A Possible Indian Response to Software and Business Method Patenting

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US courts have granted patents in software, internet-based business and on business methods. Such grants have serious consequences on both Indian and global business, and on the current potential and future status of competition and inventions. Often the courts or the patent offices overlooked existence of prior arts, or else granted patents with such very wide scope as would surely curb inventive and competitive activities. Issuance of IPR in these areas appears to be clearly headed for a new industrial organization and for a thorough dismantling of current industrial organization. In view of this, interested agents from India including its software companies, its patent office and its government must initiate representation to the USPTO on the existence of prior arts, to the US courts on the injuries to inventiveness and to competition that such grants might bring. The introduction of a jury system with both patent office and the courts are suggested where the competitors to a claimed patent can be represented. Indian government must also bring these issues to the TRIPS rounds and to the WIPO. A jury system and a harmonized examination system should be part of the new negotiations at the TRIPS.

A new dimension to TRIPS (Trade-Related Aspects of Intellectual Property Rights, 1994) has been added by the recent activism of courts in US. Courts have initiated novel interpretations of the constitutional provisions relating to granting of property rights on inventions to the domain of intangible business methods. With patent executives in the government tied down to precedents of decisions, US courts appeared to have assumed the role of executive. Decisions relating to business methods have far-reaching

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implications on the foundations of competition laws and policies, on structure and ownership of industry and on innovations in general. Innovations and competition are more likely to be hurt. Global jurisdictional limit of property rights having been accepted these developments do challenge directly the domestic business, competition, innovation and property rights in India. The TRIPS framework does not cover patenting in software or on business methods. These are potential areas to be looked into in the subsequent negotiations. US court activism in granting or upholding patenting are creating ahead of TRIPS precedents of case laws. The future structure of TRIPS gets then influenced by the US courts.

There are a few other important aspects of this development. A business method is a peculiarly idiosyncratic way of conducting a business. Economic institutions till date have not set up a market for transactions in business methods. A particular business method is believed to be organically linked to the body of the business organization. Therefore, whenever a transaction was needed the organization was swapped through markets of mergers and acquisitions. This abstraction of the method from the body has thus resulted into a very large number of applications for patent rights whose market remains undeveloped. Moreover, the right-granting authorities such as the USPTO, do not have a commensurate organizational structure to examine and verify the non-existence of prior arts, a condition sine qua non. The PTO cannot also cope up with the large number of applications. The absence of a market of business methods imply that business methods remained intangible and outside the public knowledge. Therefore, an examiner in the existing system of examination of prior arts and in examining the monopoly implications of the grant of a patent, cannot verify either the existence of prior-arts or measure the monopoly implications.

Acceptance of abstract patent rights over intangibles began with software. Increasing business in software products recognized importance of protection to products and since copyright infringements was easy, demands for patent rights over intangibles increased. A culmination of this process led to grant of property rights to business methods. Perhaps thus it would be difficult to deny patents over software and methods. Under the circumstances, as it appears a thorough overhauling of examination system is needed. This seems urgent. A demand for overhauling of examination system in the USPTO and EPO, for example, and introduction of demands for examination-system parity across countries must then be made. Virtual absence of law-making activities, and a similar absence of case-law preparations coupled with a very weak patent office in India make India and other similarly placed countries easy prey and a credulous partner to the emergent property rights regime, that is structurally much ahead of the existing TRIPS. We argue for an overhauled system of patent examination in the advanced countries where prior to the grant, an effective search procedure needs to be established by incorporating representations from countries such as India.

Opposing emergent patents in the US, participating in USPTO organized elicitation of views of the competitors relating to applications on new patents and thus to examine the monopoly implications of a grant must then constitute the new mechanism. This can be taken up immediately and this seems to cost us least. US courts in particular have been
playing an active role in granting patent rights on software and on business methods. The USPTO and the EPO too have changed their policies regarding intellectual property rights on these elements which have serious ramifications on both potential and future competition. Moreover, issues of wide scope of patents granted and their jurisdictional areas raise alarming possibilities. Business method patents particularly have very wide scope, very large number of claims and a very high potential to raise barriers to entry, distort or affect competitions' current potential and future. We argue that a jury system incorporating current and potential competitors be incorporated at the level of the examination system by the patent office, and also while the case gets heard at a court. Such a system would bring out information on prior use, on portends and loss or possible loss of competition consequent to the grant of a patent.

This then provides the agencies in India, namely its government, the firms, the courts and the executives for a rationale to represent their case in the USA and also in Europe as a short-term measure. These agencies must also argue their rationale with supporting facts at the WTO, WIPO and other intergovernmental forums. The short-term measure must then look for infringement applications at the US courts, must present to the USPTO the existence of prior arts and must tell the US courts the prior arts, the loss to current, future and potential competition.

**Patenting in Intangibles**

The US courts have been playing a very active role in granting of patents. In Europe, virtually over-ruled the article 52(2) of European Patent Convention (1973) which excluded software out of patentability, the EPO cleared the way for patenting in software (1997) provided that the software was not being patented in isolation. Software does not receive virtually any protection in Canada\(^1\). The Indian Patent Office granted in 1996 a patent to IBM on "System for Creating an Application Program Package". A large number of applications were filed in India, during the period 1995-98, in these areas. Out of a total patent applications of 34,653, 18 applications for software, 18 for e-commerce, 21 for Internet, 128 for computer and computer-controlled systems, and several hundreds each in the areas of data transmission, distribution, encryption/decryption, data processing and database\(^2\). Almost all the applications were filed by foreign companies. The tradition of tangible materiality in technological novelty prevented initially the USPTO from granting patenting in software. Technological changes in software and Internet were too fast to be caught under the codes of statutes, and the legislature in USA was thus unable to capture the essence of such changes.

Markets in property rights have so far evolved in line with 'observable' and 'declared' information that a patented tangible material product could offer to the public domain. Once property rights are granted to intangible and non-material subjects, demands from public domain emerge soliciting information on these intangibles. Institution of competition and market, and the business organization developed in the images of property rights and its exchanges over tangible materials cannot access the required information. Granting of property rights to aspects which contemporary social institutions cannot access and therefore cannot offer as exchangeable product create a strong disharmony. Competition suffers since monopoly is most likely to emerge
from such disharmonies. Moreover, innovations did not appear to have suffered and in fact innovations appear to have burgeoned under non-recognition of intangible technical advancements.

The EPO while hearing Vicom's application (1987) used a term “technical contribution” to determine novelty even while this contribution consisted in application of computer program. 'Technical effect' implied that except in the case of a standalone program, whenever the program caused a 'technical effect' in any tangible material form of a technical nature which could be read as novel, the program was to be worthy of patenting. The markets so far have identified 'effects' alone and transacted in such 'effects' without caring to look for the contributing causes of a 'technical nature'. A positive grant of property rights such as in a patent facilitates market based transactions. However, transactions in business methods or in software would imply an exchange of abstract methods without the exchange of a body which is the repository of the abstract quality. There would arise serious legal debate on viability of such transactions. Moreover, patents clearly identified so far gross bodies such as an organization or a machine.

Social evolution of markets in property rights have always counterweighted benefits accruing from the grants to the costs arising out of non-grants. Costs have so far been calculated mostly from monopoly perspective. A right is always exclusionary and a patent always excludes others from both using the right and from exchanging such a right. Moreover, a grant also allowed for the emergence of a public domain of licensed users or knowledgeable practitioners who could 'improve' upon the original granted patent. Merges has coined a term 'bad patent' to include such patent applications or grants as should be considered socially more costly than useful. He recognizes that, with the incentives that attorneys enjoy from patenting and with the existing procedures of patent examinations prevalent in the USPTO such bad patents would galore. The issue raised by Merges can be understood in terms of the fact that USPTO examiners have been continuing with a procedure that befitted the earlier types of tangible novelties. 'Bad patent' harms the society because the existing institution encouraging patenting will have added incentives to increase the volume of patenting. Increased numbers of patents will fail to have internal mechanism which discriminates between patents with monopoly powers from those which do not have. Thus, this argument shifts the locus from court-activism driven patents-granting to an executive driven institution which can have internal discriminatory mechanism. This executive-based approach depends on several agencies, such as the patent attorneys, the patent examiners and the process of disputation. In other words, 'bad patents' which prevent further innovations or exercise monopoly can be discriminated through non-court agency-based system. We extend this argument to a non-court based disputation system which also embraces the system of patent examination. These two systems needs to be integrated. Such an integrated system invites opinions from parties situated in other geographical locations and thus the system becomes appropriate for a TRIPS-harmonized grants of property rights.

The current system of patent examination is based on a search of declared/public knowledge on the use of a particular program in certain tangible product. An examiner cannot find out most often the existence of a
prior program or else, the search being
dumb cannot measure the potential with
which this patent-right can encroach many
existing products. A grant is made wrongly
or an otherwise justified grant is withheld.
Legislation, as argued above, fails since a law
could not have been foreseen which could
encompass all this possibilities. As a result,
case laws based on case judgments of every
individual case build up a repertoire of us­
ages and definitions of intangible products,
and fathoms out the intangible 'technical
effects'. Case judgments thus began at­
tempts in defining out the intangible dimen­
sions of software-centric products. A simple
extension of such a product was the first
business-method patent (for example, Pat­
ent No. 5,794,207 awarded to Walker Asset
Business method patenting received the fil­
lip from the court decision in the State Street
Bank & Trust case. The court favoured pat­
tening in software provided it produced a
'useful, concrete and tangible result'. By
1996 the USPTO had changed its guidelines
regarding IPR. It suggested that any busi­
ness idea performed through computer and
bring about tangible results should be
considered as intellectual property. New trends in property rights on intangibles
can be captured under: (a) a shift from copy­
right protection to patenting; (b) sharp in­
crease in both grants of and applications for
business methods patents; (c) increasing
share of revenue of a company coming from
royalties on such patents; (d) scope of in­
fringement suits have increased consider­
ably; (e) patent office examination systems
in US and even in Europe have now recon­
ciled with patenting in software and on busi­
ness methods; (f) an enormous increase in
the jurisdictional areas because such pat­
ents relate mostly to e-commerce which by
definition is without boundary.
Copyright does not allow diffusion of infor­
mation, reverse engineering and improve­
ments. Patents arguably allows 'improvement' patents; however, given in­
creasing infringement claims and a sharp
increase in cross-licensing of patents, there
appears little possibility to an improvement
on either the diffusion of business methods
information or any improvement on that.
The sharp increase in grants of patents for
example, 1,724 patents granted to IBM in
1997 were software related generating about
$1 billion in annual royalties. Walker Digital
(see http://www.walkerdigital.com/html/in­
formation.html), which spun off priceline.com as its subsidiary to undertake
business of match-making between buyers
and sellers, 'conceive, research and prepare'
patented business systems for sale. The
business of Walker Digital is to apply for
patented business methods. This company
claims "We earn profits from our intellectual
property through a variety of business
strategies ranging from direct licensing
agreements – selling an idea to another com­
pany – to spinning off new businesses in
which we retain equity stake." Similar other
gainers on business methods patenting are
'Open Market' owning a number of patents
on real-time credit/debit card processing,
'Signature Financial Group' owning patents
for business methods in mutual funds and in
tax consultancies, 'Netcentives' owning pat­
ents on conducting business on Internet,
'Cybergold' owning patents on methods of
paying consumers on-line incentives, 'Ama­
zon.com' owning patents on swapping of
customers between business parties, etc.
A business shake-out and a through reor­
ganization of the market of property rights
appear to be the hidden agenda of the court
activism. Under ordinary circumstances
courts follow the restructuring in the market
and new developments in modes of transactions or in forms of properties receive accreditation from the courts much after the changes. A contrary movement is noticeable here. Markets in patents on intangibles are yet to develop although sanctions from courts have been received. In particular, attention must be paid to the aspects of patent claims, patent scope, monopoly potential, and the issue of territorial jurisdiction. Recalling our above argument we understand how these decisions instead of following the actual facts of changes in society and in business, are constructing and engineering 'desirable' social changes. Most of these business methods patents have put up a very large number of claims. Moreover, in several court decisions the scopes to patents granted have been rendered rather large. A new deal over the new domain of patented property rights is on the making, and the courts now supported by the PTOs have therefore been taking proactive roles in creating and granting such property rights.

**Implication for Competition**

Large scopes and claims of patents in software/business methods potentially exclude emergence of new and novel technological inventions as well as businesses based upon such potential ideas. In fact, very often patent examination left out of search for prior arts the real fact of existing modes and methods of conducting businesses or of existing software using at least partially the same methods as being claimed by the applicant. This is largely attributable to a search/examination system designed for examining materially tangible inventions. This is also attributable to the fact that almost all software and related business methods while sharing certain common features, work upon principles and methods that have never been made public. Interestingly, a large number of software or business methods utilize same or similar rules and principles while the tangible output of these usages, visible as end software products or as certain methods of doing businesses, appear very different. Once we recognize this fact, we also recognize that the competition in software or amongst the business methods thrive on idiosyncratic way of working upon similar yet undisclosed rules or principles/rules.

Perhaps such acts of 'reinventing the wheels' did always hit upon ingenuities and novelties, and perhaps that is why disclosures of program codes did not help a mushrooming growth of 'improvement patents'. It must then be appreciated that idiosyncratic acts of undertaking a business in itself promises birth of novelties, ingenuities and even of inventions. Thus, the regime that did not allow patenting in software did also experience a very high rate of technological changes in software, a very high rate of diffusion of such technological novelties and a competition that has been dubbed as hyper-competition. The crucial aspects of such developments in case laws are that these contain potentially anti-competitive elements. Moreover, these case laws could not so far identify and recognize the existence of prior arts. Finally, since the intrinsic character of the Internet technology is without a border, a provision of property rights on business methods which are extremely culture specific do aggrandize business methods specific to other cultures. In fact, related court judgments in US on jurisdiction, such as in V.E.Holding Corp. case (1990), allowed infringement claims anywhere the business is done or anywhere the product gets marketed. These case laws have created three important portends, out of which the first two namely, inhibiting potentially future
In order to alleviate shortcomings of these developments the examination system in the patent office ought to be broadened in scope. This can be done by inviting openly and from globally interested parties, their receptions to, comments upon an incumbent application. Any application could then be commented upon, objected to and asked for either reducing claims/scopes or rejecting/revising claims/scopes, by all the parties, concerned globally with either the potential implications of a grant of patent on the application or who have globally been using the same or similar technologies/principles/business methods. In fact, we are proposing first a system of jury, consisted of both current competitors and potential competitors from across the globe. In order that such a system runs efficiently and remain in time, certain regulations on the manners of opposition, or of asking for revisions, etc. should be devised. In the absence of such a system the current spate of case laws are creating massive barriers to both current and potential competition.

**Indian Action**

Indian institution of patents is weak. Patent office has an old set up with a system of examination that is also of old vintage, resulting in long delays, uneven search and lower rates of rejections. Indian firms, used to hiding behind a screen of protection, have scarcely used patenting as strategic tool or as an intellectual capital capable of paying rich dividends. There is no reported legal case with the Indian courts, challenging any putative rejection by the domestic patent office of applications for patenting on software, internet-based business or on business methods proper. However, software business of India has a stake in global developments. The emergent e-commerce and Internet-based methods of business too have stakes in the grants of patents. The software sector of India is relatively more dynamic, competitive and technological changes in this sector appears to be at par with the global dynamism. Patenting in India on software and related business methods, especially by foreign firms, too have been increasing over the years. All this indicate that Indian software business has a stake and it can be persuaded to act on the portends of emerging scenario.

In view of this, Indian objectives should focus on aspects of competition, both current and the potential, and on aspects of innovation. Examination activities of USPTO, as discussed above, does not take into consideration the potential competition, neither does it consider exhaustively the existing use, known as prior art. Moreover, the US courts are bound to consider anti-competitive aspects of any patent whose grant is being considered. Indian policy on global patenting must then, on short term, argue the likely loss of competition consequent to a certain grant of patent. Similarly, Indian representation may argue against potential loss of innovation. Once the major source of organizational innovation is identified to be the intangibles with the organization, and once it can be shown that grant of property rights on these intangibles dries up the sources of innovation, the decisions in favour of grant of property rights on business methods will have to reconsider its position.

Several modes of representation of this argument could be conceived. As is well known, Indian companies especially from software are currently acquiring US small-businesses; and such acquired businesses in US.
can represent to the USPTO the existence of prior arts, or on the hazards of a particular grant on the potential or future competition. In case of granted patents infringements can be brought out, and in case of a case being heard by a court in US on an application for patent grant, these businesses can represent their views to the court. The NASSCOM, being the representative association, too can represent on these US forums on behalf of smaller software companies. Moreover, Indian government must represent to the WTO and the WIPO the necessity to have a jury-system, as discussed above. Indian government too can represent on behalf of Indian software aspects of prior use, loss of current and potential competition, and the threats to future competition. Moreover, issues pertaining to wide scope of patents and jurisdictional areas of a patent grant must be raised in intergovernmental forums, in WTO and WIPO.

Conclusion

US court activism in granting patents in software and in business methods has serious flaws in so far as it tends to overlook existing prior arts, or else it has serious ramifications on both potential and future competition. Moreover, issues of wide scope of patents granted and their jurisdictional areas raise alarming possibilities. Business method patents particularly have very wide scope, very large number of claims and a very high potential to raise barriers to entry, distort or affect competitions current potential and future.

In view of this ramification, it has been suggested here that a jury system incorporating current and potential competitors be incorporated at the level of the examination system by the patent office, and also while the case gets heard at a court. Such a system would bring out information on prior use, on portends and loss or possible loss of competition consequent to the grant of a patent. This then provides the agencies in India, namely its government, the firms, the courts and the executives for a rationale to represent their case in the USA and also in Europe as a short-term measure. These agencies must also argue their rationale with supporting facts at the WTO, WIPO and other intergovernmental forums. TRIPS harmonization ought to include this jury system, where small businesses can be represented by their respective governments. An international system of patent system cannot remain blind to potential loss of competition or cannot overlook existing prior arts. A distortion in grant of property rights would have serious monopoly implications. The short-term measure must also look for making infringement applications at the US courts, must present to the USPTO the existence of prior arts and must tell the US courts the prior arts, the loss to current future and potential competition.

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