Patentability of Software Implemented Inventions in the US, EP, and India

Jeffrey L. Ranck
Associate General Counsel
Microsoft Corp.

Legal Provisions

US
• 35 U.S.C. 101

EP
• Article 52

India
• Section 2(1)(j)
• Section 3(k)
USA - 35 U.S.C. 101 - Inventions patentable

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.”

Judicial Exceptions:
- Laws of nature
- Natural Phenomena
- Abstract Ideas (e.g. a mathematical formula alone, sometimes referred to as a mathematical algorithm is not patentable)

EPO – Article 52 – Patentable Inventions

(1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.

(2) The following shall not be regarded as inventions within the meaning of paragraph 1:
- discoveries, scientific theories and mathematical methods;
- aesthetic creations;
- schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
- presentations of information.

(3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.
India

- Section 2(1) (j) - “An invention means a new product or process involving an inventive step and capable of industrial application”

- Section 3(k) - “a mathematical or business method or computer programs per se or algorithms” are not patentable inventions

Comparison of Provisions

<table>
<thead>
<tr>
<th>Specific Provisions against some types of SII</th>
<th>US</th>
<th>EP</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Method Exception</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Algorithm Exception</td>
<td>Y</td>
<td>Y (as such)</td>
<td>Y (as such)</td>
</tr>
<tr>
<td>Computer Program Exception</td>
<td>N</td>
<td>Y (as such)</td>
<td>Y (per se)</td>
</tr>
</tbody>
</table>

But, How are the Provisions Interpreted?
SII Case Law

Case Law: USA

- Diamond vs. Diehr
- In re Alapatt
- In re Bilski
- State Street Bank
India – MPPP & Yahoo Case

MPPP provides guidelines for examination

1. **A business method:** The term ‘Business Methods’ involves whole gamut of activities in a commercial or industrial enterprise relating to transaction of goods or services. If in substance the claims relate to business methods, even with the help of technology, such as internet, networks, satellites, telecommunications etc., they are not considered to be a patentable subject matter.

2. **Computer programs per se:** Claims directed at ‘computer program products’ are computer programs per se stored in a computer readable medium and as such are not allowable.

Yahoo v. Rediff.com (IPAB)

"The inventive step’ must be a feature which is not an excluded subject itself. Otherwise, the patentee by citing economic significance or technical advance in relation to any of the excluded subjects can insist upon grant of patent thereto. Therefore, this technical advance comparison, should be done with the subject matter of invention and it should be found it is not related to any of the excluded subjects."
## Comparison of Patent Office Grant Practice

<table>
<thead>
<tr>
<th>Category</th>
<th>USA</th>
<th>EUROPE</th>
<th>INDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algorithm</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Mathematical methods</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Software for a Specific Device or Hardware</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Software for General Purpose Computer</td>
<td>Y</td>
<td>Y</td>
<td>?</td>
</tr>
<tr>
<td>Software Application for Technical Solutions</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Software Application for Business Solutions</td>
<td>?</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

## Summary

<table>
<thead>
<tr>
<th>Provision</th>
<th>USA</th>
<th>EUROPE</th>
<th>INDIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions</td>
<td>35 U.S.C. 101</td>
<td>Article 52</td>
<td>2(1)(j) &amp; 3(k)</td>
</tr>
<tr>
<td>Exclusions</td>
<td>Abstract Ideas</td>
<td>Computer Program, Business Method, Algorithm (as such)</td>
<td>Computer program per se, Algorithms, Business Method</td>
</tr>
<tr>
<td>Case Law</td>
<td>Diamond vs Diehr, State Street Bank, Alappat, Bilski, Vicom, Pension Benefit System, Hitachi, Microsoft, G03/08</td>
<td>Yahoo v. Rediff.com</td>
<td></td>
</tr>
<tr>
<td>Patent Office Practice</td>
<td>The claimed invention must not be an abstract idea</td>
<td>The claimed invention should have a technical character.</td>
<td>The claimed invention should be implemented on a hardware and have technical contribution</td>
</tr>
</tbody>
</table>