

The Word-processing Patent - a Sceptical View from a Person Having Ordinary Skill in the Art

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In April of 2004 a patent was published by the South African patent office entitled: “Word-processing document stored in a single XML file that may be manipulated by applications that understand XML”. The description refers to a word-processing program which reads and writes documents in a native XML format. The patent application, number ZA200303346, was filed by Microsoft Corporation. That such an item should have washed up on our shores (we can be reasonably sure it did not originate here) is surprising for a number of reasons. The South African Patent Act specifically excludes computer programs (and the presentation of information) from patentability. The Act also sets out requirements for novelty, non-obviousness and an inventive step, all of which seem to be somewhat lacking in this application.

In this short paper I provide a brief overview of the international “intellectual property” environment which forms the backdrop to this strange arrival in our local patent office. I go on to argue that this particular patent, if it were to be enforced, could have a number of negative consequences which far outweigh any value it may have to our local economy and well-being.

With an eye to the conference theme of “Research for a changing world”, I argue that the most fundamental and far-reaching of changes we have seen in our field in the past few years, have not been technical, but rather changes in the normative assumptions surrounding the ownership of so called “intellectual property”. The proliferation of software patents which are over reaching in their scope, or predatory, trivial, or just plain nonsense reflects the new thinking. Patent number ZA200303346 falls somewhere amongst these categories.

Categories and Subject Descriptors: K.4.1 [**Public Policy Issues**]: Intellectual Property Rights; K.5.1 [**Hardware/Software Protection**]: Patents

General Terms: Computers and society, Legal aspects of computing

Additional Key Words and Phrases: globalisation, intellectual property, free/open source software, software patents

1. INTRODUCTION

It is a risky business for a computer scientist to write a paper about a patent. I do not pretend to have any formal background in patent law. From my moderate reading around the subject, I can confirm that that patent law is every bit as complicated and murky as it is reputed to be. The temptation is certainly to leave it to the lawyers. The trouble is that, whereas there is no reason to suspect that patent lawyers are any more wicked, crooked or greedy than the rest of us, they do have a strong vested interest in the patent system. And unfortunately, as the breadth of patentable material spreads rapidly into the area of computer software it seems that we too have an interest.

We have an interest, because as developers of computer software we fall into the category of PHOSITA’s, or Persons Having Ordinary Skill in The Art. The PHOSITA has a particular place in the lore of patents. In fact two places. The measure of whether the patent describes a sufficiently “inventive step” is if it would or would not have been obvious to a PHOSITA. The measure of whether a patent application provides sufficient disclosure is if the particular invention would be possible to be performed by a PHOSITA on the basis of the provided description. These traditional roles for the PHOSITA seem to indicate that, at the very least, we should have something to say about software patents. It would also be useful to bear in mind that as PHOSITAs we are also the *addressees* of software patents. We are supposed to read these things in the ordinary practice of our art both to keep ourselves abreast with what is new and innovative in our field, and to familiarize ourselves with ground from which we must exclude ourselves.

This paper focuses on a particular patent. The patent concerns word-processors and XML document formats. Singling this one out for particular treatment may seem arbitrary or even unfair. As has been pointed out by no

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less than Bradford Smith, Senior Vice President, General Counsel, and Secretary at Microsoft Corporation, and Susan Mann, Senior Policy Counsel at Microsoft Corporation, the US patent office alone *“has already issued as many as one hundred thousand software patents”* [Smith and Mann 2004]. Why pick on Microsoft? Why concentrate on this one?

It is not the intent of this paper to engage in the ever popular sport of Microsoft-bashing. Microsoft did not invent the strategy of patenting software. In fact Microsoft has been a frequent victim of a number of recent predatory patent claims which have caused them no small amount of headache and lead to calls for reforms of the US patent system. As reported in ZDNet News, March 11, 2005, *“Microsoft, typically faced with an average of 35 to 40 patent lawsuits at any given time, is particularly interested in reform as it hopes to pare down the \$100 million it spends annually to defend itself against such suits.”* So why pick on Microsoft? It is not so much that they are actively submitting patents in the US (over 3000 this year alone), but that they are beginning to file applications in the South African patent office as well.

Which brings us back to the patent in question: patent number ZA200303346 entitled **“Word-processing document stored in a single XML file that may be manipulated by applications that understand XML”**. The patent application was accepted¹ at the CIPRO (Companies and Intellectual Property Registration Office) office in Tshwane on 22 April 2004. The patent was granted barely two months later, on 30/06/2004. Equivalent patent applications have been made in other jurisdictions, including the US (US2004210818) , the European Union (EP1376387) , Japan (JP2004086883) and New Zealand (NZ525484). The patent had not yet been granted in any these jurisdictions, except for New Zealand which granted very recently (May 2005). Why was our local office so quick to grant what is proving to be a controversial and quite questionable claim?

Before going on to suggest answers to this question, it is necessary to provide some background to the logic and workings of the patent system.

2. COPYRIGHT AND PATENTS

2.1 Copyright

As computer scientists, we are reasonably familiar with the idea of copyright and how it relates to computer software. To understand how patents are different we need to look at the historical narratives used to justify intellectual property claims.

Copyright protects the rights of authors (or more usually their employers) over their expressed ideas. Typically once an idea has been expressed on some form of media (written words, paintings, film, computer programs) it is a relatively straightforward, low-cost operation to make copies of such works. It might seem that having such freely available copies should be a positive thing, contributing to the general public welfare. The state restricts that social good by granting and enforcing a limited monopoly to copyright holders. Depriving society of this social good clearly requires some form of justification and a number of justificatory narratives are typically mobilized to underpin the bargain. Copyright tends to rely primarily on either arguments deriving from John Locke’s [Locke 1690] instrumentalist justification of property as the reward for labour or from the “self developmental” perspective of Georg Hegel [Hegel 1821] which links property ownership with the recognition of the free individual [May 2000]. Whichever perspective one takes, and rights owners typically will use either or both depending on the context of their argument, both amount to an acknowledgement that authors deserve such property rights in one or other way. Nevertheless, copyright law tradition recalls that, in the case of so called intellectual property, there is a social cost involved, a balance to be struck. Hence there are restrictions on copyright’s term (typically 50 years for software), fair use provisions etc.

The use of copyright to protect rights in computer programs (both source code and object code) has been widespread since the 1980’s. Copyright protection for computer programs is made mandatory for World Trade Organisation members under Article 10 of TRIPS [TRIPS 1994].

2.2 Patents

Patents are a different form of rights, governed by different laws and international agreements, and have traditionally been granted for inventions used in industry. Industry in this context has historically been used in the same sense as the industrial revolution, rapid industrialisation, etc. Consequently patents were issued for the invention of machines, agricultural implements and the like.

The trend recently has been to assume a broader understanding of industry to include all areas of commerce, or to follow the US pattern of extending patent protection to any invention deemed “useful”. A patent provides the rights owner with stronger protection (that is stronger than copyright) over the innovative idea itself, rather

¹The Register of Patents indicates a lodging date of 30/04/2003 and an acceptance date of 22/04/2004. The acceptance date indicates the date which the application is ready to be published.

than simply the expression of it, and for a shorter time period (20 years is a mandatory requirement to be compliant with TRIPs obligations). In so far as patents, copyright and trade secrets can be seen as different species of "intellectual property" their relative terms and degree of protection can be summarized as in Table I:

Species	Period of protection	Degree of protection
Trade secret	No limit	Low
Copyright	Long (50 years or more)	Medium
Patent	Shorter (20 years)	High

Table I. Species of IP protection

Because of the industrial focus of patents, justificatory narratives are more typically economic rather than based on natural rights, ie. patents are a significant factor in rewarding innovation, and innovation is necessary in an economy to achieve non-linear dynamic growth [Teljeur 2002]. One can increase growth by throwing more resources at the productive processes, but to achieve non-linear leaps in growth you need to innovate. Whereas there is broad acknowledgement of the role of innovation in economic growth², the link between increased innovation and strong protection of innovative ideas through patents is a much more troublesome one.

2.3 Software Patents

The argument has been made that, although pure software patents *may* provide some form of incentive for innovation in the industry, there is a distinct lack of convincing evidence that this is actually the case. As Brian Kahin points out in his economic critique of the subject "*patent law and institutions have little to report on the contextual value of patents - what alternatives and circumstances make patents stronger, weaker, superfluous, cheap, or costly. There is an absence of reported data beyond the patents themselves and the relatively few disputes that end up in litigation*" [Kahin 2003]. It seems that we just don't know enough. Perhaps we can acknowledge that some patents, under some circumstances in some subsectors of the industry are valuable incentives for innovation. Yet identifying and filtering these is a task that is challenging the resources of the patent offices of the most developed economies on the planet. Given the deluge of software patent applications it is proving impossible to draw clear, defensible and useful boundaries around which are the "good" patents and which are not.

And yet the argument that we need software patents in order to stimulate innovation is simply repeated over and over, without a shred of credible evidence. The Microsoft General Counsel himself is not above making circular claims in this regard. The following line of argument from an article in a respectable Law journal is typical:

Fortunately the software industry has been relatively successful not only in inventing new technologies, but also in developing and marketing these technologies in ways that provide the resources for further rounds of innovation. Given that the US PTO³ alone has issued as many as one hundred thousand software patents, this success seems to be at least in part because of, rather than in spite of, the availability of patent protection for software. [Smith and Mann 2004]

Notice that the large number of software patents is suggested as a measure of innovation success. And presumably the large number of patents have been made possible by the availability of patent protection! All this observation indicates is what we already know: the easy availability of patents leads to patent seeking behaviour [Teljeur 2002], which is not necessarily linked to increased innovation.

A more likely theory which is increasingly finding its way into the literature, is that, far from providing efficient incentives to innovate, patents may have exactly the reverse effect in the software industry. [Kahin 2003] and [Merges 2004] both make the point that there are particular characteristics of software innovation which make patent protection an inappropriate, or at least inefficient, tool for promoting innovation. There are simply too many opportunities for deliberate or inadvertent infringement of patents when writing a computer program. Given the wide breadth or extreme triviality of many patents, the probability of writing a program which doesn't tread on any number of them is low. If the author of a single program has to pay licence fees to potentially thousands of patent holders, the cost of downstream innovation is simply too great. Software patents in large

²See, for example, the South African R&D Strategy Document of 2002. The document was a an output of the National Advisory Council on Innovation (NACI), a body setup by an Act of Parliament to advise the (then) Minister of Arts, Culture, Science and Technology, as well as cabinet as a whole, on science and technology issues. The full report is available from http://www.naci.org/pdfs/sa_rd_strat_2002.pdf (last accessed 1 August 2005).

³USPTO - United States Patent and Trademarks Office

numbers may form thickets which maybe impossible to workaround. Of course, this problem effects the large software houses as well, but the solutions worked out between, say Sun and Microsoft, or IBM and Oracle, is to cross-licence their patent portfolios to one another. Thus they enter into a sort of detente, the result of a patent arms race similar to the equivalent nuclear weapons stand off characteristic of the cold war. This characteristic of the industry may disadvantage individual developers, SMEs and newcomers who traditionally have provided the stimulus to innovation in a wide variety of industries.

Given the difficulty in establishing a clear link between software patents and increased inventiveness (the traditional link from which the patent system derives its legitimacy) there has been an increasing tendency (at least in the US) to revise the justificatory narrative. [Lemley 2004] contrasts the new narratives as Ex Post versus the traditional Ex Ante justifications for intellectual property: *“Of late new justifications for intellectual property protection have begun to appear in the literature and in court decisions. These arguments focus not on the incentive to create new ideas, but on what happens to those ideas after they have been created.”* Lemley argues that the justifications for the new Ex Post theories are fundamentally flawed in that their underlying assumption is that central monopoly control, not market choice, will produce the most efficient outcome. Whereas it is beyond the scope of this paper to analyze these arguments in detail, this new tendency is important to note. Any effort to try and understand arguments for, or against, patenting of computer programs must then take into account this contemporary shift in justificatory narratives that underpin the debate.

2.4 Global winds of change

The other aspect of patents which set them apart from copyright, is their national character. Whereas copyright is enjoyed immediately upon creation of the work, patent rights are only awarded following a successful application to a patent office ie. there is a need for registration. There is no international patent register so patents are generally filed with a national office and rights are enjoyed within the legal jurisdiction of that office. Note that patents in national offices are not necessarily filed by nationals. In fact, in all countries except the US and Japan, the majority of patent applications are from non-residents. And these majorities are not insignificant. The World Intellectual Property Organisation (WIPO) publishes statistics of patent applications by country.

We have become somewhat accustomed to the unequal distribution of wealth between rich and poor countries, but the WIPO report for 2001 (unfortunately the most recent year available) presents figures of “intellectual property” distribution which are nonetheless surprising. Table 2.4 shows the number of patent applications reported in a selection of countries:

Country	Residents	Non-Residents	Total
USA	190 907	184 750	375 657
UK	34 500	230 206	264 706
South Africa	175	76 571	76 746
Lesotho	1	150 361	150 362
Malawi	2	150 687	150 689
Mozambique	1	146 278	146 279
Zimbabwe	2	150 320	150 408
Zambia	8	3178	3186

Table II. Number of patent applications according to residence status: WIPO report IP/STAT/2001/B <http://www.wipo.org/>

There are a number of interesting features to these figures, but the most obvious observation is that the patent offices of the Southern African countries exist almost entirely to service foreign applications. Devoting significant resources to strong patent protection and copyright enforcement would seem not to be of great value to the residents of these states. This point is significant when we consider the costs of the patent reforms proposed in the US to make their system workable.

The “national” character of the patent system has allowed nations to use patent policy as a (rather blunt) economic instrument, or lever, to adapt the degree and scope of protection according to the current levels of innovation and development of the national economy. India and China both provide examples of impressive growth trajectories achieved largely in environments of very weak IPR protection. Indeed this was precisely the policy approach followed by the US during its years as a “developing country” and net importer of IP from Europe.

The ability of (particularly under-developed) nation states to set their own development agendas, particularly in terms of “intellectual property” policy has been severely curtailed in recent years. Many scholars have identified the 1994 TRIPS (Trade Related Aspects of Intellectual Property Rights) agreement as the turning point. May

[May 2000] describes TRIPS as a watershed. [Shadlen et al. 2005] talks of the end of the twentieth century being “marked by a sea change in global governance in the realm of intellectual property rights”.

TRIPS sets out a set of minimum standards for IPR recognition, protection and enforcement. This has been described by [Dreyfus 2004] as a “one way ratchet”. It is a system which “permits (encourages) members to expand intellectual property rights, but which makes them subject to challenge before the WTO when they reduce any incidents of protection.” Unlike previous treaties, such as the Paris Convention for the Protection of Industrial Property and the Berne Convention for Copyright Protection, TRIPS places “intellectual property” squarely within the ambit of world trade. The agreement is binding on all WTO members. Apparently the only way out of TRIPS is to get out of the WTO.

If, for the moment, we are stuck with TRIPS, the question becomes whether we can exclude software patents from our system and still maintain an acceptable level of TRIPS compliance. There are a number of reasons to believe that we can. Firstly TRIPS very specifically notes that computer programs should be protected by copyright. Secondly, whereas TRIPS requires that

“patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application” (TRIPS Article 27 - Patentable Subject Matter)

the word *invention* is left undefined. As was noted in a study commissioned by the European Parliament from the Institute for Information Law: “In the absence of a legal definition of “invention”, the agreement arguably leaves it to the member states to determine what constitutes a patentable invention, and whether or not that includes computer software as such[Bakels and Hugenholtz 2002].”

2.5 South African Patent Act

The South African Patents Act⁴ was modelled on the UK equivalent and reflects the same reservations, ambiguities and compromises of its European cousins. The relevant section regarding computer software is in Chapter 5, section 25:

25. (1) A patent may, subject to the provisions of this section, be granted for any new invention which involves an inventive step and which is capable of being used or applied in trade or industry or agriculture.

(2) Anything which consists of

- (a) a discovery;
- (b) a scientific theory;
- (c) a mathematical method;
- (d) a literary, dramatic, musical or artistic work or any other aesthetic creation;
- (e) a scheme, rule or method for performing a mental act, playing a game or doing business;
- (f) a program for a computer; or
- (g) the presentation of information,

shall not be an invention for the purposes of this Act.

(3) The provisions of subsection (2) shall prevent, only to the extent to which a patent or an application for a patent relates to that thing as such, anything from being treated as an invention for the purposes of this Act.

(4) ...

(5) An invention shall be deemed to be new if it does not form part of the state of the art immediately before the priority date of that invention.

⁴The Patents Act No 57 of 1978

Subsection (2) clearly removes various pure information creations, such as computer programs, from the scope of patentability. It would seem then that under this Act, software patents would not be permissible in this jurisdiction. Unfortunately there is a well known loop-hole in subsection (3) - it is only a computer program “as such” which is prevented from patent protection.

These two little words are open to different interpretations. One interpretation, widely applied in Europe, is that the computer program must be part of a computer-implemented invention which produces a “technical effect”. So for example, an invention which maintains the rotational speed of a disk drive at a constant rate using a computer program would qualify, but an invention which allows a user to interact with data using a computer program should not qualify. Whereas this example appears straightforward, determining whether an invention is sufficiently “technical” in nature can be difficult.

The result is that software patents are routinely drawn up in language which creates the impression of technicity by lawyers possessing more than extraordinary skill in their particular art. A cursory internet search for South African Patent Attorneys will reveal dozens of firms who unabashedly claim that, though computer programs as such are not patentable, they are routinely granted on this basis. In fact there does not seem to be any precedent of a patent being refused on the grounds of it being a software patent.

The most striking weakness of the system is that there is no examination process beyond a formal examination that the paperwork is in order. South Africa has what is known as a non-examining office[Teljeur 2002]. There are not legions of Persons Having Ordinary Skill in the Art scrutinizing these applications and determining whether they meet the technical requirements of a patentable invention or not.

A further weakness of the system is that it is difficult for any practicing software developer to access or search the records. This is already a problem in developed countries like the US, where there are just too many patents to search⁵. The problem here, is that the patent applications are published regularly only in a printed form in the South African Patent Journal, available from government printers. There have been plans for some years to bring the whole system on-line, but to date the paper system remains. The patent application, once published in the Journal, lies in a state of limbo, so to speak, for some months and is then granted.

The Act specifies that any interested party can, at any stage in a patent’s lifetime, object to the patent having been granted and request for it to be revoked. Engaging in such action would involve mounting a legal challenge which would probably involve considerable costs.

3. THE PATENT

In light of the discussion above, it should no longer be a mystery why a patent like ZA200303346 was granted in South Africa. The pressure from the “developed world” (and specifically the US) to impose its view of a harmonized IPR system which allows (nay, demands) software patents is significant. That such patents can be granted in South Africa, without examination, is an indication that the capacity of our patent office to ensure that the balance of private rights versus public interest is maintained is lacking. There is also an apparent willingness of local legal practitioners to facilitate multi-national companies to exploit the weaknesses in our system, no doubt to considerable advantage to themselves.

3.1 If there was an examination process

It is perhaps just an academic exercise to imagine ourselves in the position of patent examiners, PHOSITAS scrutinizing the patent prior to it being granted. If we were in that position, would the patent have been granted? I think not, and outline the reasons below:

3.1.1 Patentability of subject matter

The patent summary provides a number of paragraphs describing the invention. The summary begins with:

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[0005] The present invention is
directed at providing a word-processing document in a native XML file
format that may be understood by an application that understands XML,
or to enable another application or service to create a rich document
in XML so that the word-processing application can open it as if it
was one of its own documents.
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The text is very careful to avoid suggesting that what is being proposed is a computer program. Apparently an application, or applications, are involved somewhere, but that is not the invention. The applicant can then

⁵It is generally considered a risky practice for a developer to engage in such searches anyhow as it exposes the developer to punitive triple-damages for knowingly infringing on a patent. It is best not to look and hope for the best.

perhaps reasonably argue that this is not a computer program *as such*. If it was a computer program as such which was being described, then clearly there could be a problem, as there is no element of “technicality” in this scenario. A question remains in my mind however, that anything that infringed upon the “invention” would necessarily be a computer program as such. Whereas this may not, in itself, be grounds to deny the application, it certainly would alert the examiner that we are on slightly shaky ground.

Neither is it the native XML file format, as such, which is being presented as the invention. Rather, it is the process of the program(s) using the file format in combination which seems to be the invention. If this is so, then a question mark could be raised over whether it constitutes some kind of a mathematical method, or a scheme or a rule. I suspect that it could be construed as such, and would argue that there are possible grounds for exclusion on this basis.

3.1.2 *Inventive step and novelty*

Assuming that the patent application does meet the literal requirements of patentability under our current Act, there are still considerable questions to be raised around whether it represents a sufficiently novel and inventive step.

There have been a number of word-processing programs which have used XML as a file format, prior to the filing of this patent. The two which immediately come to mind are AbiWord⁶ and the openwriter component of OpenOffice⁷. So there is clearly nothing novel about a word processing program saving a file in XML format. There are two further qualifications which might distinguish this invention from other prior art: it is emphasised in a number of places that the document is saved as a *single* XML file, and that the document format is described via an XSL file.

On the first count, it can be argued that OpenOffice takes a slightly different approach to the “single XML file”. OpenOffice actually saves its documents in a zipped format, within which for example, image files are stored separate to the XML in the same zip file. This is different to the approach described, where images are stored encoded as binary “blobs” embedded within the XML. AbiWord on the other hand stores its images inline in a single XML file, so clearly there is nothing novel about this aspect.

On the second count, the use of an XSD to describe the XML format can hardly be described as novel, whether used in relation to a word-processor or not. This is exactly what the XSD standard (of which Microsoft was the primary promoter) is designed to do. There are other XML schema languages which can perform a similar function, ranging from the early DTD schemas which are still in wide use, to newer schema languages such as RELAX NG, which combines some of the benefits of the expressivity of XSD, without some of the complexity. The use of an XSD (as such) to describe the XML document schema, cannot be viewed as novel. It is used for this purpose in a wide variety of applications and an XSD file even exists for the venerable AbiWord file format.

So on the grounds of novelty, the invention seems to be lacking. There are further minor claims to novelty (such as the use of Hints in the XML) but none of which seems to indicate that the invention as a whole is indeed novel. The XML Hints are a bit mysterious, and perhaps might merit a much reduced patent application in their own right along the lines of “Invention using Hints in a XML file to ...”.

Even if it were possible to pass the test of novelty (and I suspect that this would be difficult to get past) the question of inventive step would still remain. Given the state of the prior art (including the existence of the XML and XSD standards and the existence of word-processing programs such as AbiWord, which has been using XML as a native file format since 1998) does this purported “invention” make any advance on the state of the art at the time which would not have been obvious to a PHOSITA? As a PHOSITA whose skills are perhaps a little too ordinary, I just don’t see it.

3.1.3 *Is there sufficient disclosure?*

Another requirement for a patent being granted is outlined in section 32 of the Act, referring to the provided specification:

- (3) A complete specification shall:
 - (a) ...
 - (b) sufficiently describe, ascertain and, where necessary, illustrate or exemplify the invention and the manner in which it is to be performed in order to enable the invention to be performed by a person skilled in the art of such invention;

⁶AbiWord is a Free/Open Source program available from <http://www.abisource.com>

⁷OpenOffice is a Free/OpenSource program available from <http://www.openoffice.org>

Given that the invention is apparently not novel, or inventive, this requirement might be redundant. It is highly unlikely that a patent examiner with a sufficiently high threshold of novelty and inventivity of step would have got this far without rejecting the application. I only refer to it here, because the specification does talk of the Hints referred to above. In order to perform this invention, there would have to be more disclosure on what these Hints might be.

4. CONCLUSION

It is somewhat ironic that when South Africa became a signatory to the TRIPS agreement in 1994, we were classified as a developed country by virtue of our existing intellectual property regime. It has been pointed out by [Teljeur 2002] that our laws in this area were quite at odds with other developing countries at similar levels of economic development (for example India, Brazil and Mexico were all deemed as developing countries under TRIPS). Yet it appears that our patent system, like many other vestiges of the apartheid era, may have been nothing more than a facade, a system which existed to serve minority interests and which expressed the desire, above all else, to portray an image of modernity and “Westernness” to the world.

Perhaps this is too harsh a judgement. But the fact remains that the patent office seems to exist primarily for the filing of patents by foreign companies. It is routinely accepting applications for software patents which, if not entirely against the letter of an imperfect law, are certainly against its intent, to promote innovation and development of the country. To be fair, the office of CIPRO probably does not have nearly enough resources (including human resources in the form of examiners) to run a system which could make a reasonable job out of examining software patents. And pure software patents are only part of the problem. Similar, perhaps more intractable, problems exist in the realm of business method patents.

We have seen the costs of operating the patent system in the US escalating. Proponents of software and business method patents see the current crisis as one primarily of quality. Given sufficient money and a supply of well trained and motivated patent examiners, the system might be able to work to eliminate the “bad” patents and let through the “good”.

But it is doubtful whether the quality problem can be contained, or whether the problem is even one of quality. Either way, we have different and more pressing needs for spending public money than investing further into a system which may or may not yield results. There are many in South Africa and abroad, who simply don’t believe that they will. The final recommendation in another 2002 report of the National Advisory Council on Innovation addresses the issue particularly:

Open Software makes use of copyright law and distribution license. However, broadly defined patents on software threaten software development and Open Software in particular. The developing world is particularly vulnerable in this regard ⁸.

Accordingly South Africa might do well to look at the example of India which has recently modified its patent law ⁹ to take software “inventions” unambiguously outside the realm of patent protection. Doing this effectively required removing the equivalent of our “as such” qualification from the clause prohibiting the patenting of computer programs. In a representation by the Free Software Foundation of India to the Indian Government¹⁰, it was pointed out that the use of such clauses is “*ambiguous and capable of easy abuse and misinterpretation*”. They claim further that “*Allowing patents over any kind of computation seriously harm and hamper the creativity, productivity and freedom of all, particularly software developers while writing code.*”

Doing the same with our Act would relieve significant pressure off the patent office, leave developers free to get on with developing code and making a living, and leave government and other agencies free to pursue and develop truly innovative ICT options, including those using Free and Open Source Software, without the spectre of being trapped by one of hundreds of thousands of largely invisible patents.

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⁸“Open Software & Open Standards in South Africa - A Critical Issue for Addressing the Digital Divide v1.0” available from http://www.naci.org.za/pdfs/oss_v1.0.pdf (last accessed 1 August 2005).

⁹See the news release of March 23rd: http://www.indianembassy.org/press_release/2005/Mar/12.htm.

¹⁰The representation is dated 6 February 2005 and may be retrieved from <http://fsf.org.in>.

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