
Recognising generative and autonomous AI as a ‘juridical person’

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Abstract In the current era, there is a significant global effort to establish legal and regulatory frameworks for the responsible use of artificial intelligence (AI). The discussions surrounding autonomous AI highlight challenges related to its technological transparency and, often, opacity. Despite the widespread application of AI in various fields, debates persist on decision-making processes, the necessity for safe and fair outcomes and the need for regulatory platforms ensuring compliance and governance in AI implementation. Issues such as the ‘authorship’ and ‘inventorship’ of autonomously generated creations, particularly in cases like the ‘device for autonomous bootstrapping of unified sentience’, have sparked intense debates and legal proceedings in multiple locations, including the UK, USA, Australia, Germany, New Zealand, Taiwan and the EU. The Supreme Court of India judgment in 2019 presents a detailed analysis for the recognition of idols as juristic personality. The judgment provides sufficient basis for the creative recognition of ‘generative and autonomous AI’ as a ‘juridical person’. Such a recognition would entitle the AI system to a patent both as an inventor and an applicant satisfying all the essential requirements of the Indian Patents Act. Alternatively, an appropriate *sui generis* system will have to be developed in various jurisdictions based on some commonly accepted principles.

KEYWORDS: artificial intelligence (AI), legal aspects, regulatory guidelines, autonomous, inventions, patent, copyright, IP ownership

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INTRODUCTION

In recent times, the global community has been intensely engaged in dissecting artificial intelligence (AI) to create operating legal and regulatory guidelines and frameworks for the responsible use of AI. The amorphous debates related to autonomous AI have been around its technology translucency and, in most cases, its technology opacity, despite its accelerating applications in all fields of present and future human endeavour. The nature and scope of decisions and the impact of safe, trustworthy and equitable outcomes with an in-built concept of fairness have triggered the need for pragmatic regulatory platforms embedded with compliance and governance capabilities on how to use and implement AI systems.

'Authorship', 'inventorship' and 'ownership' of autonomously generated creations are being fiercely debated. Recognising an autonomous intelligent system (AIS) as a separate legal entity raises several jurisprudential implications for privacy, data protection and information security.

Legal and human rights issues relating to AI, especially those concerning gaps, challenges and vulnerabilities, are being extensively debated.¹ Such issues include: algorithmic transparency, cybersecurity vulnerabilities, unfairness, bias and discrimination, lack of contestability, legal personhood issues, intellectual property issues, adverse effects on workers, privacy and data protection issues, liability for damage and lack of accountability.

The laws in most jurisdictions, such as India, USA, UK, Germany, Australia, Taiwan, were not designed with the concept of AI-generated entities in mind, and therefore, they do not fully cover the range of potential legal issues that could arise.

Overall, recognising AIS as separate legal entities entails navigating complex legal, ethical and societal implications and requires careful consideration and collaboration among stakeholders to address challenges effectively.

EXISTING AND ONGOING CASE LAWS

Stephen L. Thaler filed two patent applications, namely EP 18275163.6 (filing date 17th October, 2018), titled 'Food Container' and EP 18275174.3 (filing date 7th November, 2018) titled 'Devices and Methods for Attracting Enhanced Attention'. A 'Device for Autonomous Bootstrapping of Unified Sentience' (DABUS), an AI 'creativity machine' built by Dr Thaler, was named as the inventor in these patent applications. A patent cooperation treaty (PCT) application PCT/IB2019/057809 was filed on 17th September, 2019 based on the priority of the EP applications.

Patent applications were filed in the UK (GB 18116909.4 and GB 1818161.0 on 17th October, 2018 and 7th November, 2018 respectively) based on the Paris Convention. Dr Thaler then filed a series of patent applications in Australia (Appl. No 2019363177 on 9th September, 2020), the USA (Patent Applications no. 16/524,350 and 16/524,532 on 29th July, 2019) and in several countries such as Canada, New Zealand, South Africa, Taiwan, Germany, Republic of Korea, Israel, China, Japan, India, and Saudi Arabia.

The status of DABUS as the 'non-human' inventor in these patent applications has been the key issue at most of the patent offices around the world. The matter has already been escalated to the courts in the UK, USA, Australia, Germany, New Zealand, Taiwan and the EU.²

Status in South Africa and Saudi Arabia

On 24th June, 2021, according to a notification bearing that date from the Companies and Intellectual Property Commission, Registrar of Patents, South Africa, Dr Thaler was granted a patent with DABUS listed as the inventor (Application No. 2021/03242).³ It is to be noted that South Africa does not have a substantive patent examination system. Saudi Arabia

has accepted a Patent Application No. 521422019 that has designated DABUS as an inventor.⁴

The European Patent Office

The European Patent Office (EPO) Enlarged Board of Appeal in the matter related to DABUS, EPO Case no. J 0008/20, in its decision dated 21st December, 2021,⁵ addressed the following issues:

1. In case of an invention made by an artificial intelligence in the absence of a traditional human inventor (AI generated invention) does Article 81, first sentence, and Rule 19 of the European Patent Convention (EPC) remain applicable?
2. If so, in what way should an applicant indicate the designated inventor in order to satisfy the requirements of Article 81, first sentence, and Rule 19 of the EPC?⁶

The enlarged Board of Appeal decided (para 4.3.9 of the decision) that the main request does not comply with the EPC, because a machine is not an inventor within the meaning of the EPC. For this reason alone, it is not allowable. There was no need to consider the requirements set out in Article 81, second sentence, EPC.

The enlarged Board of Appeal in para 4.4.2 of the decision concluded that, in the statement accompanying the auxiliary request, the appellant claimed to have derived the right to the European patent as owner and creator of the machine. This statement does not bring the appellant within the scope of Article 60(1) of the EPC. It does not refer to a legal situation or transaction which would have made him successor in title of an inventor within the meaning of the EPC. For this reason, the auxiliary request does not comply with Article 81, second sentence, of the EPC in conjunction with Article 60(1) of the EPC, and is not allowable. Further, in para 4.5.2, the decision is that the auxiliary request is

not allowable because of Article 81, second sentence, of the EPC, and not because of Article 81, first sentence, of the EPC.

In para 4.7.8 of the decision, the Board stated that it is not convinced that there is a causal link between the procedural violation and filing the appeal. The Board stated:

The appellant has not filed a designation indicating as inventor a natural person with the statement of grounds of appeal. He has maintained the requests pending before the Receiving Section. While this subsequent behaviour cannot support the theory that the appellant surrendered his right at the oral proceedings, it does support the view that even if the time limit had not been cut, the appellant would have maintained his position and not designated a person as inventor. Thus, the appeal would have been necessary anyway.⁷

The appeal was not allowed.

Germany

According to the Federal Patent Court (FPC) in Germany, only natural persons may be designated as inventors (decision of 11th November, 2021–11 W (pat) 5/21⁸ and decision of 21st June, 2023–18 W (pat) 28/20).⁹ The central legal question was whether only a natural person can be named as an inventor within the meaning of Sec. 37 of the Patent Act and Sec. 7 of the Patent Ordinance. The decision of 11th November, 2021–11 W (pat) 5/21 pointed out that the inventor's right to be named under Secs. 37(1) and 63 (the applicability of the duty of truthfulness) of the Patent Act is the explicit recognition of the inventor's moral right which a machine does not have.

To place the decision in context, it would be appropriate to recall Section 37(1) of the German Patents Act which states:

Within fifteen months of the date of filing or, if an earlier date is claimed to govern

the application, within fifteen months of that date, the applicant shall designate the inventor or inventors and shall affirm that, to his knowledge, no other persons participated in the invention. Where the applicant is not the inventor or not the sole inventor, he shall also indicate how he acquired the right to the patent. The accuracy of the statements made shall not be verified by the German Patent and Trade Mark Office.¹⁰

Section 7, which deals with 'naming the inventor', in the Ordinance on Patent Procedures before the German Patent and Trade Mark Office (Patent Ordinance) of 1st September, 2003 states the following:

- (1) The applicant shall indicate the inventor on the form issued by the German Patent and Trade Mark Office or on an electronic file pursuant to the formatting requirements published by the German Patent and Trade Mark Office.
- (2) This indication must contain:
 1. the given name and family name and the address (street and house number, postal code, town, postal district, if any) of the inventor;
 2. the affirmation of the applicant that to his knowledge no other person has contributed to the invention (Sec. 37 (1) Patent Law);
 3. if the applicant is not the inventor or not the sole inventor, a statement by the applicant on how he acquired the right to the patent (Sec. 37 (1), second sentence, Patent Law);
 4. the title of the invention and the official file number, if already known;
 5. the signature of the applicant or his representative; if the patent grant has been requested by several persons, each person.¹¹

However, if an invention was conceived by a machine (here: DABUS), the FPC did not exclude that the persons operating the software could be considered as

inventors. Interestingly, in decision 11 W (pat) 5/21,¹² the FPC allowed the (human) inventor to be named with the additional indication 'who caused the artificial intelligence DABUS to generate the invention', which was rejected in decision 18 W (pat) 28/20¹³ which opined that the German Trademark Office (DPMA) cannot grant a patent on AI-generated inventions, unless the applicant falsifies statements regarding the inventor.

Australia

On 13th April, 2022, the Federal Court of Australia in the case '*Commissioner of Patents v Thaler* [2022] FCAFC 62' addressed as the central question in the appeal whether a device characterised as an artificial intelligence machine can be considered to be an 'inventor' within the meaning ascribed to that term in the Patents Act 1990¹⁴ (Cth) and the Patents Regulations 1991 (Cth). The Court set aside the decision of the primary judge and reinstated the decision made by the Deputy Commissioner.¹⁵

In para 113 of the judgment, the court observed that the reasoning of the primary judge regarding how it could be that Dr Thaler, as a matter of law, owns the work performed by DABUS and that such ownership could entitle him to the grant of the application does not arise in view of the construction of s15(1) and reg 3.2C(2) (aa). Further the court observed that it is not to the point that Dr Thaler may have rights to the output of DABUS. Only a natural person can be an inventor for the purposes of the Patents Act and Regulations. Such an inventor must be identified for any person to be entitled to a grant of a patent under ss 15(1)(b)–(d).

The court in para 114 of the judgment further observed that no other provision in the Patents Act is inconsistent with the construction that we have preferred: see, in particular, ss 64(2)(a), 101B(2), 101E(1),

113, 172(1), 182(3) and 185 which all use the term ‘inventor’.

USA

On 24th April, 2023, the Supreme Court of the United States declined to hear the appeal brought by Dr Stephen Thaler in relation to whether artificial intelligence (AI) can be named the inventor of a patent.¹⁶

On 12th February, 2024, the US Patent and Trademark Office (USPTO) released guidance for determining inventorship of AI-assisted inventions. This guidance highlights that ‘while AI-assisted inventions are not categorically unpatentable, the inventorship analysis should focus on human contributions, as patents functions to incentivize and reward human ingenuity’.¹⁷ The executive order stated:

The USPTO Director shall [. . .] within 120 days of the date of this order, publish guidance to USPTO patent examiners and applicants addressing inventorship and the use of AI, including generative AI, in the inventive process, including illustrative examples in which AI systems play different roles in inventive processes and how, in each example, inventorship issues ought to be analyzed.¹⁸

The public was asked to provide answers to 11 questions, including ‘how does the use of an AI system in the invention process differ from the use of other technical tools?; whether AI inventions may be patentable under current patent laws on joint inventorship by, for example, simply listing the natural person involved in inventions created by AI machines; and whether statutory or regulatory changes should be made to better address AI contributions to inventions.

The USPTO recognises that, while an AI system may not be named as an inventor or joint inventor in a patent or patent application, an AI system — like other tools — may perform acts that, if performed by a human,

could constitute inventorship under US laws. The *Thaler* decisions around ‘inventorship’ are not a recognition of any limits on the current or future state of AI but rather are an acknowledgment that the statutory language clearly limits inventorship on US patents and patent applications to natural persons.

The terms ‘joint inventor’ and ‘coinventor’ are defined in 35 U.S.C. 100(g) as ‘any 1 of the individuals who invented or discovered the subject matter of a joint invention’.¹⁹ Based on the holding in *Thaler* that an ‘individual’ must mean a natural person, it is clear that a ‘joint inventor’ or ‘coinventor’ must also be a natural person. In February of 2023, the USPTO published the R–07.2022 revision of the Manual of Patent Examining Procedure (MPEP), which included revisions to section 2109.²⁰ This section reiterates the USPTO’s position, and the position expressed by the Federal Court in *Thaler*, that an inventor must be a natural person, and by extension, any joint inventor must be a natural person. As such, patent applications that name a machine on an application data sheet, an inventor’s oath or declaration, or a substitute statement as either an inventor or joint inventor will be considered by the USPTO to have improper inventorship.²¹

The essential takeaways of the guidelines issued in compliance with the Executive Order are:²²

- AI assisted inventions are not categorically unpatentable for improper inventorship.
- Focus of inventorship analysis on human contributions, specifically — significant contribution (Pannu factors).
- Patent applications and patents for AI-assisted inventions must name the natural person(s) who significantly contributed to the invention as the inventor or joint inventors (ie, meeting the Pannu factors). Use of an AI system (or other advanced tools) by a natural person(s) does not preclude that natural person(s) from qualifying as the inventor

(or joint inventors) if the natural person(s) significantly contributed to the claimed invention.

- Applications and patents must not list any entity that is not a natural person as the inventor or joint inventor, even if an AI system may have been instrumental in the creation of the claimed invention.
- Five guiding principles to inform application of Pannu factors.
- Guidance applies to utility, plant and design patents and applications.
- Potential impact on other areas of patent practice.

Each named inventor must

- contribute in some significant manner to the invention;
- the three Pannu factors:
 - contribute in some significant manner to the conception or reduction to practice of the invention
 - contribute to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and
 - do more than merely explain to the real inventors well-known concepts and/or the current state of the art

Failure to meet any one of these factors precludes that person from being named the inventor or joint inventor.

Things to remember:

- The focus of Pannu factors analysis is on the natural person(s) contributions
- Joint inventors may apply for a patent jointly even though each did not make the same type or amount of contribution or each did not make a contribution to the subject matter of every claim of the patent.²³

Clearly, the requirement relates to the naming of all inventors who contributed to at least one claim of a patent. The threshold question in determining the

named inventor(s) is who contributed to the conception of the invention.

In situations where a single person did not conceive the entire invention (eg joint inventorship), courts have found that a person who shares in the conception of the invention is an inventor. In these situations, each named inventor in a patent application or patent, including an application or a patent for an AI-assisted invention, must have made a 'significant contribution' to the claimed invention.

UK

UK Supreme Court Decision on 20th December, 2023²⁴

The chronological set of events related to the DABUS patent applications is as follows:

- Patent Applications GB 18116909.4 and GB 1818161.0 filed on 17th October, 2018 and 7th November, 2018 respectively by Dr Thaler in UKIPO asserting that the inventions were created by an AI machine called DABUS without the involvement of a human inventor. Dr Thaler did not name himself as an inventor.
- UKIPO notified by letters dated 19th November, 2018 and 27th November 2018, respectively, to file a statement of inventorship and an indication of the derivation of his right to the grant of the patents, within 16 months of the filing date of the applications under section 13(2) of the UK Patents Act 1977 and rule 10(3) of the Patent Rules 2007.
- On 23rd July, 2019, Dr Thaler responded by stating that the inventor was DABUS, acting autonomously and powered by AI, and that he acquired the right to the grant of the patents because he owned DABUS.
- On 8th August, 2019, UKIPO replied to Dr Thaler that he had not complied with the requirements of the 1977 Act. He was further advised to file replacement forms which did comply with the requirements of the 1977 Act and made good the

deficiencies it had identified. Dr Thaler was warned that if he failed to do so within the prescribed period, the applications would be taken to be withdrawn.

- Dr Thaler's attorney responded on 28th August, 2019 that all the requirements were adequately met and requested for a hearing if objection is still maintained.
- The hearing took place on 14th November, 2019, at which Dr Thaler's attorney argued that the information he had provided met the requirements of the 1977 Act and the Rules.
- On 4th December, 2019, the hearing officer issued a decision that DABUS could not be regarded as an inventor under the 1977 Act, and further, that Dr Thaler was not entitled to apply for the patents simply because he owned DABUS. The decision also indicated that the applications would be deemed withdrawn at the expiry of the 16-month period specified by rule 10(3) of the Rules for filing the statement of inventorship.
- Dr Thaler's appeal to a judge of the High Court against the comptroller's decision was dismissed by Marcus Smith J on 21st September, 2020: [2020] EWHC 2412 (Pat), [2020] Bus LR 2146.
- A further appeal by Dr Thaler to the Court of Appeal was dismissed on 21st September 2021 ([2021] EWCA Civ 1374, [2022] Bus LR 375), although the three-judge panel was split. Lord Justice Birss dissented from the majority, explaining that Thaler complied with the relevant law, Section 13(2) of the Patents Act 1977, in part because he contended that 'he created, owns and operated DABUS and there is a rule of law whereby the owner and operator of a machine which creates inventions is entitled to the right to apply for and be granted a patent for an invention created by that machine'.
- Leave to appeal to the Supreme Court was granted on 12th August, 2022 and the matter was heard on 2nd March, 2023.
- On 20th December, 2023, the UK Supreme Court on the matter *Thaler*

(*Appellant*) v *Comptroller-General of Patents, Designs and Trademarks* (*Respondent*) delivered its judgment {[2023] UKSC 49; On appeal from: [2021] EWCA Civ 1374}.

The issues on appeal before the UK Supreme Court were as follows:

- (i) whether Dr Thaler is entitled to apply for and secure the grant of patents for inventions created by DABUS and, more generally, that the owner of a machine which embodies an AI system is entitled to inventions created or generated by the machine, and to apply for and secure the grant of patents for those inventions if they meet the other statutory requirements for patentability set out in the 1977 Act;
- (ii) whether an applicant for such a patent is not required to name a natural person as an inventor to meet the requirements of the 1977 Act;
- (iii) whether Dr Thaler has satisfied the provisions of section 13(2) of the 1977 Act; and
- (iv) whether in any event the comptroller had no proper basis under the Act for refusing these applications in the manner and for the reasons he did.

The UK Supreme Court observed that it is not and has never been Dr Thaler's case that he was the inventor and used DABUS as a highly sophisticated tool. Had he done so, the outcome of these proceedings might well have been different.

The UK Supreme Court concluded as follows:

- DABUS is not and never was an 'inventor' for the purposes of section 7 or 13 of the 1977 Act (para 73 of the judgment)
- Dr Thaler has never had any right to secure the grant to himself of patents under the 1977 Act in respect of anything described in the applications (para 90 of the judgment).

- Dr Thaler failed to satisfy the requirements of Sections 13(2)(a) and 13(2)(b). DABUS is not a person or persons and it is not a tenable interpretation of the 1977 Act that a machine can be an inventor. Therefore, Dr Thaler has failed to satisfy the requirements of Section 13(2)(a). Dr Thaler also failed to satisfy section 13(2)(b) of the 1977 Act as he was not able to provide a legal basis to assert how he derived his right to be granted the patent (para 95 of the judgment). The doctrine of accession could not apply to Dr Thaler — firstly, because DABUS is not an inventor, and secondly because his claims mischaracterise an invention as being or amounting to tangible property such that title to it can pass, as a matter of law, to the owner of the machine which, on Thaler's assumption, generated it. Further, Dr Thaler failed within the relevant period to file with the UKIPO a statement identifying the person or persons whom he believes to be the inventor or inventors; and where, as here, the applicant is not the inventor, indicating the derivation of his right to be granted the patent (para 93 of the judgement).²⁵

Dr Thaler's Appeal was dismissed.

In summary, DABUS an autonomous AI System has not been recognised as a 'person' and therefore cannot be named as an inventor of the invention. Further, Dr Thaler cannot be the applicant of the patent application as DABUS without being recognised as a 'legal person' cannot assign the invention to Dr Thaler.

India

In India, Thaler filed patent application no. 202017019068 on 5th May, 2020 based on the PCT Application naming DABUS as the inventor. The First Examination Report (FER) issued by the Patent Office on 26th October, 2021 raised an objection under Section 2 and Section 6 of the Indian Patents Act 1970 as amended in

2005. The FER states that the application cannot proceed to formal and technical examination because the true and first inventor of the invention is AI (device for the autonomous bootstrapping of unified sentience), which is not a person as per section 2 and section 6 of the Patent Act 1970. Further, FER also raised objections on the novelty and inventive step, lack of unity of invention, lack of definitiveness. As the patent examination process was in progress, a pre-grant opposition was filed on 15th December, 2023 challenging the grant of the patent application. As of 14th March, 2024, the pre-grant proceeding is in progress.²⁶

EXPLORING NEW AVENUES IN INDIA

The exponential growth in AI technologies especially in the field of 'generative AI' demands transformative and innovative thinking to alter entrenched mindsets. 'Generative AI' is increasingly contributing to autonomous creations and has already become integral to the overall creative ecosystem. It is therefore imperative that lessons are drawn from other fields and legal frameworks to evolve a pragmatic approach to ownership of intellectual property (IP) generated by autonomous AI both independently or as part of AI-human collaborating teams.

The Department-Related Parliamentary Standing Committee on Commerce, Government of India, presented its 161st Report on 'Review of the Intellectual Property Rights Regime in India' on 23rd July, 2021. The report acknowledged the importance of intellectual property rights (IPR) and emphasised promoting and developing the IP environment in India.²⁷ On 6th April, 2022, the committee presented its 169th Report reporting the actions taken by the Government on the recommendations/observations of the Committee in the 161st Report.

The report emphasised the need to establish an appropriate legislative framework

on IPR in conformity with the changing dynamics of innovation; to encourage financing and commercialisation of IP assets in the country, combative measures against counterfeiting and piracy; active coordination between agencies and administrative efforts for deftly handling IPR issues.²⁸

In the context of computer related inventions including ‘Artificial Intelligence and IPR’, the Department Related Parliamentary Standing Committee on Commerce Standing noted the following:

- Neither the Indian Patents Act, 1970 nor the Copyright Act, 1957 are well equipped to facilitate inventorship, authorship, and ownership by Artificial Intelligence.
- A separate category of rights for AI and AI-related inventions and solutions should be created for their protection as IPRs.
- The existing legislation of the Patents Act, 1970 and Copyright Act, 1957 should be revisited to incorporate the emerging technologies of AI and AI-related inventions in their ambit.
- There is an absence of a framework for patenting algorithms by associating their use with a tangible result. It was recommended in this regard that the approach in linking the mathematical methods or algorithms to a tangible technical device or a practical application should be adopted in India to facilitate their patents as is done in the EU and US. Hence, the conversion of mathematical methods and algorithms to a process in this way would make it easier to protect them as patents.²⁹

LESSONS DERIVABLE FROM JUDGMENTS OF THE SUPREME COURT AND HIGH COURTS IN INDIA ON JURIDICAL ENTITIES

It is to be appreciated that legal systems across the world have extended the concept of ‘legal personality’ beyond natural persons or human beings. ‘Public interest’ in

regulating properties dedicated to religious purposes was acknowledged by rulers of Indian society long before courts regulated the Hindu practice of religious endowments. Hindu deities have long been recognised as juristic entities vested with proprietary rights by courts in India. The scope of rights vested in the deities and exercising the same has been the subject of several court cases and the deities’ rights, duties and liabilities have been continually evolving since colonial times in India.

This section discusses possible options arising out of judicial discourses and decisions in India related to personification of idols in places of worship.

The judgment of The Supreme Court of India ‘CIVIL APPELLATE JURISDICTION Civil Appeal Nos 10866–10867 of 2010’ delivered a unanimous, 1045–page verdict on 9th November, 2019, which, among other issues, addressed the question as to whether the law recognises the deity ‘Bhagwan Shri Ram Virajman’ and the birthplace of Lord Ram (‘Asthan Shri Ram Janmabhumi’) as juridical entities.³⁰

On 1st July, 1989, a suit (‘Suit 5’ — on appeal before the Supreme Court) was brought before the Civil Judge Faizabad by the deity ‘Bhagwan Shri Ram Virajman’ and the birthplace ‘Asthan Shri Ram Janam Bhumi’, Ayodhya, through a close friend for a declaration of title to the disputed premises and to restrain the defendants from interfering with or raising any objection to the construction of a temple. Both the plaintiffs were represented by Sri Deoki Nandan Agrawala, a former judge of the Allahabad High Court as a close friend of the deity (Ram Lalla Virajman) recognised as a permanent minor. On 30th September, 2010 the full bench of the High Court, comprising of Justice S. U. Khan, Justice Sudhir Agarwal and Justice D. V. Sharma delivered the judgment. Justice S. U. Khan and Justice Sudhir Agarwal held ‘all the three sets of parties namely

Muslims, Hindus and Nirmohi Akhara' as joint holders of the disputed premises and allotted a one third share to each of them in a preliminary decree. It declared that the area covered by the central dome of the three domed structure, ie, the disputed structure being the deity of Bhagwan Ram Janamsthan and place of birth of Lord Rama as per the faith and belief of the Hindus, belonged to the plaintiffs (Suit 5 on appeal in the Supreme Court) and shall not be obstructed or interfered with in any manner by the defendants.

Part J in the judgment of the Supreme Court of India presents a detailed analysis of the jurisprudence related to the legal interpretation of 'juristic personality'. J1 Development of the Law, J2 Idols and Juristic Personality, J3 Juristic Personality of 1st Plaintiff the Deity ('Bhagwan Shri Ram Virajman'), J4 Juristic Personality of the 2nd Plaintiff the birthplace of Lord Ram ('Asthan Shri Ram Janmabhumi').³¹

Para 87 of the Supreme Court judgment stated that Suit 5 on appeal was required to answer two important questions: first, what are the exact contours of the legal personality ascribed to a Hindu idol? In other words, to what extent is the artificial legal personality ascribed by courts to a Hindu idol akin to the legal personality of a natural person? Second, can property of a corporeal nature (in this case land) be ascribed a distinct legal personality? To answer these questions, the court proceeded to provide understanding of both the true purpose underlying the legal innovation of recognising or conferring legal personality and why courts have conferred legal personality on Hindu idols.

The foundational principle of who or what is a legal person is a function of the legal system:

- directly regulates the behaviour of legal persons and their behaviour in relation to each other;
 - requires a legal person is to possess certain rights and duties under the law and to be capable of engaging in legally enforceable relationships with other legal persons;
 - is to provide the ability to create or recognise legal persons depending on varying circumstances.
- The judgment, in paras 92, 89 and 101, essentially makes the following observations:
- legal systems have already extended the concept of legal personality beyond natural persons via a legal concept of an 'artificial legal person' or 'juristic person';
 - a cooperative society or corporation is an example wherein a collection of natural persons is collectively conferred a distinct legal personality. An inanimate object such as a ship has also been conferred a legal personality;
 - the juristic persons so created do not possess human nature, but their legal personality consists of the rights and duties ascribed to them by statute or by the courts to achieve the purpose sought to be achieved by the conferral of such personality;
 - all legal units are not alike. The conferral of legal personality sub-serves specific requirements that justify its recognition. The conferral of juristic personality does not automatically grant an ensemble of legal rights. The contours of juristic personality ie, the rights and liabilities that attach upon the object conferred with juristic personality, must be determined keeping in mind the specific reasons for which such legal personality was conferred. The limits or boundaries of the rights ascribed to the new legal person must be guided by the reasons for conferring legal personality. The parameters of judicial innovation are set by the purpose for which the judge innovates;
- requires the law to recognise distinct legal units or 'legal persons', recognised by the law as a subject which embodies rights, entitlements, liabilities and duties;

- one must therefore appreciate the circumstances in which legal personality has been conferred and consequently the rights and duties ascribed to the inanimate objects on which this conferment takes place.³²

An in-depth analysis of the conferral of legal personality on a Hindu idol has been provided in the Supreme Court judgment which has referred to several earlier judgments in Indian courts delivered by English and Indian Judges.

In *Promatha Nath Mullick v Pradyumna Kumar Mullick*, the Bench consisting of Lord Shaw, Blanesburgh, John Edge and Ameer Ali observed:

One of the questions emerging at this point is as to the nature of such an idol, and the services due thereto. A Hindu idol is, according to long established authority, founded upon the religious customs of the Hindus, and the recognition thereof by Courts of law, a 'juristic entity.' It has a juridical status with the power of suing and being sued. Its interests are attended to by the person who has the deity in his charge and who is in law its manager with all the powers which would, in such circumstances, on analogy, be given to the manager of the estate of an infant heir, it is unnecessary to quote the authorities; for this doctrine, thus simply stated, is firmly established.³³

In *Devkinandan v Muralidhar*, the court opined:

Though under Hindu law an idol is a juristic person capable of holding property, and the properties endowed for the temple vest in it, it can have no beneficial interest in the endowment, and the true beneficiaries are the worshippers, as the real purpose of a gift of properties to an idol is not to confer any benefit on God, but the acquisition of spiritual benefit by providing opportunities and facilities for those who desire to worship.

Thus, the property of a Hindu temple or an idol, vests in the deity and the shebait only has the right to possession and management of the estate.³⁴

In *Yogendra Nath Naskar v Commissioner of Income-Tax*, the court held: 'The Hindu idol is a juristic entity capable of holding property and of being taxed through its shebait who are entrusted with the possession and management of its property.' A Hindu deity fell within the meaning of the word 'individual' under s.3 of the Act and could be treated as a unit of assessment under the section and was capable of being taxed through its shebait. The word 'individual' in s.3 of the 1922 Act included within its connotation all artificial juridical persons and this legal position was made explicit and beyond challenge in the 1961 Act. Neither God nor any supernatural being could be a person in law. But so far as the deity stands as the representative and symbol of the particular purpose, which is indicated by the donor, it can figure as a legal person, and in that capacity alone, the dedicated property vests in it. There is no principle according to which a deity as such a legal person should not be taxed if such a legal person is allowed in law to own property, even though in the ideal sense, and to sue for the property, to realise rent and to defend such property in a court of law, again in the ideal sense.³⁵

The Supreme Court of India, in its final judgment on 9th November, 2019, recognised Rām Virajman as a juridical person, based on longstanding Hindu belief, and, despite the absence of a deed of dedication, a legal guardian (shebait), or a temple structure, characterised this deity as a pious purpose: the right of Hindus to worship Rām at Ayodhya. The result is a tautological deity: Rām Virajman is the pious, constitutionally protected purpose of Hindus to worship Rām Virajman at the Janmabhūmi.³⁶

The Indian Case laws discussed herein illustrate:

- (i) an idol of a Hindu Temple is a juridical person or juristic entity, commonly referred to as a 'deity';
- (ii) the title to properties and endowments can vest in deities such as a Hindu idol, who acts through a human agency (such as the shebait); and
- (iii) a Hindu idol not only has the power of suing and being sued, but can be treated as an 'individual' who can be assessed for tax liability.

These concepts may be extended to 'generative autonomous AI Systems' while considering the same being recognised as 'juridical persons'.

POSSIBLE OPTIONS TO TREAT GENERATIVE AUTONOMOUS AI SYSTEMS AS A JURIDICAL PERSON

To place the discussion in context, it is pertinent to quote the relevant sections of the Indian Patents Act 1970 (as amended in 2005).³⁷

Section 2 of the Indian Patents Act 1970 (as amended in 2005) contains the following definitions:

- 2(p): 'patentee' means the person for the time being entered on the register as the grantee or proprietor of the patent;
- 2(s): 'person' includes the Government;
- 2(t): 'person interested' includes a person engaged in, or in promoting, research in the same field as that to which the invention relates;
- 2(y): 'true and first inventor' does not include either the first importer of an invention into India, or a person to whom an invention is first communicated from outside India.

Section 6: Persons entitled to apply for patents:

- (1) Subject to the provisions contained in section 134, an application for a patent

for an invention may be made by any of the following persons, that is to say, —

- (a) by any person claiming to be the true and first inventor of the invention;
- (b) by any person being the assignee of the person claiming to be the true and first inventor in respect of the right to make such an application;
- (c) by the legal representative of any deceased person who immediately before his death was entitled to make such an application.

- (2) An application under sub-section (1) may be made by any of the persons referred to therein either alone or jointly with any other person.

Section 7: Form of application:

- (1) Every application for a patent shall be for one invention only and shall be made in the prescribed form and filed in the patent office.
- (1A) Every international application under the Patent Cooperation Treaty for a patent, as may be filed designating India shall be deemed to be an application under this Act, if a corresponding application has also been filed before the Controller in India.
- (1B) The filing date of an application referred to in sub-section (1A) and its complete specification processed by the patent office as designated office or elected office shall be the international filing date accorded under the Patent Cooperation Treaty.
- (2) Where the application is made by virtue of an assignment of the right to apply for a patent for the invention, there shall be furnished with the application, or within such period as may be prescribed after the filing of the application, proof of the right to make the application.
- (3) Every application under this section shall state that the applicant is in possession of the invention and shall name the person claiming to be the true and first inventor;

and where the person so claiming is not the applicant or one of the applicants, the application shall contain a declaration that the applicant believes the person so named to be the true and first inventor.

- (4) Every such application (not being a convention application or an application filed under the Patent Cooperation Treaty designating India) shall be accompanied by a provisional or a complete specification.

Section 134: Notification as to countries not providing for reciprocity:

Where any country specified by the Central Government in this behalf by notification in the Official Gazette does not accord to citizens of India the same rights in respect of the grant of patents and the protection of patent rights as it accords to its own nationals, no national of such country shall be entitled, either solely or jointly with any other person, —

- (a) to apply for the grant of a patent or be registered as the proprietor of a patent;
- (b) to be registered as the assignee of the proprietor of a patent; or
- (c) to apply for a license or hold any license under a patent granted under this Act.

A ‘person’ in various sections of the Indian Patents Act is not explicitly defined except for an inclusive definition in Section 2(s) where it states that ‘person’ includes the Government. The law makers did not see the necessity to explicitly include the expression ‘natural person’ in any of the sections of the Act and hence is open to legal interpretation.

The detailed analysis in Part J of the judgment of the Supreme Court of India related to legal interpretation of juristic personality of inanimate objects such as ships including Hindu idols (including the recognition of Rām Virajman as a juridical person, based on longstanding Hindu belief, and, despite the absence of a deed of dedication, a legal guardian (shebait), or a temple structure, characterised this deity

as a pious purpose) may be extended to address the issue of personification of AI systems in the context of the Indian Patents Act. Such a recognition of an AI system as a ‘juridical person’ as per law would be consistent with the requirements of ‘recognising rights, entitlements, duties and liabilities’, ‘conditionalities for corporations’ and ‘collectives’, ‘nexus between the conferral of a limited legal personality and the adjudicative utility achieved by the conferral’, as in the case of a ship, and in line with ‘history, necessity & convenience’.

The 9th November, 2019 judgment of the Indian Supreme Court in para 90 referred to Salmond’s comment:

that the rights and duties conferred on artificial legal persons ultimately represent the interests and benefits of natural persons. In fact, it is precisely because of the substantial benefits derived by natural persons from such objects or collectives that legislators and courts are called upon to consider conferring legal personality on such objects or collectives.³⁸

Rapid transformative and disruptive generative and autonomous AI based developments with high socio-economic impacts are continually crowding the innovation space. Not surprisingly, governments in various countries are actively exploring inclusive legal and regulatory frameworks to maximise the benefits of ‘generative and autonomous AI’.

It is time to creatively recognise ‘generative and autonomous AI’ as a ‘juridical person’ for reasons explained in the Indian Supreme Court judgment, which are related to the legal interpretation of the juristic personality of inanimate objects such as ships including Hindu idols.

Such a recognition would in principle satisfy the requirements of Section 2(y), 2(s) and 2(t) of the Indian Patents Act wherein such ‘generative and autonomous AI systems’ would possibly qualify as ‘a person’ to apply for a patent in India.

Such a 'juridical person' in India as per the provisions of Section 6(1)(a) of the Indian Patents Act then qualifies as a 'true and first inventor' of an invention, and as per Section 6(1)(b) as 'any person being the assignee of the person claiming to be the true and first inventor in respect of the right to make such an application'.

The 'generative and autonomous AI' recognised as a 'juridical person' would also qualify as per Section 6(2), wherein an application under sub-section 6(1) may be made by any of the persons referred to therein either alone or jointly with any other person. The option of this 'juridical person' to be joint applicant with any other person may also be open. The requirements of Sections 7(2) and 7(3) in the Indian Patents Act would also be satisfied.

With such a recognition of 'generative and autonomous AI' as a 'juridical person', the Indian Patents Act will need to revisit aspects of Section 10 in terms of the requirements of disclosures in patent specifications, structure of the forms for patent applications, declaration of inventorship and applicants, benchmarks for 'novelty' and 'inventive step', definition of 'a person skilled in the art' and 'grounds of opposition and revocation'.

It would be pertinent to flag the interwoven issues of granting legal personhood to an AIS related to privacy, data protection, information security, liability and accountability, ethics and regulatory frameworks, as an AIS would have the capability to collect, process, and store personal data independently, raising concerns about unauthorised surveillance, data misuse, data breaches and the erosion of privacy rights. Clear regulations would be required to govern data handling, consent mechanisms, data retention and accountability to ensure compliance with data protection laws. These information security aspects would directly impact integrity and confidentiality of information, enforcement of trade

secrets, wrongful obtaining of inventions, contracts, collaborative working, etc. Laced with these issues, questions of liability and accountability will need to be addressed. Determining responsibility for AI-driven actions, errors or damages becomes complex, requiring clarity on the allocation of legal liability between the AIS, its creators, operators and other involved parties. Comprehensive transborder, seamless laws and regulations, including ethical frameworks, are challenges in the process of being addressed as AIS enhances its role in autonomous decision-making processes. A recent publication titled 'Artificial Intelligence and Personhood: Interplay of Agency and Liability' engages in detailed analysis of these issues.³⁹

CONCLUSION

The creative recognition of 'Generative and Autonomous AI' as a 'Juridical person' along the lines of the Supreme Court judgment 'CIVIL APPELLATE JURISDICTION Civil Appeal Nos 10866-10867 of 2010' would entitle the AI System to a patent both as an inventor and an applicant satisfying all the essential requirements of the Indian Patent Act. Alternatively, an appropriate '*sui generis*' system will have to be developed in various jurisdictions based on some commonly accepted principles.

To sum-up, recognising Autonomous Intelligent Systems (AIS) as 'Juridical person', represents a profound shift in jurisprudence, specifically within the realms of privacy, data protection and security. This paradigm shift demands a thorough re-evaluation of existing legal principles and the formulation of innovative frameworks to effectively navigate the unique challenges presented by AIS.

The tension inherent in acknowledging AIS as legal entities, deserving rights and protections, while simultaneously ensuring transparency, monitoring actions, assigning liability and facilitating access for law

enforcement, underscores the complexity of this paradigm. Policy makers, legislators, the judiciary, big tech and society as a whole face a formidable challenge in striking the right balance between harnessing the potential benefits of AIS and safeguarding individual rights, as well as maintaining social and ethical standards.

Granting legal personhood to AIS demands careful consideration and the establishment of new laws and jurisprudence standards tailored to the intricacies of AI entities. The implications extend beyond privacy, data protection and security, touching on negligence/tort, intellectual property rights, and necessitating the setting of limits or differentiated standards for AIS compared to living individuals.

Without meticulous regulation, there is a risk of introducing vulnerabilities and restrictions that could compromise the safety, security and oversight of AIS. Achieving the appropriate policy and legal balances is not only crucial but also a complex endeavour that requires collaboration among stakeholders to address the multifaceted challenges inherent in recognising AIS as separate legal entities.

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