

INTELLECTUAL PROPERTY RIGHTS AND THE PUBLIC DOMAIN IN THE NEW WORLD ORDER

*John Frow**

ABSTRACT

The proprietary system of intellectual property rights introduced by the TRIPS regime is premised on Western, neo-liberal notions of the nature of property. This article first highlights a number of recent changes in the global organisation of intellectual property rights. These changes indicate the international convergence of intellectual property law. The repercussions of the TRIPS regime on pharmaceuticals, agriculture, and genetic research are then examined. Finally, it stresses the importance of the idea of "common heritage" as a better way of thinking about the public domain.

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Professor of English Language and Literature and Head of the School of Culture and Communication, University of Melbourne; B.A. '69, Australian National University; M.A. '75, Cornell University; Ph.D. '77 Cornell University. This paper was first delivered at the Sarai conference on Contested Commons/Trespassing Publics held in New Delhi in January 2005.

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I. INTRODUCTION

The global organisation of property rights in immaterial goods has undergone rapid change in the past few years because of the various changes in the global intellectual property rights regime brought forth by the TRIPS Agreement. TRIPS has imposed Western, neo-liberal notions of the epistemological basis of property on most nations in the world which hitherto had differing conceptions of rights attached to knowledge. I will discuss, with examples, the problems arising out of creating such a proprietary system of intellectual property. I then call for a concerted effort to radically alter our conception of intellectual property by putting forth three arguments, concerning the monopolistic nature of intellectual property, the protection of knowledge in the public domain, and the concept of intergenerational transfer of knowledge.

II. CHANGES IN THE GLOBAL ORGANISATION OF PROPERTY RIGHTS IN IMMATERIAL GOODS

A. Three Landmark Changes

Three landmark changes merit our attention.

1. Alteration of the Iraqi Intellectual Property Rights Regime and the Linking Up of Intellectual Property Protection with Trade

The first change has to do with the new intellectual property laws bequeathed to Iraq by the retiring Administrator of the Coalition Provisional Authority, Paul Bremer, before the “transfer of sovereignty” in June, 2004. Order 81 of the Authority amended Iraq’s original intellectual property law of 1970, and is now binding on future Iraqi governments unless and until it is repealed. The Preamble gives a sense of the context it invokes for its actions:

Pursuant to my authority as Administrator of the Coalition Provisional Authority (CPA) and under the laws and usages of war, and consistent with relevant UN Security Council resolutions, including Resolution 1483 and 1511 (2003),

Having worked closely with the Governing Council to ensure that economic change as necessary to benefit the people of Iraq occurs in a manner acceptable to the people of Iraq,

Acknowledging the Governing Council’s desire to bring about significant change to the Iraqi intellectual property system as necessary to improve the economic condition of the people of Iraq,

Determined to improve the conditions of life, technical skills, and opportunities for all Iraqis and to fight unemployment with its associated deleterious effect on public security,

Recognising that companies, lenders and entrepreneurs require a fair, efficient, and predictable environment for protection of their intellectual property,

Noting that several provisions of the current Iraqi Patent and Industrial Design Law and related legislation does not meet current internationally-recognised standards of protection,

Recognising the demonstrated interest of the Iraqi Governing Council for Iraq to become a full member in the international trading system, known as the World Trade Organisation, and the desirability of adopting modern intellectual property standards,

*Acting in a manner consistent with the Report of the Secretary General to the Security Council of July 17, 2003, concerning the need for the development of Iraq and its transition from a non-transparent centrally planned economy to a free market economy characterised by sustainable economic growth through the establishment of a dynamic private sector, and the need to enact institutional and legal reforms to give it effect,
In close consultation with and acting in coordination with the Governing Council, I hereby promulgate the following: CPA/ORD/26 April 04/81.'*

This order, amongst other changes to legislation governing patents, industrial design, undisclosed information and integrated circuits, also modified Iraq's plant variety law, which had previously prohibited the private ownership of biological resources. The changes mandated by the aforementioned Order make the saving and exchange of seeds by and between farmers illegal whenever the seed in question is of a protected variety.² Traditional crop varieties, used by farmers and developed over millennia through selective breeding, are not eligible for protection under this Order because they do not meet the conditions of "distinctiveness, uniformity, and stability" required for registration, traditional crops being variable and unstable unlike scientifically-bred hybrid or genetically-modified crops. Thus, the seeds that farmers will now be allowed to plant – "protected" crop varieties brought into Iraq by transnational corporations in the name of agricultural reconstruction – will be the property of corporations. In many senses, therefore, the new US imposed patent law introduces a system of monopoly rights over seeds.³ As one commentator tellingly observes: "...the new law is presented as being necessary to ensure the supply of good quality seeds in Iraq and to facilitate Iraq's accession to the WTO. What it will actually do is facilitate the penetration of Iraqi agriculture by the likes of Monsanto, Syngenta, Bayer and Dow Chemical – the corporate giants that control seed trade across the globe. Eliminating competition from farmers is a prerequisite for these companies to open up operations in Iraq, which the new law has achieved."

¹ Coalition Provisional Authority Order 81, 2004, http://www.export.gov/iraq/pdf/cpa_order_81.pdf. This is an amendment to Iraqi Patents, Industrial Design, Undisclosed Information, Integrated Circuits and Plant Variety Law.

² A whole new chapter on plant variety protection makes the following actions subject to the authorisation of the breeder (that is, the corporation that owns the rights to the registered variety): "(a) production or reproduction (multiplication); (b) conditioning for the purpose of propagation; (c) offering for sale; (d) selling or otherwise marketing; (e) exporting; (f) importing; or (g) stocking for any of the purposes mentioned cited in this paragraph." Coalition Provisional Authority Order 81, ch. 3, arts. 14-A & B. These rights extend to harvested material, including the entire plants and parts of plants obtained through the unauthorised use of propagating material of the protected variety. A monopoly of twenty years is given for crop varieties and of twenty-five for trees and vines, and the law explicitly promotes the commercialisation of genetically modified seeds. Finally, in case the implications of these provisions are not entirely clear, it is spelled out that "farmers shall be prohibited from re-using seeds of protected varieties." Art. 15B.

³ Focus on the Global South & GRAIN, Iraq's New Patent Law: A Declaration of War Against Farmers, at <http://www.grain.org/articles/?id=6>. ⁴ *Id.*

The Iraqi orders on patents and copyright are an extreme version of the bilateral negotiations favoured by the United States, in which trade concessions are bargained for against increased protection for intellectual property. This gain is then used as the basis for broader multilateral agreements, which build in the highest standards of protection available as the new norm, and these are then ratcheted up in further bilateral agreements, and so on indefinitely. Intellectual property, in this system, "is the price that countries have to pay, largely to American companies, to enter the world trading system."⁵ Thus, as legislation that confronts head-on the age-old forms of agriculture that hold no prospect of profit for American corporations, Order 81 is not just evidence of the United States' actual collateral objectives in invading Iraq,⁶ but also represents a model of the kind of legislation the superpower wants to see enacted globally. This hypothesis is confirmed by the manner in which the United States has pushed through bilateral agreements in recent years with such equal negotiating partners as Sri Lanka, Cambodia and Afghanistan.⁷

The strategy was initiated in its present form during the Reagan presidency as an amendment to Section 301 of the US Trade Act, in order to link trade access to intellectual property recognition.⁸ It was first applied at the behest of Hollywood against Caribbean countries that allowed unlicensed screenings of films.⁹ Subsequently, it was also applied against the weak protection given by Brazil to pharmaceutical patents owned by American corporations in 1988. On that occasion, tariff increases were imposed on imports to the United States of Brazilian paper, drugs, and consumer electronics. Brazil responded with a counter-action, charging that Section 301 was illegal under the GATT¹⁰ protocols then in force. However, it capitulated by drafting new legislation in 1990, seeing

little chance of a favourable resolution.¹¹ India was similarly threatened in relation to its failure to adopt US patent standards in relation to pharmaceuticals, but was able to resist because it was less dependent on trade with the United States of America.¹²

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PETER DRAHOS & JOHN BRAITHWAITE, *INFORMATION FEUDALISM: WHO OWNS THE KNOWLEDGE ECONOMY?* 104 (2002).

⁶ It was ostensibly imposed under the 'laws and usages of war' but is nevertheless in direct contravention of the Geneva Convention, which requires occupying powers to make no major changes to the economic infrastructure of the occupied country.

⁷ Focus on the Global South & GRAIN, *supra* note 3. ⁸ Section 301(a) of the Trade Act of 1974, 19 USC. § 2411 (amended 1996).

⁹ See DRAHOS & BRAITHWAITE, *supra* note 5, at 94. ¹⁰ General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, Marrakesh Agreement

Establishing the World Trade Organisation, Annex. IA, LEGAL INSTRUMENTS—RESULTS OF THE

URUGUAY ROUND vol. I, 33 I.L.M. 1154 (1994) [hereinafter GATT]. ¹¹ DRAHOS & BRAITHWAITE, *supra* note 5, at 105–106. ¹² *Id.*

The strategy embodied in the use of Section 301 is of a piece with the pattern by which US foreign policy is aligned with the interests of major companies. One striking example of this was the response to the decision of the South African government in the late 1990s to begin “parallel importation” of anti-retroviral drugs to control its HIV/AIDS epidemic.¹³ The US response to this move was to apply overwhelming diplomatic and trade pressure, including the threat of trade sanctions, and a court action by 41 pharmaceutical companies alleging breach of South Africa's TRIPS obligations.

Further, it is not the case, as is argued by one commentator,¹⁴ that farmers will have a choice whether to use their traditional varieties or to adopt the genetically modified strains owned by multinational corporations. There will be no such choice, the reason being that genetically modified crops contaminate other crops through cross-pollination. As a result, the owners of these contaminated crops will, whether they intend it or not, be infringing on the rights of the breeders. Indeed, the beauty of genetically modified varieties is that they are self-infringing; when propagated naturally, they *copy themselves* and thus produce a criminal act quite independent of the intentions of the grower.

2. Patenting Crops

The second development which deserves our attention is the widely publicised account of a Canadian farmer, Percy Schmeiser, whose canola crop was contaminated by Monsanto's 'Roundup-Ready' gene from genetically modified crops.¹⁵ Earlier this year, the Supreme Court of Canada, ruling five to four, “determined that patent rights on a gene extend to the living organism in which it is found. Consequently, saving and planting seed containing a patented gene without authorisation from the patent holder is illegal.”¹⁶ The fact that Schmeiser had no intention of planting Monsanto's seed, did not know that his seed was contaminated, and indeed the fact that Monsanto's failure to guard against cross-pollination destroyed the results of Schmeiser's own selective breeding of his grain, was held to be of no account beside the fact of infringement.

¹³ “Parallel importing” is a term designating the suspension of patent monopolies in a time of national emergency in order to buy in supplies of a drug from the cheapest supplier; the action was entirely in accordance with the emergency provisions built into the TRIPS (Trade-Related Aspects of Intellectual Property) provisions of GATT, provisions that the US itself invoked during the anthrax scare of 2001. TRIPS Agreement, *infra* note 27.

¹⁴ Sean D. Murphy, *Biotechnology and International Law*, 42 HARV. INT'L L.J. 47, 55 (2001). ¹⁵ *Monsanto Canada, Inc. v. Schmeiser*, [2004] 1 S.C.R. 902.

¹⁶ *Genetic Giant Swats Seed-Saving Farmer: Monsanto Notches Up Legal Victory in Canada*, NEW INTERNATIONALIST, Sept. 2004, at 6, available at <http://www.newint.org/issues/2004/09/01/>.

The reality is that, today, the entire canola acreage of western Canada is contaminated with the Monsanto RR gene. The consequence is either that farmers will have to agree to buy Monsanto's seed and sign a technology use agreement, or, like soybean farmers in Brazil, “they could find Monsanto at the grain elevator, waiting to test their harvest for the presence of patented genes and charge them royalties when the genes are detected.”¹⁷ Argentina too has witnessed a similar occurrence where, for a number of years, farmers were allowed to save and multiply Monsanto's RR soybean seed.¹⁸ The crop consequently expanded exponentially, reaching 14 million hectares in

2003-4. Farmers then began to be hit with demands for royalty payments, even though Monsanto does not have patent rights over the transgene in Argentina. The pattern is ominously repeated in Brazil and Uruguay with soybeans, in India and West Africa with cotton, and in Mexico with maize.¹⁹ The strategy of the multinationals appears to be simple: “focus on the major cash crops (cotton, soybeans, maize, etc.), find an entry point, contaminate the seed supply, and then step in to take control.”²⁰

3. The Capitulation of the Indian Government

The final noteworthy (and equally disturbing) development is the capitulation of the Indian government to the TRIPS patent regime. An amendment to the Indian Patents Act, enacted without parliamentary debate, discarded the earlier regime under which patents were granted only on industrial processes, and permitted the granting of product patents on drugs, food, and chemicals for the first time.²¹ The stated objective of the amendment was to bring India in line with its obligations under the TRIPS agreement. Yet, the amendment did not include either the redeeming provisions relating to national emergencies in TRIPS or the more explicit provisions spelt out by the “Doha Declaration” of 2001.²² The Indian government has effectively conceded in full to the demands of the multinational pharmaceutical companies for

¹⁷ *Id.*

¹⁸ GRAIN, *Monsanto's Royalty Grab in Argentine*, at <http://www.grain.org/articles/?id=4>.¹⁹ *Id.*

²⁰ *Id.*

²¹ Rajindar Sachar, *Wrong Medicine: Patent Ordinance to Drive up Drug Prices*, *TIMES OF INDIA*, Jan. 5, 2005, at 18, available at <http://timesofindia.indiatimes.com/articleshow/980623.cms>.²² Trade ministers, in the Doha Declaration, affirmed that TRIPS should be interpreted and implemented in a manner supportive of WTO members' rights to protect public health and promote access to medicine for all. Anthony P. Valach, Jr., *TRIPS: Protecting the Rights of Patent Holders and Addressing Public Health Issues in Developing Countries*, 4 *CHI.-KENT J. INTELL. PROP.* 156, 163 (2005).

complete monopoly control, thereby opening the way for dramatically more expensive medicines.²³

Here is a coda to this third narrative- in May 2003, the World Health Organisation announced an offer of the infrastructural support necessary to provide three million people in poor countries with antiretroviral treatment by the year 2005. This figure represented only about 5% of those in need, but its importance lay in the decision to develop a fixed-dose combination pill using drugs patented by different companies in the same dose. The decision was opposed by the major drug companies, using the argument that the costs of research and development must be fully recompensed if further research is to be funded. The weakness of this argument lies in the fact that most of the AIDS drugs currently on the market were produced through public financing, even through the clinical trial stages.²⁴ Furthermore, and quite appallingly, the industry spent 27% of its overall budget on marketing, compared with 11% on R&D, as per its own tax records.²⁵

In seeking to balance the political image of a concerned administration with the demands of the pharmaceutical industry, the White House initially pledged to support the WHO initiative. No money has yet been forthcoming, however, and indeed, “while President Bush claimed to pledge \$15 billion to global AIDS efforts during the State of the Union address [in 2003], it now appears that the United States will only pay if US-based pharmaceutical manufacturers are given the money.”²⁶ In March 2005, the US Department of Health and Human Sciences sought to undermine the decision completely by claiming that, despite its endorsement by international health experts from all countries involved including the US, the WHO approval process for the combination drugs was inadequate and unsafe.

²³ The writer of the *Times of India* commentary that I follow here makes the point by comparing current Indian prices for generic drugs with prices in Pakistan, which already has a system of product patents. AIDS anti-retrovirals cost \$140 in India, and around \$12,000 in Pakistan. Ten tablets of the anti-inflexilant *cipro flexocine* cost Rs.50 in India, Rs.400 in Pakistan; the anti-ulcer medicine *ranitidine* is Rs.5 in the former country, and Rs.74 a packet across the border. The mathematics is simple and horrible, and it demonstrates that pattern by which US foreign policy is subordinated to the

interests of its major corporations. Sachar, *supra* note 21.

²⁴ Approximately 85% of the basic and applied research for the top 5 selling drugs on the market were produced through taxpayer funding. Sanjay Basu, *Dollar Diplomacy: US Undermines Initiative to Provide Poor Countries with Access to AIDS Retrovirals*, *NEW INTERNATIONALIST*, May 1, 2004, at 8, available at <http://newint.org/columns/currents/2004/05/01/dollar-diplomacy/>.

²⁵ *Id.*

²⁶ *Id.*

B. Conclusions

These developments exemplify certain key moments in the new world order – an order at once of trade and of geopolitical hegemony – established by the TRIPS agreement.²⁷ The agreement achieved an international convergence of intellectual property law, that is, it required countries with “weak” protection of intellectual property to come up to US standards – and indeed, even US standards tended to be strengthened wherever they happened to be relatively lower than elsewhere. The core of the agreement as far as the developing countries were concerned was the creation of new rights for foreign nationals – meaning, for the most part, non-national corporations. The rhetoric of justice in which the TRIPS case was presented, and the rhetoric of defence against pirates stealing legitimately owned property, disguised the fact that “it pulled off a huge structural shift in the world economy to move monopoly profits from the information-poor to the information-rich”,²⁸ institutionalising a major disadvantage between the major net intellectual property exporters (the US and, to a lesser extent, the European Community) and the rest of the world.²⁹

III. THE TRIPS AGREEMENT

A. The Hijacking of the TRIPS Process

The developments delineated above throw light on the process by which – against the interests of almost every country on earth – the TRIPS agreement was forced

²⁷ Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, *LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND* vol. 1 (1994), 33 I.L.M. 1125 (1994); Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organisation, Annex 1C, *LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND* vol. 31 (1994), 33 I.L.M. 81 (1994) [hereinafter TRIPS Agreement].

²⁸ DRAHOS & BRAITHWAITE, *supra* note 5, at 197. ²⁹ Drahos, for instance, cites an Australian study of copyright royalty flows during the 1990s which showed that Australia paid out to overseas copyright owners around US\$1.2 billion more than it received. More starkly, he describes what he calls the “staggeringly inefficient” results of the post-TRIPS intellectual property order for Africa: if African states import generic drugs from countries such as India having a strong generic drugs industry, the global intellectual property regime punishes them through well-funded litigation by drug companies, threats from Europe and the US to withdraw foreign aid, United States Trade Representative watch-listing, and the threat of bilateral sanctions backed by World Trade Organisation dispute panels. “Whereas the US can credibly threaten trade sanctions, foreign aid withdrawal, flight of investment and refusal to transfer technology to an African state, an African state cannot credibly threaten the US with any of these things.” DRAHOS & BRAITHWAITE, *supra* note 5, at 190. onto the world agenda and into international law.³⁰ From the very beginning, the process was driven by a very small interest group, “a small number of US companies, which were established players in the knowledge game, captured the US trade-agenda setting process and then, in partnership with European and Japanese multinationals, drafted intellectual property principles that became the blueprint for TRIPS. The resistance of developing countries was crushed through trader power.”³¹ Of course, it was also the case that the interests of the holders of intellectual property rights were concentrated and focused, while the interests of those who are net purchasers of those rights were diffuse and differentiated. On crucial questions, the developing world pulled in different directions, and governments which often had little expert advice on the technicalities of intellectual property law failed to coordinate their responses with each other or with the affected industries in their own states. The layered circles of consultation meant that many states, including the vast majority of African states, had no say in the process until draft resolutions were at an advanced stage.³²

The sheer implausibility of the TRIPS agreement has to do not only with the fact that it seems to run counter to the interests of all states except the United States, Japan and the European Union, but also that its dramatic extension of monopoly rights in intellectual property came about in the context of a trade regime that is ostensibly committed to the reduction of cartels and monopolies and the pursuit of full and free competition. The reality of

course is that it is not. The WTO regime has to do with the institutionalisation of hierarchical inequalities between the developed and the developing countries. The trade inducements that were held out to many countries as the *quid pro quo* for the TRIPS provisions have largely failed to eventuate, as the breakdown of the Cancun meeting of ministers in 2003 demonstrated. Seen from a wider perspective, it is clear that the United States is committed to intellectual property protection only when the historical conditions are right. It has a long history of free riding—for most of the nineteenth century, it provided no copyright protection for foreign authors, arguing that it needed the freedom to copy in order to educate the new nation;³⁰ indeed, the United States did not sign the Berne Convention until 1988. In the same way, parts of Europe built their industrial bases by copying the inventions of others, a model which was followed after the Second World War by

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See generally DRAHOS & BRAITHWAITE, *supra* note 5; SUSAN K. SELL, *PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS* (2003); MICHAEL P. RYAN, *KNOWLEDGE DIPLOMACY: GLOBAL COMPETITION AND THE POLITICS OF INTELLECTUAL PROPERTY* (1998).

³¹ DRAHOS & BRAITHWAITE, *supra* note 5, at 12. ³² *Id.*

³³ Hal R. Varian, *Copying and Copyright*, at <http://www.ischool.berkeley.edu/~hal/Papers/2004/copying-and-copyright.pdf>.

both South Korea and Taiwan.³⁴ Japan also has a history of using patents strategically as a means of absorbing Western technology, while simultaneously denying Western firms power to develop in Japan on the basis of patents obtained there through the Paris Convention.³⁵ Yet, despite these histories, developing nations today are not allowed the luxury of taking their time over intellectual property rights.

B. Repercussions of TRIPS

Most areas of international trade with a basis in elaborate knowledge have been affected by the new world order initiated by the Uruguay round of the GATT. These include the film and music industries, scholarly publishing, libraries and archives, the electronics industry, Internet protocols and domain names, and many other areas. Problems that have arisen in the three key areas of pharmaceuticals, agriculture and genetic research are analysed hereunder.

1. Pharmaceuticals

In 1982, the then Indian Prime Minister, Indira Gandhi, told the World Health Assembly that “the idea of a better-ordered world is one in which medical discoveries will be free of patents and there will be no profiteering from life and death”.³⁶ The statement is still a thought-provoking one, because it highlights so clearly the tension between the way things should be – the ethical basis on which we would expect the world to be organised – and the way things are – diametrically opposed to the ethical notion that monopolistic proprietary rights in the form of patents should not be granted for pharmaceutical products. Not only are there medical patents, and not only is there profiteering from life and death, but patents form the entire basis of the research and development strategy of the major US and European pharmaceutical companies.

Currently, only six countries have serious generic manufacturing capacity,³⁷ and all are now obliged to comply with TRIPS. The structural reality is that we are moving

³⁴ Gavin Stenton, *Biopiracy Within the Pharmaceutical Industry: A Stark Illustration of How Abusive, Manipulative and Perverse the Patenting Process Can be Towards Countries of the South*, 26 *EUR. INTELL. PROP. REV.* 17 (2004). On the history of US patent strategies, see generally DORON BEN-ATAR, *TRADE SECRETS: INTELLECTUAL PIRACY AND THE ORIGINS OF AMERICAN INDUSTRIAL POWER* (2004).

³⁵ William Kingston, *Why Harmonisation is a Trojan Horse*, 26 *EUR. INTELL. PROP. REV.* 447, 454 (2004). ³⁶ Carlos Braga, *The Economics of Intellectual Property Rights and the GATT: A View from the South*, in *TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY* 253 (Connie T. Brown & Eric

A. Szweda eds., 1990). ³⁷ Namely Brazil, Argentina, China, India, Korea, and Mexico.

towards a world in which large pharmaceutical companies have the capacity to assert patent (and other) rights against any potential competitor. The effects of this situation are simple: the monopoly rights given by patents (the development of which depends heavily on public-sector research) increase costs substantially beyond what they

would otherwise be; and research is oriented almost exclusively to diseases of affluence, not to the diseases of the Third World.

2. Agriculture

The market distortions introduced by the current intellectual property regime in the agricultural sector are attributable to the monopoly control of crop varieties by a small number of corporations which have bought out the smaller players in the seed business, and which are mostly chemical companies that view agribusiness in terms of the symbiosis between the seeds they design and the pesticides they require. These corporations are driving a revolution in farming, both in the developed and the developing worlds, in which the saving and re-use of seed is becoming both physically and legally impossible. From being a self-sufficient unit producing most of its own requirements, the farm now becomes a site of capital-intensive and technology-driven production where “purchased inputs account for the bulk of the resources employed”.³⁸

On the other hand, however, the technological dimensions of this revolution are dependent upon the importation of biological resources and agricultural knowledge from those regions, mostly in the underdeveloped world, with the greatest biological diversity. The name for this largely unrecompensed exploitation of resources is biopiracy, namely, “the appropriation of the knowledge and genetic resources of farming and indigenous communities by individuals or institutions seeking exclusive monopoly control over these resources and knowledge”.³⁹ As Stenton notes, “with some 80% of the world’s biological diversity lying in the tropical and sub-tropical regions of the South, accompanied by the fact that 56% of the top 150 prescribed drugs in the United States are based on chemicals derived from plants...the potential economic rewards for the undeveloped world are enormous, as is the temptation for pharmaceutical companies to commit acts of biopiracy”.⁴⁰ The situation is exacerbated by the inadequacy of legislation in the developing countries “to prevent the

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JACK KLOPPENBURG, *FIRST THE SEED: THE POLITICAL ECONOMY OF PLANT BIOTECHNOLOGY 1492–2000*

at 10 (1988).³⁹ Stenton, *supra* note 34, at 17 (as defined by the Action Group on Erosion, Technology and Concentration).⁴⁰ *Id.* Such acts of biopiracy are frequently committed through the raiding of public domain materials held in gene banks and cell libraries and collected from indigenous communities.

unauthorised collection of germplasm especially by the transnational corporations”;⁴¹ and by the fact that, unlike the UK and Europe, the US recognises prior art only in domestic terms: “if the knowledge hasn’t happened in the United States, it hasn’t happened”. This facilitates the theft and patenting of traditional knowledge from all other nations and carries the consequence that nations that do not permit the patenting of plants and animals can provide no bar to a patent being obtained in the US⁴²

3. Genetic Research

In March 2000, the US and British governments signed a joint decision not to patent the human genome, a decision precipitated by attempts by US biotechnology companies to patent large tracts of the human genetic commons.⁴³ There has been a continuing tension, however, between patent law in the United States and in the rest of the world. In the United Kingdom, for example, DNA *per se* is not patentable, but functional methods or products arising from it are. In the USA, “raw” DNA itself can be patented, with the US patent office routinely granting patents on genes, the only country in the world to do so. This allows the holder to charge fees if anyone uses them for a commercial purpose.⁴⁴ Thus, it is US law which is causing the current problems in the human genome project, and which is driving the rest of the world towards the greater protection given by the American system in order to maintain investment in their own biotechnology industries and to attract investment from US-based multinationals. By September 2004, over three million genome-related patent applications had been filed worldwide,⁴⁵ and more than half a million patents had been granted or were pending on genes and partial gene sequences. The European Patent Office had a backlog of some 15,000 biotechnology patent applications.⁴⁶

⁴¹Tshimanga Kongolo & Folarin Shyllon, *Panorama of the Most Controversial Intellectual Property Issues in Developing Countries* 26 EUR. INTEL. PROP. REV. 258, 259 (2004).⁴² Stenton, *supra* note 34, at 20. Such nations include Mexico, Brazil and Argentina.

⁴³ Scott D. Locke & David A. Kalow, *Preparing for Bioinformatics Litigation: How will the Courts Confront the Next Generation of Biotechnology Patents*, 1 BUFFALO INTELL. PROP. L.J. 76 (2001).

⁴⁴ Patenting the Human Genome, <http://www.biotechnalytics.com/Topics/Human%20Genome%20Patenting.htm>. ⁴⁵ Human Genome Project Information, http://www.ornl.gov/sci/techresources/Human_Genome/elsi/patents.shtml.

⁴⁶ *Patent Applications: Full List*, THE GUARDIAN, Nov. 15, 2000, <http://www.guardian.co.uk/genes/article/0,,397503,00.html>. A report in *The Guardian* of that year found that one French firm, Genset, had applied for patents covering more than 36,000 human gene sequences, and that patents were pending on genes controlling processes in the human heart, teeth, tongue, colon, skin, brain, bone, ear, lung, liver, kidney, sperm, blood and immune system. James Meek, *The Race to Buy Life*, THE GUARDIAN, Nov. 15, 2000, <http://society.guardian.co.uk/health/news/0,,397887,00.html>.

Although the human genome itself was delivered to the public domain by the team that mapped it, with the sequences deposited in GenBank, the publicly accessible database, the partial gene sequences coding for particular functions are not in the public domain. The granting of a patent requires both identification of the function of the invention, and some difference, however small, from the object in its naturally occurring state. Patent offices now, however, routinely ignore these requirements. A grant of patent on gene sequences whose function is described only in the most general terms has the effect of blocking the more detailed research required to make this basic identification useful. The criticism is that “over the past quarter century...proprietary claims have reached further upstream from end products to cover fundamental discoveries that provide the knowledge base for future product development”.⁴⁷ Corporations, universities and research laboratories have expanded the opportunities to file patent applications on the “fundamental research discoveries that broadly enable further scientific investigation”, including such things as “new DNA sequences, protein structures, and disease pathways, that are primarily valuable as inputs into further scientific research”.⁴⁸ The result of this rapid expansion of property rights in the area of genetic research is the creation of what Rai and Eisenberg call “an anticommons, or ‘patent thicket’”,⁴⁹ which slows research down by making it at once more difficult and more expensive. More generally, the tradition of open science, built on the free flow and exchange of information, is eroded by the commercial drive to secrecy.

IV. THE IP REGIME IN A NEW WORLD ORDER

A. Trends in devising an IP regime in the New World Order

The issues discussed above touching upon intellectual property law give rise to a broader set of questions. In the first place, these are questions about the cultures that enable different forms of relation and interaction between people and things. By culture, I mean here the broad context of norms and values that govern social exchange, and which decide whether particular valued objects, attributes and institutions may be exchanged against others or should be withdrawn from exchange; and whether such exchange takes the form of gift transactions or of the alienation of objects in a market. In part, this is a question about the kind of personal tie that exists between persons and things – and, thus, about how the categories of “person”

⁴⁷ Arti K. Rai & Rebecca S. Eisenberg, *Bayh-Dole Reform and the Progress of Biomedicine*, 66

LAW & CONTEMP. PROBS. 289 (2003). ⁴⁸ *Id.* at 291. ⁴⁹ *Id.* at 297.

and “thing” are constituted differently within different contexts. It is as well a question about the degree of abstraction that may be allowed in social transactions; that is, of the extent to which people are bound up with the things that are theirs, and thus to which things are extensions of persons, or whether things may be ceded in a relatively impersonal way that does not commit the receiver to ties of obligation to the one who gives or sells his things.

These questions about culture are, in turn, questions about how cultures shift in response to pressures from conflicting social interests, and how they draw and redraw the definitions of what is thinkable and what is unthinkable in a given society. The sudden, enforced shift by Iraqi or Canadian farmers from a culture of seed-saving and slow varietal breeding is one example of such a redefinition. Another might be the tension between ordinary music users, who see no harm in downloading music from the web, and the music industry, which conceives this as a criminal action and is trying to bring about a general shift in moral norms to support its view. A third might be the norm of control of the development and supply of drugs by privately owned and profit-oriented pharmaceutical companies rather than by bodies with a direct and accountable commitment to public health.

These are, in one sense, questions about the value form, and about historical changes in what is socially valued. For those of us who live in capitalist societies, they have to do, above all, with the commodity form, and with the changes that have progressively extended it from land and moveable objects to immaterial objects, and from a relatively restricted set of goods to a much broader set, many of which would previously have been withheld from commodification. They are, thus, about some of the fundamental categories of our world: those of nature, the person, knowledge, and the structure of social relations. Philosophically, these historical changes are reflected in the discourse of neoliberal economics, with its vision of a universe of transactions subject to a single scale of cost/benefit analysis; a vision of extraordinary power and simplicity, which has captured the imagination of governments and of policy-makers in most areas of the world.

Intellectual property law, which governs the private ownership of immaterial products, is central to the changes that have taken place in the form of value over the last two centuries and with particular intensity over the last fifty years, as knowledge has become a dominant component of economic value. Yet, the consideration of intellectual property issues raises with particular intensity the question of the balance that this body of doctrine seeks between a limited set of property rights and something that is other than property, or that is a different, communal and non-exclusive kind of property.

The category of the public domain, this counterpart to private property in intellectual products, plays a central structural role in intellectual property law. Jessica Litman calls it “a device that permits the rest of the system to work by leaving the raw material of authorship available for authors to use”.⁵⁰ It is a realm of materials that can be used but not claimed, and in all developed doctrine, it is the envisaged good that permits, and is actively fostered by, the temporary and limited monopoly rights that are excised from it. Yet, as must now be abundantly clear, these excised rights are no longer either temporary or limited, and the category of the public domain has fallen from view in the formulation of public policy.

What might we do about this? In what terms can we imagine a defence, and even an enlargement, of the public domain? Certain problems immediately confront us. The first is the incoherence of the concept itself: rather than being positively defined, it exists only in the form of a residue, those rights, whatever they might be, that are left over after all other claims have been exhausted. Insofar as its content is defined at all by the law, it consists on the one hand of certain common law rights such as those of fair use or fair dealing, of administrative regulations such as freedom of information, or of statutory protection of free speech, and, on the other, of what Jessica Litman calls a “hodge-podge of unprotectable matter” including – to take a list from US copyright law – “ideas, methods, systems, facts, utilitarian objects, titles, themes, plots, *scenes à faire*, words, short phrases and idioms, literary characters, style, or works of the federal government”.⁵¹ Some, but not all, of these categories derive from the dichotomy of idea and expression by which much intellectual property law is structured, and which has proved to be an almost impossibly metaphysical distinction. There are, or there have developed, exceptions to almost all of these textual elements, and most of them are defined in the case law as *exceptions* to a general rule of protection.

Compounding this incoherence of definition is the practical problem that for most purposes, there is no one who can speak for the public domain in the formulation or the administration of public policy. Legislation characteristically responds to the needs of interested parties such as pharmaceutical and chemical companies, publishers, the film and music industries and corporations that have large investments in intellectual property. Quite unfortunately, the interests of the public domain and of the consumers of intellectual property are largely unrepresented. There is nevertheless a broad constituency with an active interest in an open field of knowledge: the open source software community and hackers more generally;⁵² librarians, who

⁵⁰ Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 968 (1990). ⁵¹ *Id.* at 992–3. ⁵² Cf. MCKENZIE WARK, *A HACKER MANIFESTO* 194–206 (2004).

are often the only ones designated to speak on behalf of the public domain in policy hearings and who have been radicalised by their struggle with the publishing giants which exercise a monopoly control over scientific journals; scientists and academics, who donate their intellectual property free of charge to those journals, and who must then pay to cite copyrighted materials or to use patented research tools; the sick and the elderly in every country on earth who cannot afford the cost of patented drugs, and the health insurance bodies that are forced to carry much of the cost of the pharmaceutical companies' greed; the farmers who have been forced into contracts with the multinational seed companies; and every teenager who risks criminalisation for downloading music from the net.

The peculiar vulnerability of the public domain to encroachment by profit-seekers has at times had the paradoxical consequence that it may seem necessary to privatise parts of it in order to protect public access. One early strategy for keeping the human genome in the public domain was through the patent process. The director of the US National Institute of Health was quoted in 1992 as saying that she “wants the NIH to patent the human genome to prevent private entrepreneurs, and especially foreign capital, from controlling what has been created with American public funding”.⁵³ In the event the solution came through the success of the publicly funded Human Genome Project in beating its private competitors to the publication of the complete genome, thus making it unavailable for patenting. The same solution was not available, however, for the single nucleotide polymorphisms that are crucial to genetic research. So, in April 1999, ten large pharmaceutical companies and the UK Wellcome Trust philanthropy announced the establishment of a non-profit foundation to find and map 300,000 common SNPs (they found 1.8 million). Their goal was to generate a widely accepted, high-quality, extensive, publicly available map using SNPs as markers evenly distributed throughout the human genome. The consortium planned to patent all the SNPs found, but to enforce the patents only to prevent others from patenting the same information. Information found by the consortium is freely available.⁵⁴

A similar defensive creation of property rights has been exercised in relation to cell lines taken from indigenous people. In 1995, a man from the Hagahi people of the Papua New Guinea highlands (a people which came into regular contact with the outside world only in 1984) ceded his genetic rights to the “inventors” named in the US Government patent, and a medical anthropologist associated with the project argued that this legal mechanism was the only way to ensure that the Hagahi people

⁵³ See Richard Lewontin, *The Dream of the Human Genome*, N.Y. REV. BOOKS, May 28, 1992, at 38. ⁵⁴ Human Genome Project Information, http://www.ornl.gov/sci/techresources/Human_Genome/elsi/patents.shtml.

– whose names did not appear on the patent – receive some protection from commercial exploitation.⁵⁵

Such property-based defences of the public domain depend on an assumption of the altruism or the innocence with which “good” property rights will be asserted against “bad” ones. Nothing guarantees, however, that such altruism or such innocence can be either assumed or sustained. The problem lies not, I think, in the use of the category of property itself – since the public domain is a legal construct, not a naturally existing resource – but rather in the way this use reproduces the framework of values within which it is employed under the current intellectual property regime. After all, it remains a matter of private property, of rights excised from the public domain even if only for the purpose of defending it, rather than of property rights which are nonexclusive and communal. Similarly, the institutionalised piracy that expands what we might call the counter-public domain of illegally produced materials is ultimately no more than an alternative form of capitalist production, asserting an alternative set of property rights in the black market which shadows the domain of legal distribution.

B. Creating a Rhetoric of the Public Domain

How can we imagine the shared, non-competing and non-exclusive rights that characterise the public domain, without simply reverting to a defence of piracy or to an idealised communitarian past? One difficulty is that the rhetoric of human rights derives from a whole tradition of legal philosophy that takes the individual as its starting point. Yet it is certainly possible to conceive of rights that are more general. At the last meeting of the World Intellectual Property Organisation in Geneva, for example, Chile fought to put on the agenda of the next meeting a proposal to recognise a human right of access to knowledge.⁵⁶ Now, this proposal is far from being unproblematic: the property rights that currently inhere in knowledge will not lightly be given up in the face of a general assertion of this kind; and in any case, the concept of “access” does not preclude the charging of entrance fees, and thus the reinstatement of inequalities between those who can and those who cannot pay. But if the consequences of such a proposal are still to be worked out, it nevertheless seems a reasonable starting point in the struggle over the social costs of knowledge.

⁵⁵ Mary Louise O’Callaghan, *The Selling of Cells*, THE AUSTRALIAN, Nov. 14, 1995, at 17. There is extensive coverage of the case in a special issue of *Cultural Survival Quarterly* (20:2, 1996).

⁵⁶ Provisional Committee on Proposals Related to a WIPO Development Agenda, 1st Session, Geneva, Feb. 20–24, 2006, A

Proposal by Chile, at http://www.wipo.int/edocs/mdocs/mdocs/en/pcda_1/pcda_1_2.pdf; see also Day 2 of WIPO Development Agenda Meeting, at <http://www.twinside.org.sg/title2/twninfo359.htm>.

In thinking about the politics of intellectual property, there are perhaps useful analogies to be drawn from the environmental movement. As James Boyle points out, it was the development of the concept of “the environment” itself that helped generate an imaginable object of concern for a variety of previously discrete and sometimes antagonistic movements – anti-vivisectionists, rural conservation bodies, indigenous groups, protesters against particular acts of logging or mining, hippies and ferals and duckhunters.⁵⁷ The question of politics is always, in the first instance, the question of defining an object of struggle, an achievable aim, and a politically effective rhetoric. Making a similar point, Mark Rose writes that “one element of the task today is to make the public domain visible – to develop an affirmative discourse that will make it a positive and prominent part of the social and cultural landscapes...Rhetoric is crucial.”⁵⁸

The rhetoric that currently holds sway in relation to commercially valuable intellectual property is one of protection. Any intellectual property lawyer will define the relevant issues in the field in terms of whether the protection for a particular right-holder is adequate. The question of the adequacy of the countervailing protection for the public domain, and thus for the users of intellectual property, never arises; it is unthinkable within the ambit of the prevailing legal imaginary. The fundamental (and yet the most difficult) of our tasks is to make it conceivable again; to force the question of the *protection of the public domain* back on to the agenda, and to ask the question every time the question of ‘protection’ arises.

“Protection” is, of course, a loaded word, as is “piracy”; its connotations are of caring, rather than of securing rent from a monopoly grant. “Monopoly” should be a key term in the alternative rhetoric I am trying to define. Its great strength is that it accurately describes the manner in which intellectual property operates, and there is a ready-made armoury of critique to hand in the discourse of economics, indeed in the very rhetoric of neoliberalism which is, in general, so ready to defend strengthened rights for the owners of intellectual property. Monopoly is anti-competitive. The holding of patents in the syntax of gene sequences whose function is not known blocks the more serious research of scientists looking for that function. When the Disney Corporation draws its raw materials from public-domain folk tales and then exercises a strict enforcement of its copyright in the work its employees create from them, it is, in its own terms, as much a free-rider as those who would reuse the characters and stories and music that have entered the public consciousness, if not, legally speaking,

⁵⁷ James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*,

66 LAW & CONTEMP. PROBS. 33 (2003). ⁵⁸ Mark Rose, *Nine-Tenths of the Law: The English Copyright Debates and the Rhetoric of the Public Domain*, 66 LAW & CONTEMP. PROBS. 75 (2003).

the public domain. The strengthening of the rights of what the United States Supreme Court once called “first authors” affects the ability of the “second authors” who come after them to use their work as raw materials for creation⁵⁹ – and every first author is also a second author; every act of creation involves the use and re-use of materials that have been elaborated elsewhere.

If the anti-competitive force of overly strong intellectual property rights can be brought back into the political conversation, then not only the discourse of economics but also the institutional forms through which it is instituted can be invoked. Those countries that have a competition commission or an anti-monopoly or anti-trust commission should, in principle, be required to apply their analysis to the effects of strong – I would argue excessively strong – intellectual property rights. And by analogy with the figure of the ombudsman, it is possible to imagine the creation of an office of protector of the public domain, an office with the designated function of representing those interests that are otherwise too diffuse and too incoherent to be properly heard in the formulation of policy, in patent hearings, and in trade negotiations.

Let me return, finally, to the question of whether the public domain can be effectively defended by means of a discourse of rights. In general, I am sceptical of concepts of human rights to the extent that they are grounded in a notion of the human person as an entity existing prior to its particular conditions of existence. Yet, there are alternatives to such a humanist conception of rights. In an essay on gift and commodity exchange that I wrote some years ago, I said of the “positive” concept of the public domain that I tried to project then that it was intended as a way around some of the conceptual impasses that flow from the notion of a transcendental and

autonomous sphere of personhood which is prior to and essentially untouched by property relations, and which exists in a “private” rather than a “public” space. Public domain rights are those rights that, rather than deriving from personhood, precede and enable it. They are rights to the raw materials of human life: language, ideas, an inherited culture, a “common heritage” of environmental resources, bodily integrity, civil entitlement. These are not “natural” rights, located in an ordinary contract or a state of nature, but customary social rights, developed and recognised as a provisional end state of the struggle for civilized conditions of life (and of course, whatever their recognition, always contested). Like all rights, they represent a balance between conflicting demands, and they carry with them a corresponding set of obligations to the common good.⁶⁰

⁵⁹ Sony Corporation of America v. Universal City Studios, 464 US 117, 78 L.Ed. 2d 574, at 615. ⁶⁰ JOHN FROW, TIME AND COMMODITY CULTURE 214–215 (1997).

V. CONCLUSION

In this article, I have argued that the new intellectual property rights regime that has been imposed by the first world is beneficial only to a handful of Multi National Corporations (MNCs), to the detriment of the developing countries and the ordinary public the world over. To tackle this highly individualistic, rights-based approach, there is a pressing need to focus on the essentially monopolistic character of intellectual property. It also needs to be remembered that all intellectual property is ultimately derived from ideas and resources borrowed from the public domain, and hence it is anomalous to suggest that any individual or corporation has an undiluted or absolute claim to any form of intellectual output. On the contrary, all forms of intellectual property are the result of public synergy transcending space and time. This led me to invoke the notion of a “common heritage” or to put it in terms that economists will understand: the notion of *intergenerational transfer*. This, it seems to me, is a way of thinking about the public domain that gets us beyond the individualism, the essential selfishness of the notion of personal rights. The value that we put on the public domain of raw intellectual materials that can be used by all and claimed by none is a value not just for ourselves, but for those who come after us. Our relation to this domain is not just one of use, but one of stewardship for our children and our children’s children. This is a conservative way of putting it, and it may be that it is wrong to think only in terms of preserving what is, in any case, a decreasing heritage. Yet the metaphor of intergenerational transfer has the strength of appealing to something larger than our own interests, however universal we may think these are; and it gets at that element of commonality, which is so crucial to the concept of the public domain. It puts the onus, too, on those who would convert this domain into private property to explain what kind of world they would leave behind.