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COMMON CAUSE:

GLOBAL RESISTANCE TO INTELLECTUAL PROPERTY RIGHTS

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The first man who, having enclosed a piece of ground, bethought himself of saying *This is mine*, and found people simple enough to believe him. . . . From how many crimes, wars and murders, from how many horrors and misfortunes might not anyone have saved mankind, by pulling up the stakes, or filling up the ditch, and crying to his fellows, "Beware of listening to this impostor; you are undone if you once forget that the fruits of the earth belong to us all, and the earth itself to nobody."

Jean-Jacques Rousseau, Discourse on the Origin of Inequality (1754)

Most community media makers are aware of the current battles over copyright, as the dominant music and film distributors wage a legal, technical, and discursive war against filesharing, remix culture, fair use, and the public domain (Boyle, 2003; Lessig, 1999, 2004). An increasingly severe legal regime criminalizes copyright infringement, erodes fair use, outlaws circumvention of even the most flawed digital rights management (DRM) schemes, and repeatedly extends both the scope and the length of copyright (Vaidhyanathan, 2001). DRM

undermines community media makers' ability to excerpt, quote, or critique audiovisual works and poses unique problems for people with disabilities, since it blocks the retransmission of copyrighted works in forms accessible to the hearing or sight impaired (Roos, 2005). In the field of education, the new technical and legal regime scares educators away from using audiovisual materials and undermines attempts to teach critical media literacy. Access restrictions to online books and journals make it difficult for the majority of researchers, educators, and the public, especially in "developing" countries, to use and participate in current scholarship (Vaidhyanathan, 2001). The rise of this maximalist intellectual property (IP) regime poses threats not only to culture, communication, and education but also to health and agriculture. At the same time, movements that seek to limit, subvert, ignore, or abolish IP in different sectors oppose these threats. We must engage with the question of how, whether, and to what degree the various forms of resistance to IP are, or can become, a shared political project. In this chapter we connect the current battle over copyright on audiovisual material, already familiar to community media makers, to the larger struggle against the enclosure of information, knowledge, and culture (Boyle, 2003). First, we briefly discuss the path that led to the current IP regime.

Since the mid-twentieth century, the U.S. government has regarded knowledge production as a fundamental element of its economic growth and national security (Schiller, 1969; Bell, 1976; Mosco, 1996). By the 1970s, the interests of U.S.-based "knowledge industries" were well protected at home and, increasingly, incorporated into trade policy abroad. The Special 301 clause of the U.S. Trade Act of 1974 established a list that ranked countries by their level of IP infringement, thereby creating a mechanism to pressure foreign governments to adhere to U.S. copyright and patent law (Sell, 2003).

By the 1980s, so-called developed countries grew frustrated with the World Intellectual

Property Organization (WIPO), where, in the wake of decolonization and outnumbered by delegates from newly independent states, they were unable to advance their IP agenda (Roach, 1997). A coalition of copyright (audiovisual and publishing) and patent (chemical, pharmaceutical, and, later, software) industry giants from the United States, Japan, the United Kingdom, and Germany succeeded in shifting the fight over IP away from WIPO. The United States aggressively pressured other countries to adopt its own IP regime as a condition of trade (Sell, 2003), and in 1996, as a result of the Uruguay round of talks on the General Agreement on Tariffs and Trade (GATT), WIPO was largely superseded by the World Trade Organization (WTO) agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). TRIPS gave all WTO members deadlines for compliance with wealthy country IP laws (Drahos & Braithwaite, 2004).

Today, opponents of TRIPS argue that a unified, international IP system undermines state sovereignty and hampers the ability of developing countries to address domestic social needs. Many believe that poor countries' right to development supersedes the IPRs of rich countries and point out that historically even the U.S. economy was built on a policy of disregard for foreign IPRs (Drahos & Braithwaite, 2002). Meanwhile, even as opposition to TRIPS mounts, the U.S. trade negotiators have shifted their efforts to regional and bilateral free trade agreements (FTAs), in which additional, or TRIPS-Plus, protections for IP and heavy penalties for infringement are the norm (Drahos & Braithwaite, 2002). In addition to trade agreements, wealthy countries push for IP "harmonization" via proposals for new WIPO treaties and "technical assistance programs" (Abbott, 2001; Mehta, Kumar, & Shivpuri, 2004; Musungu & Dutfield, 2003). This process is taking place without widespread participation in debate and without public knowledge of what is at stake. However, the maximalist IP agenda does not advance unopposed.

This chapter chronicles the field of opposition to repressive IP regimes. Although a comprehensive overview of this terrain is not possible here, we offer a broad survey of the scope of international resistance to dominant IP frameworks and highlight what is at stake culturally and politically for community media makers who contest the complete propertization of creative and intellectual production.

Resistance

Resistance to intellectual property takes many forms, including everyday practice, contests over technologies, struggles over the terms of debate, protest and direct action, policy reform, and counterprojects of commons-based production (see Table 1). Grassroots social movements, nongovernmental organizations (NGOs), scientists, activists, governments, and some businesses resist IP with a range of tactics, both inside and outside the policy world, in local, national, and international venues.

[***Table 1 goes here***]

Everyday Forms of Resistance

IPRs, as a hegemonic set of laws, norms, and enforcement mechanisms, face constant challenges from people's daily practices, sometimes with political intent but often without. For example, community media makers often participate in informal economies of unlicensed audiovisual and software exchange, sampling, mash-ups, and remix satire of industry antipiracy propaganda. These practices are everyday forms of resistance (Scott, 1990) and are part of a broader general ethos of ignoring or actively undermining IPRs. People continue to freely share audiovisual

material with one another, despite cross-media saturation of antipiracy propaganda, increasingly severe legal penalties, repeated attempts to impose technological control through DRM schemes, and waves of lawsuits targeting individual filesharers. A 2005 study by the Pew Internet and American Life Project found that approximately 36 million Americans (27% of Internet users) reported downloading music or video from the Net. Of these, almost all said they share files through peer-to-peer (P2P) networks or paid online services, while half also share via email or instant messaging (Madden & Rainie, 2005). Most U.S. studies found tremendous growth rates in filesharing between 1999 and 2003, followed by a significant dip when the Recording Industry Association of America (RIAA) announced its first wave of lawsuits against individual filesharers, then a slow, steady climb that continues today (Liebowitz, 2005). Data from around the world is consistent: where there is Internet access, there is filesharing. For example, by 2006, the Korean P2P network Soribada had a membership of about 25 percent of all South Koreans. After the network capitulated to the Korean Recording Industry Association, people simply moved to other networks, especially ED2K (Jinbonet, pers. com., May 10, 2006). Apart from free filesharing, people also continue to participate in the informal economy of trade in hard copies of audiovisual and software materials.

Technologies of Control and Resistance

Confronted by widespread everyday resistance, IP-dependent industries constantly attempt to engineer IP enforcement mechanisms into new technologies and to block technologies that challenge their control. Many of these attempts fail in the courts, and most, if not all, fail in practice. For example, community videomakers who were active in the 1980s will remember the 1984 "Betamax case," when the U.S. Supreme Court upheld Sony's right to sell home

videotaping equipment over a challenge from the content industry (Electronic Frontier Foundation, 2005). More recently, in the Sony rootkit debacle, the onetime champion of home recording tried to control customers' music sharing practices by surreptitiously installing spyware on their home computers (EFF, 2007). Yet engineers, techies, fans, and others constantly undercut, reverse engineer, counter, crack, and hack control technologies, regardless of whether it is legal to do so. When Norwegian teenager Jon Lech Johansen (with two anonymous friends) wrote the program DeCSS to break DVD encryption and allow Linux users to watch standard format DVDs, U.S. courts ruled its use, display, or export illegal. However, the DeCSS code spread like wildfire across the Net, hidden in image files, printed on T-shirts, painted on canvases, described step by step in a Haiku, and even transformed into lyrics for a country song (Touretzky, 2007).

Technological controls over IP are not limited to digital media. Agribusiness firms have developed genetic use restriction technologies (GURTS), otherwise known as Terminator seeds. Widespread adoption of GURTS would devastate small farmers by preventing them from replanting, saving, or adapting seeds to local environments. Agribusiness firms claim that Terminator seeds would safeguard against unwanted genetically modified organism (GMO) contamination of non-GMO fields, despite evidence to the contrary (Srinivasan & Thirtle, 2000). However, in a 1998 interview, Melvin Oliver, creator of the Terminator gene, was more forthright: "Our system is a way of self-policing the unauthorized use of American technology. . . . It's similar to copyright protection" (Boal, 2001: 152). So far, social movements, NGOs, and scientists have successfully mobilized to maintain a worldwide ban on Terminator technology, as agreed in the 1992 UN Convention on Biological Diversity (Srinivasan & Thirtle, 2000; Herring, 2004; Escobar, 1998; Ban Terminator, 2006).

Framing the issues

IP-based industries and their government patrons argue that strong IPRs fundamentally serve the public interest. They claim that strong IPRs are the key to "development" for poor countries and that creativity and innovation cannot exist in their absence. Those involved in resistance to IP challenge these assertions from many different, often overlapping perspectives. Their frames include *human rights*, used especially in campaigns over access to medicines and food; *consumer rights*, visible especially in debates on filesharing and DRM; *civil liberties*, including free speech arguments against IP; the *right to development*, a master frame shared by many on both sides of the IP debate; access to knowledge, a mix of development, human rights, and consumer rights language; *cultural*, *political*, *and economic sovereignty*, frames used both by indigenous peoples and by nation-states to contest cultural theft and biopiracy; and *the commons*, a concept that originally referred to lands held by a community of people, now often applied to almost any set of shared resources. Choosing one of these frames over another has material consequences. Each frame informs the way that those who use it analyze the problem, develop strategies, imagine solutions, and distribute resources.

State and industry proponents of strong IPRs invest heavily in propaganda campaigns, lobbyists, educational materials, viral marketing, and other tactics in order to dominate the terms of debate (Lessig, 2004). Content industries have even adopted a strategy of linking resistance to IP with material support for terrorism. In 2003, Jack Valenti, president of the Motion Picture

Many argue that strong IPRs are (good/bad) for development, leaving *development* unexamined. For critiques of and alternatives to the assumptions of development as unlimited economic growth, see Ferguson (1990), Escobar (1995), Cooper & Packard (1997), Sen (2001).

See Ostrom (1990) on methods of governing the commons, Benkler (2003) on the political economy of the commons, and Nick Dyer-Witheford's (2006) on the circulation of the commons.

Association of America (MPAA), testified before the U.S. Congress that

America's crown jewels—its intellectual property—are being looted. Organized, violent, international criminal groups are getting rich from the high gain/low risk business of stealing America's copyrighted works. We don't know to what end the profits from these criminal enterprises are put. (Valenti, 2003)

Such claims have been widely repeated; for example, *The Guardian* promoted the idea of a "link between piracy and terrorism" in educational materials (Lettice, 2004.) IP propaganda often targets schools, as in Canada's Captain Copyright website for children, complete with workbooks and lesson plans for primary school teachers (see http://www.captaincopyright.ca/). Annual reports about the informal audiovisual sector, such as those produced by the International Federation of the Phonographic Industry (2005), are poorly researched lobbying tools that pull numbers out of thin air and attack all peer-to-peer filesharing as theft (Oberholzer-Gee & Strumpf, 2004). None of this is new; a number of studies provide detailed discussions of the history of the term *piracy* as applied to informal markets of audiovisual goods (e.g., Schweidler & Costanza-Chock, 2005; Liang, 2004a). Discursive strategies like these continue to inflate harms, confuse various forms of copyright infringement, and conflate the rights of creators with those of distributors. Such propaganda has a chilling effect on community media makers, who end up unsure about their rights to quote, sample, or distribute material.

Still, industry efforts to control the debate often backfire, especially when community media makers satirize industry propaganda using the tools and techniques of remix culture.³ In 1988, Public Enemy's "Caught, Can We Get a Witness" laid a blistering denunciation of the

See, for example, the 2005 video showcase *Thought Thieve\$*, at http://www.thought-thieves.org.

recording industry's then-nascent wave of lawsuits against hip-hop musicians over a rugged sample-based beat: "Caught, now in court / 'cause I stole a beat / This is a sampling sport. They say that I stole this / I rebel with a raised fist / can we get a witness?" (Ridenhour, Sadler, & Shocklee, 1988). In 2006, Korea-based Jinbonet developed a series of comics about IPRs that remixed old Disney characters in order to educate people about the U.S.-Korea FTA (Jinbonet, 2006), and Bangalore's Alternative Law Forum remixed an "educational" comic by WIPO (Alternative Law Forum, 2006).

Community media makers have also made several recent attempts to engage a broader public in copyright debates with feature-length documentary films (Alternative Freedom, 2006). For example, *Copyright Criminals: This Is a Sampling Sport* addresses the history of hip-hop musicians' fight against copyright (Copyright Criminals, 2006; McLeod, 2004), and *Codebreakers*, a film about the use of free and open source software (FOSS) in development projects around the world, aired on BBC in 2006 (Asia-Pacific Development Information Programme, 2006).

Protest and Direct Action

In recent years, protests, mass mobilizations, and direct action have occasionally erupted in response to the expanding impact of IP on food and health. For example, the AIDS Coalition to Unleash Power (ACT-UP), South Korea's Jinbonet, South Africa's Treatment Action Campaign (TAC), and many others use media-savvy protest tactics to draw attention to the health impacts of IP on access to essential medicines and medical technologies (Gevisser, 2001). ACT-UP activists occupied the Wall Street Stock Exchange, disrupted the board meetings of government agencies and pharmaceutical and medical companies, and pioneered the use of nonviolent civil

unprecedented media attention and won seats for public health advocates in important policy discussions (Gamson, 1989). ACT-UP continues to innovate tactics: in 2004, ACT-UP Paris called for a "virtual sit-in" designed to overload WIPO's web servers, with the slogan "Abolish Intellectual Property Wherever It Kills!" (ACT-UP Paris, 2004). TAC also employs a range of tactics, from court cases, civil disobedience, and street demonstrations to treatment literacy campaigns and direct provision of treatment services (TAC, 2006; Heywood, 2005; Mbali, 2005).

Mass mobilizations and direct action are also essential tools in the fight against seed patents. In 1993, approximately 500,000 people protested against patents on seeds in Bangalore, India (Halbert, 2005). Similar mobilizations continue today, organized by social movements like the 10-million-strong Karnataka State Farmers' Association (Farmers Plan Protest Against Patent Law, 2005; This Law of Death Is Unacceptable, 2005). Peasant movements around the world have used direct action tactics, including the occupation and destruction of GMO fields (Desmarais, 2002; Scoones, 2005). Recently, in March 2006, 600 rural workers linked to the international farmer's movement Via Campesina occupied an illegal GMO test site operated by Syngenta in Teresa do Oeste, Brazil (MST Brazil, 2006).

Protest tactics are less frequent in the copyright and software debates, but there are exceptions. For example, programmers, scientists, and other people organized repeated protests after software lobbyists succeeded in floating a proposal for an EU-wide directive to enforce software patents.⁴ A series of online "demonstrations" in August 2003 gathered nearly 300,000 signatures and built momentum for street protests in Brussels, where people from across Europe

The 2002 EU Directive on the patentability of computer-implemented inventions. See http://www.nosoftwarepatents.com/ for more background.

rallied outside the European Parliament with skits, songs, and black balloons (Association Electronique Libre, 2007). Public pressure, spearheaded by the Foundation for a Free Information Infrastructure (2006), continued over the next two years and led to legislative victory: the European Parliament rejected the proposed directive in a vote of 648–14 (Marson, 2005). Today this battle continues in the European Commission's Community Patent consultation process (Meller, 2006).

Activists have also used a variety of media-friendly protest strategies to draw attention to the dangers of DRM. Most recently, the network Defective by Design marched into Apple stores around the United States and Europe, wearing hazardous materials suits and calling themselves the "hazardous materials elimination crew," to warn people about the DRM in iPods (Defective by Design, 2006). Community media makers have a key role to play in circulating these kinds of stories of protest and direct action against IP.

Policy Battles

Tremendous conflict over IP exists in most countries. National-level struggles play out within the state, between different ministries (e.g., ministries of culture and of trade),⁵ different branches of government (e.g., between Congress and the courts in the United States), and between individuals or groups within the same ministry or department. In Latin America, left-leaning governments have proposed initiatives to challenge IPRs and construct alternatives. The Chavez administration in Venezuela launched a national academy of open source software and mandated that all government systems shift to FOSS by 2007. In Brazil, Minister of Culture Gilberto Gil is backing Creative Commons licenses as well as FOSS (Anderson, 2006). Also in Brazil, the

As in Spain; see http://www.todoscontraelcanon.es.

Movimento dos Trabalhadores Rurais Sem Terra (MST), with a base of over 350,000 families, opposes any patents on seeds or agricultural processes from the moral position that seeds belong to all humankind (Stedile, 2002) and on the grounds that seed patents shift power away from small farmers toward multinational agribusiness (Osava, 2001). MST also includes FOSS training in the schools it builds for communities living on expropriated land (P. Ortellado, pers. com., June 15, 2004). Pressure from mass-based social movements including MST inform the Lula administration's strong pro-development stance on IPRs in multiple international venues. Brazil's position on IPRs also enabled a key component of its model HIV policy: free triple medication for all HIV positive patients (Levi & Vitoria, 2002; Orsi, Hasenclever, Fialho, Tigre, & Coriat, 2003; Serra, 2004).

Within the U.S. government, the shift toward stronger IPRs both domestically and as a foreign policy objective is deeply contentious. During the course of the twentieth century, Congress and the courts radically transformed copyright and patent laws by repeatedly extending term lengths, eroding fair use provisions, increasing penalties for infringement, and broadening patent applicability to software, seeds, and living organisms (Harvard Law Review, 1999; Vaidhyanathan, 2001; Boyle, 2003). However, in recent years, professional advocacy organizations like the American Library Association (ALA) and the Electronic Frontier Foundation (EFF) have become increasingly sophisticated in taking on state and federal policy battles (Sohn, 2005). At the same time, traditionally U.S.-focused groups (like the ALA and EFF) are increasingly devoting resources to international policy work, alongside others such as

⁶ See also MST's digital inclusion pages at http://id.bsb.mst.org.br/.

For example, House Resolution (HR) 107, the Digital Media Consumers Rights Act (DMCA), which would exempt noninfringing activity from the DMCA anticircumvention clause; HR 2601, the Public Domain Enhancement Act, which would require reregistration of works fifty years after publication and every ten years after that; Senate bill 1621, the Consumers, Schools, and Libraries DRM Act of 2003, which would have ensured that digital media were covered by "first sale doctrine," and so on (American Library Association, 2004).

Public Knowledge, IP Justice, and Knowledge Ecology International (ALA, 2004; EFF, 2006; IP Justice, 2006; Public Knowledge, 2006).

IP opponents are forging stronger transnational ties and organizing across sectors. Their international policy campaigns target UN bodies (such as WIPO and UNESCO), the WTO, regional trade agreements (such as the North American Free Trade Agreement, the Central America Free Trade Agreement, and the Free Trade Area of the Americas), and bilateral trade agreements (or FTAs, such as the U.S.-Australia FTA or the U.S.-Korea FTA). However, their access to these venues remains limited; even as the UN invokes the importance of "civil society" participation, poor people, farmers, disabled people, and indigenous peoples seldom achieve more than token representation. Indeed, scholars and activists have devoted tremendous attention to the theoretical basis, possibilities, and pitfalls of the concept of civil society (Habermas, 1989; Fraser, 1990; Gramsci, 1996), as well as to the globalization of civil society networks (Keck & Sikkink, 1998; Florini, 2000; Anheier, Glasius, & Kaldor, 2001).

Below we briefly describe two international campaigns that address IP policy, the Access to Essential Medicines campaign and the WIPO Development Agenda, to highlight the stakes in some of these conflicts. Other such campaigns are the 1992 Convention on Biological Diversity (Rosendal, 2003), the current drafting process of the Treaty on Indigenous and Traditional Knowledge (Posey & Dutfield, 1996; Collective Statement of Indigenous Peoples, 2004; Mgbeoji, 2006; New, 2006), No Patents on Life campaigns, and the current push for a treaty on access to knowledge. Community media makers play important support roles in these campaigns.

The African Group of nations in the WTO have made their opposition to patents on life clear (WTO, 1999), a position shared by grassroots organizations of African farmers (Selva, 2006) and widely endorsed (Third World Network, 1999). See also the struggle over the International Treaty on Plant Genetic Resources for Food and Agriculture (Bjørnstad, 2004).

Access to Essential Medicines and Health Technologies

In 2004 the World Health Organization (WHO) reported that 30 percent of the world's population, and as much as 50 percent of the population in the poorest regions of Asia and Africa, did not have regular access to essential medicines (WHO, 2004). A strong national and international IP regime is one of the structural factors that produce such a staggering lack of access to affordable medicines and medical technologies. Strong IPRs block alternatives to expensive patented drugs and result in insufficient funding for essential R&D and production (Bello, 2004; Goozner, 2004; Abbott, 2005; Médecins sans Frontières, 2006). Despite the pharmaceutical industry's claims that financial rewards guaranteed by IPRs are the basis of innovation, patent-dependent industries have always relied heavily on publicly funded research (Angell, 2004; Public Citizen, 2001; National Institute for Health Care Management, 2002). Critics have long argued that publicly funded research belongs in the public domain; in the United States, this was the case until the 1980s, when a series of so-called technology transfer laws promoted transfer of public scientific research to the private sector for commercialization (Krimsky, 2003). 10 Patents not only selectively promote innovation, but they also bar innovation. Investment based on the anticipated profitability of patentable medicines and technologies promotes severe underfunding for R&D on diseases that primarily affect the world's poor. The funding disparity is so serious that it has been dubbed the "10/90 gap," based on studies showing that only 10 percent of health research funding is directed at the most important health problems in poor countries, although these account for more than 90 percent of the world's health problems

According to Families, U.S.A. Foundation (2002), 27% of Big Pharma investment in a new drug is spent on marketing, compared to 11% on R&D.

The 1980 Bayh-Dole Act enabled universities, businesses, and nonprofits to patent discoveries or inventions derived from publicly funded research and to then grant exclusive licenses to private firms (Patent and Trademark Law Amendments Act, 1980).

(Global Forum for Health Research, 2006). Data exclusivity and restrictions on reverse engineering add to the expense of developing affordable generic drugs and other medical technologies (Scafidi, 2004; Shapiro, 2001).

These are the central challenges taken up by campaigns for access to and development of essential medicines and technologies. Alliances between grassroots organizations, indigenous groups, social movements, NGOs, scientists, health workers, and governments have gained wide public support for health care as a basic human right. In the 1980s and 1990s, HIV/AIDS activists politicized pharmaceuticals and secured material gains in both the national and international arenas (Barnard, 2002; Shepard & Hayduk, 2002; 't Hoen, 2003; Davis & Fort, 2004; TAC, 2006). In 1999, the international Campaign for Access to Essential Medicines, initiated by Médecins sans Frontières (MSF) in coordination with the Consumer Project on Technology (CPTech) and TAC, successfully brought attention to the health impacts of IPRs within WIPO and at the WTO ('t Hoen, 2003; MSF, 2006). Health activists have pressured national governments, WHO,, UNAIDS, and the G8 and mobilize in activist venues like the World Social Forum (WSF). Many of the participants in these campaigns are also directly involved in health care delivery and in the fight to secure resources for R&D on neglected diseases as well as to establish stable sources of generic medicines. ¹¹ In part as a result of pressure from these networks, in 2001 the WTO adopted the "Declaration on the TRIPS Agreement and Public Health," commonly known as the Doha Declaration. ¹² The Doha Declaration states that measures taken by WTO member countries to protect public health,

For example, the Medical Research Treaty, initiated in 2002, proposes measures by which states provide a stable source of funding for R&D on neglected diseases (Consumer Project on Technology, 2002).

According to 't Hoen (2003), organizing by developing country delegates, developed countries' fears of biological warfare (heightened by the anthrax scare and concerns about sufficiency of ciprofloxacin supplies), and the pressure of public opinion and international health activism were the major factors in the signing of the Doha Declaration.

including exceptions to patents issued in other member countries, supersede their TRIPS obligations (Abbott, 2001; WTO, 2001).

The patent exception provisions won at Doha are far from secure, and the fight is on to preserve, extend, and implement the Doha Declaration (Abbott, 2005; Mehta et al., 2004.) Most countries lack the political and economic weight of South Africa or Brazil, both of which successfully used the threat of local production or compulsory licensing to secure meaningful discounts or voluntary licenses on patented drugs. To date, only a few poor countries (Mozambique, Zambia, and Zimbabwe) have issued compulsory licenses (Consumer Project on Technology, 2006). Many countries lack the capacity to produce their own medicines, and their access therefore depends on patent laws adopted by other nations (Abbott, 2005). Because of this, bilateral negotiations, in particular with the United States, have been exceptionally effective in extracting TRIPS Plus concessions, the full impact of which are yet to be felt. Campaigns on access to medicines have demonstrated the power of a broad international social movement in the legal fight for health rights and in promoting practical alternatives to IPR-based research and the distribution of health goods. However, this struggle continues, with the biggest battles yet to come.

WIPO Development Agenda

TRIPS may now be the key mechanism for the globalization of IPRs, but WIPO continues to play an important role (Musungu & Dutfield, 2003). In 2004, a coalition of NGOs, academics,

A state-issued compulsory license compels the holder of a patent or copyright to grant use to the state (or named others). The Doha Declaration clarifies that states retain the power to issue compulsory licenses in the interest of public health.

The current WTO "Decision of 30 August 2003" defines the process by which countries can import and export pharmaceuticals produced with compulsory licenses (WTO, 2003, 2005; Matthews, 2004a, 2004b). Many fear the mechanisms of the proposal are prohibitively complex and restrictive (Médecins sans Frontières, 2005; Intellectual Property Watch, 2005).

business representatives, and WIPO delegates from the governments of fourteen developing countries¹⁵ successfully lobbied to open a formal discussion within WIPO on a development agenda (DA). The DA proposal calls on WIPO to recognize that as a UN body, it must pursue the goals of development for all member states. Concretely, the DA requires WIPO to assess the impact of the IP regime on technological innovation, access to knowledge, and human health in developing countries and adjust its policies and norm-setting activities accordingly. The proposal further asks WIPO to formally recognize that the existing IPR regime has not been beneficial to developing countries and calls for a new international treaty on access to knowledge and technology (A2K).

The outcomes of the development agenda debate and the A2K treaty proposal are far from certain. The overwhelming influence of wealthy countries and their IP lobbies will likely prevent any outcome that benefits developing countries (Moniz, 2005). Given that previous attempts to limit IPRs in the name of development resulted in the venue shift from WIPO to TRIPS, successful reform of WIPO may merely result in its further marginalization within the UN system (Copy/South Research Group, 2006; Musungu & Dutfield, 2003; Drahos, 2004). This has happened before; for example, the United States withdrew from UNESCO in the 1980s after developing country delegates there successfully pushed demands for a more equitable North-South news flow (Roach, 1997). In addition, while the DA proposal and the call for an A2K treaty are encouraging developments that have galvanized an international civil society coalition into action, there are real differences between the agendas of the diverse actors involved, including mass-based social movements, farmers and indigenous peoples, organizations of creative workers, professional advocacy groups, lawyers, and international NGOs. At WIPO, as

The fourteen countries, known as the Group of Friends of Development, are Argentina, Bolivia, Brazil, Cuba, Dominican Republic, Ecuador, Egypt, Iran, Kenya, Peru, Sierra Leone, South Africa, Tanzania, and Venezuela.

throughout the UN system, professionalized NGOs and organizations of professionals (legal, medical, scientific, and academic associations) have the most access to policy debates. Even those NGOs with the most access are not party to key decisions, which continue to be made in backroom deals with little or no transparency (Cammaerts & Carpentier, 2006; Woods & Narlikar, 2001; Wade, 2004). When NGOs are included in formal processes, it is often under the terms of public-private partnerships between business and government agencies (Utting, 2000; Zammit, 2003; Shaffer, 2005). Some social movements and activists argue that this kind of participation by NGOs grants an unearned veneer of democracy to multilateral institutions while masking the exclusion of those most directly affected by their decisions. ¹⁶

Beyond the barriers raised by the institutions, the same structural inequalities that distort radically democratic participation in state politics also limit access to participation in formalized civil society. The most active members of international policy campaigns, including those over IP, are white, male, professional class, well educated, urban, and U.S. or EU based. NGOs are often criticized for failing to include grassroots groups and social movements, and those with seats at the table tend to maintain distance from groups that appear too radical, lest they jeopardize "winnable" battles by alienating important decision makers, funders, and public opinion. The resulting top-down campaign structures undermine long-term movement building and North-South solidarity goals (Roy, 2004). The DA campaign is not immune to this critique (Copy/South Research Group, 2006). Given the complexities, costs, and limitations of transnational policy battles, many choose to put their energy toward constructive counterprojects

The willingness of some NGOs to enter any multilateral process, no matter how token their participation, has led some activists to describe them as "Snivel Society" (Patel, 2002). On NGO participation in WSIS as a legitimation screen for neoliberal ICT policy, see Costanza-Chock (2003). International NGOs also tend to draw leaders away from social movements and incorporate them into lobbying activity (Everett, 1992). See Alvarez (1998) for a discussion of the NGOization of the women's movement.

instead.

Counterprojects

A tremendous range of constructive counterprojects, IPR alternatives, and networks of commons-based production present the most vibrant challenges to the IP regime. In many of these counterprojects, the production of knowledge goods, creative works, and research is selforganized and based on common resources (Benkler, 2003; Dyer-Witheford, 2006). The worldwide spread of FOSS is one of the most powerful examples. Thousands of programmers devote their time to working on FOSS, which may be licensed in a variety of ways as long as the key principle is maintained: anyone is free to modify the code, as long as the resulting work remains part of the commons (Free Software Foundation, 1996; Open Source Initiative, 2006). The majority of web servers have long run on FOSS (Wheeler, 2005), and recent user-friendly releases of the FOSS operating system Linux, such as Ubuntu, bode well for its wider adoption. Fully functional FOSS alternatives to all of the most common proprietary desktop applications are increasingly popular. For example, the worldwide market share of FOSS web browser Firefox rose from 1 percent in June 2004 to over 12 percent in January 2006 (Janco Associates, 2006). FOSS is also receiving serious attention from governments because it is more affordable, allows domestic programmers to develop their skills, and poses fewer security risks (Wheeler, 2005). The success of FOSS as a productive model has inspired similar commons-based projects in other areas.

Creative workers, scientists, and others are developing alternative licenses much like the General Public License (GPL) under which most FOSS development takes place (Free Software Foundation, 1991). The GPL stipulates that anyone may freely access, use, reproduce, or modify

the software code, so long as any derivative work retains the same license and therefore the same freedoms. Musicians, graphic designers, authors, and community media makers widely use Creative Commons licenses, which debundle the rights of authorship, exploitation, and duplication, and in some cases allow others to use and modify works freely on the condition that the resulting works also remain freely available. For example, the Creative Commons Attribution-Noncommercial-Share Alike License, one of the most popular, allows free use and modification of a work, provided that the work's author receives credit, the resulting work is not used for commercial purposes, and the resulting work is licensed under the same terms.¹⁷ Musicians and other cultural workers are abandoning the IPR industry in order to seek models that allow them to both contribute to the commons and receive income for their work. Most musicians make their livings from live performances rather than from royalties on recordings, and many feel that the free distribution of music via filesharing networks is a form of free publicity and a way to build a larger fan base (Rizk, 2007). Others promote a "shareware" model of audio recordings, where distribution is free, but fans are encouraged to donate a small amount directly to the artist if they enjoy the recording (Bucholz, 2004). A recent Pew Internet and American Life study of musicians and artists found that while artists are split in their attitudes to filesharing, two-thirds do not believe the Internet threatens their livelihood, and a significant proportion feel that free filesharing has helped their careers (Madden, 2004). Proposals to help artists get paid without relying on copyright enforcement include voluntary collective licensing (based on the model used in radio, where each station pays a fee to a collection society, which

See http://www.creativecommons.org. For an overview of various open content licenses, see Liang (2004b). Some critics point out that some Creative Commons licenses have nothing to do with the commons; for example, the Attribution-Commercial-No Derivatives license replicates standard copyright. Some feel that the CC project results in a confusing proliferation of differently licensed works; others point out that CC continues to locate all rights in the individual author (Mute Magazine, 2005).

then distributes the money to artists based on how much airplay their songs receive), ad revenue sharing (where sites that provide access to media downloads share revenue from ads with content creators), and P2P subscriptions (EFF, 2006).

In the field of publishing, there are many programs in place that support free access to copyrighted material for resource-poor institutions. For example, the *British Medical Journal* allows research institutions in the world's poorest countries to access its content for free (British Medical Journal, 2006). However, such programs depend either on the goodwill of publishers or on funding from private foundations. A rapidly growing alternative, Open Access publishing, makes journal articles and other materials widely available online at zero cost and without restricted access, using various models to subsidize the costs of production and peer review (Suber, 2004). Some important examples are the Public Library of Science (PLoS), the National Institutes of Health's (NIH's) PubMed Central, and the European Science Foundation's Open Archives Initiative (PloS, 2006; PubMed Central, 2006; Open Archives Initiative, 2006). The Directory of Open Access Journals lists over 2,200 "free, full-text, quality controlled scientific and scholarly journals" across all disciplines (Directory of Open Access Journals, 2006).

There are also alternative patent licenses. Some place research in the public domain without restrictions, while others create GPL-style restrictions on use. One example is Neglected Disease Licensing, intended to promote collaborative research. Another, the recently developed Equitable Access License, encourages universities to add nonexclusivity clauses to licensing agreements they sign with third-party companies (Kapczynski, Chaifetz, Katz, & Benkler, 2005). However, these licenses would apply only to low- and middle-income environments, leaving out the poor populations of wealthy countries. Science Commons, a project to extend Creative Commons licenses to scientific works and data, is developing alternatives that will be applicable

everywhere (Science Commons, 2007).

Other recent proposals address neglected R&D through commons-based approaches and alternative funding models (Hope, 2005; Kapczynski, Chaifetz, Katz, & Benkler, 2005). ¹⁸ One method is to make publicly funded research available to the public. For example, in 2005 the NIH, the world's largest funder of medical research, requested that all research it funds be made publicly available online. There is also an attempt to reform the Bayh-Dole Act to license publicly funded research directly into the public domain (Rai & Eisenberg, 2003; Essential Inventions, 2004a, 2004b). Others propose delinking R&D funding from profits (Hubbard & Love, 2004, 2005; Shavell & van Ypersele, 2001). ¹⁹ OneWorld Health and similar nonprofit companies currently receive funding from private foundations for their research initiatives. However, long-term funding is critical. One option is a prize awarded on the basis of socially (rather than economically) valuable innovation, as proposed to the U.S. Congress by Representative Sanders (Consumer Project on Technology, 2005). Another is a medical R&D treaty that would create an international fund supported by governments (Consumer Project on Technology, 2002).

A quite different but fascinating option is to shift large elements of knowledge production out into the public. Distributed computing makes it possible for people to participate directly in massive scale, highly complex research processes. For example, Wikipedia has rapidly grown into one of the most popular reference tools; the Open Law project distributes complex legal research across a wide network; and the Open Source Car project aims to develop a fully

See also Biological Innovation for Open Society (http://www.bios.net) and Science and Development Network (http://www.scidev.net).

The 59th World Health Assembly (WHA) meeting in May 2006 formally responded to the WHA Commission on Intellectual Property Rights, Innovation and Public Health report. Participants agreed to address the R&D gap as outlined in the commission's report (World Health Assembly Commission on Intellectual Property Rights, Innovation and Public Health, 2006).

functional automobile through open source design and engineering. There is even Open Source Beer.²⁰ The logic of commons-based production produces great utility in a virtuous cycle that counters the logic of knowledge enclosure. Community media makers both participate in common-based media production and distribution and document parallel processes in other fields.

Conclusion

As the enclosure of knowledge encroaches further into all spheres of life, transnational movements increasingly integrate resistance to IP into their agendas. At the same time, commons-based alternatives to IPRs, many of them self-consciously modeled on FOSS, are becoming more widespread (Hope, 2005; Kapczynski, Chaifetz, Katz, & Benkler, 2005; Kipp, 2005). These counterprojects challenge commodity logic and private ownership and provide the tools for an emergent ethic of collaborative postscarcity production (Dyer-Witheford, 2006).

Resistance movements and counterprojects face significant challenges, and not only from well-funded and powerful IPR lobbies. Different interpretive frameworks and goals, differing perspectives on how social change takes place, and widely different levels of resources challenge movement cohesion. There are also many basic questions of inclusion and exclusion, alliances, and funding (whose voice is at the table? who gets funded to do the work?), tactics and goals (when is polarization a good strategy, and when is compromise necessary? Should international mechanisms like TRIPS be reformed or abolished?), and consensus (can or should there be a unified movement around IPRs, resistance, and alternatives?)

See http://www.wikipedia.org; http://www.openlaw.org; http://www.theoscarproject.org; http://www.voresoel.dk; http://boinc.berkeley.edu.

Deborah Halbert has described the emergence of transnational coalitions of disparate groups united by opposition to TRIPS (Halbert, 2005). She acknowledges that grassroots movements have been marginalized in favor of NGOs that learn to speak the policy language and get seats at elite discussions. She argues that this division creates two prongs of resistance: movements of the base and left intellectuals, who develop radical positions and alternative visions; and professional NGOs, business actors, and governments, who champion reform. Halbert and many other commentators feel that these two kinds of resistance are complementary and necessary. The argument is compelling. However, some social movements and community organizations argue that lasting material change will never be won in policy venues dominated by corporate and government interests. In Brazil, MST recognized decades ago that hard-won land reform policies are hollow until implemented on the ground by the landless themselves. The World Social Forum was created by activists who shared an explicit rejection of lobbying as an effective strategy for change and wished to create a forum independent of existing political institutions. Many FOSS programmers feel that building the commons by contributing good code speaks louder than words.

Autonomous organizing is particularly crucial when policy processes exclude the ideas and positions of the base and either intentionally or unintentionally marginalize those most affected. Most governments, "development" institutions, and professional NGOs continue to conceive of the poor as recipients of knowledge, not as participants in knowledge creation and sharing. Even those social movements that attempt to operate through explicit consensus processes have their own internal hierarchies and reflect unequal power relations based on gender, class, ethnicity, geography, sexual orientation, and more. If commons-based production and movement building across sectors are to be successful over the long run, they must be

radically inclusive. Community media makers have an important role to play, both in the tools and practices they choose to use and in providing a voice for the rich variety of counterprojects and everyday practices of resistance. Through community media, we can spread the word that while the struggle continues, some battles over IP have already been won on the ground.

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Table 1: Forms of Resistance to IPRs

	Culture	Food	Health	Software
Everyday forms of resistance	Exercise fair use. Filesharing. Use of Copyleft and Creative Commons materials. Remix culture. Piracy.	Planting and purchasing nonpatented foods.	Use of generics. Doctors encouraging generic use.	Use of FOSS. Software piracy.
Technologies of control and resistance	DeCSS. Hacking. Breaking encryption. P2P.	Cheap GMO detector. Fighting terminator seeds.	Generic Pharma. Reverse engineering.	DeCSS. Hacking. Breaking encryption. p2p.
Framing	Piracy / Free Culture. Cultural sovereignty. Commons. Indigenous and traditional knowledge.	Food sovereignty. Human rights. Biodiversity. Traditional knowledge.	Access to essential medicines and technology. Human rights. Traditional knowledge.	"Free software" vs. "open source" vs. proprietary. The meaning of "hacker." Commons.
Policy	Resist domestic and international IP policy (DMCA, Broadcast Flag, TRIPS.) Promote alternative policies (WIPO DA, A2K).	Food sovereignty laws. Resist TRIPS. Ban on Terminator seeds, CBD.	Doha Declaration provisions. Compulsory licensing and parallel imports. Medical R&D Treaty. Governments force patent pools. Access to health safety data.	Resist software patents. Governments adopt FOSS.
Protest and direct action	Public filesharing and DRM breaking actions. Pirate rebroadcasts of TV stations. "Civil disobedience" screenings.	Mass marches against seed patents and Terminator technology. Destruction of GMO test fields.	TAC and ACT-UP tactics of sit-ins. Disrupting meetings. Banner drops. Netstrikes.	EU protests against software patents. People mirroring DeCSS code on servers around the world.
Peer/commons production/ counterprojects	Most forms of cultural production. Copyleft, Creative Commons. Remix culture. Wikipedia. Collaborative production tools.	Traditional knowledge. Collective seed development. Public domain DNA base. BIOS.	Public funding for medical research. Open Access publishing. Alternative licensing. PLoS.	FOSS.