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Artificial Intelligence Owning Patents: A Worldwide Court Debate

Maria A. Penkwitz

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ARTIFICIAL INTELLIGENCE OWNING PATENTS: A WORLDWIDE COURT DEBATE

MARIA A. PENKWITZ

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INTRODUCTION

In the international sphere, a showdown is unfolding in the highest courts of many countries, including the United States, Canada, Australia, China, Japan, India, and several European countries.¹ The surrounding issue is whether

1. See Kathy Pretz, *A First: AI System Named Inventor*, IEEE SPECTRUM (Jan. 18, 2022), <https://spectrum.ieee.org/first-time-ai-named-inventor>; Joseph Brookes, *Ruling recognising AI as*

artificial intelligence (“AI”) can be recognized as the sole inventor of a patent.² The leaders of this AI inventor campaign are Dr. Thaler—with his AI system known as “DABUS”—and Attorney Ryan Abbott.³ DABUS—which stands for “Device for Autonomous Bootstrapping of Unified Sentience”—is an AI machine consisting of two networks which mimic how the human brain functions by simulating human brainstorming to create new inventions.⁴ Dr. Thaler describes DABUS as capable of conceiving inventions independently.⁵ It consists of two neural networks working together to generate, evaluate, and filter ideas based on novelty, utility, or value.⁶ The specific DABUS invention that stemmed this debate are interlocking food containers made for robots to easily grasp and stack.⁷

From 2018 to 2019, the DABUS team, now recognizing themselves as “The Artificial Inventor Project,” filed applications in seventeen patent offices around the world.⁸ As of January 28, 2022, only South Africa ruled to recognize AI as an inventor on patents.⁹ Meanwhile, cases in the United States, United Kingdom, Germany, and Australia face pending appeals.¹⁰ The remaining twelve countries still have DABUS in their pending patent application systems.¹¹ Considering these events, this Comment explores the global perspective on AI inventorship through analyzing different countries’ laws and stances on AI as patent inventors.

As the events surrounding The Artificial Inventor Project and its legal adventures unfold around the world, this Comment explores what it means to be an inventor and different countries’ legal reasoning for their decisions to

inventor appealed by Australian Government, INNOVATIONAUS.COM (Sept. 10, 2021), <https://www.innovationaus.com/ruling-recognising-ai-as-inventor-appealed-by-australian-government/>.

2. See Pretz, *supra* note 1; Brookes, *supra* note 1.

3. Pretz, *supra* note 1.

4. David Yi, *AI inventorship on the horizon: Part 1*, NORTON ROSE FULBRIGHT (Oct. 2021), <https://www.nortonrosefulbright.com/en/knowledge/publications/2a3c551a/ai-inventorship-on-the-horizon-part-1>; Meshandren Naidoo, *In a world first, South Africa grants a patent to an artificial intelligence system*, QUARTZ (Aug. 9, 2021), <https://qz.com/africa/2044477/south-africa-grants-patent-to-an-ai-system-known-as-dabus>.

5. Pretz, *supra* note 2.

6. Yi, *supra* note 3.

7. Naidoo, *supra* note 4.

8. David V. Sanker and Jianbai Wang, *US Federal Circuit: Artificial Intelligence Machine is not an Inventor*, MORGAN LEWIS LAWFLASH (Aug. 10, 2022), <https://www.morganlewis.com/pubs/2022/08/us-federal-circuit-artificial-intelligence-machine-is-not-an-inventor>.

9. Ryan Abbott, *Patent Applications*, THE ARTIFICIAL INVENTOR PROJECT (2022), <https://artificialinventor.com/patent-applications/>.

10. *Id.*

11. *Id.*

recognize, or not recognize, AI as a patent inventor. Specifically, this Comment will analyze the United States' Patent Laws to better understand why The Artificial Inventor Project is not recognized in the United States. Following this analysis, the focus will turn to analyzing United Kingdom, Germany, South Africa, and Australia's legal interpretations of AI as a patent inventor. The final section of this Comment proposes a better approach, based on the analyzed countries' approaches, for the United States to take regarding recognizing DABUS as a patent inventor.

UNITED STATES INTERPRETATION OF PATENT INVENTOR

DABUS Case in the U.S.

In July 2019, Dr. Thaler filed two applications with the United States Patent and Trademark Office ("USPTO").¹² Below is the inventorship statement he attached in his application to address the USPTO's inventor requirement:

DABUS, the Creativity machine that has produced the below-detailed invention, as the sole inventor (represented in this assignment by its owner, Stephen L. Thaler, hereinafter called the "Assignor"), hereby assigns and transfers to:

Stephen L. Thaler
[Address Omitted]

(hereinafter called the "Assignee"), its successors, assignees, nominees, or other legal representatives, the Assignor's entire right, title, and interest, including, but not limited to, copyrights, trade secrets, trademarks and associated goodwill and patent rights in the Invention and the registrations to the invention ...

In view of the fact that the sole inventor is a Creativity Machine, with no legal personality or capability to execute said agreement, and in view of the fact that the assignee is the owner of said Creativity Machine, this Assignment is considered enforceable without an explicit execution by the inventor. Rather, the owner of DABUS, the Creativity Machine, is signing this Assignment on its behalf.

Similarly, DABUS, being a machine and having no legal personality, does not have the capability to receive any consideration, and therefore, Stephen L. Thaler, as its owner/representative, acknowledges the receipt and sufficiency of good and valuable consideration for this assignment.¹³

12. Thaler v. Hirshfeld, 558 F.Supp.3d 238, 240 (E.D.Va. 2021).

13. *Id.* at 242.

The USPTO reviewed and responded to this application; Dr. Thaler received a “Notice to File Missing Parts of Non-Provisional Application,” which allowed him two months to submit proper information regarding inventorship.¹⁴ In this notice, the USPTO explained the “application data sheet or inventor’s oath or declaration does not identify each inventor or his or her legal name.”¹⁵ Dr. Thaler responded with a petition asking the USPTO to vacate its “Notice to File Missing Parts” and use the inventorship statement that was initially submitted with the application, recognizing DABUS (the “Artificial Intelligence Machine”) as the inventor.¹⁶

USPTO issued a decision dismissing Dr. Thaler’s response and explained that Congress defines the term “inventor” as applying only to humans.¹⁷ Furthermore, the USPTO cited the Federal Circuit, which held an inventor could only be a natural person in two separate decisions.¹⁸ In its conclusions, the USPTO held no patent would be granted, because a machine does not qualify as an inventor, proper notice was issued to Dr. Thaler concerning his inventorship statement, and the inventor was still not identified by his or her legal name.¹⁹ Dr. Thaler and the Artificial Inventor Project team filed an appeal, but the Federal Circuit affirmed the USPTO’s decision on September 2, 2021.²⁰

U.S. Patent Inventor Definition

The United States Constitution Article I, Section 8, Clause 8 states “The Congress shall have Power [. . .] To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”²¹ The term “inventor” is used in 35 U.S.C. § 111 to define the general terms and requirements for a patent application in the United States.²² In 35 U.S.C. § 111, a patent application “shall be made, or authorized to be made, by the inventor,”²³ and an “inventor” is defined as “the individual or, . . . individuals . . . who invented or discovered the subject matter of the invention.”²⁴ Because the term “individual” is not defined in the Patent Act, the Dictionary Act sets a

14. *Id.*

15. *Id.*

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.* at 249.

20. *Id.* at 240.

21. U.S. CONST. art. I, § 8, cl. 8.

22. *Id.*

23. 35 U.S.C.A. § 111 (2015).

24. 35 U.S.C.A. § 100(f)-(g) (2015).

foundation of definitions to common words that apply to any act of Congress, unless indicated otherwise.²⁵ The term “person” includes “corporations, companies, associations, firms, partnerships, societies, and joint stock companies, as well as individuals.”²⁶

Although Congress is free to give words a broader meaning, there needs to first be indication of Congress’s intention for a different meaning.²⁷ So far, there is consist interpretation from patent case law “inventors must be natural persons.”²⁸ For example, in *University of Utah v. Max-Planck*, the Federal Court evaluated whether a state could be a real party interest when a state university sued officials at another university to correct inventorship of a patent.²⁹ The Federal Court held a state has no interest in inventorship and reasoned “inventors are the individuals that conceive of the invention” and, to have the mental act of conception, the inventors “must be natural persons and cannot be corporations or sovereigns.”³⁰

It should also be noted, for the patent application process, there is a required statements portion where the inventor gives an oath or declaration.³¹ The oath asserts the application was made or authorized to be made by the individual and it asserts the individual believes they are the original inventor of the claimed invention in the application.³²

PATENT LAW AND DABUS ABROAD

United Kingdom

Patent Inventor Defined

Under Section 7 of the Patents Act 1977, the right to apply for and obtain a patent states “(1) [a]ny person may make an application for a patent alone or jointly with another” and “(2) [a] patent for an invention may be granted; (a) primarily to the inventor or joint inventors; (b) ... the ‘person or persons who ... was or were at the time of the making of the invention entitled to the whole property in it ... in the United Kingdom.’”³³ Subsection 4 within this section

25. 1 U.S.C.A. § 1 (2012).

26. *Id.*

27. *Mohamad v. Palestinian Auth.*, 132 S.Ct. 1701, 1707 (2012).

28. *Univ. of Utah v. Max-Planck-Gesellschaft Zur Forderung Der Wissenschaften E.V.*, 734 F.3d 1315, 1323 (Fed. Cir. 2013).

29. *Id.* at 1318.

30. *Id.* at 1323.

31. 35 U.S.C.A. § 115(a)-(b) (2015).

32. *Id.*

33. Patents Act, (1977), § 37, 7 (Eng.).

further defines inventor, noting “a person who makes an application for a patent shall be taken to be the person who is entitled under subsection (2) to be granted a patent.”³⁴ Throughout the Patents Act 1977, the term “person” is used in describing the patent applicant and requirements for submissions.³⁵ The U.K. government even posted a January 2022 update in their Manual of Patent Practice regarding the mention of inventor in Section 13 of the Patents Act 1977.³⁶ In particular, Section 13(2)(a) and 13(2)(b) state the inventor must give the U.K. Patent Office information identifying the person, or persons, believed to be the inventor and indicating if there is any “derivation of his or their right to be granted the patent [...] and, if he fails to do so, the application shall be taken to be withdrawn.”³⁷ Patent law in the U.K. not only defines the term “inventor” but goes so far as to use the term “person” throughout the Act’s sections. This use of person throughout the Act gives the impression that patents in the U.K. are only granted to human inventors.

DABUS Case in the U.K.

The DABUS case first appeared in 2020 before the U.K. High Court and Comptroller General.³⁸ The Court and Comptroller General decided only people can be inventors, and therefore, DABUS does not qualify as an inventor within the Patents Act 1977.³⁹ The case was up for appeal, with a decision delivered by the appellate court, affirming the High Court and Comptroller General’s decision.⁴⁰ In the decision, the appellate court answered three questions: (1) is there a “person” requirement in the 1977 Act; (2) what is the purpose and applicability of section 13; and (3) what is the response to the information Dr. Thaler proved under section 13(2)?⁴¹ The appellate court came back with a 2-1 decision, following the High Court’s decision to not grant the patent to Dr. Thaler.⁴²

The appellate court reasoned Dr. Thaler did not comply with the Section 13(2) requirements, his application is deemed withdrawn for the failure to comply, and the court system is not the place to introduce non-statutory grounds

34. *Id.*

35. *See generally* Patents Act, (1977) (Eng.).

36. Patents Act, (1977), § 37, 7 (Eng.).

37. *Id.*

38. Sam Mitchell, *UK: DABUS: AI’ll Be Back*, MONDAQ (Oct. 1, 2021) <https://www.mondaq.com/uk/patent/1114674/dabus-ai39ll-be-back>.

39. *Id.*

40. *Id.*

41. *Id.*

42. *Thaler v. Comptroller General of Patents Trade Marks and Designs* [2021] EWCA Civ 1374, 16 AC 98, 112, 150.

for patent application.⁴³ The Court further rationalized there is a person requirement in the 1977 Act and the meaning of this “inventor as a person” expression was addressed in the *Yeda* decision.⁴⁴ The Court decided, as a whole, the various “members of the classes in § 7(2)(a), (b), and (c) must all be persons, because only persons [may] be granted rights” and, in Dr. Thaler’s case, his application lacks a listed person.⁴⁵ As for Section 13(2), the Court explained this section is another example of how a patent will be deemed withdrawn, because any failure to provide required information is deemed a withdrawal and not about the merits of the applicant’s entitlement.⁴⁶ Section 13(2) is concerned with proper information filed in the application and not the merits of Dr. Thaler’s entitlement, so by failing to list a person as the inventor, Dr. Thaler failed to provide required information.⁴⁷ As for the third question before the appellate court, the Court believed it was unnecessary to examine such a rule of law for policy reasons, because Dr. Thaler used the old 1949 Act; the patent application is only granted by the Comptroller General’s discretion and reliance on what is provided in the 1977 Act.⁴⁸ Thus, the appellate court affirmed the High Court’s previous decision to not grant the patent and to not recognize DABUS as the inventor.⁴⁹

Aftermath of DABUS in the U.K.

Although the DABUS patent was denied, the conversation of granting protection to an AI inventor is ongoing. The U.K. Intellectual Property Office (“U.K. IPO”) held a ten-week consultation convention that concluded on January 7, 2022.⁵⁰ The event addressed AI and intellectual property with evidence and viewpoints in three different areas: copyright protections for AI, copyright in text and data mining carried out by AI, and patent protection for inventions derived from AI.⁵¹ The U.K. IPO is working on responses to these discussion areas that will influence future legislative changes.⁵² A hearing before the U.K. Supreme Court occurred on for March 2, 2023 for Dr. Thaler’s

43. *Id.* at 2.

44. *Id.* at 9, 19.

45. *Id.* at 15, 21.

46. *Id.* at 74.

47. *Id.*

48. *Id.* at 80-87.

49. *Id.*

50. Robert Li, *UK IPO consultation considers AI inventorship*, ICLG.COM (Feb. 3, 2022), <https://iclg.com/cdr/litigation/17679-uk-ipo-consultation-considers-ai-inventorship>.

51. *Id.*

52. *Id.*

appeal to the lower court's decision.⁵³ However, as of early August 2023, the U.K. Supreme Court has not yet given a final judgment from the March hearing and the Court's official website states the final judgment may take up to nine months until it is published.⁵⁴

Germany

Patent Inventor Defined

Section 6 of the German Patent Act states “[t]he right to a patent shall belong to the inventor or his successor in title” and that “[i]f two or more persons have jointly made an invention, the right to the patent shall belong to them jointly.”⁵⁵ Furthermore, the identity of the inventor must be determined in proceedings before the German Patent and Trade Mark Office in order to be granted a patent.⁵⁶ Throughout the German Patent Act, the term “person” is used in describing the proprietor or applicant of a patent rather than the term “inventor,” which gives the impression that Germany solely interprets patent inventor as being human.⁵⁷

DABUS Case in Germany

In November 2021, the Federal Patent Court in Germany ruled that the named inventor in a patent application must be a person, but an AI machine could be additionally named on the application.⁵⁸ Thus, DABUS was granted a patent in Germany.⁵⁹ The court reasoned that the human closely responsible for the invention created by the AI would own the patent rights.⁶⁰ However, the Court added that an AI machine could not get the right or ability to apply for its own patent.⁶¹

53. Pinsent Masons LLP, *Australian High Court pulls plug on landmark DABUS AI patent application*, OUT-LAW NEWS (Nov 23, 2022), <https://www.pinsentmasons.com/out-law/news/australian-high-court-pulls-plug-on-landmark-dabus-ai-patent-application>.

54. *Thaler v Comptroller-General of Patents, Designs and Trademarks Case ID: 2021/0201*, The Supreme Court (Aug. 11, 2023), <https://www.supremecourt.uk/cases/uksc-2021-0201.html>.

55. Patentgesetz [PatG] [Patent Act], Dec. 16, 1980, [BGBl] I at 3546 § 6 (Ger.).

56. *Id.* at § 7.

57. *Id.*

58. Out-Law News, *German court considers AI generated inventions*, PINSET MASONS (Nov. 30, 2021), <https://www.pinsentmasons.com/out-law/news/german-court-considers-ai-generated-inventions>.

59. *Id.*

60. *Id.*

61. *Id.*

Aftermath of DABUS in Germany

The Federal Patent Court in Germany has not faced any appeal concerning the DABUS decision, and DABUS has an active patent.⁶² Furthermore, despite the European Patent Office (“EPO”) rejecting the recognition of AI machines for inventors, the German Court found a unique way to circumvent EPO requirements and address a new growing scenario with AI machines and patents.⁶³

South Africa

Patent Inventor Defined

In South Africa, an application for a patent can be made by “the inventor or any other person acquiring from him the right to apply or by both the inventor and such other person.”⁶⁴ Should any disputes arise to the rights, the commissioner shall decide the matter, and all patent applications are to be made in a manner that shall not be denied by the patent office, unless it does not comply with the requirements.⁶⁵ These requirements include the application fee, the application signed by applicant or agent, a copy of the specification, a copy of the drawings, and a translation of any specifications not in the official language of the Republic.⁶⁶ Throughout the Patent Act, the term “person” is used instead of inventor within various sections.⁶⁷

In South Africa, the capacity and rights of a person can apply to two categories: natural persons and juristic persons.⁶⁸ While all humans are natural persons, a juristic person can be an entity, or “certain associations of natural persons, such as companies and universities.”⁶⁹ Regardless of the category, a natural person and juristic person are both considered a legal subject.⁷⁰ All legal subjects are able to bear rights and duties with particular levels of capacity.⁷¹ There are four types of capacities of legal subjects, but in particular, the second

62. Ryan Abbott, *Patent Applications*, THE ARTIFICIAL INVENTOR PROJECT (2022), <https://artificialinventor.com/patent-applications/>.

63. European Patent Office, *AI cannot be named as inventor on patent applications*, EPO.ORG (Dec. 21, 2021), <https://www.epo.org/news-events/news/2021/20211221.html>.

64. Patents Act 57 of 1978 § 27, § 1 (S. Afr.).

65. *Id.* at § 28(1) and § 30(1).

66. *Id.* at § 30(6).

67. *See generally* Patents Act 57 of 1978 (S. Afr.).

68. Justin Ramages, *Capacities and Rights of the Legal Subject*, RHODES UNIVERSITY (2018), at 3, Sec. A.

69. *Id.*

70. *Id.*

71. *Id.*

type, capacity to act, refers to a legal subject's ability to perform juristic acts.⁷² Juristic acts are "acts [that] create, amend, and terminate rights and duties."⁷³

DABUS in South Africa

The South African Intellectual Property Office granted the DABUS application in the July 2021 patent journal.⁷⁴ As of July 2023, there is yet to be a formal statement issued for the progressive decision or any appeals.⁷⁵ This decision was the first of its kind in the world to recognize AI as an inventor, and this decision is likely due to the fact the office only checks for basic formal requirements such as: a legible application document, the inventor has a name, and if the document is capable of reproduction.⁷⁶ The South African Patents Act does not limit the assignment of the inventor to only being a natural, human person, which also leaves open the possibility of recognizing AI as an inventor.⁷⁷

Aftermath of DABUS in South Africa

The full effects of the DABUS patent approval in South Africa are still to be revealed. Discussions in the community reportedly have mixed reactions, and some think it is just a result of the government's current environment in an attempt to increase the current socioeconomic environment in the country.⁷⁸ Between 2019 to 2021, the South African government went in to a patent reform and passed multiple policies, which share the same goal of increasing innovation and addressing issues such as lack of funding and suitable infrastructure within the country.⁷⁹

72. *Id.* at 3, Sec. B.

73. *Id.*

74. CIPC, *Patent Journal Vol 54 No. 07*, CIPC INTELLECTUAL PROPERTY ONLINE, July 2021, at 255.

75. Kingsley Egbuonu, *The latest news on the DABUS patent case*, IP STARS (Apr. 4, 2022), <https://www.ipstars.com/NewsAndAnalysis/the-latest-news-on-the-dabus-patent-case/Index/7366>; Meshandren Naidoo, *In a world first, South Africa grants a patent to an artificial intelligence system*, QUARTZ AFRICA (Aug. 9, 2021), <https://qz.com/africa/2044477/south-africa-grants-patent-to-an-ai-system-known-as-dabus/>.

76. David V. Sanker and Jianbai Wang, *US Federal Circuit: Artificial Intelligence Machine is not an Inventor*, MORGAN LEWIS LAWFLASH (Aug. 10, 2022), <https://www.morganlewis.com/pubs/2022/08/us-federal-circuit-artificial-intelligence-machine-is-not-an-inventor>; Kingsley, *supra* note 75.

77. *Id.*

78. *Id.*

79. *Id.*

Australia

Patent Inventor Defined

According to Section 2(15)(1) of the Patents Act 1990, a patent for an invention may only be granted to a person who: “(a) is the inventor; or [...] (b) [is] entitled to have the patent assigned to the person; (c) derives title to the invention from the inventor or a person mentioned in paragraph (b); or (d) is the legal representative of a deceased person mentioned in (a), (b) or (c).”⁸⁰ Throughout the Patents Act, the term “person” is used rather than “inventor” in stating the Act’s policies and requirements.⁸¹ Under Australian law, “a legal person is an entity with ‘capacity’ to be in a legal relationship,” and “have legal relations with other legal persons,” including “the ability to create, modify, or terminate legal relations.”⁸² While legal persons were typically considered to be limited to humans or corporations, it is “long established that the legislature is free to create any legal person that it desires, with any capacities it thinks fit.”⁸³

DABUS in Australia

The application for DABUS was initially declined, but in July 2021, the Federal Court of Australia overturned the decision.⁸⁴ The main questions addressed were whether an inventor, for the purposes of the Patents Act and Regulations, can be an AI machine, and whether section 15(1) in the Patents Act was misconstrued by the Deputy Commissioner in requiring the inventor to be human.⁸⁵ The Court reasoned that, in regards to Section 15 of the Patents Act, an “inventor is an agent noun and an agent can be a person or a thing that invents.”⁸⁶ Thus, an AI machine could be recognized as a patent inventor because it would be considered an agent. Furthermore, there would be an issue with other patentable inventions where it is difficult to identify the human as the inventor, and nothing in the Act dictates an inventor must be listed in order to grant a patent—the listing of the inventor or an authorized agent is for filing purposes.⁸⁷ Finally, the Court stated that “there is a fundamental importance that limitations and qualifications are not read into a statutory definition unless

80. Patents Act 1990 (Austl.).

81. *Id.*

82. Sebastian Howard Hartford Davis, *The Legal Personality of the Commonwealth of Australia*, SAGE JOURNALS FEDERAL LAW REVIEW, 1, 5 (Feb. 8, 2019).

83. *Id.*

84. *See generally* Thaler v. Commissioner of Patents (2021) 2021 FCA 879 (Austl.).

85. *Id.* at ¶¶ 5, 6.

86. *Id.* at ¶¶ 5, 10.

87. *Id.* at ¶¶ 10-14.

clearly required” and the Deputy Commissioner did just that, interpreting an inventor as solely meaning human, when he denied the patent to DABUS.⁸⁸ Further noted in the Australian Court’s decision was the importance in recognizing “the evolving nature of patentable inventions and their creators.”⁸⁹ Humans are “both created and create,” so why “cannot our own creations also create?”⁹⁰ The Court reversed the Deputy Commissioner’s initial patent rejection to be reviewed in light of what the justices addressed and granted the patent to DABUS.⁹¹

Aftermath of DABUS in Australia

At the time of the July 2021 decision, this case was the first in the world to recognize an AI machine as a patent inventor.⁹² However, the effects following the decision were short-lived: the Australian Deputy Commissioner appealed to the Full Federal Court and oral arguments before the Australian High Court occurred in late 2021.⁹³ The High Court released their judgment in April 2022, dismissing Dr. Thaler’s application, finding “the statutory language, structure and history of the Patents Act, and the policy objectives” meant only a natural person or business can be named as an inventor.⁹⁴ This decision is “the first jurisdiction where a final, non-appealable decision was issued by the courts.”⁹⁵ If Australia is to recognize AI as a patent owner, either a similar issue, like the DABUS situation, has to come before the court, or Australian parliament must enact reforms.⁹⁶

THE U.S. SHOULD RECOGNIZE AI AS AN INVENTOR

After analyzing other countries’ views and approaches on the DABUS patent, the U.S. Federal Court should not have decided to decline the patent application for DABUS. Although there is concern with the human element of the patent inventor requirement, there should have been an allowance for DABUS to be supplemental, or recognized as co-inventor, in the patent

88. *Id.* at ¶ 14.

89. *Id.* at ¶ 15.

90. *Id.*

91. *Id.* at ¶ 14.

92. *Id.* at ¶ 2.

93. *Commissioner of Patents v. Thaler*, (2022) 2022 FCACF 62, 117 (Austl.).

94. Pinsent Masons LLP, *Australian High Court pulls plug on landmark DABUS AI patent application*, OUT-LAW NEWS (Nov. 23 2022), <https://www.pinsentmasons.com/out-law/news/australian-high-court-pulls-plug-on-landmark-dabus-ai-patent-application>; *Commissioner of Patents v. Thaler*, (2022) 2022 FCACF 62, 117 (Austl.).

95. *Id.*

96. *Id.*

application. With technology advancing and the need for rapid results growing in recent times, AI machines are just the start of further innovation in the world. The USPTO needs to recognize this is in the interest of furthering innovation under Section 8 in the U.S. Constitution.

Interests of Section 8: Furthering the Interests of Arts and Science

Recognizing AI, specifically DABUS, is what the U.S. Constitution is striving towards, with the notion of furthering the interests of arts and science. There needs to be recognition that there are technologies and innovations yet to be invented, compared to the traditional ways, with a human inventor. One new way of achieving inventions is through AI machines. The German and South African courts addressed points in their decisions, noting there are endless possibilities of the evolving nature of patent inventions with AI machines, and it is important to adapt to innovation. A combination of these viewpoints is what U.S. courts should consider, regarding AI as patent inventors.

Congress defines the term “person” to include non-human types, like entities and societies. So, how could AI machines not be considered? South Africa’s juristic person approach is similar to the United States’ *person* interpretation, as it recognizes a person can be human or non-human, but all are still considered a legal subject or entity. The interpretation of a patent inventor in the United States should adapt to recognize different types of personhood and grant AI Machines patents, as seen in South Africa’s DABUS decision.

Furthermore, instead of waiting for the legislature to make reforms to the patent laws, the United States Federal Court should have approved the DABUS patent application, especially considering the original inventor granted title to DABUS. As recognized in the German DABUS decision, the patent office, which holds weight in approving applications, can allow a joint or a successor in title to a patent. The USPTO has the ability to make these decisions and needs to adapt to advancing innovation, including recognizing these AI machines as co-inventors. For example, with the rapid need for data reviewing and finding pharmaceutical compounds, the health science industry is seeing the benefits of recognizing AI machines currently. These AI machines often help analyze and sort data faster and more efficiently than humans, and they can come up with new combinations of pharmaceuticals to be repurposed and tested.⁹⁷ In current times, with concerns for COVID-19 and future virus detection, AI machines are designed to help with the diagnoses and prognoses of cases.⁹⁸ The Court made a misjudgment, because it does not completely understand the complex

97. Nat Mach Intell, *AI, COVID-19 and the long haul*, NATURE.COM (Mar. 18, 2021), <https://www.nature.com/articles/s42256-021-00328-9>.

98. *Id.*

nature and benefit with AI machines, especially in health and medical science. Bottom line, the USPTO needs to step-up and adapt for a future in advancements through AI patent inventors.

CONCLUSION

AI inventors are part of the new frontier of innovation and, although many countries are grappling with applying it to established patent applications and laws before AI was even a notion, courts need to seriously consider the future implications of recognizing AI as inventors. If there is a concern about having a person for accountability or encouraging the continuation of human inventors to compete with a machine, patent offices should consider a supplemental document to be submitted with the patent application of a human associated with the machine or recognize the AI machine as joint title owner to the patent. Not having a human inventor, or lining up an old interpretation of inventor to patent law, should not be the end of patent applicability for an invention. Recognizing and patenting AI machine innovations is the future for a society that can advance, adapt, and allow for the increased potential of a better quality of life.