. Thus global networks risk hyper-regulation as national laws, as well as international treaties, impact in unexpected ways with such new program and contractual rules as network enterprises and agencies propose to participants in

these new creatures in traditional terms. See, e.g., Ian Brownlie, Principles of Public International Law 69 (4th ed. 1990) (hesitating to characterize sui generis entities in general terms of international law absent treaty terms on point, but proposing that their status only be conditionally determined “for particular purposes”). Cf. Paul Reuter, Introduction to the Law of Treaties 33 (2d English ed. 1995) (noting the possibility of “an agreement between a State and an individual,” but doubting the application of “the legal régime of inter-State treaties except on a very limited number of points”).

74. See, e.g., David Johnson & David Post, The Rise of Law on the Global Network, in Borders in Cyberspace, supra note 28, at 3; Henry H. Perritt, Jr., Jurisdiction in Cyberspace: The Role of Intermediaries, in Borders in Cyberspace, supra note 28, at 164 (both indicating the resources of network systems to enforce program and legal rules that they impose on end-users).


76. See supra text accompanying notes 57-59. See, e.g., U.S. Dep’t of Commerce, supra note 58 (broaching antitrust and jurisdictional issues that new domain-name regime might raise); WIPO, supra note 58 (exploring interim proposals with regard to the relations between international arbitration and the jurisdiction of national courts over domain-name disputes).

77. See supra text accompanying notes 7-12. Note that the laws implementing public policies, such as antitrust laws, are not necessarily subject to the same conflicts analyses as private rights of intellectual property. Cf. Hanns Ullrich, TRIPS: Adequate Protection, Inadequate Trade, Adequate Competition Policy, 4 Pac. Rim L. & Pol’y J. 153, 196 (1995) (“Antitrust is by no means bound to take intellectual property-based territorial divisions as sacrosanct”).
their systems. Some commentators place their hopes in transnational governance regimes that would at least engage traditional lawmakers and these new rule-making creatures in harmonizing dialectics with each other.\textsuperscript{78} Such hopes, it will now be suggested, can be bolstered by looking to common threads in diverse legal cultures.

C. Multicultural Compatibility

The third criterion of compatibility also corresponds to network conditions. In the mass market, user-interfaces are more likely to become standards to the extent that they are user-friendly.\textsuperscript{79} These same interfaces will convey to end-users the contractual terms with which network enterprises propose to bind them. The fact that the shortest, simplest interfaces will tend to become the most widespread raises problems of validating them as short-form standard contracts.\textsuperscript{80} In the global marketplace, it is submitted, such problems are best solved compatibly with legal cultures worldwide.

It has been contended that the invisible hand of the marketplace will favor network rules that more and more end-users accept in participating in systems that incorporate these rules.\textsuperscript{81} At a minimum, this argument has the merit of pointing out that some network rules may obtain contractual force by virtue of acceptance throughout a marketplace that transcends territorial borders. Nonetheless, it is unclear to what extent end-users will knowingly assent to ostensibly contractual choices on user-friendly interfaces, for example, when entering options in short menus or clicking on simple icons that do not fully spell out underlying terms and conditions.\textsuperscript{82} It also remains questionable under what conditions end-users may, in all legal cultures, contractually waive basic rights of privacy and freedom of expression and, accordingly, of creatively reworking copyright materi-

\begin{itemize}
\item \textsuperscript{78} See Walter S. Baer, Will the Global Infrastructure Need Transnational (or Any) Governance, in \textit{National Information Infrastructure Initiatives: Vision and Policy Design} 532, 539-48 (Brian Kahin & Ernest Wilson eds., 1997); Reidenberg, supra note 28, at 91-100.
\item \textsuperscript{79} See supra text accompanying notes 28-30.
\item \textsuperscript{80} See, e.g., Slawson, supra note 32, at 21-31 passim (highlighting that acceptance of contract terms without fully understanding them is often unavoidable in a technologically complex society and that complex terms are often cryptically incorporated by reference in short-form standard contracts).
\item \textsuperscript{81} See Johnson & Post, supra note 74, at 21-37 passim.
\item \textsuperscript{82} Cf. Nimmer, supra note 31, at 239-40 (asking how “humanistic” contractual doctrines of knowing acceptance might apply to automated electronic commerce).
\end{itemize}
als. Some of these difficulties can be forestalled by comparative legal analysis. Research can seek out principles common to most or all legal cultures in the light of which standard user-interface terms might be made interoperable worldwide. The drafters of the Berne and Paris Conventions, in elaborating minimum rights of intellectual property compatible with different legal cultures, have begun to work out a kind of lingua franca for the field. Furthermore, judges ideally characterize the facts of cross-border cases in terms “re耶ferable indifferently to foreign as well as to domestic substantive law” before making any choice between conflicting laws. Such terms might also provide the keys to formulating contract-rule modules that user-interfaces can incorporate compatibly with diverse laws.

VI. CONCLUSION

Digital media have unleashed deep-running changes in the international regime of intellectual property. The patchwork of nation-states can no longer respond, with its purely territorial laws, to network imperatives of interconnectivity. Just as paper and print once undermined the feudal order, these media changes are dislocating modern allocations of law-making power. Inevitably, hard cases will arise at myriad interfaces, for example, between freely creative indi-
individuals and technologically fenced-in data, masses of end-users and elite system-operators, and content and service providers. Short-term strategies, useful to private parties in such cases, have here served as starting points for elaborating longer-term, law-making methodologies.