

SOFTWARE AND BUSINESS METHODS IN AUSTRALIA.

WHAT IS PATENTABLE SUBJECT MATTER?



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1. INTRODUCTION

This article is based on part of a presentation that I delivered to various firms and corporations in Silicon Valley and also at a June 2006 conference hosted by the American Bar Association's Intellectual Property Section in Boston. The purpose of the presentation was to explain how we deal with software and business methods in Australia. The article is intended for U.S. patent counsel, but will be useful for anyone attempting to understand the Australian approach.

In this article, I briefly explain our novelty and inventive step requirements. I then go into more detail on the aspect of proper subject matter. In doing so, I discuss how software and business methods are handled in Australia.

Australia has definite rules for testing for proper subject matter. If these rules are applied consistently and correctly, it is not difficult to decide whether or not the claim in front of you defines patentable subject matter.

2. OUR PATENTABILITY REQUIREMENTS

2.1. The Australian Patents Act 1999.

According to Section 18(1) of our Act, an invention is a patentable invention for the purposes of a standard patent if the invention, so far as claimed in any claim:

- (a) *is a manner of manufacture within the meaning of section 6 of the Statute of Monopolies; and*
- (b) *when compared with the prior art base as it existed before the priority date of that claim:*
 - (i) *is novel; and*
 - (ii) *involves an inventive step; and*
- (c) *is useful; and*
- (d) *was not secretly used in the patent area before the priority date of that claim by, or on behalf of, or with the authority of, the patentee or nominated person or the patentee's or nominated person's predecessor in title to the invention.*

2.1. Absolute Novelty and Inventive Step Harmonization with United States

In Australia, we have a "first to file" system, with the novelty requirements being absolute in the European sense. However, we do have a 12-month grace period provision. The grace period is implemented as follows: Any information made publicly available through disclosure or use by the applicant or assignee is not considered prior art provided a patent application is filed within 12 months of the date of such disclosure.

It is important to bear in mind that if a third party had already taken advantage of that disclosure and was exploiting, or had taken definite steps to exploit, the invention, then it would not be possible for the applicant or assignee to prevent the continued exploitation of the invention by that third party.

In *Aktiebolaget Hassle v Alphapharm Pty Limited* [2002] HCA 59, the dispute involved the Australian patent that covered “Losec”, an extremely successful pharmaceutical that Alphapharm was keen to develop as a generic. The decision is instructive, and if any readers would like a commentary, please contact me. In short, the High Court followed the United States approach and re-affirmed the use of hindsight as impermissible.

2.2. Subject Matter must be a “Manner of Manufacture”.

In section 18(1)(a) *supra*, an invention must be a “manner of manufacture within the meaning of section 6 of the Statute of Monopolies”. Some readers may know that the Statute of Monopolies dates back to 1623 and is really the foundation of current patent law throughout the world.

It is fascinating to me that our Act reaches back almost 400 years to qualify patentable subject matter. However, the implications for the Australian patent system are deeply significant. Section 18(1)(a) and its predecessors has allowed our judiciary to maintain a broad interpretation of “manner of manufacture” and we have been able to keep up with emerging technologies. This is in contrast to the European system, where subject matter such as computer programs and business methods are excluded from the category of patentable subject matter by statute.

2.3. A Watershed Case

National Research Development Corporation v Commissioner of Patents (1959) 102 CLR (The “NRDC” Case) is regarded as a watershed case in Australia. In this matter, the patent in question covered a method of applying a known herbicide to a field to combat weed growth. The High Court referred to the 1942 British case of *GEC’s Application*. In that matter, Justice Morton put forward what have become known as Morton’s Rules. In terms of those rules, a method or process is a manner of manufacture if it:

- (a) results in the production of some vendible product; or
- (b) improves or restores to its former condition a vendible product; or
- (c) has the effect of preserving from deterioration some vendible product to which it is applied.

The High Court in NRDC held that it would only accept those rules if “product” could be interpreted as covering any “artificially created state of affairs”, which was “vendible” if it had “economic significance”. Furthermore, the method or process must have application in the industrial as opposed to the fine arts. That said, the High Court compared a field full of weeds with a weed-free field and concluded that there was indeed an “artificially created

state of affairs” discernible in the weed-free field. The weed-free field was clearly of economic significance and thus it concluded that NRDC had a patentable invention.

It follows that we can distill three rules for patentability from the NRDC case. In order to qualify as patentable subject matter, a method or process must:

- (a) result in an artificially created state of affairs;
- (b) be of economic significance; and
- (c) be applied to the industrial as opposed to the fine arts.

In the following paragraphs, I will discuss how we apply NRDC to software and then to business methods. The boundary between patentable and unpatentable subject matter should then become clear.

3. APPLYING NRDC TO SOFTWARE

3.1. IBM sets a precedent

In *International Business Machines Corporation v Commissioner of Patents (1991) 33 FCR 218*, the court considered a patent for “A Method and Apparatus for Producing a Curved Image”. It fell to the court to decide whether or not a method claim that defined a method for producing the curved image was patentable.

The claim had a number of computing steps followed by a display step. The claim did not describe any hardware. The Commissioner maintained that the method defined by the claim did not relate to patentable subject matter. The reasoning of the Commissioner was that the claim simply defined an algorithm. Being a method of solving a mathematical problem, an algorithm is not patentable, since it does not result in the requisite “artificially created state of affairs”.

On appeal, the Federal Court correctly interpreted the claim in the context of the specification. The specification made substantial reference to computers and other hardware to achieve the curved image. The court held that the context of the specification was an environment including a computer and a display and that the method of the claim had to be understood as being carried out in that environment. The court followed that by concluding that there was an “artificially created state of affairs” manifest in the altered computer and display, which was the result of carrying out the steps of the invention. The method was of economic significance because the curve had previously been calculated manually which was time-consuming and thus costly. Generation of the curve was applicable to the field of computer graphics and was thus applied to the industrial as opposed to the fine arts.

3.2. The Patent Office

The Australian Patent Office, or IPAustralia, as it is called, has endorsed the IBM and other decisions. According to the Australian Patent Examiner's Manual, the following are almost always patentable:

- (a). Source code for patentable computer software.
- (b). Executable code for patentable computer software, which is in a machine-readable form.
- (c). A computer, when programmed to achieve any result which has utility in the field of economic endeavour.

In our practice, we always ensure that a set of claims to a software product contains at least three independent claims as follows:

- (a). A method including the operational steps of the software.
- (b). A computer configured or programmed to carry out the operational steps.
- (c). The software product *per se*.

A claim for a software product would usually begin with the following: "A computer software product containing machine-readable instructions for execution by an electronic processor...".

4. APPLYING NRDC TO BUSINESS METHODS/E-COMMERCE

4.1. State Street found "persuasive".

In the matter of *Welcome Real-Time SA v Catuity Inc [2001] FCA 445 (17 May 2001)*, Justice Heerey had the opportunity to decide whether or not a claim covering a reward system comprised patentable subject matter. The reward system included computers, point of sale equipment and smart cards.

Justice Heerey found the United States matter, *State Street Bank & Trust Co v Signature Financial Group 149 F 3d 1368 (1998)* persuasive. Those familiar with this matter will recall that it concerned a patent for a data processing system for implementing an investment structure. Mutual funds ("Spokes") pooled their assets in an investment portfolio ("Hub") organised as a partnership. This system allowed for consolidation of costs of administering the funds combined with the tax advantages of a partnership.

Previous decisions of the United States Supreme Court had held that mathematical algorithms are not patentable subject matter to the extent that they are merely abstract ideas. However, in *State Street* the Court of Appeals held that the transformation of data representing discrete dollar amounts by a machine through a series of mathematical calculations into a final share price constituted a practical application of a mathematical

algorithm because it produced "a useful, concrete and tangible result" in the form of a final share price momentarily fixed for recording and reporting purposes.

His honour held that neither the reward system nor the financial system of *State Street* was a "business method" in the strict sense. Rather, he held that the reward system produced an artificial state of affairs in that cards could be issued for different loyalty programs of different traders as well as different programs offered by the same trader. All this could be done instantaneously at each retail outlet. The result was beneficial in a field of economic endeavour - namely retail trading - because it enabled many traders (including small traders) to use loyalty programs and thereby compete more effectively for business. Such competition was beneficial to consumers, both in the general sense and in the sense that they could obtain benefits in the form of discounts and free goods and services.

4.2. Examples of Non-Patentable Subject Matter

In *Welcome Real-Time SA v Catuity Inc (supra)*, his honour gave an interesting example of what would not be patentable.

That crackpot genius, Henry Ford, had the bright idea of stipulating that suppliers of components for the Model T Ford supply the components in crates fabricated with planks of suitable dimensions for use as floorboard planks for the Model T. According to Heerey J, that business method would not constitute patentable subject matter as it did not result in an artificially created state of affairs.

1. *A method of compensating a manager.*
2. *Choosing an absolute performance standard from a set of absolute performance standards.*
3. *Measuring an absolute performance of each firm.*
4. *Determining a performance comparison base.*
5. *Comparing said measurement.*
6. *Determining a relative performance measure.*
7. *Determining the managerial compensation amount.*
8. *Transferring compensation to said manager.*

That is the skeleton of the relevant claim in the *Ex Parte Lundgren* matter that was heard on 20 April 2004 by the United States Board of Patent Appeals and Interferences. The result of carrying out those steps would simply be a compensated manager. In my opinion such a

claim would not constitute patentable subject matter unless by some leap of logic one can reason that such a manager is an artificially created state of affairs!

4.3. A Patentable Claim

Australian Patent No. 732272 for “An Advertising System” - Granted 12 April 2001:

*“A method of attracting traffic to a network site, including:
publishing a network site for a plurality of radio advertisers, the
site having an index to the advertisers; and
advertising the address of the site on radio cooperatively
with respective advertisements of the advertisers.”*

The result of carrying out the steps of the above claim is a website with an index, which is the requisite “artificially created state of affairs”. Furthermore, such a website is clearly of economic value and is applied to the useful or industrial arts as opposed to the fine arts.

5. CONCLUSION

In order to assess a claim for patentable subject matter, one has to consider the result of the claim. I am tempted to refer to some form of “transformation” of hardware. However, it is important to stick to the terminology of the courts. There has to be a change in the state of affairs and that change has to be artificially created. It follows that if the specification makes no reference to hardware of any sort, there cannot be an “artificially” created state of affairs and the relevant claim would not be suitable for Australia.