

## **Experimental Use**

If the patent system is justified through the concept of provision of homogenous protection for technologies through the state grant of limited duration monopolies, it remains that scientific methodology mandates access to study of such technologies to drive forward innovation both at a macro and micro level. Such scientific access may be granted by limitation of scope of the monopoly granted by the patent or the provision of exceptional rights to use the patent for specific purposes or by specific users in a manner which would otherwise be prevented by the patent's existence.

As currently stands, the private, non-commercial use or experimental study defences to patent infringement allowed under Patents Act 1977 s.60(5)a, (5)b provide the mechanism whereby, traditionally, study of existing patents leading to cumulative innovation is allowed to the UK public sector science base. In comparison to the now heavily reduced US common law approximation of the same exceptions, the principle of the UK provision is widely viewed as a strength supporting our ability to drive innovation and, as a corollary, technological and economic competition on an international stage. It is also true to say that the provisions, while widely cited, are poorly understood and consistently misapplied in academic circles.

The exceptions as stand are widely conflated and confused into a loose "experimental use" concept predicated on private or non-commercial study of the workings of the patent itself. The most common consequence of this appears when patented technology is simply used for its intended purpose without permission or payment of fees by the University. This is a clear infringement of patent rights which falls outside either exception. [As an aside this may evidence the demand for a preferential licensing (of right?) system which recognises Universities as a special class of technology user. This would undoubtedly cause controversy in a number of sectors where private sector R&D is the norm (e.g. pharma) and could distort competition and market practice to an untenable extent, however the debate remains open].

Regarding the private, non-commercial study exception (s.60(5)a) it is inherently debatable as to whether any public sector body, employee or funded student can any longer satisfy either of these criteria. If "private" in this context is taken to mean non-public (rather than in the sense of work undertaken by a sole individual) it is illustrative to look at the *Ministerial Declaration on Access to Research Data from Public Funding*<sup>1</sup>, the *European Commission Study on Scientific Publication*<sup>2</sup> and Research Councils UK (RCUK)'s *Consultation on Access to Research Outputs*<sup>3</sup> to obtain a clear indication of the standards of public dissemination now attaching to any publicly funded work - i.e. disclosure is mandated. This effectively reduces the private sphere to that of the solo, garden-shed inventor.

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<sup>1</sup> [http://www.ost.gov.uk/research/councils/oecdctp\\_survey.htm](http://www.ost.gov.uk/research/councils/oecdctp_survey.htm)

<sup>2</sup> [http://europa.eu.int/comm/research/science-society/pdf/scientific-publication-study\\_en.pdf](http://europa.eu.int/comm/research/science-society/pdf/scientific-publication-study_en.pdf)

<sup>3</sup> <http://www.rcuk.ac.uk/access/>

As for non-commercial use, the change in remit of the University arising from the Knowledge Transfer agenda presents fundamental problems for the Higher Education sector in relying on this exception. As drivers of innovation and originators of technological advancement it is imperative that such innovations and advances are subsequently used by the private sector, and this is achieved mainly through the creation of intellectual property rights and the contractual transfer of such rights for a consideration. Therefore to satisfy the exception as stands a University must either donate its technologies to the private sector (i.e. divest itself of assets) thus deriving no commercial gain for itself, or must allow for entirely open access dissemination. As it happens neither option is open to a University, due to both the constitution of the organisations and the funding terms and conditions imposed by the majority of public funding (RCUK, DTI etc). Further the increasing insistence on industrial collaboration in funding bids both domestically and in European Framework projects renders this exception unavailable automatically where benefits accrue to the industrial partner.

A conclusion may be drawn then that in itself this Private Study exception has become redundant in the University sector to a large degree.

Regarding the second defence of experimental study of the subject matter of the patent itself (S. 60(5) b) there is no requirement of non-commercial or private use implied, however the restriction in technical scope is apparent. The consequence is that a patent may be used and its effects observed, but not harnessed or used for their patented purpose as part of a larger process. This is not widely understood, and is consistently misinterpreted as a right to use patented technology in conducting an experiment, which is closer in intent to the original purpose of the Private/ non-commercial study exception.

Having established that a true "experimental use" defence to patent infringement does not exist under current UK patent statute, but understanding that such use is desirable for scientific and economic purposes, and as a necessary counterbalance to the monopolies granted by patent which could otherwise stifle technological development, a call could be made for the introduction of a revised experimental use provision which combines both S. 60 (5)a & b in a coherent single statement which takes account of the realities of the expectations placed on Universities as the bedrock of a knowledge economy. A failure to do so exposes the University sector to a recurrent risk of infringement action from patent rights holders - a risk it is powerless to avoid due to the mandate received from government without reverting to paying commercial rate fees to rights holders. It goes without saying that in that situation the costs of research will rocket, either indirectly through rising cost of insurance or directly by costing fees into research funding proposals. It will also remain open to rights holders to deny use to Universities, thwarting all third stream aspirations.

### **Utility Rights, Software & Copyright**

Utility Models/ Rights, of the *Gebrauchsmuster* type favoured in Germany, Austria and Hungary among others, have much to recommend them in filling a protection gap short of full patent status - a gap which in the UK we have attempted to fill

through using case law to stretch copyright into ever more technical areas and the revision of Registered Design law.

To take software as an example, while seen as inherently non-patentable, couching its protection as a matter for copyright is a transparently constructivist linguistic exercise. By concentrating on software as it appears when reduced to a written language, the IP system wilfully disregards the essential purpose of software, i.e. the effect as the instructions coded within the language are interpreted and enacted by a suitably calibrated machine. Copyright law in the UK is at its heart a mechanism to allow economic return to be achieved from the issuing and purchase of copies of a fixed work. Economic value is determined at consumer market mainly by the number of copies in circulation and the cost of replication and distribution rather than the subject matter or content of the work. Software is inherently different in that its market value is determined precisely by its content, and specifically the effect of applying that content to a specific purpose. It has a functional nature rendering it essentially different from all other types of copyright work. If the UK had a *droit d'auteur* concept of copyright (where authorship rather than first publication forms the root of a claim to protection) there could be more of an argument for software's inclusion within copyright. However as this would entail a root and branch reconceptualisation of the oldest copyright system in existence, it would be more practical to either incorporate software into the patent system, or to address it under a *sui generis* right.

This is where a Utility Model system could have value. As can be seen from the current Patent Office consultation<sup>4</sup> on the effectiveness of the Inventive step & obviousness concepts in patent law, there is a serious debate abroad as to how the nature of incremental technological improvements and technologies that work with or improve performance of existing technologies can be incorporated (if at all) into a patent system. A Utility Model which offered enforceable protection for technical advances with a reduced scope or duration could meet this gap while preserving the quality threshold of full patents. Markets would quickly adapt to the valuation of such rights and the availability of stronger protection for add-on or plug-in technologies over and above copyright and/ or design rights - protection which could be accessed more quickly and cost-effectively - would be welcomed within many fast moving industries. In many fields the window of technological advantage afforded by a particular development is counted in months or single years and consequently the patent system as it stands offers nothing to such industries. It is found to be expensive, time consuming, slow to grant and makes a protect-then-exploit commercial model uneconomic and redundant. By offering a species of right, perhaps for certain technologies only, (as in Austria) which encourages take up of registration and reward for innovation within a technology's market lifetime, the IP system could meet a constituency currently not catered for and the attendant publication & peer exposure of the patent type would have a wider societal value.

### **University - Private Sector Exchange of Rights**

As the University Technology Transfer sector matures, comparisons begin to be drawn with the US, *Bayh-Dole* framed sector. Leaving aside the usual performance

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<sup>4</sup> <http://www.patent.gov.uk/about/consultations/inventive/index.htm>

and patent per pound/ dollar debate, there is a discussion to be had as to the desirability of a pre-determined technology transfer transaction framework of the type established under the Bayh-Dole Act 1980. It is common currency that the US technology transfer sector has flourished under Bayh-Dole and the certainty of position Universities have when negotiating technology transfer deals with industry. Where technology has been developed from federal funds, the only technology transfer route of substance open is to license. The US sector has therefore developed a huge degree of sophistication in this commercial methodology. What is not allowed under such a catch-all system however is the ability to vary terms of engagement with industry at times of particular economic or technological need.

The advantage of a system such as that in the UK is that by establishing technology transfer freedom of movement (or otherwise) through the terms and conditions of funding underpinning IP creation, the rights accruing to specific companies or sectors consequent to working with Universities can be managed in a pro-active fashion in line with national or regional economic policy. The DTI's *Knowledge Transfer Partnership*<sup>5</sup> or *Collaborative Research & Development*<sup>6</sup> schemes where technological benefits accrue directly to the company involved would simply not be allowable under a Bayh-Dole style national landscape without enacting changes to legislation or statutory instruments.

It is therefore desirable that a University's freedom to contract in respect of its IP be maintained, as it allows for a more responsive and economically active knowledge sector.

Above this national framework, however, a grey area in licensing that is currently felt, not just in the UK but Europe wide, relates to the so-called Block Exemptions in technology licensing embedded in European (anti)competition rules. While management of competition and the prevention of distortional technology pooling and pricing practices is a valuable and necessary feature of the European economic landscape, the current position dictated by percentage market shares and whether the contracting parties are of competitor or non-competitor status is arcane and almost unworkable. This is particularly true in the University sector where institutions have such a wide-ranging portfolio of activities that one could find competition in most transactions. A return to clear lists of allowable and barred (anti-competitive) practices would be welcomed.

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<sup>5</sup> <http://www.dti.gov.uk/ktp/>

<sup>6</sup> <http://www.dti.gov.uk/crd/>