



THE UNIVERSITY OF
MELBOURNE

**University of Melbourne Response to the
Productivity Commission's
Issues Paper
Intellectual Property Arrangements
December 2015**



Executive Summary

The University of Melbourne welcomes the opportunity to contribute to the inquiry into Australia's intellectual property (IP) arrangements and has noted the prospective IP changes highlighted in the National Innovation & Science Agenda. The University of Melbourne is a research and teaching organisation with significant expertise in IP law. The University owns patents, utilises copyright, trademarks and has online investment in digital media.

The higher education sector is in a unique position because they are not only producers and consumers of IP but must share outcomes for public good and community engagement. However, the changing nature of the research funding environment has encouraged universities to explore other avenues of funding, which includes the commercialisation of research outputs placing universities in a complex position.

The University's submission recommends the consolidation of expertise into one agency that is responsible for IP, under the control of a single Minister. Currently, IP Australia in the Department of Industry, Innovation and Science is responsible for patents, trademarks, designs and plant breeders' rights, while copyright, circuit layouts, and arts resale royalties are part of the portfolio of the Minister of Communications. In other countries, one agency with a single Minister is responsible for these portfolios. This would enable greater co-ordination in policy review and more practical aspects of processing of rights.

As the Australian Government acknowledges, a review and simplification of the relevant legislative framework is required to bring it within one overall code. Despite the challenges, simplification would have long term benefits for both IP right owners and users. As a general matter, simplification of legislation could certainly occur in each of the major pieces of IP legislation, especially copyright where a great deal of work was done by the Copyright Law Review Committee in the late 1990s. There is also a series of law reform reports that have been done on patents, designs and trademarks, which could be readily translated into legislation as part of an overall exercise of simplification and codification.

As part of this exercise, the Australian Government should explore issues of overlap between the different IP regimes. Areas of overlap requiring consideration are copyright and design, where the law is presently very complex; copyright and trademarks, where it may be argued that the ready availability of copyright protection for devices and other insignia effectively undermines trade mark protection; copyright and patents, notably in the areas of IT and computer software; international property rights generally and consumer protection legislation.

Our response is structured under three themes: 1) patents; 2) copyright; and 3) international trade agreements. We urge the Australian Government to continue to take a lead advocacy role in updating Australia's IP policy settings. The recommendations made in this paper are summarised below.

Recommendations:

- Retain the timeline for filing patents.
- Provide more services and guidance on interpreting the requirements of patenting.
- Provide a mechanism to identify potential commercialisation partners for each new invention.
- Expand the assessment criteria of Australian Competitive Grants to recognise patents.
- Align the Australian grace period to that of the United States.
- Allocate more resources to the examination of patents to minimise the proportion of Type I and Type II errors.
- Encourage businesses to communicate R&D requirements to universities.
- Incorporate IP and commercialisation education into formal teaching programs, even at primary and secondary level.
- Provide a definition of patentable subject matter.

- Undertake a review of the UK Intellectual Property Enterprise Court.
- Introduce a fair use exception.
- Reform statutory licences.
- Limit remedies available to the rights holder of orphaned works.
- Restrict contracting out as it relates to specific libraries and archives exceptions.
- Ensure that the 'national treatment principle' is enforced.

The University thanks the Productivity Commission for the opportunity to comment and looks forward to ongoing dialogue regarding patents, copyright and international trade agreements.

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1. Patents

The University of Melbourne is a research intensive university that actively participates in the Intellectual Property system in order to translate innovative solutions to real world problems into products or services for the benefit of society. For many years the University has regularly initiated the protection of inventions by filing provisional patent applications encompassing the outcomes of research. In some instances, this has arisen from research that is publicly funded by government grant schemes such as the Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC), conferring rights to higher educational institutions, however, the University also performs research directly commissioned by industry partners where there is significant complexity around the ownership of patents and licencing. The current patent system provides sufficient safeguards for crown use and compulsory licensing and these patents have provided economic advantage and facilitated innovations that would not have otherwise occurred. However, there are some aspects regarding the process that can be improved.

Timeline to gain patent protection

The patent prosecution process provides an extended period of time during which an invention can be refined and validated prior to each decision point. For instance, the 12 month priority year provides a period of time during which the invention can be shown to work effectively while providing the freedom for the publication of results that is so important to academic researchers. Once the PCT patent application is filed at the 12 month point, the PCT system allows a further 18 months for validation of the invention, a comparison with competing services or products and for marketing to potential industry partners who are well placed to commercialise the invention. Since the University is an academic organisation it takes full advantage of the available time in the patent prosecution pathway in order to identify commercialisation partners. Inventions that arise from university research may also be at an early stage of development, and the patent system provides a period of time for the invention to be validated as well as providing a mechanism whereby the University can minimise and delay further major expenditure of national phase patent filings. It would not generally be beneficial to the University to provide a faster prosecution timeline.

Costs and government programs

The costs of obtaining patent protection are considered to be high; however, the direct government fees and charges are a relatively small portion of the overall costs. The remainder of the costs relate to obtaining sophisticated advice, along with the costs of language translations of technical documents. Patenting is an area in which highly specialised advice is required in order to secure effective rights. Although government programs do not control these private sector costs, it may be possible to provide more services in the area of guidance and interpreting the requirements for patenting. For instance, IP Australia offers the Trade Mark (TM) Headstart for trade mark applications and the International Type Search (ITS) for new patent applications. The Australian Government could provide a mechanism to identify potential commercialisation partners for each new invention by the provision of information relating to patent applicants and applications previously filed within the same patent IPC code in the ITS report. Similarly, the provision of language translation services for patent applicants would also greatly assist with reduction of costs of patenting.

The Australian Government could influence the assessment process of national competitive grants to include the recognition of patents in grant applications and fellowships. Currently, there is still a huge funding gap between publicly funded research work and the generation of products for market, such as pharmaceuticals, biotechnology and medical instruments, which can only occur through patent filings.

Patent Grace Periods

The advancement of academic learning relies on prompt and regular dissemination of ideas through peer-reviewed publication. There is an inherent tension between academic publication and the novelty

requirements of the patent system and this is exacerbated by different patent grace periods across various international jurisdictions. Although most countries do not offer a grace period, there are several that do, including Australia and USA. Unfortunately the Australian and US grace periods are considerably different and this creates uncertainty for the users of the Australian patent system and consequent loss of IP rights. The key difference is that the Australian grace period applies to the filing of a complete patent application whereas the US grace period applies to the period preceding a provisional patent application. A significant benefit to Australian inventors would be gained by amending the Australian grace period to align with the US approach and refer to the twelve month period prior to the filing of a provisional patent application.

IP rights encourage investment

Effective patent protection is critical to supporting commercialisation and attracting further funding into development of most commercial products and services that arise from university inventions. In the absence of patent protection the commercial development would not occur. It should be said that effective IP rights encourage investment in innovation rather than encouraging innovation itself. In the absence of a patent system, private investment in innovation would not flourish even though public funding may still be available through government and philanthropic grants.

Balancing the costs and benefits

Patents create deadweight social losses by temporarily blocking imitation and preventing others from using a non-rival resource. These deadweight losses arise because the patent system operates by creating a distortion (a monopoly right) to correct a distortion (non-rivalry). The size of these social costs varies according to the administration of the patent rights scheme. For instance, if a patent is granted too freely or too broadly, it may stifle future (incremental) inventions, create an anti-commons or induce excessive anti-competitive behaviour. Conversely, if it is granted too parsimoniously, it may inhibit firms' desire to invest in easily-copied inventions. Striking the right balance between these competing effects is about both rewarding the inventor and protecting the interests of the rest of society.

Jensen and Webster (2004) argue that the power of a patent is determined in two stages: first, acquiring the title to the right (patent granting) and secondly, getting competitors to accede to the right by modifying their behaviour (patent enforcement). Each stage is associated with varying administrative costs for processing the claim (or dispute) and wider social costs which arise from erroneous decisions or behaviours. In pursuit of the ultimate goal of optimising the rate of successful innovation, the patent system should aim to minimise the amount of desirable inventions that are not granted a patent and the amount of undesirable inventions that are granted a patent.

Given the difficulty of precisely identifying 'good' and 'bad' patents, there will always be some positive rate of rejection of good patents (Type I errors) and acceptance of bad patents (Type II errors). Allocating more resources to the examination (and opposition) process should reduce both Type I and Type II errors since it reduces the random error associated with examination. Of more importance is the interaction between the size of the inventive step and the quality of the examination process. A weak regime consists of a cursory examination process and small inventive step and results in a low Type I error rate and a high Type II error rate. By contrast, a strong regime is where examinations are rigorous and the inventive step is large, which results in low Type I and Type II error rates. It seems clear that Australia should continue to push for a strong patent regime, which optimally balances the trade-offs between incentives and deadweight losses.

Publications

The patent system provides an automatic mechanism for the publication of inventions. This occurs routinely during PCT and national phase patent prosecution. The patent system provides an initial period when provisional patent applications are not made public and this encourages early filing of nascent inventions. Once published, however, the invention details are freely available on the various patent office

web sites. Although patent publications represent a significant proportion of the publicly available technical literature, the University rarely receives solicitations from commercial partners seeking to licence inventions that have been made public by patenting. It could therefore be said that the patent system effectively publishes inventions and yet still more is required in this area. To this end, the University of Melbourne has recently contributed to the SourceIP initiative of IP Australia, which aims to provide a platform of patents available for licensing.¹

In order to adapt to the changing environments, businesses need to reach out to universities in closer collaborations, viewing the relationship as more than a service but a partnership in generating new innovations and inventions.

Additionally, the University of Melbourne acknowledges that the traditional ‘technology push’ approach may be less effective than a “market pull’ approach. The patent system does not facilitate an active market place of this type and the University has sought to take the initiative by engaging in a direct dialogue and develop relationships with industry partners. Unfortunately, commercial R&D opportunities are not as pronounced as they are in some international organisations, such Germany, the United States, UK and Israel. As such, universities in Australia explore international prospects rather than looking for domestic opportunities.

Public education on Patents

There is currently a lack of education about the patent system and its use, throughout all levels of the education system. Education on the IP and patent system should start in primary school to encourage a greater understanding of what IP is, how patents encourage innovation and creative output, what would happen if there was no patent system (e.g. the case of penicillin). There is an opportunity to showcase and exemplify previous successes from patent filings resulting in products/technology used worldwide.

Patents: Coverage of innovation areas

There is an inherent difficulty in that the patent system seeks to provide a protection mechanism for products and services that do not yet exist. Traditionally, the Australian patent system has provided a broad base of patentable subject matter, though there is a pressing need to harmonise international rules in areas such as methods of medical treatment, software, business and economics and nucleic acids. The Australian Government should provide a definition of patentable subject matter that is easily compared to international standards to improve ease of use and the freedom to commercialise overseas.

Additionally, some of the University’s active areas of research are in fields that are not well supported by patents, such as software and business. An alignment between these fields of research interest with patentable subject matter would be highly beneficial. The UK Intellectual Property Enterprise Court has been successful in lowering the costs and allowing higher throughput of cases. The Australian Government could undertake a review to understand the merits of this method.

Recommendations to the Australian Government:

- Retain the timeline for filing patents.
- Provide more services and guidance on interpreting the requirements of patenting.
- Provide a mechanism to identify potential commercialisation partners for each new invention.
- Expand the assessment criteria of Australian Competitive Grants to recognise patents.
- Align the Australian grace period to that of the United States.

¹ <https://sourceip.ipaustralia.gov.au/#/>

- Allocate more resources to the examination of patents to minimise the proportion of Type I and Type II errors.
- Encourage businesses to communicate R&D requirements to universities.
- Incorporate IP and commercialisation education into formal teaching programs, even at primary and secondary level.
- Provide a definition of patentable subject matter.
- Undertake a review of the UK Intellectual Property Enterprise Court.

2. Copyright

The University of Melbourne actively participated in the Australian Law Reform Commission's (ALRC) Copyright Inquiry, *Copyright and Digital Economy*. Feedback from the University was incorporated into submissions made by Universities Australia, the Australian Libraries Copyright Committee and the Australian Digital Alliance. Many of the questions posed in the Productivity Commission Issues Paper were considered by the ALRC's Copyright Inquiry. The recommendations made by the ALRC aimed to strike a balance between creators and consumers, while ensuring that the law remains fit for purpose and technologically neutral.

Fair Use Exception

One of the key recommendations made by the ALRC was the introduction of a fair use exception. A broad, open ended, flexible and technologically neutral fair use exception would address many of the issues and questions raised by this review. The current law has not remained "fit for purpose" because technological advances are changing the way we create and use content. These technological advances are happening faster than the law can adapt. Copyright law, as it currently stands, reflects an analogue world in which the ability to reproduce content is limited. A fair use exception would provide copyright law with the flexibility and adaptability to allow it to remain fit for purpose.

The 'one size fits all' approach has also failed to recognise that, as it has become cheaper and easier for content to be created, many creators are taking advantage of these factors and making their content available under different business models. As a result, the value of copyright content can vary greatly and a graduated approach to copyright might more fairly recognise the effort of the creator and the value of the work. Once again, a fair use exception could be a key part of a more graduated approach to copyright. Fair use provides a framework to determine whether or not an intended use of copyright material is fair and reasonable taking into account the creator's efforts and the value of and market for the work.

Licenses negotiated under the current copyright law are based on commercial necessity that fees are commensurate with commercial activities. Copyright law fails to take into account that, in the new digital economy, many creative projects are often non-commercial in nature and on a much smaller scale. On occasions when the University has attempted to obtain permission to use copyright material for a one-off non-commercial activity, including charitable purposes, there is often a failure to successfully negotiate licences because any benefit for the copyright owner is disproportionately small compared to the costs of negotiating a licence.

The University is also a creator of copyright material and we receive many requests from consumers seeking to use our content. In most cases, the administrative costs of responding to these requests far outweigh the value of the work and any possible licensing fees. A fair use exception would provide a welcome alternative pathway for legitimate reuse of materials in circumstances where it is not economically feasible to licence material.

Recent changes to Australia's copyright law, such as introduction of s-200AB, have not provided effective relief as intended. Section 200AB, which in many ways was a compromise to introducing a fair use exemption in 2006, has been too narrow and difficult to interpret. As such, the ALRC has recommended that s-200AB and many of the other exceptions introduced in 2006 should be repealed and replaced by a fair use exception. The ALRC believed that the introduction of a fair use exception would improve the efficiency and effectiveness of the copyright system.

Ensuring a balance between the interests of creators and the expectations of consumers is crucial if copyright law is to be effective. The ALRC has stated that a fair use exception is an important part of maintaining that balance:

“Fair use will mean that ordinary Australians are not infringing copyright when they use copyright material in entirely harmless ways that in no way damage—and may even benefit—the market of rights holders. This aligns better with consumer expectations. The public is more likely to understand fair use than the existing collection of complex specific exceptions; the exception will seem more reasonable; and this may even increase respect for and compliance with copyright laws more broadly”².

The ALRC also made other recommendations in its inquiry. Of particular interest to the University are:

- Recommendation 8 - Reform of the statutory licences – the University relies strongly on the Part VA and Part VB statutory licences to provide course material to students for educational purposes.
- Recommendation 13- Limiting remedies available to the rights holder of orphaned works if their rights are infringed provided that a reasonably diligent search for the rights holder had been conducted and the rights holder had not been found – the University holds a significant amount of orphaned works in its Library, Archives and Cultural Collections.
- Recommendation 20 - Restrictions on Contracting Out as it relates to specific libraries and archives exceptions.

Other recommendations from the ALRC related to repealing many of the existing specific purpose exceptions with a single fair use exception. In some cases, calls had been made for new exceptions for certain purposes, however in most cases, the ALRC felt that these new purposes could be served better by the introduction of a new fair use exception.

The University supports these recommendations made by the ALRC in its review. These recommendations, if enacted, would make it easier for the University to use and make available copyright material for educational and research purposes, as well as engaging with the wider academic community. We therefore urge the Productivity Commission to consider these recommendations as part of the current review.

Recommendations to the Australian Government:

- Introduce a fair use exception.
- Reform statutory licences.
- Limit remedies available to the rights holder of orphaned works.
- Restrict contracting out as it relates to specific libraries and archives exceptions.

² Australian Law Reform Commission, Copyright and the Digital Economy (ALRC Report 122), p. 108, <http://bit.ly/1eRGkYK>

3. International trade agreements

IP rights are an important part of international trade agreements, including both bilateral and multilateral agreements that Australia has recently signed such as the Trans-Pacific Partnership. These provide the potential for significant benefits, which flow from free trade, but also impose constraints on Australia in the sense that they limit the degree to which Australia can change many of the parameters of its IP system. This suggests that Australia's IP system is but one component of the international system, which underpins international trade. However, there are areas where it might be in Australia's interests to ensure that the rules governing the international IP system are fully enforced.

One such area relates to the 'national treatment principle,' which states that domestic and foreign patent applicants must be accorded equal treatment under each national patent system and is enshrined in the Trade-Related agreement on IP (TRIPS). This principle is designed to ensure that national patent examination procedures are not used as *de facto* trade protection policies. More generally, the national treatment principle implicitly addresses the fact that countries have an incentive to free-ride on the initial (fixed) R&D investment incurred by other countries. Free-riding adversely affects the returns to inventive activity for foreign inventors and may trigger reciprocal action by the foreign country. At the limit, this effect could undermine the power of the international patent system to stimulate global innovation. Moreover, failure to enforce the national treatment principle could undermine the gains from trade because inventors who are denied the right to legal protection of their invention because of their nationality may choose not to trade with those countries.

Article 3 of TRIPS states that "Each Member shall accord to the nationals of other Members treatment no less favorable than that it accords to its own nationals with regard to the protection of intellectual property..." Similar sentiments are found in Article 2 of the Paris Convention. This means that there should not be any systematic relationship between inventor nationality and examination outcomes. National patent offices may make different decisions about the patentability of the same unique invention, but these decisions should not be systematically related to the origin of the invention.

Although the evidence on the enforcement of the national treatment principle is limited, it does appear that there is good cause to be concerned. In a study of a large sample of international patent applications submitted to a number of patent offices, patent examination outcomes at the European Patent Office and the Japanese Patent Office vary systematically by inventors' nationality. Domestic inventors are more likely to get a patent grant, *ceteris paribus*. This domestic inventor effect is large, positive and statistically significant (see Webster et al. 2014 for details). The big questions this raises are: i) does this affect firms' innovation investment decisions; and ii) does it affect firms' decisions to trade with other nations? The answers to these questions are largely unknown, but are the subject of ongoing investigation.

Recommendations to the Australian Government:

- Ensure that the 'national treatment principle' is enforced.

References

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