

The TRIPs Treaty and Software Patents

<http://swpat.ffii.org/analysis/trips/swpattrips.en.html>

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European patent authorities often cite the TRIPs treaty as a reason for making computer programs and business methods patentable and for making such patents enforceable in the most indecent ways. This reasoning is fallacious and easy to refute. It appears moreover that the European patent establishment itself is systematically violating the TRIPs treaty.

Contents

1	Does TRIPs require software patents?	2
2	TRIPs Article 10: Computer Programs and Compilations of Data	4
3	TRIPs Article 27(1): Patentable Subject Matter	4
4	Article 30: Exceptions to Rights Conferred	5
5	Article 33 mandates that all patents must have a minimum duration of 20 years.	5
6	Art 7-8: A Treaty for Free Trade and its Interpretation	5
7	TRIPs violations by EPO and EU directive proposals	7
8	Annotated Links	9

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1 Does TRIPs require software patents?

The Treaty on Trade Related Aspects of Intellectual Property Rights (TRIPs), signed on 1993-12-15 as a constituting document of the World Trade Organisation (WTO), sets minimal rules for national intellectual property law in order to prevent member nations from using intellectual property as a hidden trade barrier against other nations.

Article 27 has often been construed by patent lawyers to imply that patent claims must be allowed to extend to computer programs.

Paul Hartnack, Comptroller General of the British Patent Office, commented¹ this question at the London hearing in 1997:

Some have argued that the TRIPs agreement requires us to grant patents for software because it says “patents shall be available for any inventions in all field of technology, provided they are capable ... of industrial application”. Cependant, cela dépend de la façon dont on interprète ces mots.

Is a piece of pure software an invention? La loi européenne dit que non.

Is pure software technology? Nombreux sont ceux qui pensent que non.

Is it capable of “industrial” application? Again, for much software many would say no.

TRIPs is an argument for wider protection for software. Mais la décision d’un tel renforcement doit être prise en se fondant sur des arguments économiques réfléchis. Would it be in the interests of European industry, and European consumers, to take this step?

In its ratification of GATT/TRIPs, the German legislature saw no conflict between Sec. 1(2)(3) and 1(3) of the Patent Act and Art. 27(1) of TRIPs.

In a decision of 2000², in which it rejects a claim to a computer program, the German Federal Patent Court explicitly refutes the TRIPs fallacy:

The Treaty on Trade Related Aspects of Intellectual Property Rights (TRIPs) does not entail any different judgment of patentability. Independently of the question as to in what form - directly or indirectly - the TRIPs treaty is applicable here, the application of Art 27 TRIPs would not lead to any extension of patentability here. The wording, according to which patents shall be available for inventions in all fields of technology, merely confirms the dominating view of german patent jurisprudence, according to which the concept of technology (Technik) constitutes the only usable criterion for delimiting inventions against other kinds of intellectual achievements, and therefore technicity is a precondition for patentability (the “Logikverifikation” decision of the Federal

¹<http://www.patent.gov.uk/softpat/en/1000.html>

²<http://swpat.ffii.org/papers/bpatg17-suche00/bpatg17-suche00.de.html>

Court of Justice (BGH) sees Art 27 TRIPs as “posterior confirmation” of this jurisprudence). The exclusion provision of Art 52 (2) and (3) EPC can also not be construed to be in conflict with Art 27 TRIPs, since it is based on the notion of lacking technical character of the excluded items.

The Federal Patent Court here refers to the Dispositionsprogramm³ doctrine, according to which the presence or not of *controllable forces of nature* in the solution of the problem is the only usable criterion for delimiting the realm of patentable inventions. According to this doctrine, data processing is not a field of technology, as Gert Kolle, the leading scholar of the time on this question, explains in his much-cited analysis of the Dispositionsprogramm decision in 1977⁴:

Automatic Data Processing (ADP) has today become an indispensable auxiliary tool in all domains of human society and will remain so in the future. It is ubiquitous. ... Its instrumental meaning, its auxiliary and ancillary function distinguish ADP from the ... individual fields of technology and liken it to such areas as enterprise administration, whose work results and methods ... are needed by all enterprises and for which therefore prima facie a need of free availability (Freihaltungsbedürfnis) is indicated.

This is exactly what the European Parliament has stated in its amended directive proposal⁵:

Recital 7

Under the Convention on the Grant of European Patents signed in Munich on 5 October 1973 and the patent laws of the Member States, programs for computers together with discoveries, scientific theories, mathematical methods, aesthetic creations, schemes, rules and methods for performing mental acts, playing games or doing business, and presentations of information are expressly not regarded as inventions and are therefore excluded from patentability. This exception applies because the said subject-matter and activities do not belong to a field of technology.

Article 2b.

“technical contribution”, also called “invention”, means a contribution to the state of the art in technical field. The technical character of the contribution is one of the four requirements for patentability. Additionally, to deserve a patent, the technical contribution has to be new, non-obvious, and susceptible of industrial application. The use of natural forces to control physical effects beyond the digital representation of information belongs to a technical field. The processing, handling, and presentation of information do not belong to a technical field, even where technical devices are employed for such purposes.

³<http://swpat.ffii.org/papers/bgh-dispo76/bgh-dispo76.en.html>

⁴<http://swpat.ffii.org/papers/grur-kolle77/grur-kolle77.de.html>

⁵<http://swpat.ffii.org/papers/euoparl0309/euoparl0309.en.html>

Article 3a.

Member states shall ensure that data processing is not considered to be a field of technology in the sense of patent law, and that innovations in the field of data processing are not considered to be inventions in the sense of patent law.

2 TRIPs Article 10: Computer Programs and Compilations of Data

- 1. Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971).*
- 2. Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself.*

3 TRIPs Article 27(1): Patentable Subject Matter

Subject to the provisions of paragraphs 2 and 3, 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.⁶

Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

It should be noted that the text explicitly encourages differing interpretations of some of the abstract terms used therein, such as “non-obviousness” and “industrial application”.

While the paragraph forbids “discrimination” in the interest of free and equal trading conditions, it does not mandate a specific invention concept. It could however be construed to favor an invention concept which is favorable to free trade and economic development and in which the terms “technology”, “industry” etc are not empty words.

Even within the realm of patentable “technology”, Art 27(1) can hardly be interpreted as a rigid framework that outlaws all fine-tuning. If it was to be interpreted in this rigid way, as some patent lawyers propose, U.S. law would fall afoul of TRIPs in at least four areas: pharmaceuticals [35 USC 155,156, term extensions; 35 USC 271(e), experimental

⁶Footnote 5: For the purposes of this Article, the terms “inventive step” and “capable of industrial application” may be deemed by a Member to be synonymous with the terms “non-obvious” and “useful” respectively.

use]; biotechnology processes [35 USC 103(b), providing special non-obviousness standard]; medical and surgical procedures [35 USC 287(c), limiting remedies], and methods of doing business [35 USC 273(a)(3), providing prior user rights].

4 Article 30: Exceptions to Rights Conferred

Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.

This clause is cited by patent owner lobbies whenever anyone tries to restrict the rights of patent owners, no matter whether in “reasonable” or “unreasonable” ways.

see Interoperability and the Software Patents Directive: What Degree of Exemption is Needed⁷

5 Article 33 mandates that all patents must have a minimum duration of 20 years.

This is important to know, because it renders frequently recurring proposals pointless, such as that of Amazon’s CEO Jeff Bezos, who advocates reducing the lifetime of software patents to 3-5 years.

6 Art 7-8: A Treaty for Free Trade and its Interpretation

The TRIPs treaty has no time limitation. It is valid as long as the World Trade Organisation (WTO) as a whole can not agree to change it. The organisation of WTO is far removed from democratic participation, and many WTO members are dictatorial states. If any country wants to opt out of TRIPs, it will have to leave WTO, thereby risking a collapse of its exporting industries. The treaty was negotiated in backrooms between ministerial officials, and for most of the world’s languages translations do not even exist. All these considerations make it imperative to interpret the TRIPs treaty with greatest care and to make extensive use of the flexibility which it allows, so as to achieve a fair balance of rights and obligations under the overall objective of Free Trade which the treaty serves.

The treaty drafters were aware of these problems. In the General Provisions, they included articles such as the following:

Article 7

Objectives

⁷<http://swpat.ffii.org/papers/eubsa-swpat0202/itop/eubsa-itop.en.html>

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

Article 8

Principles

- 1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.*
- 2. Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.*

Software patents are well known to be a disaster in terms of innovation, competition and balance of rights. Patents on business methods moreover systematically serve to restrain trade, and these restrictions appear unreasonable to most people in the field.

TRIPs provides meta-rules for patent law, designed to promote free trade and reduce the leverage of governments in favoring domestic industries over foreign ones. It says something about how laws should be structured, e.g. “no discrimination in favor of specific local industries”, “no arbitrary limitation on enforceability”. It thereby encourages limitations that are based on *systematic* considerations, e.g. weighing patentee rights against other rights of equal weight, such as copyright property (Art 10 TRIPs), freedom of publication (Art 10 European Convention of Human Rights ECHR) or the right of access to communication standards.

It is very important for any patent law project to concretise the abstract rules of the TRIPs treaty. Any law project that fails to do so can not be claimed to serve the purpose of clarification.

While economic policies should be justified in terms of the abstract concepts laid down in TRIPs, they can not be derived from TRIPs alone.

It is poor draftsmanship to copy&paste abstract doctrines from TRIPs into European laws, which are supposed to provide guidance at a more concrete level. Art 52(1) EPC was revised⁸ in this ill-advised way by the Diplomatic Conference of 2000, and the European Parliament’s rapporteur on the software patent directive⁹, Arlene

⁸<http://swpat.ffii.org/analysis/epc52/epue52.en.html>

⁹<http://swpat.ffii.org/papers/europarl0309/europarl0309.en.html>

McCarthy MEP¹⁰, proposed¹¹ to directly write Art 30 TRIPs into Art 6a of the Directive. Such actions do not only make the proposed laws unclear. They also deprive European of maneuvering freedom in future renegotiations of TRIPs, which may well be needed in order to keep the TRIPs framework workable at all.

TRIPs was negotiated by delegations that represented the dominant interests of another era. Software was largely considered unpatentable, and opensource development and distribution was almost unknown. TRIPs should be interpreted in a way that does not benefit some production technologies, business models, and industries at the expense of others. The important thing is to enhance productivity in all industries.

Many limits of the TRIPs system, at least in its more rigid interpretations, have become so apparent, that even the Americans, who were the chief promoters of the TRIPs treaty, are tailoring it to their advantage and thereby arguably violating some of its provisions.

There is now a lot less worry that the US might make a complaint about any aspects of the patent system in the EU, because the EU would hit straight back with complaints about US preference in the US patent system.

Any judgments coming out of such a row would be likely to open a sufficient number of politically difficult issues on both sides of the Atlantic that nobody wants to go there.

7 TRIPs violations by EPO and EU directive proposals

The European Patent office started allowing program claims¹² in 1998. In the justifying decisions T 1173/97¹³ and T 935/97¹⁴ it is stated:

Programs for computers could be considered as patentable inventions if they have a technical character.

Computer programs, as described in program claims granted by the EPO since 1998, are information structures, consisting of symbolic entities only. Any “technical character” which they might have can be found only on the meaning side of the symbolic entities. Likewise one could speak of the “technical character” of a set of chemical formulas, of a collection of construction drawings or even of a science-fiction novel, and empower every patent owner to monopolise the distribution of any information which describes his “invention”.

However the EPO does not go as far as this. Instead it creates a special class of “inventions” which can be claimed in the form of information structures. These structures, since 2000 called “computer-implemented inventions¹⁵” by the EPO, can be appropriated both by copyright and by patents.

¹⁰<http://swpat.ffii.org/players/amccarthy/swpatamccarthy.en.html>

¹¹<http://swpat.ffii.org/players/amccarthy/swpatamccarthy.en.html>

¹²<http://swpat.ffii.org/papers/eubsa-swpat0202/prog/eubsa-prog.en.html>

¹³<http://swpat.ffii.org/papers/epo-t971173/epo-t971173.en.html>

¹⁴<http://swpat.ffii.org/papers/epo-t970935/epo-t970935.en.html>

¹⁵<http://swpat.ffii.org/papers/eubsa-swpat0202/kinv/eubsa-kinv.en.html>

Computer programs are thus “protected as literary works” (i.e. subjected to copyright), as stipulated by Art 10 TRIPs, and, in addition, patentable as technical inventions.

This alone is arguably a violation of TRIPs. Normally one intellectual achievement should not fall under two different regimes at the same time, and Art 10 states that computer programs fall under copyright. If they are “protected both as literary works and as inventions” then they are in effect no longer “protected as literary works”, since it is a characteristic of copyrighted works that the ideas embodied therein remain free. If both copyright and patents apply to software, property that was acquired one regime is exposed to devaluation by the other.

The EPO and the European Commission have still gone further in violating TRIPs.

Starting from the creation of a special class of “computer-implemented inventions” which can be claimed in a special, usually impermissible way (namely in the form of an information structure describing the “invention”), they have endeavored to create a body of sui generis software patent law.

In 2000, both the EPO and the European Commission quickly adopted the doctrines of a new decision by the EPO’s Technical Board of Appeal, called Controlling Pension Benefits System¹⁶. This decision establishes special rules for examining the technical character of “computer-implemented inventions”, such as assessing the “claim as a whole” rather than the achievement behind this claim, thereby making any computer program pass the requirement of technical invention, and, instead of this voided requirement, establishing a new requirement of “technical contribution in the inventive step”, which has no basis in Art 27 TRIPs.

The Working Party of the Council of the European Union went even one step further in its secret papers of November 2002 and January 2004¹⁷. They leave it to the patent applicant to decide which of the two regimes he wants to see applied to his achievement: the standard doctrines of patent law or the sui generis doctrines for “computer-implemented inventions”.

By contrast, the European Parliament has proposed to clarify TRIPs by stating¹⁸, inter alia, that data processing (informatics) is not just another discipline applied natural science (“field of technology”) but rather a layer of abstraction, applicable to all fields of natural as well as social science. These clarifications beautifully integrate Art 10, Art 27 and the EPC. The Parliament’s proposals are ignored and unreasonably discredited¹⁹ by the community of patent administrators and corporate patent lawyers, which is, as of spring 2004, continuing to monopolise the decisionmaking at the European Patent Office (EPO), the European Council (Consilium) and the European Commission (CEC).

In summary it can be said that the European patent establishment is

1. refusing to clarify and concretise the meaning of the TRIPs treaty;

¹⁶<http://swpat.ffii.org/papers/epo-t950931/epo-t950931.en.html>

¹⁷<http://swpat.ffii.org/log/04/cons0129/cons040129.en.html>

¹⁸<http://swpat.ffii.org/papers/euoparl0309/euoparl0309.en.html>

¹⁹<http://swpat.ffii.org/papers/euoparl0309/cec0311/cec0311.en.html>

2. wrongly equating the TRIPs treaty with “US practise”, using threats of alleged TRIPs-incompatibility for purposes of fostering Fear, Uncertainty and Distrust (FUD);
3. trying to impose a sui generis software patent regime on Europe which is incompatible with the TRIPs treaty.

8 Annotated Links

- **OMC: ADPIC²⁰**

Text of the TRIPs treaty on the WTO website

- **Christian Beauprez: Art 10 TRIPs and “Computer-Implemented Inventions”²¹**

UK software law expert argues that according to TRIPs Art 10 computer programs must be be “protected as literary works”, and this means that the ideas embodied therein are free, as in literary works.

- **Daniele Schiuma 2000: TRIPs and Exclusion of Software ‘as such’ from Patentability²²**

The argumentation for universal patentability is based on a mixture of the TRIPs fallacy with some unreflected ideology. As a side-effect, the article reveals some interesting details, such as the fact that the German Parliament ratified TRIPs under the explicit assumption that TRIPs does not mandate software patentability

²⁰http://www.wto.org/english/docs_e/legal_e/27-trips.01.e.htm

²¹<http://aful.org/www/arc/patents/2004-03/msg00065.html>

²²<http://swpat.ffii.org/papers/iic-schiuma00/iic-schiuma00.en.html>

- **In a recent decision the Swedish Patent Court of Appeals reject:**²³

As pointed out by the plaintiff, Sweden is bound to follow the rules in the TRIPs agreement since it joined the WTO in 1995. What's relevant to this case is that article 27 (1) says that the possibility to get a patent should be available for every invention in any technical field. This decision has not made any change in § 1 PL [Swedish Patent Law] necessary. Neither article 27 (1) nor any other part of the agreement gives a legal definition of the concept "invention". There is no explanation of what is supposed to be considered a "technical" field, in this regard and for background on the article see Joseph Straus²⁴ in GRUR Int. 1996 p. 179: "Bedeutung des TRIPs für das Patentrecht", part V b)) iii, items 35 to 37, in which the relationship to article 52 in the EPC is also discussed.

- **BPatG 2000: Patentansprüche auf "Computerprogrammprodukt" etc unzulässig**²⁵

A German verdict from 2000 which rejects the TRIPs fallacy in a similar way

- **IPR Commission 2002-09: Final Report**²⁶

Chapter 6 argues that developing countries should be careful not to follow the US or the European Commission in framing their patent policy with regard to software, genetics et al. They should adopt an approach similar to Art 52 EPC: explicitly exclude software, business methods and the like from patentability. This, the authors point out, is perfectly compatible with Art 27 TRIPs. The authors are british scholars, their work was commissioned by the british government.

²³<http://aful.org/wws/arc/patents/2002-12/msg00017.html>

²⁴<http://swpat.ffii.org/players/straus/swpatstraus.en.html>

²⁵<http://swpat.ffii.org/papers/bpatg17-suche00/bpatg17-suche00.de.html>

²⁶http://www.iprcommission.org/graphic/documents/final_report.htm

- **DG IV Bakels 2002-06-19: The Patentability of Computer Programs**²⁷

This EU-commissioned study also rejects the TRIPs fallacy.

Proponents of software patenting have argued that Article 27(1) does not allow software from being excluded from patentability, since computer software is to be considered a “field of technology”. The discussions preceding adoption of the TRIPs agreement, however, do not confirm such a reading. 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.

- **Dan L. Burk and Mark Lemley, “Is Patent Law Technology-Specific?”**²⁸

Berkeley Technology Law Journal (2002) and “Policy Levers in Patent Law”, 89 Virginia Law Review (forthcoming December 2003). US law scholar Mark Lemley explains the historical context of TRIPs and argues that Art 27ff can not be interpreted as rigidly as the one-size-fits-all advocates pretend it should be.

- **Patentanwaltsverband gegen Technizitäts-Erfordernis in Art 27 TRIPs**²⁹

In einem Positionspapier zu aktuellen Vertragsverhandlungen meint der Weltverband der Patentanwälte, es koenne “keinerlei Grund” geben, die Patentierbarkeit einzuschränken und Art 27 TRIPs sei “niemals restriktiv gemeint” gewesen. Deshalb müssten im neuen Entwurf eines Weltvertrages ueber das Materielle Patentrecht die Begriffe “Technik” und “industrielle Anwendung” fallen oder aber es müsse klar gestellt werden, dass ihnen keinerlei begrenzende Bedeutung zukomme. Insbesondere müsse sicher gestellt werden, dass der wirtschaftlich zunehmend bedeutende Dienstleistungssektor in den vollen Genuss der Segnungen des Patentwesens komme. Damit stellt sich FICPI im deutlich auf die Seite der amerikanischen und gegen die europäische Position zum “Vertrag über das Materielle Patentrecht” (MPRV/SPLT).

²⁷<http://swpat.ffii.org/papers/eubsa-swpat0202/dgiv0206/dgiv0206.en.html>

²⁸http://papers.ssrn.com/sol3/papers.cfm?abstract_id=431360

²⁹<http://www.ficpi.org/ficpi/newsletters/51/PosPaperSPLT.1.html>

- **Software Patents in the USA³⁰**

The US government's patent lawyers have been fighting hard against incorporation of Art 27 TRIPs into the new Substantive Patent Law Treaty, because they see the words "technical" and "industrial" as a restriction on patentability.

- **Interoperability and the Software Patents Directive: What Degree of Exemption is Needed³¹**

Art 30 TRIPs is being used by corporate patent lawyers and their governmental supporters for lobbying against interoperability exemptions which have been favored by all concerned committees in the European Parliament.

- **Smets 2000: The Hidden Agenda of the European Commission³²**

The European Commission's patent expansion plans are based on a "consistent network of fallacies", including the TRIPs fallacy.

- **BMW 2002-12-06 an Marcus Brinkmann: Bundesregierung in Brüssel für Logik- und Textpatente³³**

Nils Baggehufwudt from the German Ministry of Economics uses the TRIPs fallacy in a letter in which he justifies the German Government's policy of supporting software patentability even beyond the level advocated by the European Commission.

- **Louvain Conference 2004/03/11-13³⁴**

At the conference, Prof. Alberto Bercovitz pointed out that EPO and European Commission is trying to create a TRIPs-incompatible sui generis patent law. Jean-Charles Van Eeckhaude from the European Commission's DG Commerce pointed out that the "IP Community" at WTO is undermining the TRIPs system by promoting extreme interpretations of TRIPs. One of the problems of the TRIPs system is that the arbitration process itself seems to be in the hands of the "IP Community", as can be seen from recent examples.

³⁰<http://swpat.ffii.org/players/us/swpat.us.en.html>

³¹<http://swpat.ffii.org/papers/eubsa-swpat0202/itop/eubsa-itop.en.html>

³²<http://www.eurolinux.org/news/agenda/snets-agenda.en.html>

³³<http://lists.ffii.org/archive/emails/swpat/2002/Dec/0032.html>

³⁴<http://plone.ffii.org/events/2004/deso03/>

- **Exceptions to Intellectual Property Rights: Lessons from WTO-Trips Panels**³⁵

Three law scholars explain how the European Commission has been pressing for extreme interpretations of Art 30 TRIPs at the WTO panels, partially with success. E.g. the EU succeeded in using TRIPs to disallow internal stockpiling of pharmaceuticals by Canadian generic manufacturers before the expiry of the patent term and to disallow royalty-free use of musical works in the context of smallscale events in the USA. The authors conclude: “WTO-TRIPS panels are restrictively interpreting the restriction to IPR’s. They thereby confirm the monopolist strength of the IPR holder, whose powers remains absolute in most respects. Given the stance of WTO-TRIPS panels reinforcing the IPR holder/owner’s position, WTO contributes to stifling innovation in the digital economy by limiting the exception for the public good ever further.”

- **EU Boosts Microsoft’s Monopoly**³⁶

The European Commission’s competition proceedings against Microsoft have led to a verdict which gives a big boost to Microsoft’s monopoly position in the OS market and helps Microsoft expand this position to other markets. While the Commission may have earned substantial revenues for itself by imposing a one-time fine of 1% of Microsoft’s liquid cash reserves, the smallprint of the verdict gives Microsoft green light to kill its main competitors in the operating systems market. This smallprint was simultaneously reinforced through backroom deals in the Council’s Patent Policy working party, of which copies have been leaked to FFII. Immediately after the announcements the stock value of MSFT rose by 3%.

³⁵http://www.murdoch.edu.au/elaw/issues/v10n4/meyer104_text.html

³⁶<http://swpat.ffii.org/log/04/cecms0326/cecms040326.en.html>