
THE NON-OBVIOUSNESS STANDARD AS A STRINGENT GATEKEEPER OF PATENTING INVENTIONS

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ABSTRACT

We live in a world which embraces the fact that change is the only constant. Inventions aid in bringing change fueled by the necessity of the dynamic world. The patent system seeks to facilitate inventions by granting protection to the inventors. In India, the Patents Act, 1970, has laid down the non-obviousness or inventive step standard for patenting inventions such as radical inventions. What is needed is that the invention is not easily obtained and was beyond the capability of the ordinary skilled person. Every inventor attempts to create an invention which will make oneself question the usual. However, the non-obviousness standard acts as a strict gatekeeper of patent protection which affects the patentability of radical inventions under business methods and artificial intelligence.

Business methods are explicitly made non-patentable under Section 3(k) of the Indian Patent Act, 1970. While jurisdictions such as United States of America allows patent protection for business methods, the hindsight bias in business methods owing to its development being linear, transforms the inventive step standard into a powerful gatekeeper which devoid business methods from attaining patent protection in India. On the other hand, as we witness the alteration of economic landscape by the creation of radical inventions which utilizes Artificial Intelligence or AI, the potential of replacing the person having ordinary skill in the art (PHOSITA) under the inventive step standard is being raised. It is crucial to determine the application of patent law to the unprecedented inventions born through AI. I argue that in examining the AI inventions in India, the strict consideration of the PHOSITA under the non-obviousness standard will hinder patent protection of AI inventions. I conclude that the non-obviousness standard is rigid in granting patentability to business methods and artificial intelligence which are crucial for radical inventions and thus, the standard must be toned down.

I. INTRODUCTION

During this year when I was getting familiarized to the history of patent law, the world witnessed new innovations¹ – (i) the synthesis of quantum dots and (ii) experimental methods generating attosecond pulses of light in physics. Well, the inventors were honored with the Nobel Prize and their inventions would enjoy patent protection. Subsequently, I was acquainted with the conditions which needs to be fulfilled for getting patent in India. **Non-obviousness also known as inventive step is the ultimate standard to safeguard patentability of inventions.** The standard is rigid and is difficult to believe in its viability for patenting radical inventions.

Radical inventions refer to inventions developed using new technology by recombining former unconnected knowledge to introduce new products or services. New markets can emerge from radical inventions wherein firms who are successful in inducing customer demand for such innovative products are entitled to embrace competitive advantages. Examples: (i) introduction of airplanes was based on an entirely new aeronautical technology which led to establishment of the airline industry. (ii) Apple's AirPods uses wireless technology for receiving Bluetooth signals is an excellent illustration of radical invention. It has been successful and continues to improve for minimizing the risk of customer's inability in retrieving their lost earpiece.

In this paper, I reflect upon the non-obviousness standard used in India and then proceed to argue how the **stringency** of the inventive step acts as an impediment for radical inventions under business methods and artificial intelligence to realize patent protection in India. The paper seeks to answer whether the inventive step needs to be **toned down** under the influence of radical inventions created for thriving in future?

II. THE NON-OBVIOUSNESS STANDARD IN INDIA

The case of *Bishwanath Prasad v Hindustan Industries*² is hailed as the landmark case for setting out the ground rules for **objectively and strictly** assessing inventive step in India. Here, the patentability of the utensil making method was called into question. With respect to non-obviousness, the Court observed that an improvement over the previous close art was

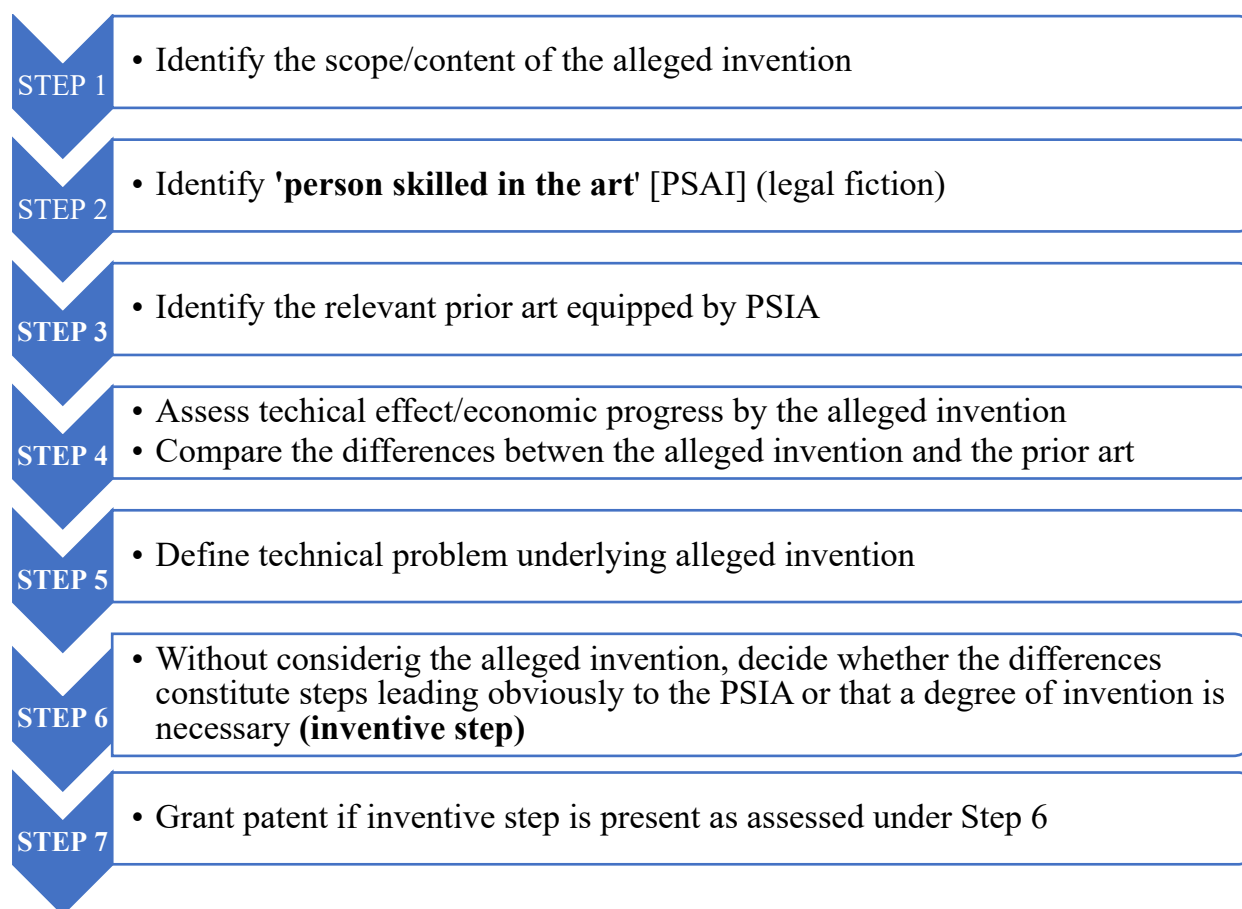
¹Nobel Prizes 2023 <<https://www.nobelprize.org/all-nobel-prizes-2023/>>.

² AIR 1982 SC 1444.

imperative to invoke an inventive step which is not obvious to the skilled person presumed to be aware of the relevant art.

Section 2(1)(ja) of the Indian Patents Act, 1970, post amendment in 2005, defines **inventive step** as that feature of an **invention** which involves technical advancement or economic significance not obvious to the **person skilled in the art**.

The Guidelines by the Indian Patent Office³ stipulates a **step-by-step approach** for examining patentability of an invention:



As of 30th October 2023, the above step by step approach has not been utilized by Courts in judging cases for grant of patent. However, this approach contains the elements derived from the judgment of the Court in *Novartis*⁴.

³ Manual of Patent Office Practice And Procedure (2019)
<https://ipindia.gov.in/writereaddata/Portal/Images/pdf/Manual_for_Patent_Office_Practice_and_Procedure_.pdf>.

⁴ *Novartis v Union of India* AIR 2013 SC, App. No. 2706-2716 of 2013.

The patent system cannot function without the inventive step. However, the standard is **unpredictable** as it fails to lay down the amount of invention required for satisfying the condition compounded by a benchmark of a **hypothetical person**. Radical inventions created from ‘out of the box thinking’ deserves patent protection. Just like airplanes, there is a high possibility of making hoverboards which can lift you in air using modern technology. But will such invention qualify under inventive step? Coming back to reality, I will illustrate how the non-obviousness standard is rigid in granting patentability to business methods and artificial intelligence which are crucial for radical inventions.

III. WHY BUSINESS METHOD INVENTIONS SHOULD BE TESTED FOR INVENTIVE STEP?

An organization works in a dynamic and uncertain business environment. Business methods refers to the methods used by organizations for carrying out their activities. Change and inventions in business methods for organization becomes a crucial factor for their survival, prosperity, and growth.

Patentability of business method inventions is important as it brings uniqueness to the organization conferring it with competitive advantage. Furthermore, it assists the organizations in channelizing the commercialization of radical inventions. The USPTO⁵ has acknowledged the scope of patent protection to business methods since 1900s. The case of *State Street*⁶ decided in 1998 was a watershed moment wherein patent was granted for their business method of managing assets using hub and spoke model. Here, the business method provided a “useful, concrete and tangible result”⁷ to qualify as a patentable subject matter.

When it comes to the Indian context, **Section 3(k) of the Indian Patent Act, 1970**, has categorically **excluded business methods from the ambit of patentability**. It is based on the premise that such methods existed before the patent system and are under continuous transformation which makes it obvious. However, when assessed under the non-obviousness standard, I will show how the standard’s stringency has constrained business methods from becoming patentable under the statute.

⁵ United States Patent and Trademark Office.

⁶ *State Street Bank and Trust Co v Signature Financial Group Inc* (149 F.3d 1368).

⁷ *ibid.*

To substantiate my argument, I would first like to explain the impact of business methods in the e-commerce domain. The method involved online businesses reach the marketplace rapidly as capital investment is minimal and start-up time is less. By the time the issue of such method's patentability is resolved, what perpetuates is that the method is obvious due to familiarity with the online product.

Under the non-obviousness standard in India, the person skilled in the art is posed with the question that whether the problem intended to be solved by the alleged invention can be solved by him using the existing knowledge. This inheres a **hindsight bias** which is detrimental for the alleged business method invention as the invention becomes foreseeable and technically trivial being freely imitated by competitors. Prior art pre-supposes hindsight as it is determined on the basis of having the knowledge about the invention beforehand. As mentioned how business methods in digital space entails familiarity, the hindsight bias of the patent officer having prior knowledge of the steps taken to create the business method makes the alleged invention obvious.

Interestingly, Amazon acquired an Indian patent in the year 2020 for its method of detecting customer's location in nexus with proximity of merchant location for automatically authenticating mobile transactions.⁸ At the merchant's shop, a customer would take out his/her phone for online payment and enter passcode which poses potential security concerns as cyberthieves will be able to access consumer's personal sensitive data by scanning the customer's phone. Although business methods are excluded from the Indian patent regime, yet this case indicates the acknowledgment of business method inventions as patentable.

Business method inventions are identifiable in markets for their functional utility as indicated by Amazon's patent. Hindsight bias embedded in the inventive standard transforms into a powerful gatekeeper which devoid business methods from attaining patent protection. The stringency of non-obviousness standard must be relaxed to evaluate patentability of business method inventions in India. Therefore, 'business method' must be deleted from Section 3(k).

⁸ 'Amazon gets Indian patent for auto authentication of mobile transactions' (*The Financial Express*, 13 August 2020) <<https://www.financialexpress.com/business/amazon-gets-indian-patent-for-auto-authentication-of-mobile-transactions-2053267/>>.

IV. ON ARTIFICIAL INTELLIGENCE

With the ongoing digitisation, Artificial Intelligence (AI), one of the most prominent forms of digital innovations, has taken the front seat in driving radical inventions, for instance ChatGPT. Gen Z have rapidly embraced the use of AI in their lifestyle and are prioritising AI learning.

As we envision a digital Aatmanirbhar Bharat, AI will act as the catalyst in the digital transformation. It is crucial to determine the application of patent law to the unprecedented inventions born through AI. I argue that in examining the AI inventions in India, the strict consideration of the person skilled in art (legal personality) under the non-obviousness standard will hinder patent protection of AI inventions. The question to consider here is that where inventions are attributable to AI (a non-legal personality), how will the person skilled in the art criteria work? Well, the person skilled in the art should be seen as a human innovator having expertise in using AI for creating his/her inventions. In South Africa and Australia, their courts have allowed patent application naming AI as the inventor⁹.

No sooner the future will replace the human inventor. The inventive step should tone down the PSIA condition for allowing inventions created using AI(non-humans) to become eligible for patent protection.

VI. CONCLUSION

The development of radical inventions through business methods and artificial intelligence in India will succumb to competitors who are at the verge of running away with the radical inventions. The non-obviousness standard in India thus, must be toned down.

In Marvel's Black Panther, there were unparalleled inventions in the Kingdom of Wakanda. If wonder in the fiction world can act as a bridge to imaginative inventions, then the radical inventions taking place through business methods and artificial intelligence challenging the notion of what 'ought to be' necessitates patent protection. The upcoming inventions

⁹ In South Africa: Cases mentioned in D.W. Thaldar and M. Naidoo, AI inventorship: The right decision? (2021) <<https://doi.org/10.31219/osf.io/7uctg>>; In Australia: Thaler v Commissioner of Patents [2021] FCA 879.

disrupted by necessity suggests that the non-obviousness standard is bound to experience an evolutionary leap.