Introduction

Patent Publics, Patent Cultures

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> Now, who is better able than scientists to make the world speak, write, hold forth? Their work consists precisely in inventing, through the intermediary of instruments and the artifice of the laboratory, the *displacement of point of view* that is so indispensable to public life.[1]

1. Introduction

The social and cultural dimensions of intellectual property frameworks are significant subject matter of intellectual examination and investigation. Indeed, the economic impact of patents on development and local infrastructures is of particular concern. However, critical engagement with patent law, as an area of intellectual property law, is generally undertaken in ways that are somewhat in contrast to the emphases on communication and cultural life that we see in other areas of intellectual property debate, such as copyright. Indeed, what is suggested is a distinction between the creativity of 'cultural goods', protected by copyright, and the technical skill of utilitarian economic goods, protected by patents.[2] Copyright protection arises automatically (a flash of inspiration perhaps?). Patent protection requires registration and the satisfaction of various criteria – including utility or industrial application (a patent is protection for a solution to a technical problem – a useless invention cannot be an invention, by very definition).

In other words, rightly or wrongly, what is suggested is perhaps a lesser public engagement with this area of intellectual property law, possibly because of its perceived technical and utilitarian character, which appears to distance users from the debate. This is notwithstanding discussions regarding access to medicines, access to seed and other examples, but the distance persists in the way in which criticism and recommendations are constrained within the framework of encouraging and disseminating innovation as an economic activity. Why is a patent not part of our cultural life?

This difference in treatment at the level of public debate more widely somewhat obscures the cultural aspects of patents. Patents in biotechnology and gene-related inventions are in fact an important legal and analytical nexus for the use and consumption of patents (their cultural character) and the economic interpretations of the market created for such products. In other words, what is the role of users

1 B. Latour, *Politics of Nature: How to Bring the Sciences into Democracy*, C. Porter (trans) (Cambridge MA: Harvard UP 2004), 137–8.

2 For instance, see the discussion by D. Throsby, *Economics and Culture* (Cambridge 2001), 5.

in motivating innovation and influencing the development of patent law and its interpretation? Arguably, it is significant and timely to recognise the cultural character of patent law and the growing relevance of users of the system in the interpretation of the market and in the development of the law.

In order to contribute meaningfully to this debate, the objective of the Patenting Lives Project[3] was to generate a network of researchers from diverse disciplines and contexts in order to examine not only the broader impacts, but also the diverse 'publics' constituted and motivated by this debate.

2. The Two Cultures of Patent Law

> This polarisation is sheer loss to us all. To us as people, and to our society. It is at the same time practical and intellectual and creative loss, and I repeat that it is false to imagine that those three considerations are clearly separable.[4]

The notion of 'two cultures' was presented with subsequent controversy in a 1959 lecture by Lord Snow, scientist and one time assistant to the Minister of Technology in the government of Harold Wilson, and Rector of St Andrews in the early 1960s. In his 1959 Rede lecture, 'The Two Cultures and the Scientific Revolution',[5] Lord Snow's lecture indeed anticipated this emphasis on interdisciplinary research, and it seems appropriate to reiterate it here to contextualise the Patenting Lives Project and this subsequent collection of the contributors to that network. Lord Snow was very derisive in his lecture of each culture's ignorance of the other – not only the illiteracy of the sciences when it came to the arts, but also the ignorance of intellectuals when it came to the sciences. Arguably, this kind of mutual elitism continues today in the patent law debates. Scientific innovation is separated as an economic and utilitarian activity, with little in common with the cultural products 'defended' against other intellectual property frameworks. What is left is a kind of innovation/creativity dichotomy. That is, one is an accountable, utilitarian narrative – that of innovation. The other is by contrast unaccountable, automatically protected by copyright and indefinable – the wellspring of creativity. It is this deferral of creativity in invention that obscures significant traditions in scientific research, such as the cultures of collaboration and esteem lauded by noted contemporary scientific figures like Sir John Sulston (known for his role in the Human Genome Project and his efforts to keep the information in the public domain).

This cultural character of patent law may be traced to the very functioning of the system itself. For the purposes of intellectual property law, there is no protection for information alone – only once it is fixed in some way (a book for copyright; a patent specification that discloses a technical solution to a problem for patent protection). This makes sense – not only would it be unconscionable to try and create

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3 The Patenting Lives Project was funded by an Arts and Humanities Research Council (UK) Research Grant (2004–2005) and Dissemination Scheme (2006–2007), awarded to Johanna Gibson, the Principal Investigator.

4 C.P. Snow, *The Two Cultures* (Cambridge: Cambridge University Press 1998), 11.

5 *Ibid*, 1–21.

a market purely in ideas, but also it would be arguably inconceivable. Information is inexhaustible. So the market is achieved, rather, by imposing an artificial scarcity on that information through the application of intellectual property restrictions on use. The patent is perceived as a kind of contract solution to the imperfect competition in information and the perceived incentive problem that goes with this. The very value of a patent pivots on this relationship to use.

3. What are Life Patents?

The Agreement on Trade Related Aspects of Intellectual Property (TRIPS) mandates that patent protection must be extended to all fields of technology (Article 27.1), including biotechnology. Such inventions might include inventions based on gene sequences or whole organisms – the so-called 'life patents'. In the European Union, the introduction of the Directive on the legal protection of biotechnological inventions[6] is noteworthy for its attempt to harmonise 'attention' to biotechnology inventions, keeping in mind that patent law effectively was at the time, and continues to be, the subject matter of national members or the European Patent Office. Arguably, the Directive was created in the context of an emerging and uncertain market. In clarifying the validity of biotechnology inventions, the Directive says more about use as invention and the relevance of the market to the development of the interpretation of patent law in the field of biotechnology. Strikingly, biotechnology and biotechnology patents suggest a critical episode in the role of the user in modern patent law.

The development of patent protection for inventions relating to gene sequences has provoked both much debate and a considerable amount of concern and indeed misunderstanding. But in so far as intellectual property protection is afforded to products in order to develop and sustain certain markets, any misunderstanding cannot be dismissed. This is the very 'use' of the patent system. What is very interesting about this debate, and what is informing the development of economic analyses of innovation, is the very nature of the intellectual property bargain with the public, the 'users'. Most recently, this bargain is such that the relationship with the consumer underpins the legitimacy of the law. Patent law has received less attention from this perspective, that is, from the perspective of consumer and market limits on innovation. How might this public of 'users' be constituted in the research context?

4. What is Patenting Lives?

The Patenting Lives Project has been concerned with looking at the impact of patent protection in various areas of biotechnology and, in particular, so-called 'life patents' (patents relating to plants and animals). In this respect, the Project was especially interested in the socio-economic and cultural aspects of patent protection in these areas of technology.

6 Directive 98/44/EC on the legal protection of biotechnology inventions.

In its initial stages, the Project involved a core interdisciplinary expert group of intellectual property lawyers, social and cultural anthropologists, political scientists, social scientists, agricultural consultants, and non-governmental organisations, which met for the first time in February 2005. This group set out to identify and articulate key issues and interests at stake in the complex interaction of legal, ethical, cultural, and socio-economic factors. Most significantly, the assembling of experts across diverse but related fields reflected the objectives of achieving a breadth and integrity of the collaboration in this respect, as well as the relevance of the research across the widest range of interested persons and groups. The strong interdisciplinarity of the expert group that initiated the foci of the project was in part an awareness of the need to address the wider context in which patent law is developed and is applied.

The Project was fundamentally concerned with the diverse impact of international harmonisation of patent protection with a view to achieving a further understanding of 'intellectual property', as a cultural institution as it were, particularly in the way in which this term is in circulation in public policy and intergovernmental debate. In this respect, the patent frameworks, as applied to these technologies, with other international frameworks, including biodiversity, the environment, and human rights comprise an organising principle not only of the research but also of this book. As well as identifying the critical factors informing policy making and public debate, the authors necessarily consider the appropriateness or otherwise of patent protection (and other forms of intellectual property protection) to the specific forms of technology and processes of innovation in question here. The primary question of the various groups invested, as it were, in these issues is whether patent protection is compatible with the facilitation of social, cultural, and economic development in the context of international principles of trade.

5. The Patent Public

The Patenting Lives Project was in particular an attempt to motivate diverse input into issues and questions of patent application in biotechnologies. Indeed, this is an essential aspect of broadening the debate on these issues in that interdisciplinary discussion is also a kind of recognition of the diversity and division within the so-called 'public,' a deceptively uniform term. Ordinarily, this 'public' is represented rather than known through the articulation of opinion, generalised and prompted by intellectual property frameworks rather than informing. One of the aims of the Project and of this collection is to drive developments from the 'public' by facilitating diverse contributions. So the Patenting Lives conference and this collection attempt also, in the broader structural sense, to consider how that opinion is generated and captures the focus of a 'public.' In other words, the anonymous public emerges as a collection of active rather than passive users, and the technical distance is somewhat recovered in these debates.

For such reasons, this collection is often divergent and unexpected in its approach to these issues, showcasing various responses to these questions, including what may be considered non-technical or other responses, NGO and activist activity, and so on. As an editor, it has been critical to preserve the dynamic nature of this discussion

and to facilitate the sometimes 'disagreeable' public. Indeed, it is neither possible nor desirable to intrude upon what is arguably one of the key expressions of this collection – the patent publics themselves. Our very disagreements, as contributors to this volume, are integral to the richness of the collection.

6. The Structure of 'Patenting Lives'

Drawing upon those early meetings of the Project, the collection characterises four key areas of intersection with life patents. In Part 1 – Context – Tony Howard, UK Intellectual Property Office, provides an important legal context for the chapters that follow. In providing a legal background to the questions of availability and scope, Howard's chapter delimits the framework for use. Importantly, this chapter also shows the way in which international agreements are translated in a national context for national practices, namely those of the UK Intellectual Property Office.

The second part – Human Rights and Ethical Frameworks – brings together two often divergent perspectives on the ethical challenges posed by biotechnology patents. Kathryn Garforth presents a critical 'triptych', exploring the interaction of biotechnology, ethics and patent law. In particular, Garforth explores the impact of language in the debate, the mechanism by which these concepts are understood and deployed, and the mechanism facilitating what she argues is a specious and unethical inclusion of genetically modified organisms within the discourse of patent law. Adejoke Oyewunmi examines the way in which the market for certain technologies has re-focused the intellectual property debate between developed and developing countries. Oyewunmi explains the way in which investment has motivated developments in intellectual property particularly in the field of biotechnology. In doing so, she artfully demonstrates the relevance of the historical and traditional use of living material (particularly in the context of traditional farming methods) and the way in which commercial models of patent law may limit traditional methods of dealing with and innovating upon living material. Further, she notes that there is an important diversity within developing countries as well, very carefully outlining the issues beyond a polarised north-south debate, that is, the cultural diversity in patent application in these fields of technology.

In the third part – Medicine and Public Health – Luigi Palombi explores the very question of use with respect to the patentability of inventions related to gene sequence. In order to address innovation in the specific research context presented by gene sequences, Palombi proposes a *sui generis* right, which he calls the Genetic Sequence Right, and the banning of patent protection in this field of technology. Angela A. Stanton makes a radical re-interpretation of the infamous case of *Moore v Regents of the University of California*,[7] reasoning that the opportunity to work upon tissue removed from the body is a troubling distancing of the human medical subject from their own cells – the 'eminent domain'. Stanton argues that this significant case demonstrates a prioritising of private rights over public interest.

7 51 Cal.3d 120 (1990).

Chika B. Onwuekwe and Daniel Robinson contribute two very valuable chapters to the overall literature on traditional knowledge and biotechnology in the fourth section, Traditional Knowledge. Chika B. Onwuekwe considers the distinction between higher and lower life forms and the consequent complications for the proprietary issues accompanying plant genetic resources and the associated traditional knowledge. In doing so, he describes the potential inequity and inconsistency of proprietary models. Daniel Robinson examines the way in which regulatory systems for traditional knowledge attempt to control use through the governance of access, relying in particular on the case studies of ethnic minorities in Northern Thailand. Robinson notes that benefit sharing arrangements, a gesture towards proprietary-like recognition, do not necessarily translate into community governance of resources according to customary law and so play no role in facilitating and sustaining indigenous and traditional knowledge and custom associated with those resources. For instance, attempts to document traditional knowledge are merely static records and do nothing, he argues, to promote traditional knowledge and innovation. Instead, he argues for stronger community rights, that is, emphasis on the communities themselves and their living knowledge, rather than merely upon the static objects of documentation.

The final part, Agriculture, is arguably one of the most critical arenas in which the cultural and developmental differences are experienced in the field of biotechnology. Diwakar Poudel and Fred Håkon Johnsen have contributed the results and insightful analysis of research into the relationship between farming and conservation in Kaski Nepal. Poudel, working from the perspective of a national non-governmental organisation, and Johnsen, from a European academic context, collaborate on a significant contribution to the debate on agriculture and conservation. The study shows that farmers are instrumental in conservation projects and community gene banks in particular, for which they are willing to pay much higher amounts. Relevant to this willingness, however, are the surrounding socio-economic factors, including education and knowledge. Nevertheless, the overwhelming support for community gene banks, as distinct from government gene banks, is noteworthy. In the second paper in this section and the final paper in the collection, Dwijen Rangnekar importantly looks at the possibility of exceptions to patents in agriculture, as provided in Article 27.3(b), bringing together the concerns of economics, use and socio-political context that inform the papers throughout this collection.

7. Conclusion

The objective of the Patenting Lives Project and of this collection is to try and facilitate public responses to life patents and to understand the relationship between public perceptions, the creation of the market, and environmental questions. If nothing else, the debates and inevitable disagreements in this book must remind us that technology is cultural, and that those with the greatest means, and those with the authority over the means of production, will have a significant role in the cultural life of citizens. It is this interaction that is of particular interest to the work of the Patenting Lives Project and will, I hope, be especially visible throughout this book.