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PERSPECTIVES OF PATENT PROTECTION FOR COMPUTER PROGRAMS INDEVELOPING INFORMATION ECONOMY

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Abstract

The article discusses patent protection for computer software and possibilities for implementing thereof in the developing information economy such as Lithuania. The article provides an overview of major international developments and Lithuanian situation in the field, also discusses possible alternatives and influence of patent protection for computer software on innovation and development of the information economy.

Conclusions of the article provide guidelines for patent reform in the countries of developing information economy like Lithuania, as well as argues on the necessity of integration of national patent system with the international initiatives and creation of regional and supranational inovation areas.

Introduction

With the failure of trade secret and copyright law to protect specific non–literal elements of computer software, such as underlying ideas, innovative algorithms, mathematical and business methods, which nowadays are considered the most valuable part of computer software (Samuelson et al., 1994), software developers started applying for protection under patent law – a system, which was originally developed to protect technical implementations of innovative ideas. Likewise the copyright law, traditional patent law had to experience significant transformations in order to suit the needs of the emerging new types of digital property. Today patent law is brought to the forefront of the legal protection for computer software (Lemley et al., 2000).

Starting from early eighties so called computer related patents were started to be issued, while during the last few years the number and scope of patents related to information technology – software patents and newer cyberspace patents, increased tremendously. What started as a mere patent on physical inventions (apparatus) parts of which were operated by software, now turned into patents on data structures, applied algorithms, information retrieval and business methods or almost any other innovative new practical application in the technological arts carried out by computer software (Digital Dilemma, 2000).

This article examines possibilities of applying patent protection for computer programs in developing information economies such as Lithuania. First part of the article is devoted to

comparing the patenting of computer software in two major jurisdictions – the US and the European Community, also emphasizes the differences thereof, latest trends as well as concerns raised by the practitioners and academics.

Second part of the article discusses influence of patent protection for computer software on innovation and development of the information economy. The US have experienced major innovation and growth of the information technology sector during the last decades, which at least in part may be attributable to the liberal patent legislation and practice, which allowed patent protection for important elements of computer software (Syrowik, 1996). At the same time there are concerns that patent protection for computer software became to broad and may stifle further innovation (Samuelson, 1998; Widdison, 2000).

Third part of the article analyses Lithuanian situation in respect to the software patents, as well as perspectives for establishing broad patent protection for computer software in Lithuania. Establishment of a proper legal regime for the digital property is one of the primary conditions for successful transition to the information based economy (Samuelson, 1998). For developing economies, especially for the ones with young and not large information technology sector, proper legal regulation may also stimulate the uncovering the national potential and development of national knowledge based industries (Kiškis, 2001).

Conclusions of the article provide the sketch of the suggested patent reform in Lithuania and other countries with the old fashioned patent system, however a valiant reform may pose significant threats to young national economy. It is argued that national patent office shall carefully investigate new patent applications, and more importantly take steps to promote and equalize patent protection for Lithuanian national inventors. The author also argues that international integration of national patent systems is inevitable with such extensions of subject matter of patents as patents for computer programs.

Software patents in the US and the European Community

Issuing of so called „software patents„ in the US started with patents on physical inventions (apparatus) parts of which were operated by software – in 1981 the US Supreme Court (Diamond v. Diehr[1]) upheld the patentability of an improved rubber curing process, which was operated by computer running a specific computer program.

By late eighties and early nineties the software patent trends moved towards minimalization of technical effect requirements, mainly due to the liberal views of the U.S. Court of Appeals for the Federal Circuit. In re Alappat[2] the court upheld patentability of the algorithm. According the approach fixed in the 1996 US Patent and Trademark Office Guidelines for Patenting of Computer Related Inventions[3], as soon as computer program was represented (loaded into) some physical fixation e.g. RAM or has been put in any other machine–readable form it was considered sufficient to comply with patentable subject matter criteria. Under the Guidelines, the US Patent and Trademark Office has formally abandoned the mathematical algorithm rejection and has in effect replaced the subject matter inquiry for computer related inventions with one directed to the *utility* of the invention as claimed (Lemley et al., 2000).

Now a patent in the US may be obtained on data structures, applied algorithms, information retrieval and business methods or almost any other innovative new practical application in the technological arts carried out by computer programs. Late US case law

[1] Diamond v. Diehr. 450 U.S. 175, 209 U.S.P.Q. (BNA) 1 (1981).

[2] In re Alappat. 33 F.3d 1526 (Fed. Cir. 1994) (en banc); the Court declared that a method for smoothing waveforms in a digital oscilloscope is patentable, even though the patent claim was written so broadly as to cover any general–purpose computer performing the same method; the Court held that „a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software".

[3] Examination Guidelines for Computer–Related Inventions; http://www.uspto.gov/web/offices/com/hearings/software/analysis/computer.html

(State Street Bank and Trust Co. v. Signature Financial Group[1]) upheld a patent challenged on grounds that the claims covered an algorithm and a business method (Lemley et al., 2000). This approach has been widely regarded as vastly increasing the scope of patent protection available for software, and which led to issuing of quite broad if not generic software patents covering methods for conducting business in cyberspace (Digital Dilemma, 2000).

Patents in the US are granted for a twenty year term, which needs to be periodically reinstated by making patent maintenance payments. A patented invention is defined by claims, which describe the invention and emphasize the differences of the invention from the prior art. The prerequisites for obtaining a patent in the US include novelty, *utility*, non–obviousness (inventive step) and proper disclosure of the invention.

In contrast to the US, most of the European countries explicitly include the computer software into the list of non–patentable subject matter. This general principle of European patent law is also fixed in the 1973 European Patent Convention (Article 52(2)). In addition to above limitation, Europe also uses different patent issuing approach where patents are issued to the applicant who is 'first to file' the patent application vs. 'first to invent' approach supported exclusively by the US (Mossinghoff, Kuo, 1998). Other principles of European patent laws are substantially the same as in the US.

The reasons for exclusion from patentability of computer programs *per se* were that at the time of adopting of the European Patent Convention, the software was considered not of a technical nature, while patentability required specific technical application (Hart, 1997).

Explicit exception on patentability of computer programs in the 1994 Examination Guidelines of the European Patent Office[2] is interpreted so that computer programs *per se* or as a record on a carrier or as a content loaded into a computer may not be subject of a patent, though if a programs is used to implement a new technical invention, i.e. if a computer program is involved into implementation of a technical invention, then that invention will be patentable. This means that program controlled machines and program controlled manufacturing and control processes should normally be regarded as patentable subject matter. It also follows that, where the claimed subject matter is concerned only with the program controlled internal working of a known computer, the subject matter could be patentable if it provides a technical effect.

Above position is also supported by the practice of the European Patent Office, which started with issuing of a patent for a method and apparatus for the processing of data of digitised images (a method of digital filtering of data using mathematical operations, Vicom case[3]) in 1987. In Vicom case it was concluded that even though the idea underlying such a technical process might reside in a mathematical method, a claim directed to technical process in which the method was used did not claim a mathematical method as such, thus allowing patent claim (Kelleher, Murray, 1999).

In more recent 1994 cases, e.g. Sohei[4] and Petterson[5] cases, the Board of Appeals of the European Patent Office upheld patentability for the inventions involving computer programs in such fields like management, business organization and similar, as long as they comprise some specific features involving technical considerations during conception of the computer program, i.e. prior to mere writing of the sequences of steps in the computer program. In these cases the Board of Appeal of the European Patent Office relied on the technical contribution to the art of an invention claimed and considered as a whole (Hart et al., 1999).

In the late IBM twin cases[6] the Board of Appeals of the European Patent Office further elaborated on the requirement of *technical effect* for patentability of software, by concluding

[1] 149 F.3d 1368 (Fed. Cir. 1998)
[2] http://www.european–patent–office.org/legal/gui_lines/
[3] 2 EPOR 74, 1987.
[4] T769/92, 1994.
[5] T1002/92, 1994.
[6] T935/97, T1173/97 and T0935/97, 1999.

that ‘a patent may be granted not only in the case if an invention where a piece of software manages, by means of a computer, an industrial process or the working of a piece of machinery, but also in every case where a program for computer if the only means, or one of the necessary means, of obtaining a *technical effe*ct within the meaning specified above, where, for instance, a *technical effect* of that kind is achieved by the internal function of a computer itself under the influence of said program’. (Widdison, 2000) argues that such interpretation means *de facto* reversal of the software patentability exclusion found in the 1973 European Patent Convention and national laws of the European Community Member States.

Thus, although software patents have been available much more readily in the United States than in Europe (Lloyd, 2000), it is possible to conclude that the US Patent and Trademark Office (usefulness approach) and European Patent Office (technical effect approach) positions on the patentability of software inventions are not very far apart (Hart et al., 1999).

Although the European patents issued by the European Patent Office may be extended to the Member States of the European Patent Convention (all European Community Member States and number of other countries), alongside the European patents the national patents European Community Member States exist. These national patent offices of the European Community Member States generally follow more conservative approach similar to the one found in Vicom case and are slowly turning to the practice of the European Patent Office (Hart et al., 1999).

The controversies over patentability of computer programs in Europe – prohibitions of patentability *per se*, existence of workarounds developed by the European Patent Office, interference between the European patents and national patents led to a situation, where the European Patent Convention and national laws do not permit patentability of computer programs as such, however in the beginning of 1999 there were more than 13 000 European patents covering software[1]. Moreover, European software patents are enforceable in the countries, where it may be impossible to obtain any patent protection for computer software (for explanation on validity in Lithuania cf. infra). Moreover, majority of the said European patents are issued to non–European applicants, while European innovators are clearly disadvantaged by the existing software patents muddle. In order to cure such situation, the European Commission issued the Green Paper on the Community Patent and the Patent System in Europe[2] and as a result promised to deliver a draft directive harmonising Member States legislation on the patentability of computer programs[3].

[1] Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee. Promoting innovation through patents: the follow up to the Green Paper on the Community Patent and the Patent System in Europe. http://europa.eu.int/comm/internal_market/en/intprop/indprop/

[2] Ibid.

[3] Cf. note 11 supra, also Consultation Paper by the Services of the Directorate General for the Internal Market: The Patentability of Computer–Implemented Inventions. Brussels, 2000.

Influence of software patents on innovation and development of information economy

Similarly to copyright, one of the fundamental principles of the patent law is fostering of innovation through requiring the inventors to extensively disclose details of their inventions. Thus, strong legal patents should theoretically inhibit further innovation and development. Unfortunately, in practical terms strong legal protection may well serve the obstacle for subsequent innovation, since the new innovators are virtually prevented of using prior knowledge, especially when this legal protection extends to a very broad if not generic subject matter, as may be the case with software patents.

There are enough authoritative opinions both in favour of the broad software patents (Syrowik, 1996) and against them (Cohen, 1998; Lessig, 2000). Proponents of the software patents give credit to the strength of the legal protection allowed by a patent, as well as its ability to fill the gaps or to complement other forms of legal protection (e.g. copyright), while the classical argument against the patent protection for computer programs emphasize that patents give their rightholder a monopoly over the patented ideas, processes or algorithms. Patent protection for computer software is also considered inappropriate for computer software, due to the absence of the public benefit provisions in patent law, as well as axiom that computer software is a product of sequential innovation, i.e. innovation based on extensive reuse of previous knowledge and instruments. Latter argument is strengthened by the extremely short life cycle of computer software.

In addition to the above, it is noteworthy that most of the critics of software patents falls not on them *per se*, but on the form in which current software patents are issued, specifically on lack of expertise and sufficient knowledge of prior art for issuing of software patents (Syrowik, 1996; Hart et al., 1999). Criticism is also aimed at very broad subject matter of the software patents, which may cover basic programming techniques or entire technological fields.

Scientific studies on the studies of impact of patentability of computer programs on social and economical development also give mixed results and do not allow drawing unambiguous conclusions whether software patents are desirable phenomena, although late studies suggest that strong patents may be harmful for fields of technology, where innovation is sequential, such as software development (Hart et al., 1999; Bessen, Maskin, 2000; Tang, Adams, Paré, 2001). This situation is a major reason why the European Communities recently postponed the initiatives for explicit recognition of patents for computer programs *per se* (Lea, 2000), event though the practice of the European Patent Office seems to allow such patentability through extremely liberal interpretations of the European patent Convention.

Along with the suggestions to dispense software patents or to encourage them some third approach is being advertised by a growing number of academics. Suggestions include initiatives for patent reform through introducing of *sui generis* protection for computer programs (Samuelson et al., 1994; Reichman, 1994; Widdison, 2000), fair use exceptions to patent law (O'Rourke, 2000), shortening of patent terms, creating of special type of patents (Leith, 2000).

Considering the above, it is possible to conclude that patent system is necessary tool for fostering national knowledge economy, however very careful approach shall be taken by the young information economies in selecting and applying the national path for software patents. Extensive patent protection, although may be favored by foreign investor, puts at risk development of national innovation and hence information economy, while insufficient protection may not provide adequate initiative for innovators. National factors such as long existed inability to take advantage of patent system shall also need to be taken into account. According to (Samuelson, 1998) balance between these extremes is needed for emerging knowledge based economies to succeed, as well as account for local circumstances.

Patent protection of computer software in Lithuania

Although Lithuania is not the Member of the European Patent Convention, Part 2 Article 2 of the Law on Patents of the Republic of Lithuania[1] reinstates the software patentability exclusion found in Article 52(2) of the European Patent Convention. Differently from European Patent Office, the interpretation of the exception on patentability of computer programs by the Lithuanian State Patent Bureau may be very conservative, as there is no reference to *per se* exception in the Law on Patents. I shall be noted however that patentability of computer software was never tested in practice due to the absence of patent applications for inventions related to computer programs.

There are several reasons for this absence of patent applications situation – first of all, Lithuania is relatively insignificant jurisdiction and economical market for multinational patentees, thus costs involved in obtaining Lithuanian patent may not be justified; secondly, national knowledge based industries are young and their products may not be innovative enough to qualify criteria for patentability; thirdly, potential national patentees do not have sufficient knowledge on possibilities of protecting their intellectual creations by means of patent law; fourthly, lack of clear position on patents for software by the Lithuanian State Patent Bureau may not encourage patent applications for computer program related inventions as well; fifthly, current regulatory situation does not encourage multinational patentees to apply for Lithuanian national patent, as the desired effects in Lithuania may be gained through much more powerful European patent (cf. explanation *infra*).

Theoretical considerations suggest that patents related to computer software shall be allowed in Lithuania (Vileita, 2000) and the Lithuanian State Patent Bureau should follow the practice of the European Patent Office in examining applications for software patents (Guobys, 1997; Pranevičius, 1999), however there are no empirical data to support this argumentation.

It must be noted that according to the 1994 Bilateral Agreement of the Government of the Republic of Lithuania and the European Patent Office[2] and subsequent 1995 Agreement on the Implementation of the former[3], the European patents may be extended to Lithuania upon simplified procedure. Thus any European patent (including software patents) issued by the European Patent Office upon passing a set of formalities, which do not contest the validity of the patent, may be allowed legal protection in Lithuania equal to the protection of national patents (Article 3 of the Bilateral Agreement). Notwithstanding of this incentive, no European software patents were extended to Lithuania, while the reasons for that may be the same as cited above. It is paradoxical but according to these agreements between the Government of the Republic of Lithuania and the European Patent Office the Lithuanian inventors may be discriminated against the foreign inventors, since applications of Lithuanian inventors for inventions related to information technology will be examined according to the Lithuanian State Patent Bureau and are likely to suffer from conservative approach, while the foreign applications enjoy the liberal approach of the European Patent Office.

In addition to the foregoing Bilateral Agreement, the international patents may be extended to Lithuania according to priority of the 1883 Paris Convention for Legal Protection of Industrial Property, to which the Republic of Lithuania is a party as of 1994. Application under Paris Convention, however, shall require implementation of all formalities required for Lithuanian national patent, thus, in view of the conservative position of the Lithuanian State Patent Bureau it may be difficult to obtain patents related to computer program.

On the positive side it is noteworthy that Lithuanian patent system is relatively fast and inexpensive. Normally it takes up to 24 months to receive a national patent, while the costs involved amount at 640 litas (160 USD), plus patent attorney fees, which vary from case to case. Above fees exclude patent maintenance fees, which start after the second year after the patent is issued. These features of the Lithuanian patent system are the result of

[1] Official gazette „Valstybės žinios" No. 8–120, Nr. 89–1713, 1994; No. 117–3005, 119–3078, 1997.
[2] Official gazette „Valstybės žinios" No. 23–369, 1994.
[3] Official gazette „Valstybės žinios" No. 38–93, 1995.

application based patent system, which examines only the formal side of patent applications and does not investigate the novelty of the claimed subject matter. Such system however results in a rather weak patent, especially if the patent is prospected for later international extension, however it may be rather sufficient for small economies. It is noteworthy that for Lithuanian national innovators patent costs in Lithuania are rather high, while foreign extension is financially unreachable. Unfortunately, there are no incentives or programmes, which would provide financial support to Lithuanian national innovators for obtaining of legal protection to their innovations, such as Framework 4 or ongoing Framework 5 programmes in the EU.

Additional important aspect, which shall be addressed, is generally insufficient knowledge among national innovators of legal instruments available for protection of their innovations. The author may suggest that governmental action is necessary to improve public knowledge of patent law and intellectual property in general (Kiškis, 2000).

Based on the experience of the most advanced Eastern European countries, it may be argued that patent law is important for attracting foreign investment and promotion of international trade (Thumm, 2000). Assuming that the patent law may also provide means for encouraging national creativeness and information, hence the patent law factors which are key to

The entire situation, described above, clearly evidences that there is a definite need for further action in Lithuania with respect to software patents and patent system in general. Patenting possibilities shall first of all be promoted to potential national patentees, while international applications shall also be encouraged.

Conclusion

It is obvious that Lithuania maintains rather conservative patent system, which is featured by many countries with emerging market economies. It is also obvious that in order to catch up with the knowledge economy revolution such countries need to establish patent protection for computer software as soon as possible. This is needed for several reasons, which predetermine the framework and objectives of required patent reform– fostering of national information economy, reinstating the parity of national and external patent applications, establishment of environment favourable for foreign investment into knowledge industries. Suggestions for reform of Lithuanian patent system provided below may be applicable to any young knowledge economy *mutatis mutandis.*

As a model for patent reform in Lithuania the practice of the European Patent Office shall be used. For practical implementation of this model two steps may be needed. First step shall include the amendments of the Law on Patents of the Republic of Lithuania and refusal of exception for patentability of computer programs. The second step shall include the amendments of the Examination Guidelines for Inventions of the Lithuanian State Patent Bureau. The Guidelines shall be complemented with special provisions for inventions related to information technology, which are recommended to comply with the practice of the European Patent Office. Increased attention and carefulness shall be given to examination of applications for patent on inventions related to information technology, particularly the minimal requirements for descriptions of the state of the art shall be vital for success of suggested patent reform. As international experiences suggest, patent reform without account for these issues may lead to issuing of weak and unreasonable patents, which may hinder the rise of knowledge economy, instead of fostering it. Notwithstanding of the suggested carefulness in the patent reform, the possibility to obtain patent on inventions related to information technology shall be by all means promoted in the national and international level, along with the strong State supported incentives for national innovators to extend legal protection of their intellectual property abroad. It is also paramount that Lithuanian patent system allows patents in all fields of technology, including not only information technology, but also biotechnology, genetics, nanotechnology, etc.

Additional considerations for patent reform may include reducing of the costs for obtaining and maintaining the patent in Lithuania, also allowing of patent applications in one of the recognized international languages (e.g. English). In the order to minimize the negative side of patent protection, a review of existing fair use exceptions and establishment of effective compulsory licensing system may also be needed.

In the longer term, introducing of special type of patents (possibly – utility models), specifically crafted for the needs of computer programs and other innovations in information technology, is a worthy consideration. Final remarks may be referred to the broader context of the world patent system, which during the XX century became increasingly costly, complex and fractioned, while initiatives for uniform international patent have not been very successful. Strong adherence shall be expressed with respect to proposals and initiatives of international unification and harmonization of patent systems, especially in Europe, as a common and uniform innovation area is equally important for economical development as a common currency. From this perspective it may be suggested that national patent systems in Europe in the longer term shall become part of fully integrated regional patent system.

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BIBLIOGRAPHY

1. **Bessen J., Maskin E.** Sequential Innovation, Patents and Imitation. – Massachusetts Institute of Technology, 2000.
2. **Cohen S. A.** To Innovate or Not to Innovate, That is the Question: The Functions, Failures and Foibles of the Reward Function Theory of Patent Law in Relation to Computer Software Platforms. 5 Michigan Telecommunications and Technology Law Review 1, 1998.
3. **Digital** Dilemma: Intellectual Property in the Information Age. – Washington, DC: National Academy Press, 2000.
4. **Dryja M. A.** Looking for the Changing Nature of Software for Clues to its Protection. University of Baltimore Intellectual Property Law Journal. 1995. Vol. 3. No. 2.
5. **Guobys V.** Kompiuterinių programų teisinė apsauga. – Vilnius, 1997.
6. **Hart R., Holmes P., Reid J.** The Economic Impact of Patentability of Computer Programs: Report to the European Commission. – London: Intellectual Property Institute, 1999.
7. **Hart R.** The Case for Patent Protection of Computer Program Related Inventions // Computer Law & Security Report. No. 13. 1997.
8. **Kelleher D., Murray K.** IT Law in the European Union. – London: Sweet&Maxwell, 1999.
9. **Kiškis M.** Tarptautinio intelektinės nuosavybės piratavimo prevencija. – Vilnius: Lietuvos teisės universiteto leidykla, 2000.
10. **Kiškis M.** Legal Protection for Digital Property: Copyright Aspects. – Vilnius: Lietuvos teisės universitetas, 2001.
11. **Lea G.** Software patents stay banned in Europe – for now. The Register. 22 November 2000. http://www.theregister.co,uk/content/4/14933.html.
12. **Leith P.** Software Utility Models and SME's. The Journal of Information, Law and Technology (JILT). No. 2. 2000.
13. **Lemley M. A., Menell P. S., Merges R. P., Samuelson P.** Software and Internet Law. – New York: Aspen Law & Business, 2000.
14. **Lessig L.** Innovation, Regulation and the Internet. The American Prospect. 2000. Vol. 11. Issue 10. http://www.prospect.org.
15. **Lessig L.** Europe's 'me too' patent law. FT, 2000.
16. **Lloyd I. J.** Information Technology Law. – London: Butterworths, 2000.
17. **Mikelėnas V.** Unification and Harmonization of Law at the Turn of the Millenium: the Lithuanian Experience. Uniform Law Review. 2000. No. 2.
18. **Mossinghoff G. J., Kuo V. S.** World patent system circa 20xx, A. D. 38 IDEA: The Journal of Law and Technology 529. 1998.
19. **O'Rourke M. A**. Toward a Doctrine of Fair Use in Patent Law. 100 Columbia Law Review 1177. 2000.
20. **Pranevičius G.** Išradimų, susijusių su kompiuterių programomis patentinė apsauga Lietuvos Respublikoje. Informacinės technologijos'99. – Kauno technologijos universitetas, 1999.

21. **Reichman J. H.** Legal Hybrids Between the Patent and Copyright Paradigms. 94 Columbia Law Review 8. 1994.
22. **Samuelson P.** Intellectual Property and Economic Development: Opportunities for China in the Information Age. International Symposium on the protection of Intellectual Property for the 21st Century. October 28–30, 1998. – Beijing, PRC, 1998.
23. **Samuelson P., Davis R., Kapor M. D., Reichman J. H.** A Manifesto Concerning the Legal Protection of Computer Programs. 94 Columbia Law Review 2308. 1994.
24. **Shapiro C., Varian H. R**. A Strategic Guide to the Network Economy. – Cambridge, MA: Harvard Business Scholl Publishing, 1998.
25. **Syrowik D. R.** Software Patents – Just Make a Good Thing Better. 2 Michigan Telecommunications and Technology Law Review 113. 1996.
26. **Thumm N.** Intellectual Property Rights: National Systems and Harmonisation in Europe. – Heidelberg, New York: Physica–Verlag, 2000.
27. **Vileita A.** Lietuvos Respublikos autorių teisių ir gretutinių teisių įstatymo komentaras. Lietuvos Respublikos administracinių teisės pažeidimų kodekso 214(10) straipsnio komentaras. – Vilnius: Lietuvos rašytojų sąjungos leidykla, 2000.
28. **Widdison R.** Software Patents Pending? Journal of Information, Law and Technology (JILT). 2000. Vol. 3.

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Kompiuterių programų patentinės apsaugos perspektyvos besivystančios žinių ekonomikos sąlygomis

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SANTRAUKA

Straipsnyje nagrinėjamos kompiuterių programų ir informacinių technologijų patentinės apsaugos perspektyvos ir jų taikymas besikuriančios žinių ekonomikos sąlygomis Lietuvoje. Straipsnis parengtas autoriaus mokslinio vizito Europos universiteto institute pagal EUSSIRF programą metu, todėl publikuojamas anglų kalba.

Patentų teisė kompiuterių programų teisinei apsaugai pradėta taikyti praėjusio amžiaus aštuntojo dešimtmečio pabaigoje, tačiau ypač pastaraisiais metais patentų kompiuterių programoms ir apskritai informacinėms technologijoms labai padaugėjo. Kompiuterių programų ir informacinių technologijų teisinei apsaugai išsivysčiusiose valstybėse kaip pagrindinė teisinės apsaugos forma šiuo metu dažniausiai pasitelkiamas būtent patentų institutas. Pirmieji kompiuterių programų patentai buvo išduoti materialiems mechanizmams, kurių atskiras dalis valdė mikroprocesorinė sistema, veikianti pagal tam tikrą kompiuterių programą, tuo tarpu šiuo metu patentinės apsaugos objektu gali būti ir duomenų struktūros, taikomieji algoritmai, informacijos paieškos ir verslo metodai ar beveik kiekvienas naujas technologinis sprendimas, įgyvendinamas kompiuterių programomis.

Pirmoje straipsnio dalyje pateikiama svarbiausių užsienio patentinių sistemų (JAV ir ES) teisės normų ir praktikos apžvalga bei palyginimas pabrėžiant naujausias tendencijas ir mokslinius vertinimus. Antroje straipsnio dalyje nagrinėjama patentų sistemos įtaka ekonominei raidai ir žinių ekonomikos įtvirtinimui. Pabrėžiama, kad patentų sistemos reforma turi apimti ne tik patentų objekto išplėtimą, tačiau ir patentinių paraiškų nagrinėjimo reformą bei galimybių pasinaudoti patentų sistema išplėtimą, nes patentų reformos klaidos gali būti ypač žalingos jaunai žinių ekonomikai. Trečioje straipsnio dalyje analizuojama Lietuvos padėtis kompiuterių programų patentinės apsaugos klausimu, nurodomi svarbiausi jos trūkumai ir pagrindžiama patentų reformos būtinybė.

Straipsnio išvadose pateikiamos pagrindinės patentų reformos kryptys besivystančiose žinių ekonomikose. Siūloma išplėsti patentinės apsaugos objektą vadovaujantis Europos patentų biuro praktika, iš esmės peržiūrėti patento paraiškų nagrinėjimo tvarką, sulyginti nacionalinių ir užsienio subjektų galimybes, taip pat įgyvendinti patentinės apsaugos propagavimo ir paramos priemones.

Taip pat pabrėžiama, kad patentinė sistema Lietuvoje santykinai brangsta, siūloma leisti pateikti patentines paraiškas užsienio kalbomis, argumentuojama, jog norint išnaudoti nacionalinį intelektinį potencialą būtina valstybės parama nacionaliniams patentų subjektams pagal ES taikomą modelį. Žvelgiant į ateitį siūloma Lietuvoje nustatyti naujas kompiuterių programų ir informacinių technologijų teisinės apsaugos formas (naudingus modelius), be to, pabrėžiama, kad informacinės visuomenės raida reikalauja supranacionalinių patentinės apsaugos sistemų, t.y. bendros regioninės ar net pasaulinės naujovių erdvės.