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GUIDELINES FOR EXAMINATION OF COMPUTER RELATED INVENTIONS

The guidelines for examination of Computer Related Inventions (CRI's) published by the Patent Office have been reviewed by us and our detailed comments and suggestions with respect to the criteria for examination of inventions based on computer program/software instructions/software, algorithm, business method and mathematical equations are below:

To start with, we bring to the notice of the Patent Office that the published guidelines are expected to be referred by the IPO Examiners and the applicants to foresee the patentable and un-patentable subject matter with respect to CRI's and therefore clarity is essential in making the guidelines effective. However, we observe that the guidelines are not clear in terms of the allowable subject matter under CRI's. The guidelines are vague since they fail to pin-point the specific requirements that a patent specification related to CRI must satisfy to meet the disclosure and patentability requirement under the Patents Act. While the guidelines have brought out various case laws related to CRI's, however the said examples/case laws reflect only one side of the coin. Particularly, the guidelines only bring out the examples which demarcate the inventions which have not been allowed by the Patent Office. The examples with respect to CRI's allowed by the Patent Office have been omitted from the guidelines. In the absence of such positive examples, the guidelines remain vague and would not serve the intended purpose and the practice of Patent Office would appear to be arbitrary.

Our detailed comments on the various Sections of the guidelines are as follows:

1. Under Section 3, the Patent Office has stated that the definitions occurring in other "Indian statutes" have been referred to construe the various terms applicable to CRI's and where no such definitions are available in any legislation, ordinary dictionary meaning has been applied. This approach appears to be erroneous since the definitions appearing in other statutes may be restrictive in view of the intended object of the statutes where the same are referred. In this respect, Information Technology Act and Copyright Act of India should not be referred to define the various applicable terms such as computer networks, computer system, data, information algorithm, function, software etc., since the said Acts are interpreted/applied towards a different area of protection. For example, the IT Act has an objective:

" to provide legal recognition for transactions carried out by means of electronic data interchange and other means of electronic communication, commonly referred to as "electronic commerce", which involve use of alternatives to paper-based methods of communication and storage of information, to facilitate electronic filing of documents with the Government agencies and further to amend the Indian Penal Code..." .

The said Act has a very specific and limited scope that pertains to commercial transactions over a computer network and does not envisage a computer network or a device which enables information exchange for solving a technical problem. Thus, it would not be prudent to refer to definitions, which are significantly narrow in scope, from totally unrelated statutes to construe Section 3(k) and determine allowability of CRI's. Also, it appears ironical that the Patent Office is willing to accept definitions pertaining to subject matter ("commercial transactions"), which in itself is narrowly construed to be

non-patentable by the Patent Office in the Patent Manual. Also, some of the definitions used in Section 3 of the guidelines, to describe terminologies generally applicable to CRI's, appear to be vague and confusing. For example, the term "Computer Network" as described in section 3.2 is restrictive since it does not define anything related to the complex telecommunication systems.

Mere reliance on the IT Act and Copyright Act is not appropriate since they are directed towards general application of computers/IT, which do not relate to any technical aspect as in complex inventions dealt under Patents Act.

2. We would like to emphasize that Section 3(k) precludes only a computer programme "*per se*" from patentability, however, CRI's where computer program/software instructions are used only at the background and the said program enhances the efficiency of the known hardware, must be considered as patentable. The guidelines do not appear to address this aspect. Specifically, under Section 3.11, the Patent Office construes the term "*per se*" according to the ordinary dictionary meaning to mean "by itself". The intention of the legislature in including the phrase '*per se*' in Section 3(k) must be taken in account and any assumption that the legislative intent was to exclude all inventions based on computer programs is incorrect. In fact, it is palpable that the legislature only intended to exclude inventions which are *per se* computer programs and there was no intention to exclude all inventions based on computer programs as is being suggested by the guidelines. You may note that a test was proposed with respect to patentability of computer program based inventions by UK Court of Appeal's in the matters of **Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371** which is instructive and persuasive in this regard. The Patent Office must devise a similar test which would clarify the stance with respect to allowability of CRI's.
3. With respect to Sections 3.15 and 3.16, wherein "technical advancement" and "technical effect" have been defined, you may note that once an invention has passed the initial scrutiny for inventive step, the technical advancement and/or technical effect of the said invention is considered to have been automatically met. Having said that, a CRI that exhibits higher efficiency, such as higher speed, reduced hard-disk access time, etc. can be said to involve inventive step and in turn is technically advanced and/or has a technical effect, therefore sections 3.15 and 3.16 stand satisfied. Besides, the statement that "all technical effects may or may not result in technical advancement" is vague, since it is difficult to imagine a situation wherein an act of solving a technical problem cannot be considered as an advancement of the state of the art. The requirement under these guidelines is to provide a specific test or steps to exactly determine the technical effect/technical advancement which is missing from the document. To clarify this, the Patent Office's attention is drawn to the decision of UK High Court in **AT&T Knowledge Ventures LP vs Comptroller General of Patents Designs and Trademarks [2009] EWHC 343**, wherein a test was proposed to clearly determine technical effect. If clarifying the "technical effect" requirement is the desired outcome of the guidelines, then a test on similar lines may be proposed in the guidelines for reference by both the Applicants and Patent Office Examiners/Controllers.

Section 3.17 of the guidelines states that mathematical methods are considered to be acts of mental faculty and thus not patentable. However, technically speaking any CRI cannot perform any function without mathematical calculations and or formulas. This interpretation in the said section appears to be far-stretched because, for example, a control philosophy implemented in a control system and using a mathematical equation involving various parameters (sensed by sensors, for example) for enabling the control would also be considered as non-patentable – which would be an incorrect interpretation. In this respect, EPO board of appeal decision in T0208/84 of 15.07.1986 may be referred, wherein it was held that *“even if the idea underlying an invention may be considered to reside in a mathematical method, a claim directed to a technical process in which the method is used does not seek protection for the mathematical method as such”* and may be considered patentable subject to meeting other threshold requirements. Under the above Section of the guidelines, even though a method solves a technical problem in a non-obvious manner and has technical advance, the same would not be considered allowable merely because a mathematical method is involved. Therefore, rather than mentioning that mathematical methods are not allowed, it may at most be mentioned that mathematical calculations and formulae’s may not be a part of the claims. Putting blanket ban on mathematical method as a whole will have an adverse effect on applicants in the field of electronics and telecommunication whose inventions are based on mathematical calculations and formula which form an integral part of the invention in conjunction with the technical process being protected.

4. Section 3.18 defines business methods and provides an arbitrarily selected definition therefor. No technical basis has been provided to determine what all activities would fall within the ambit of “business method”. The guidelines categorically exclude “all” business methods and claims which in substance relate to business method even with the help of technology. The Patent Office’s proposal has, in effect, imposed a blanket ban on inventions relating to business methods. This, unfortunately, reflects the constricted view point of the Patent Office in view of the practice followed by major patent offices such as EPO and USPTO wherein an invention related to business method is considered as patentable if it includes “technical features” for solving a technical problem in a non-obvious manner. However, the guidelines fail to cover business methods which are technically enabled. A new technology, aided by hardware features, indirectly applicable to carry out a business activity, such as a service related activity, must be considered patentable and any approach to the contrary would kill innovations and technological advancements in the service sector. Therefore, business methods, which satisfy these criteria, should be considered allowable. This would enable majority of Indian SME’s to file patent applications and enhance innovations in this sector and, moreover does not conflict with the IPAB’s **Yahoo** decision.
5. In Section 3.21, even though presentation of information is not considered patentable, if there are new technical features, there could be patentable subject matter in the information carrier or in the process or apparatus for presenting the information. In this regard, an extract from the Guidelines for Examination issued by the European Patent Office, Part C, Chapter V-5, paragraph 2.3.7 may be referred that includes certain examples of patentable subject matter under European Patent law.

6. Under Section 4, the Patent Office merely gives negative examples of prohibited subject matter under each category-method/process; apparatus/system; algorithm; computer program *per se* and the like. The guidelines fail to provide any positive examples to give an Applicant or Examiners, an idea as to what would be patentable.

Further, in Section 4.2 of the guidelines, it has been mentioned that the apparatus claims should clearly define the inventive constructional/hardware features, however this is contradictory to what has been mentioned in section 3.15. An apparatus which achieves technical effect must be considered to be satisfying novelty and inventiveness criteria irrespective of whether it has novel hardware/constructional features in specific. Thus, the emphasis on novel and inventive constructional features should not be a primary requirement and a specifically configured hardware (by way of software/firmware) should also be considered as novel and inventive.

7. Section 5 brings out the examination procedure adopted by the Patent Office. We would like to bring to the notice of the Patent Office that novelty, inventive step and industrial applicability are interpreted in various forms amongst various patent offices (DEL, KOL, MUM, and CHE). In view of this, it becomes necessary to chalk out uniform procedure for interpreting Section 2(1)(j). You may note that major Patent Offices such as EPO and USPTO have adopted various tests to determine novelty and inventiveness. The Indian Patent Office should align with one or more of such tests, or devise a new test so as to provide clarity for determining the patentability of CRI's. Additionally, the guidelines add to the ambiguity by failing to answer some specific questions raised by the Patent Office itself. For instance, under Section 5.4.5, it is mentioned that the Examiners are required to carefully consider as to how the novel hardware is integrated with the computer program. However, the guidelines do not specify what requirements are to be looked into by the Examiners in this respect. The guidelines further mention that it is important to ascertain whether the machine is programme specific or programme is machine specific. Such statements are vague as it fails to bring out the intended purpose thereof, i.e., the objective to be achieved and how the same is to be achieved.
8. Sections 5.4.5 and 5.4.6 recite that the computer program which works in a known general purpose computer is not patentable. The statements used under sections 3.15 and 5.4.5/5.4.6 of the guidelines are contradictory to each other and do not provide a clear picture of what is allowable.

Although it has been mentioned in the guidelines that where novelty resides in the device, machine or apparatus and it is claimed in combination with computer program, the same is allowable. However the converse i.e., in case the computer program is installed on general purpose hardware and the said program enhances the efficiency of the general purpose hardware, thereby exhibiting technical effect and technical advancement (as envisaged in section 3.15 of the guidelines), must also be considered to have satisfied the patentability requirement under Section 3(k) of the Patents Act.

Additionally, under Section 4.2, the guidelines prescribe that an apparatus claim should clearly define the inventive constructional/hardware features. This would be a very limiting definition and would include only those apparatus which have at least one new hardware feature. Said limiting definition when read in conjunction with Section 5.4.6 would render a very narrow scope of protection available to the Applicants, which is restrictive and contrary to law.

9. Section 5.4.7 mentions that computer program *per se* is not allowable, nevertheless computer program which is associated with a novel, inventive and industrially applicable computer or related device may be considered as patentable. However, this statement has no legal basis since The Patents Act has only barred computer program *per se* from patentability and remains mute regarding the incorporation of hardware limitations as being imposed by the guidelines.
10. We would like to reiterate that in section 5.4.8, various examples have been cited by the Patent Office to highlight the approach of the Patent Office towards deciding application relating to CRI's. However the guidelines have identified only those applications which have been refused, this approach is negative. Along with examples of non-patentable subject matter, the guidelines must also outline examples wherein claims for CRI's have been granted/accepted. This would ensure that both Patent Office and Applicants can easily demarcate between the patentable and non patentable CRI's. *From the examples mentioned in the guidelines, it appears that no CRI's are allowable in India, which is incorrect and, more importantly, will lead to a negative perception that in turn would drastically affect the fresh filings of computer related patent applications in India.*
11. In Section 6.2, the guidelines state that while deciding patentability of subject matter, the focus should be on underlying substance of the invention and not the particular form in which it is claimed. However, this statement is rendered ambiguous by paragraph 6.1 that states that inventions claimed in any of the [above] forms (i.e. algorithm or computer program) belong to excluded category. It is thus not clear as to whether a process implementing an algorithm so as to achieve a technical effect in a non-obvious manner would be considered as patentable or non patentable. A detailed clarification must be given with respect to the same.
12. Coming to the final section of the guidelines, various flowcharts depicting the examination procedure have been illustrated. Although the flow charts describe conventional procedure of examination followed by the Patent Office, however with respect to the CRI's, flow charts only describe the subject matter, which is considered non-patentable. Blocks that describe steps essential for allowance of CRI's must also be included in the said flowcharts.

Additionally, you may note that the second flow chart defines how to determine whether the claims fall within the ambit of Section 3(k) or 3(m). The second block of the flow-chart mentions about separating "technical" and "non-technical" features appearing in the claim and determining where the invention lies by analyzing the technical features and the technical problem solved. The guidelines do not clarify as to what the technical and



non-technical features include. Particularly, there are no tests specified in the guidelines to determine the technical/non-technical features, determination of where the invention lies, determination of technical problem solved and the like.

Conclusion:

The guidelines, though drafted with the intention of providing clarity to the Applicants and examiners regarding patentability of CRIs, have left few stones unturned in terms of clearly defining the tests to be applied to analyze the specified patentability criteria. In view of the lack of clarity in the guidelines, the ambiguity surrounding CRIs persists and such ambiguity could be detrimental to the state of affairs in terms of affecting the number of filings in India since the Applicants may construe the provisions as per their understanding. India is considered to be IT capital of the world and the CRI guidelines, which are largely unpersuasive, would discourage Indian IT companies from investing in filing patent applications in India apart from discouraging MNC IT companies as well. Keeping in mind that the bulk filing in India is by Applicants in the field of electronics and telecommunication whose inventions are based on computer related methods, unambiguous guidelines clearly specifying the tests to be applied and including positive examples of decisions of the Patent Office must be provided such that the Applicants are encouraged to file new applications in India.

Also, it would thus be advisable to support the guidelines with suitable judicial precedents (Indian or foreign) or any other substantive basis, in the absence of which the same appear to be arbitrary as of now. While amending the guidelines it must be kept in mind that the purpose of the guidelines should be towards clarifying ambiguities in application of the law which will assist in increasing the filing of new patent applications in India, rather than portraying an image that no invention wherein the word 'computer' appears in the specification is allowed in India.