PROTECTING THE INFECTED. GOVERNMENT ACQUISITION OF PATENTS DURING THE ZOMBIE APOCALYPSE

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ABSTRACT

By the Allargando stage of the zombie outbreak, a suppressant to the zombie virus has been discovered. This suppressant allows individuals who've been infected to halt the process of zombification. Treatment must occur regularly or else zombification will resume. The government would want to use this treatment to ensure society continues to rebuild at this critical stage and prevent the rise of more Zombies.

The question becomes how does the government react to the existence of a patent for a suppressant so crucial to the continued health and regrowth of Australian society in a way that balances both public necessity and private interest? At such a major crossroads, the Australian Government will be given the opportunity to make massive reforms in patent law and implement or repurpose legislation to deal with such a unique scenario.

This article examines Australia's robust patenting legislation and the possibility of the return of the National Security Act to provide advice as to how the government could and should react now, to prevent creating legislation on the lurch.

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I THE ZOMBIES ARE COMING!

The zombie apocalypse would be an unprecedented emergency. A patent protected medication that cures or retards the progress of zombiefication in an affected individual would be key to ensuring Australian growth at the rebuilding stage of society. This article outlines the legal issues that come with the Federal Government or 'Reforming Government' seeking to use the 'Suppressant Patent', without the patentholder's consent. This paper seeks to highlight the issues surrounding government procurement and problems within the *Patents Act 1990* (Cth) (the '**Patents Act**').

Section 1 will look to what the zombie apocalypse means for patents. What is the purpose of patents? Does the apocalypse impact the existence of patents? Section 2 will look to implementing patent law reform. The Federal Government has the opportunity to make fundamental reforms to the Patents Act, some of which could be implemented now to prevent the creation of legislation on the lurch. Section 3 will examine powers the government could leverage outside the Patents Act such as an adaptation of the repealed *National Security Act 1939* (Cth) (The '**NSA**').

This article seeks to provide recommendations on how the current Federal Government or a post apocalypse Reforming Government may implement new legislation and reforms, which balances both public interest and private rights now or in the future.[1]

II THE WORLD IS ENDING, IS MY PATENT OKAY?

A. Historical Background of Intellectual Property

An understanding of the historical background of intellectual property provides an insight into why the government may take an interest in compulsorily acquiring the Suppressant Patent. 'Property is the right or lawful power, which a person has to a thing'[2] therefore, the State grants property legal recognition and right.[3]

Property law gained formal recognition as a private right through the development of legal mechanisms such as titles, registers and formal contracting. This recognition implies a certain level of state power over property. While these mechanisms predominantly favoured physical property, intellectual property saw a similar path of development though lacked many of the same legal mechanisms until much later.[4]

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1 Acknowledgement should be made to John Gilchrist's research on Intellectual Property matters in John S Gilchrist, *'The Government and Copyright'* (Sydney University Press 2015).

2 James Wilson, *Collected Works of James Wilson,* Vol 1 [2007].

3 *Statute of Monopolies* (1623).

4 Adam Mossoff, 'Rethinking the Development of Patents: An Intellectual History, 1550-1800, (2001) *Hasting Law Journal*, 1255.

In examining these mechanism, we can see that while intellectual property has existed as a tool to generate market interest long before the legal mechanism we enjoy today existed. Greek city-states such as Sybaris offered one-year patents to anyone who could refine or find a new luxury.[5] Sybaris provides a clear exame that intellectual property is a method of attracting commercial interest for and from the State.

The first instance of recognition of intellectual property in English law was seen through royalty payments during the 15th century.[6] These royalty payments were formalised through the *Statute of Monopolies* (1623)[7] establishing the statutory basis of law for patents. This cemented the idea that government has keen interest in ensuring intellectual property is regulated for the benefit of society rather than the specific proprietor. The *Statute of Anne* (1710)[8] developed similar legislative tools for other forms of intellectual property giving the courts the ability to rule on intellectual property matters, the government therefore has a clear legislative control over intellectual property in common law. That control is express in both s X of the Constitution and implicit in Australia's signature of global intellectual property rights agreements, such as the Paris Covention.

While the recognition of patents rights stems from the idea of providing incentive to business and inventors to boost markets, [9] copyright saw a different purpose. Originally a tool to increase dissemination of information the State saw as crucial, with the advent of the printing press came a shift in attitude. Copyright saw increased government control, licences became a method of ensuring that, 'the menace of the printing press' did not spread any further.[10]

Bothe copyright and patents have been subsequently justified as an embodiment of Lockean natural rights and as an incentive for collec tive flourishing through encouragement of innovation / creativity and investment.

It is clear to see from these examples that intellectual property is a tool of the State. Therefore, intellectual property exists only through State control and consent. It is arguable that intellectual property doesn't exist without consent or recognition of the State, or at the very least that any intellectual property would be significantly reduced

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5 Charles Anthon, *A Classical Dictionary: Containing an Account of the Principal Proper Names Mentioned in Ancient Authors, and Intended to Elucidate All the Important Points Connected with the Geography, History, Biography, Mythology, and Fine Arts of the Greek and Romans. Together with an Account of Coins, Weights, and Measures, with Tabular Values of the Same* 1273 (Harper & Brothers 1841).

6 A Mossoff, Rethinking the Development of Patents: An Intellectual History, 1550-1800, *Hasting Law Journal* vol 52 p 1255, 2001.

7 James Wilson, *Collected Works of James Wilson,* Vol 1 [2007].

8 *Statute of Anne* (1710).

9 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2. Weblink: <http://www.alrc.gov.au/publications/genes-and-ingenuity-gene-patenting-and-human-health-alrc-report-99/27-compulsory-license> [2.17].

10 ithiel de Sola Pool, (1983) *Technologies Of Freedom* (Harvard University Press, 183).

in importance without the backing of State. Such an argument will be explored in section C 'Failed State'.

The importance in understanding that intellectual property is a state given right or tool is crucial in understanding why the state has such a keen interest in the Suppressant Patent and why we would expect a government to go to lengths to ensure its distribution occurs.

B. Purpose of Patent Law

Understanding the purpose behind patenting and patent law is crucial to ensuring the Federal Government and courts make informed decisions. It is not far-fetched to believe that in the course of the apocalypse many of the people who understand, or are involved, in patents will no longer be alive. A definition on the purpose of patent would prevent any misunderstanding in future rebuilding efforts.

In determining the purpose of the patents act, the Federal Court and Government would look to the Patents Act for an objects or a purpose clause. In this regard the Patents Act is silent, no objects clause exists and the explanatory memorandum provides no insight into the purpose of patents, merely stating that the previous Act was too complicated.[11]

Objects and purposive clauses have been referred to as the modern day preamble,[12] They seek to assist in reducing ambiguity or uncertainty in the law.[13] Without a clear object or purpose clause the Patents Act becomes difficult to interpret. The Federal Court would have to infer the purposes behind uncertain terms and objectives in the Patent Act with no legislative assistance. Furthermore, without a purposive clause the Reforming Government would struggle in knowing the correct steps to take in instances of dispute over the Suppressant Patent or when looking to reform laws.

The lack of an of objects clause means that to define the purpose of the Patents Act, the Federal Court and government would have to look outside the Act. History, literature and other countries interpretations would all assist in the definitions of patents.

The historical origins of patents are obscure; suffice to say patents are one of the oldest intellectual property rights that exists today.[14] A patent, historically, served two purposes, one, to provide incentive for innovation by giving the inventor an exclusive right to design and sell the patent.[15] Patents also served the purpose of promoting

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11 *Explanatory Memorandum, Patents Bill 1990* (Cth) 2, 2.

12 D Pearce and R Geddes, *Statutory Interpretation in Australia* (Federation Press 6th Ed, 2006), 154.

13 Australian Law Reform Commission, *For Your Information: Australian Privacy Law and Practice,* Report No 108 (2008) vol 1, 281 [5.90].

14 A Gomme, *Patents of Invention: Origin and Growth of the Patent System in Britain* (Longmans, Green and Co, 1946); H Fox, *Monopolies and Patents* (University of Toronto Press, 1947).

15 Intellectual Property and Competition Review Committee, *Review of Intellectual Property Legislation under the Competition Principles Agreement* (2000), pg. 136.

investment in these inventions by giving investors an exclusive chance to recoup investment with no competition.[16] Patents have been called

> a cornerstone in driving innovation in medical research by enabling researchers to have protection of their intellectual property and the possibility of capitalizing on their inventions.[17]

Patents provide large incentive to markets and private individuals to create new technology, as the creator enjoy exclusive right to that invention for twenty, twenty five or eight years depending on the Patent.[18] This incentive would be something the Reforming Government may wish to preserve.

Running counter to this idea, patents have been claimed to also serve a public purpose serving common good, as highlighted in Integra:[19]

> The purpose of the patent system is not only to provide a financial incentive to create new knowledge and bring it to public benefit through new products; it also serves to add to the body of published scientific/technological knowledge.[20]

There is a division of interests, an element of public benefit exists in patent law alongside a very strong private incentive. These two competing elements would need to be balanced.

Patents sit in an odd middle ground referred to as the 'stressful if fertile union between certain contradictory principles.'[21] Patents must balance the elements of private interest and the public interest. Without the addition of an object clause prior to apocalypse, a Reforming Government would have difficult in determining what element is more important.

A government's overriding interest in public safety and the state's continued existence would mean if left to the Reforming Government's interpretation the private right would be weakened possibly removed outright. An objective clause within the Patent Act would provide certainty and closure in ensuring the private right and the need for public purpose are clearer.

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16 Ibid.
17 Children's Cancer Institute Australia for Medical Research, Submission P13, (ALRC) 30 September 2003.
18 *Types of Patents* (30 May 2016) IP Australia <https://www.ipaustralia.gov.au/patents/understanding-patents/types-patents>.
19 P Baird, 'Patenting and Human Genes' (1998) 41 *Perspectives in Biology and Medicine* 391.
20 *Integra Life Sciences v Merck KgaA* 307 F 3d 1351 (2002): Newman J, dissenting.
21 L Kass, 'Patenting Life' (1981) 63 *Journal of the Patent Office Society* 570, 580.

C. Failed States.

Historically, the Crown as a method of attracting business granted patents.[22] A patent would only exist as an enforceable right through Crown recognition.[23] The idea of a 'failed state' implies a level of societal collapse where government and therefore the Crown ceases to function.[24] The question becomes, if failed state scenario occurred what happens to a patent with the protections afforded to patents by the Crown?

State failure brings an interesting question to the status and ownership of patents. If a patent (and current patent law) ceases to exist on state collapse, the new polity will be able to acquire the underlying IP of previously registered patents for free, while the private individual would be interested in ensuring that these patents, and their IP are protected.

What occurs to a patent in the event of failed state is not clear. Somalia, identified as failed state, serves as an example we can draw parallels from.[25] Somalia lacks any enforceable legislative property rights due to the lack of a central court system, lack of formal contracting and widespread disregard of the state's authority.[26] Property rights in Somalia are asserted through non-legislative methods (choosing to enforce them through ideas such as 'homesteading'[27] or clan based conflict resolution.)[28].

Taking this if property rights are not recognised in semi functional failed states, it is doubtful that the underlying intellectual property rights within patents will formally recognised or protected during state failure. Without the security provided by patent registration existing alongside the protections the Federal Government would afford them, the underlying IP would become available for exploitation.

With a Reforming Government rebuilding authority and intellectual property law at the end of the apocalypse, the patent holder would be interested in reasserting their right and prevent the exploitation of the underlying IP. An argument could be mounted that patents exist as a system that recognises and protect the inalienable right the patent holder has to the underlying IP.

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22 S Ricketson, *The Law of Intellectual Property: Copyright, Design & Confidential Information* (Thomson Reuters 1984), 859–86.

23 E Wyndham Hulme, 'The History of the Patent System under the Prerogative and at Common Law' (1896) 46 *Law Quarterly Review* 141-154.

24 The discussion of Failed State is an area of complexity and for the purposes of this article we will continue on the presumption that at some point during the zombie apocalypse the Australia did collapse and became a Failed State.

25 A Jamal, *Identifying Causes of State Failure in the Case of Somalia* (13 August 2013) Atlantic Community.Org <http://www.atlantic-community.org/-/identifying-causes-of-State-failure-the-case-of-somalia>.

26 Christopher J Coyne, 'Reconstructing weak and Failed States: Foreign intervention and the nirvana fallacy.' (2006) 2 *Foreign Policy Analysis* 352.

27 Ibid 35, Homesteading is a concept in which the individual is recognised as owning the land if they have built up and occupied the land.

28 Ibid.

Inalienable rights stems from the legal theory that certain rights exist as natural rights and do not cease to exist.[29] These inalienable rights are enshrined in human rights charters and declarations.[30] If the underlying IP were recognised as an inalienable right, this would mean that the crown does not grant a Patent, rather, through the system of patenting recognises and formalises an already existing natural right.

If this argument were to be accepted, a patent would only be temporarily suspended at a time of state failure. With resumption of government the patent could be argued to have been refreshed. The validity of such an argument is questionable. IP is a social good that brings many benefits, and is recognised as human right.[31] Determining if such a human right extends to the underlying IP in patents and whether that recognition extends to an inalienable right would be difficult. Does a private property right necessarily override a community need?

If a patent no longer exists and the exclusive protection for the underlying IP is extinguished a Reforming Government would be justified in exploitation of the patent. However, if the underlying IP is considered an inalienable right, the patent may refresh after State failure and the patent holder would regain their right. A definition as to the status of patents through treaties or a newly formed purpose clause would assist here greatly in determining the status of patents during the rebuilding stages.

III THE ZOMBIE APOCALYPSE: AUSTRALIA'S BEST CHANCE AT PATENT REFORM?

In the words of the philosopher Sceptum, the founder of my profession: am I going to get paid for this.[32]

Payment as recognition for achievement, as we will see, is a core tenet of the Patent Act.[33] This concept may not last through the zombie apocalypse as funds become more difficult to leverage. This section seeks to highlight this issue in our current provisions for Crown Use and Compulsory Licencing.[34]

A *Compulsory Licencing.*

Compulsory licencing allows the Federal Government or individual to acquire a licence to exploit a patented right without the patent holder's permission.[35] That power that has

29 Murray Rothbard, *The Ethics of Liberty* (Humanities Press 1982).
30 *Universal Declaration Of Human Rights*, GA Res 217A (III), 3rd Sess, 183rd plen mtg, UN Doc a/810 (19 December 1948).
31 *Universal Declaration Of Human Rights*, GA Res 217A (III), 3rd Sess, 183rd plen mtg, UN Doc a/810 (19 December 1948) 27.
32 Terry Pratchett, *Night Watch* (HarperCollins 2009).
33 *Patents Act 1990* (Cth) s136J, s165.
34 Ibid s163, ch12
35 Ibid s133 (1).

seen limited application in the Federal Court as no compulsory licence has ever been granted in Australia[36] and only one case has ever been brought to the Federal Court.[37]

Reform in the compulsory licencing, rather than crown use, would allow for individuals to acquire or exploit the patent if the Federal or Reforming Government was prevented from doing so. This is particularly relevant in a scenario such as the zombie apocalypse.

1. *Issues in Granting a Compulsory Licence*

A comprehensive examination of the issues associated with using tests to grant compulsory licence can be found in the Australian Law Reform Commission (The **'ALRC'**) paper, '*Genes and Ingenuity: Gene Patenting and Human Health*.'[38]

This following paragraphs will focus on the issues surrounding the requirements that must be satisfied prior to seeking compulsory licencing as stated in section 133 of the Patents Act:

> A person may apply to the Federal Court, after the end of the prescribed period, for an order requiring the patentee to grant the applicant a licence to work the patented invention.[39]

When examined through the scope of national emergency a few issues exist. The prescribed period must have ended, the grant is only a licence, remuneration must be paid,[40] and an attempt must have been made to obtain a licence from the patent holder on reasonable terms and conditions.[41] These requirements create issues in the areas of timing and payment when looking to apply these provisions during a national emergency.

As the provisions stand, the Federal Government would be hamstrung during an emergency to react quickly. Through having to adhere to a prescribed period ranging from 6 to 12 months the Federal Government would face a delay in ability to acquire a patent.[42] In times of emergency any undue delay could cause damage (on the basis that the Government might disregard what it regards as legal niceties that are contrary to the survival of the Executive and society).

The requirement under section 133(A)[43] to attempt for reasonable period to obtain a licence from the patent holder would also cause delay. A court determination would be required to determine what a reasonable period is.[44] Such a determination would be

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36 Productivity Commission 2013, *Compulsory Licensing of Patents*, Inquiry Report No. 61, Canberra.
37 *Fastening Supplies Pty Ltd v Olin Mathieson Chemical Corp* (1969) 119 CLR 572; 44 ALJR 7.
38 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2. Weblink: <http://www.alrc.gov.au/publications/genes-and-ingenuity-gene-patenting-and-human-health-alrc-report-99/27-compulsory-license> .
39 *Patents Act 1990* (Cth) s133.
40 Ibid s132.
41 *Patents Act 1990* (Cth) s133(2)(a)(i).
42 *Patents Regulations 1991* (Cth) r 2.2(2)(a)–(b).
43 *Patents Act 1990* (Cth) s133(2)(a)(i).
44 Ibid s133(2).

done with the Federal Court's discretion, which the ALRC notes should have regard to the circumstances at the time.[45] While likely the Federal Court would be satisfied that in the event of zombie apocalypse any delay would constitute unreasonable delay, the requirement and process still exist, which could cause delay.

These provisions limit the Federal or Reforming Government's ability to react in emergency. An ability to react quickly and effective to acquire the patent to ensure healthcare distribution would be crucial. These timing provisions do not facilitate this need.

The second issue that may cause delay is the requirement for reasonable negotiation. This becomes an issue of both timing and payment. The Patent Act requires that reasonable payment to be given when a compulsory licence is granted[46]. There is no way to waive this required payment in the Patents Act.

The Federal Government would have to determine what a reasonable payment for a compulsory licence would be. According to the Patents Act the Federal Court would have to determine payment with regard to what would be 'just and reasonable, with regard to economic value.' [47]

There is no structure in the Patent Act as to what parts of the patent needs to be recognised to meet the 5(b) definition.[48] In looking outside of Australia, United Kingdom case law has determined three factors that influence the price of a patent:

1. Cost of Research and Development;
2. Cost of promoting the patent; and
3. A profit or reward element.[49]

The Federal Court and Government would do well to look to using these factors as a basis of determining what is 'reasonable during and after an existential threat to the state. From the perspective of a patents right holder – who enjoys monopoly rights regarding a truly invaluable pharmaceutical – these factors would mean the price of a compulsory licenced patent would be high. The requirement for payment encompassing so many factors would be detrimental to a Reforming Government's financial situation. The requirement a payment have regard to economic value under section 5(b),[50] may not be feasible at early rebuilding stages.

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45 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2 [27.48].
46 *Patents Act 1990* (Cth) s 133(5)(b).
47 Ibid.
48 Ibid.
49 *JR Geigy SA's Patent* [1964] RPC 391.
50 *Patents Act 1990* (Cth) s133 (5)(b).

In using our current provisions, we can see the Patents Act is limited. The ability of the Federal Court to incorporate certain terms into a compulsory licence may prove to be of assistance.

There are no specifics as to what terms may be included, with most discussion being that that the court may ensure there is a reversion of rights clause once the situation has calmed down.[51] The legislature could extend this power to allow for detailed restricting of patent licences in money or timing.

The process of Compulsory Licencing is not timely enough. In times of emergency, the requirement for negotiation, that the patent holder enjoy a prescribed period and price determination are all areas that formally delay a government's ability to react during emergency.

2. *Recommendation: National Emergency Provisions*

Expanding the Patents Act to allow immediate licencing of patents during 'a national emergency or other circumstances of extreme urgency, or in cases of public non-commercial use'[52] is an idea that would be consistent with art 31(b) of the TRIPS Agreement,[53] answering the Federal Government's need for legislation in times of 'exceptions'.

A national emergency power would also allow for courts to determine price (and recognise suspension of any payment – until society has recovered), without consultation with the patent holder or remove the requirement for prior negotiation altogether. An emergency licencing provision would give the Federal Court discretion in a number of areas regarding patents depending on the extremity of the scenario would provide much needed flexibility to address issues as they arise.

This recommendation has been criticised on a number of fronts. Removal of prior negotiation to acquiring patents has been noted as 'draconian'[54] and that Compulsory Licence should remain an exception under limited circumstances.[55] Whilst these criticisms are understandable as patents stem from a private right, such changes would put Australia in line with the Doha Declaration.[56]

The criticisms over such reform are justly made. Such extreme provisions would lessen the attractiveness of Australian markets and depart from the fundamental principle that the patent holder enjoys an exclusive right over their patent. Such criticism does not

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51 Ibid s133(6)(a).

52 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2, Question 27–3.

53 *Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health*, WTO DOC WT/L/540 (2 September 2003) (Decision of August 2003) Art 31(b).

54 Department of Industry Tourism and Resources, Submission P97, 19 April 2004.

55 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2, [27].

56 *Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health*, WTO DOC WT/L/540 (2 September 2003) (Decision of August 2003) Art 31(b).

consider that the court may revoke a compulsory licence where the circumstances that justified its grant have ceased to exist and are unlikely to reoccur.[57]

The Legislature should look to amending the requirements for a compulsory licence now, as reform during a time of emergency may not be possible. The inclusion of emergency provisions that allow for greater discretion and ensure the Reforming or Federal Government will have the capacity to licence a cure through the Patents Act.

B *Crown Use*

Section 163 of the Patents Act states:

> Where, at any time after a patent application has been made, the invention concerned is exploited by the Commonwealth or a State (or by a person authorised in writing by the Commonwealth or a State) for the services of the Commonwealth or the State, the exploitation is not an infringement.[58]

Crown use provisions are based on the belief that patents in matters of public interest should not prevent the Federal Government.[59] Cosistent with the ALRC, this would be the most effective tool in dealing with National emergencies.[60]

Crown use has been criticised in its current form as a tool "to force an unwilling licensor to the negotiating table."[61] The Advisory Council on Intellectual Property ("**ACIP**") paper, 'Review of Crown Use Provisions for Patents and Designs'[62] noted submissions, which claimed that Government bodies use crown use as a threat.[63] This idea runs counter to the belief that patents exist to protect and promote innovation.

The issue with Crown Use is the ambiguity of the provisions, clarity is needed on what it means by 'authorised by Commonwealth and State'[64], the Patents Act lacks a definition of 'in service for Commonwealth or State'[65] and finally, no explanation exists as to what is appropriate remuneration for Crown Use under s165.[66] It would serve the

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57 *Patents Act 1990* (Cth) s133 (6).
58 *Patent Act 1990* (Cth) s163.
59 General Steel Industries Inc. v Commissioner for Railways (NSW) (1964) 112 CLR 125, 133–134.
60 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2, Pt A.
61 W Cornish, M Llewelyn and M Adcock, *Intellectual Property Rights (IPRs) and Genetics* (2003), 74.
62 Advisory Council on Intellectual Property, 2005, *Review of Crown Us Provisions for Patents and Designs.* <https://www.ipaustralia.gov.au/sites/g/files/net856/f/acip_final_report_review_of_crown_use_provisions_archived.pdf> .
63 Ibid pg 31.
64 *Patent Act 1990* (Cth) s163(1).
65 *Patent Act 1990* (Cth).
66 Ibid s165.

Federal Government well to address these issues of ambiguity now to not be forced to rely on interpretation later.

1 *Relying on Crown Use*

The Crown Use provisions apply when the Federal Government seeks to use a patent 'for the services of the Commonwealth or the State'[67] without the patent holder's permission and only if 'if the exploitation is 'necessary for the proper provision of those services within Australia'.[68]

Clarity as to what exactly, 'necessary for the proper provisions of those services within Australia' means is ambiguous, with most interpretations quite broad. In *Stack v Brisbane City Council* (1994)[69] the court determined, with regard to *Pfizer Corporation v Ministry of Health* [1965],[70] that exploitation of patented drugs in a National Health Service hospitals was necessary for the provision of services within Australia as the hospital was empowered by the authority of the State[71].

The Federal Court further stated that the powers exercised are not limited to internal activities but also benefits to the public.[72] A State or Federal Government body may rely upon Crown Use while performing a duty or exercising a power that it was required to.[73]

Taking this definition from *Stack*[74] to rely on Crown Use it seems the applicant only needs to prove a connection to a government authority and that their action serves a public benefit necessary for Australia. This is a broad interpretation of the power the Reforming or Federal Government or even a related entity could justify acquisition of the suppressant patent as service for the Commonwealth and public (In this instance by distributing the cure to Australian society).

Crown Use provision have come under criticism by ACIP as being too broad. ACIP points to the sale of drugs being deemed a public service as an example of the power being too broad.[75] ACIP further criticises the broad definition of Crown Use in relation to what it means to be a Commonwealth or State authority and what exactly that entails.[76]

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67 *Patents Act 1990* (Cth) s 163(1).
68 Ibid 163 (3).
69 131 ALR 333.
70 AC 512.
71 *Stack v Brisbane City Council* (1994) 131 ALR 333.
72 Ibid.
73 Ibid.
74 Ibid.
75 Advisory Council on Intellectual Property, 2005, Review *of Crown Us Provisions for Patents and Designs* 10–11. <https://www.ipaustralia.gov.au/sites/g/files/net856/f/acip_final_report_review_of_crown_use_provisions_archived.pdf>.
76 Advisory Council on Intellectual Property, 2005, Review *of Crown Us Provisions for Patents and Designs*, 20.

The current broad scope of definition to who is or isn't a Commonwealth or State authority could mean that Crown Use could be exploited by an agency with only a tenuous connection to Commonwealth or State Authority,[77] ACIP uses a scenario of government funded research institutes that hold a private interest acquiring rights through Crown Use for a competitive edge.[78]

Such exploitation would promote distrust in government and lessen the attractiveness of the Australian patent system. The purpose of patents is to promote and foster innovation through reward. The ability for a government body or organisation with a tenuous connection to government authority to acquire a patent through a broad interpretation of *Stack*[79] defeats that purpose. The patent holder would no longer be rewarded for his innovation as other agencies could acquire the patent for their own commercial gain and thus not truly for service to the public. The innovator is not rewarded and the attractiveness of Australian market would suffer. (In the context of the apocalypse and its immediate aftermath Australian policy makers are unlikely to give much weight to these considerations,)

2 *Remuneration for Crown Use*

While the Federal or State/Territory government may be able to acquire a patent through Crown Use there is still a requirement of remuneration for the patent. The Federal or Reforming Government formally would have to determine a price either jointly with the patent holder or through a Federal Court determination.[80]

Unlike the Compulsory Licencing there is no clarity as to what would be considered reasonable remuneration if a patent is exploited through Crown Use.[81] The Court would have to seek direction elsewhere. Our international treaties do provide some guidance in this area, definition to payment are provided in loose terms in both the TRIPS Agreement,[82] and the Australian-United State Free Trade Agreement.[83] The Trips Agreement[84] lays out a specific standard of remuneration regarding the circumstances at the time.[85] The Australian-United States free trade agreement makes no reference to circumstances and simply states a requirement for '*reasonable* compensation*'*. [86] (emphasis added).

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77 Ibid 21.
78 Ibid 21.
79 *Stack v Brisbane City Council* (1994) 131 ALR 333.
80 *Patents Act 1990* (Cth) s165.
81 Australian Law Reform Commission, *Genes and Ingenuity: Gene Patenting and Human Health,* Report No 99 (2004) vol 2, 26.26.
82 Agreement on Trade-Related Aspects of Intellectual Property Rights (Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization), [1995] ATS 8.
83 Australia and United States, *Australia–United States Free Trade Agreement*, 18 May 2004.
84 *Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health*, WTO DOC WT/L/540 (2 September 2003) (Decision of August 2003).
85 ibid Art 31(c)-(i) *'adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization'*.
86 Australia and United States, *Australia–United States Free Trade Agreement*, 18 May 2004.

The Federal Court would look to a payment that meets both reasonable compensation and with regard to the circumstances at the time. In such a scenario, it would be likely this would be a low amount. A better definition of payment and what would be considered appropriate remuneration in times of emergency would allow for a Reforming Government to prepare and budget better. Addition of clauses in the Patents Act regarding fair payment in acquiring a patent during times of emergency would be essential in preventing issues of ambiguity.

The lack of clarity regarding payment exposes a core issue that exists throughout this article with regards to the Patent Act: Ambiguity. With no guidance on how to structure payment, reliance on treaties would be essential to ensure meeting obligations, if in the post apocalypse international order other nations are in a position to require Australia to remunerate rights holders.

3 *Recommendation: Ministerial Approval*

ACIP recommends that rather than relying on the common law interpretation of Crown Use as promoted in *Stack*[87] the Government would be better served in requiring ministerial approval for any acquisition or licence done under Crown Use.[88] This idea could be expanded by incorporating the suggestion that in the event of emergency this ministerial approval could be waived and another Minister (or delegate) could act in the Minister's capacity.[89]

The inclusion of Ministerial approval would defeat the ambiguity of the test in *Stack,*[90] by providing an outline of the decision process that goes into implementation of Crown Use clarity and reduction of ambiguity would occur.[91] In times of non-emergency this would provide an effective method of ensuring Crown Use is done correctly while preserving private rights.

C *Patent Reform Recommendation: Emergency Clauses.*

Through combining the recommendations of emergency provisions for Compulsory Licencing and Crown Use, the Federal Government would be served in introducing new emergency provisions that would govern Crown Use and/or Compulsory Licencing at the time of emergency. These clauses could reduce time and expense in seeking an order for the licence to a patent.

87 *Stack v Brisbane City Council* (1994) 131 ALR 333.
88 Ibid.
89 Ibid.
90 ibid.
91 R Creyke, J Mcmilian and Mark Smyth, *Control of Government Action: Text, Cases and Commentary* (LexisNexis Butterworths 4th Ed 2015) 21.1-2.1.6.

IV WORLD WAR Z - RETURN OF THE NATIONAL SECURITY ACT?

The book of war, the one we've been writing since one ape slapped another, was completely useless in this situation. We had to write a new one from scratch.[92]

A *The National Security Act.*

The National Security Act 1939 (Cth)[93] (The **'NSA'**) was an enactment made during World War 2 in a response to the total war scenario at the time. The NSA allowed for the Executive, through the defence head of power[94], to make broad regulations to protect Australia.[95] The idea of the zombie apocalypse being a total war scenario is not uncommon, so it would be no surprise to see the return of the NSA.

The NSA gave massive control to the Federal Government in aspects such as land acquisition,[96] price control[97] and property acquisition.[98] A resurfacing of the NSA could provide the Reforming Government with the necessary powers and discretions to handle an apocalypse.

The NSA was a controversial enactment. A Reforming Government would do well in ensuring they are aware of these criticisms before implementing the NSA. The circumstances surrounding the employment of barmaids through NSA regulations in South Australia highlighted both the wide discretionary benefits that the NSA can bring along with the criticisms the power brings with it.[99]

The issue of barmaids surrounded a regulation under the NSA allowing women to work as barmaids to meet the lack of manpower and encourage enlistment of males.[100] The key issue surround the arguments of how much a woman would be paid and whether the bar was an appropriate workplace for a woman.[101]

The South Australian Government criticised the use of the NSA, claiming it to be a method of removing the power of the States' power over employment through the justification of wartime and the defence head of power the legislation was based on.[102]

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92 Max Brooks, *World War Z: An Oral History of the Zombie War* (Duckworth, 2006),102.
93 *National Security Act 1939* (Cth).
94 s 51(vi) of the Constitution as discussed in Bede Harris, 'Constitutional Implications of the Zombie Apocalypse', Canberra Law Review 14(1), 14.
95 *National Security Act 1939* (Cth) (5).
96 *Queensland v Congoo* [2015] HCA 17.
97 *Stenhouse v Coleman* [1944] HCA 36; 69 CLR 457.
98 *Andrews v Howell* [1941] HCA 20; 65 CLR 255.
99 C Fort, 'State vs Federal Government in the "Barmaids" Case: Regulating Australia's Second World War Home Front', (2015) 62(1) *Australian Journal of Politics and History.*
100 Ibid.
101 Ibid.
102 Ibid, 22.

This criticism was not uncommon with claims that the use of defence head of power was being abused to justify regulation over areas that are not related to Defence.[103]

Many believed that use of the defence power was not an appropriate method of justification, this was foreshadowed in *Farey v Burvett* [1916] [104] with Griffith CJ stating:

> The existence of war does not result in handing over to the Commonwealth general control of these matters.[105]

Stenhouse v Coleman [1944] HCA 36 [106] (***'Stenhouse')*** expanded upon the idea with the High Court holding that any regulation passed under the NSA must be an:

> An act of Statesmanship which should be related to the purpose of the constitutional power, and not to any political or other ulterior purpose. [107]

As we can see the NSA's power is limited. In creating a new Zombie NSA the Reforming Government would need to remember the criticisms of the original NSA. Naming something as a necessity in the zombie apocalypse would not mean regulations would be justified. A Reforming Government in theory would need to prove that use of the power will provide some effect in relation to a battle against zombies and is done so for the good of the country as a whole rather than a political measure.[108]

As the threat to Australian society increases there was a trend in the original NSA to accept more extreme regulations created for defensive purposes.[109] In a total zombie war scenario it could be justified that the executive may make regulations through the Zombie NSA based on an interpretation of the original NSA at its broadest in power.

It is clear to see that a Zombie NSA would have the power to help the executive address many issues that an emergency scenario such as the zombie apocalypse would bring. A 'zombie' NSA does not provide expansive powers at all times, regard would need to be taken to the purpose of the regulations made.

B *Torpedoes and Planes - Responses to Government Acquisition*

Patent holders tend to be apprehensive of Federal Government acquisition, even if legally justified. During the World Wars this apprehension was brought to the forefront as public and private industries partnered or were repurposed. During World War 1 industries struggled as they were:

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103 Ibid. 21.
104 *Farey V Burvett* [1916] HCA 36; 21 CLR 433,442.
105 Ibid.
106 *Stenhouse v Coleman* [1944] HCA 36; 69 CLR 457.
107 ibid pg 466.
108 *Stenhouse v Coleman* [1944] HCA 36; 69 CLR 457.
109 C Fort, State vs Federal Government in the "Barmaids" Case: Regulating Australia's Second World War Home Front, (2015) 62(1) *Australian Journal of Politics and History* 20.

> Based not on the new collaborative procurement paradigm but on an older one, in which the public sector bought finished goods from the private sector as ordinary commercial products.[110]

Rather than seeing a continuation of collaboration paradigm,[111] we may see a reversion back to procurement of finished goods. Such a move would be a more costly and demanding system for day to day Australian life, however many we may like the fiscal capacity to continue with collaboration. It seems likely that any patent holder who survived the apocalypse would be cautious of future collaborative efforts until a Reforming Government has regained complete financial capacity.

The patent holder may also find that the Federal Court loses sight of property rights at times of crisis.[112] Losing these rights could imply a lack of patent over them[113]. If such apprehension exists the Government would do well to get the patent holder on side to prevent any issues in future.

During World War One the Wright Brothers managed to effectively delay a patent pool created by the United States Government through control of patent maintenance fees and prohibitive royalty payments,[114] a delay so effective military action was considered briefly to acquire the patent again.[115]

This highlights two issues. Firstly, patent holders are reluctant to give away patents, secondly patent holder still hold a large amount of power in our current system. A certain degree of care would be necessary to ensure the patent holder continues to help in such a time of emergency to ensure things run smoothly.

It's not impossible to believe that the Reforming Governments reaction will be to return to a wartime state and attempt to seize whatever it needs to get through the zombie apocalypse. Such a reaction could be damaging in the long run to the patent holder who may lose their patent and to the Reforming Government who may lose business. A worst-case scenario would be the use of the patent is effectively frozen as we see in the Wright Brothers instance.

The return of the NSA could provide some valuable discretions and flexibility but care would need to be taken in its use. The patent holder still has power, which the Reforming Government would need to make ensure is understood and approached cautiously. Furthermore, State Government and the Federal Court may take a dim view

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110 Katherine Epstein, *Torpedo: Inventing the Military Industrial Complex in the United States and Great Britain* (Harvard University Press 2014) pg 15.
111 Ibid.
112 Ibid16.
113 Katherine Epstein, *Torpedo: Inventing the Military Industrial Complex in the United States and Great Britain* (Harvard University Press 2014) 55.
114 Lawrence B. Ebert, "*Patent Thickets and the Wright Brothers"* (1 July 2006) IPBIZ, <http://ipbiz.blogspot.com.au/2006/07/patent-thickets-and-wright-brothers.>.
115 Ibid.

at any stripping of rights through broad regulations under a zombie NSA, if taken too far for political or unnecessary reasons.

Underlying this paper, in contrast to the dire views implicit in other contributions to the special edition of the Canberra Law review, is that institutions such as the Federal Court will continue to operate without much disruption during the course of the apocalypse and that there would be popular support for the maintenance of intellectual property rights. It is worth noting at common law there is a long history of recognising public / private use (or destruction) of property in small scale emergencies, such as house fires, floods and bushfires.

V WHERE TO NOW?

Patent Law rather artificial, highly complex and somewhat refined subject.[116]

Such a quote has never been more relevant when examining patents through the lens of the zombie apocalypse. The apocalypse presents a valuable opportunity to expose our current regime to a 'worst case' scenario. In this instance, the Federal Government would do well to look to making new and lasting reforms to prevent legislation being created on the lurch.

Before the apocalypse begins the Federal Government should look to reforming the Patents Act. This would provide a level of certainty to a Reforming Government and guarantee that in such an emergency the Reforming Government would have the capability to address any scenario.

In the alternative after or during the apocalypse the Reforming Government may look at returning to the NSA empowering the Executive with the flexibility it requires for such a unique scenario.

116 *Commissioner of Patents v The Wellcome Foundation* [1983] NZLR 383 at 398, per Cooke J.

PART III: SUPPLEMENTAL ZOMBIE MATERIALS

Books

Naomi Alderman, *Zombies, Run!: Keeping Fit and Living Well in the Current Zombie Emergency* (Penguin, 2016)

Murali Balaji (ed), *Thinking Dead: What the Zombie Apocalypse Means* (Rowman & Littlefield, 2013)

Stephanie Boluk and Wylie Lenz (eds), *Generation Zombie: Essays on the Living Dead in Modern Culture* (McFarland, 2011)

Max Brooks, *The Zombie Survival Guide: Complete Protection from the Living Dead* (Crown, 2003)

Richard Greene and K Silem Mohammad (eds), *Zombies, Vampires, and Philosophy: New Life for the Undead (Popular Culture and Philosophy)* (Open Court, 2010)

Jason Hazeley and Joel Morris, *The Ladybird Book of the Zombie Apocalypse* (Penguin, 2016)

Stephen Jones, *Zombie Apocalypse! Fightback* (Running Press, 2012)

Roger Ma, *'The Zombie Combat Manual: A Guide to Fighting the Living Dead'* (Penguin, 2010)

Christopher Moreman and Cory James Rushton (eds), *Zombies Are Us: Essays on the Humanity of the Walking Dead* (McFarland, 2011)

Shawn McIntosh and Marc Leverette (eds), *Zombie Culture: Autopsies of the Living Dead* (Scarecrow Press, 2008)

Shaka McGlotten and Steve Jones (eds), *Zombies and Sexuality: Essays on Desire and the Living Dead (Contributions to Zombie Studies)* (McFarland, 2014)

Steven C. Schlozmon, *'The Zombie Autopsies: Secret Notebooks from the Apocalypse'* (Grand Central Publishing, 2012)

Philip Simpson and Marcus Mallard (eds), *The Walking Dead Live! Essays on the Television Show* (Rowman and Littlefield, 2016)

Robert Smith, *Braaaiiinnnsss!: From Academics to Zombies* (University of Ottawa Press, 2011)

Amy Thompson and Antonio Thompson (eds), *But If A Zombie Apocalypse Did Occur (Contributions to Zombie Studies)* (McFarland, 2015)

Timothy Verstynen & Bradley Voytek, *'Do Zombies Dream of Undead Sheep? A Neuroscientific View of the Zombie Brain'* (Princeton University Press, 2016)

Wayne Yuen (ed), *The Walking Dead and Philosophy: Zombie Apocalypse Now* (Open Court, 2012)

Articles

Kyle Bishop 'Dead man still walking: Explaining the zombie renaissance' (2009) 37(1) *Journal of Popular Film & Television* 16

Adam Chodorow, 'Death and Taxes and Zombies' (2012) 98 *Iowa Law Review* 1207

Jean Comaroff and John Comaroff, 'Alien nation: zombies, immigrants, and millennial capitalism' (2002) 101(4) *South Atlantic Quarterly* 779

C T Davies, K J Cheshire, R Garratley and J Moore, 'Another Zombie Epidemic' (2016) 15(1) *Physics Special Topics* A2-6

Peter Dendle, 'The zombie as barometer of cultural anxiety' in Niall Scott (ed), *Monsters and the Monstrous: Myths and Metaphors of Enduring Evil* (Rodopi, 2007) 45

Daniel Drezner, 'Metaphor of the Living Dead: Or, the Effect of the Zombie Apocalypse on Public Policy Discourse' (2014) 81(4) *Social Research: An International Quarterly* 825

Christopher Flavin, 'The Walking Dead: The Panoptic Gaze and Ideologic Zombies' (2014) 13(2) *Journal of Cultural & Religious Theory* 82

Isak Winkel Holm, 'Zombies and Citizens: The Ontopolitics of Disaster in Francis Lawrence's I Am Legend' in Isabel Capeloa Gil and Christoph Wulf (eds), *Hazardous Future: Disaster, Representation and the Assessment of Risk* (De Gruyter, 2015) 205

Michelle Kramisen, 'Confronting Trauma in the Zombie Apocalypse: Witnessing, Survivor Guilt, and Postmemory' in Philip Simpson and Marcus Mallard (eds), *The Walking Dead Live! Essays on the Television Show* (Rowman and Littlefield, 2016) 109

Scott Mirabile, 'The Psychology of Surviving the Zombie Apocalypse' in Amy Thompson and Antonio Thompson (eds), *But If A Zombie Apocalypse Did Occur (Contributions to Zombie Studies)* (McFarland, 2015) 209

Jason Morissette, 'Zombies, International Relations, and the Production of Danger: Critical Security Studies versus the Living Dead' (2014) 36(2) *Studies in Popular Culture* 1

Tamas Nagypal, 'From the classical polis to the neoliberal camp: mapping the biopolitical regimes of the undead in Dawn Of The Dead, Zomi 2 and 28 Days Later' (2014) 13(2) *Journal of Cultural & Religious Theory* 13

Todd Platts, 'Locating Zombies in the Sociology of Popular Culture' (2013) 7 *Sociology Compass* 547

Jon Stratton, 'Zombie trouble: Zombie texts, bare life and displaced people' (2011) 14(3) *European Journal of Cultural Studies* 265

Jon Stratton, 'The Trouble with Zombies: Bare Life, Muselmänner and Displaced People' (2011) 1(1) *Somatechnics* 188

Eric D Smith, 'Mob Zombies, Alien Nations, and Cities of the Undead: Monstrous Subjects and the Post-Millennial Nomos in I am Legend and District 9' in Smith, *Globalization, Utopia, and Postcolonial Science Fiction* (Palgrave Macmillan, 2012) 127

Mitchell Travis, 'We're All Infected: Legal Personhood, Bare Life and The Walking Dead' (2015) 28(4) *International Journal for the Semiotics of Law - Revue internationale de Sémiotique juridique* 787

Steven Williamson, 'The Comparative Politics of Zombie Attack' in Robert Glover and Daniel Tagliarina (eds) *Teaching Politics Beyond The Book* (Bloomsbury, 2013) 161, 165

Robert Wonser and David Boyns, 'Between the Living and Undead: How Zombie Cinema Reflects the Social Construction of Risk, the Anxious Self, and Disease Pandemic' (2016) 57(4) *The Sociological Quarterly* 628

Jeremy Youde, 'Biosurveillance, human rights, and the zombie plague' (2012) 24(1) *Global Change, Peace and Security* 83

Web Articles and Sites

Andrew Gelman, *'How many zombies do you know?' Using indirect survey methods to measure alien attacks and outbreaks of the undead'*

<https://arxiv.org/abs/1003.6087>

David Mizejewski, *'Zombies vs Animals? The living dead would not stand a chance'* <http://boingboing.net/2013/10/14/zombiesvsanimals.html>

Philip Munz , Ioan Hudea , Joe Imad , Robert J. Smith, '*When Zombies Attack, Mathematical Modelling of Zombies'*
<https://people.maths.ox.ac.uk/maini/PKM%20publications/384.pdf>

Ker Than, *'Zombie Virus" Possible via Rabies-Flu Hybrid'* <http://news.nationalgeographic.com/news/2010/10/1001027-rabies-influenza-zombie-virus-science/>

Centre for Disease Control zombie apocalypse preparation material. <https://www.cdc.gov/phpr/zombies.htm>

"Society, Science, Survival: Lessons from AMC's 'The Walking Dead,' Cornell University MooC analysis. https://www.canvaslms.com/news/press-releases/twd-mooc-results