

**IN THE HIGH COURT OF NEW ZEALAND  
WELLINGTON REGISTRY**

**I TE KŌTI MATUA O AOTEAROA  
TE WHANGANUI-A-TARA ROHE**

**CIV-2022-485-118  
[2023] NZHC 554**

UNDER the Patents Act 2013

IN THE MATTER OF an appeal from a decision of the Assistant  
Commissioner of Patents in respect of  
objections to acceptance under section 22 of  
the Patents Act 2013 and regulation 50  
Patents Regulations 2014

BETWEEN STEPHEN LEE THALER  
Appellant

AND COMMISSIONER OF PATENTS  
Respondent

Hearing: 8 November 2022

Appearances: C L Elliott KC for the Appellant  
S P Connolly and S M Perera for the Respondent

Judgment: 17 March 2023

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**JUDGMENT OF PALMER J**

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*Solicitors*  
C L Elliott KC, Auckland  
Crown Law Office, Wellington

## **Summary**

[1] Can an artificial intelligence (AI) be an inventor in New Zealand? DABUS is an AI created and owned by Dr Stephen Thaler. DABUS stands for “Device for the Autonomous Bootstrapping of Unified Sentience”. DABUS autonomously created a new type of food container which can be interlocked with others. From 2018, Dr Thaler applied for patents in the United Kingdom, Australia, the United States, and New Zealand and named DABUS as the inventor. He maintains it would be factually incorrect to view anyone else as the inventor, which would open the patent to challenge. In New Zealand, the Assistant Commissioner of Patents refused to accept the application on the basis that only humans can be inventors. Dr Thaler appeals. The Australian, United Kingdom and United States courts have, so far, similarly found against Dr Thaler’s applications in their respective jurisdictions.

[2] In New Zealand, the Patents Act 2013 (the 2013 Act) was passed when AI was known. The text of s 22 is sufficiently wide to encompass an AI being named as an inventor, unlike previous New Zealand Patent Acts. A person other than the inventor can be a patent holder. Other provisions of the 2013 Act envisage that an inventor is a person for certain purposes, but those purposes do not necessarily apply here. The legal issue depends on the purpose of Parliament in passing the 2013 Act. There is nothing in the legislative history to indicate Parliament intended to open up the possibility of an AI being an inventor under the 2013 Act. Rather, it is clear the purpose of its amendment was to prevent importers from qualifying as inventors. Given that clear purpose, I do not consider it is appropriate for the courts to effectively expand the definition of inventor. Such a step is more appropriately reserved, in our constitution, for Parliament. In the United Kingdom, after the first instance Court decision on Dr Thaler’s application, the government decided not to propose expanding the definition.

## **What happened?**

[3] In May 2021, Dr Stephen Thaler, from Missouri in the United States, applied for a New Zealand patent for an improved food container for liquids. It has fractal walls, which allows it to interlock with other containers. In the application, he specified that the inventor was “DABUS, [t]he invention was autonomously generated

by an artificial intelligence”. Dr Thaler developed and owned DABUS, which comprises interconnected and interacting artificial neural networks. Dr Thaler named DABUS as the inventor of the food container and recorded his own address as the inventor’s address. He provided a notice of entitlement to the invention on the basis that he derived title to the invention from the inventor “under the principle of accession, first possession and/or possessory title”.

[4] In a statutory declaration of 27 April 2021, Dr Thaler said:

1. DABUS autonomously invented the inventions the subject of the present application. That is to say, it created / developed / arrived at the inventions through a process ultimately involving unsupervised generative learning without contributions by me or any other person. I do not have expertise in either container design or light development.
2. In terms of what might be termed “input data”, DABUS was trained with general information from various knowledge domains.
3. Based on this broad-spectrum input data, DABUS used its AI capabilities, including a “self-critiquing” faculty, to independently develop the inventions the subject of the present application. This included assessing which of the “nascent” concepts DABUS came up with had the most significance / utility and hence were worthy of developing further.
4. Having done so, DABUS then also went on to identify the inventive concepts as being likely to be novel and salient.
- ...
7. In my view it is therefore correct and accurate to refer to DABUS as the “actual devisor” of the inventions the subject of the application. Indeed, in my view, it would be incorrect to say that anyone other than DABUS is the “actual devisor” of the inventions.

[5] A Principal Patent Examiner raised objections to the naming of the inventor and entitlement to grant the application. Correspondence and submissions ensued. On 31 January 2022, the Assistant Commissioner of Patents held, in summary:<sup>1</sup>

#### **Decision and directions**

1. The artificial intelligence, being the machine identified as DABUS, is not a natural person, or what amounts to the same thing, an individual.<sup>2</sup>

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<sup>1</sup> *Re patent application no. 776029 in the name of Stephen L Thaler* [2022] NZIPOPAT 2.

<sup>2</sup> 1. The Act refers to a person or persons. According to the context a person is a natural person, which is to say an individual human being, an “individual” for short, or a legal or juridical person such as a corporation sole, a body corporate, and an unincorporated body. For example, any one or more of these persons may apply for a patent under s31.

2. The term “inventor” as used in and as in the scheme of the Patents Act 2013 (the Act) refers only to a natural person, an individual. That inventors fall within the class of natural human persons is intrinsic to the proper construction of the Act. If the legislators had intended to allow granting of patents in New Zealand for inventions devised solely by non-humans such as artificial intelligences, or life forms other than human beings they would have drafted the Act to accommodate these possibilities specifically and explicitly. They did not do so. It is not appropriate for the Commissioner to ignore this fact and decide a case as though they should have done so.
3. The “definition” of “inventor” in s5 of the Act is no more than a statement that for an individual to be an inventor they must have contributed to actually devising the invention, as opposed to importing or communicating the invention into New Zealand.
4. It follows from [1] and [2] that the artificial intelligence DABUS, which is not a person, cannot be “an actual devisor of the invention” or inventor under the Act.
5. The application does not include, or is not accompanied by, the name and address of any inventor or inventors as required in accordance with r50 of the Patents Regulations 2014 (the Regulations).
6. It is not possible for Dr Thaler to establish his entitlement to grant of a patent on the application because any entitlement must ultimately be derived from the inventor. No inventor has been identified so no entitlement can be derived. Therefore, in accordance with s22, a patent must not be granted to Dr Thaler.
7. The notice of entitlement does not state the grounds that are valid under s22 on which Dr Thaler is entitled to be granted the patent. Dr Thaler is not a person mentioned in s22.
8. The Applicant has not to date complied with the requirements of the Act and Regulations and by their own admission it would appear that they would not be able to comply with these requirements. The Applicant has not to date filed a notice of entitlement stating valid grounds on which the nominated person is entitled to be granted the patent under s22.
9. Unless amended to comply with the Act and Regulations, the application should be marked off as void at the expiry of the time period set under s71.

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2. A machine, and in particular a machine that functions as an artificial intelligence, is not a person under the law and is not a person as referred to in the Act. All the authorities agree on this. To be clear, the applicant has not asserted that DABUS is a person.

3. To date it has been universally understood that only an individual identified as a natural human person, or individuals working together, is/are able to devise an invention, or (under earlier patent law) to import or communicate an invention from a foreign land and so be named on a patent application as inventor or inventors of the invention. There are good reasons for this understanding. Legal or juridical persons such as corporations have never been legally accorded the capacity to invent so have never been permitted to be named as inventors. So far as I have been able to verify, no creatures on earth other than human beings ever seem to have invented a patentable invention and we have never received any disclosure of inventions from other worlds.

[6] Dr Thaler appeals under s 214 of the 2013 Act. Rule 22.34 of the High Court Rules 2016 provides that an appeal of a Commissioner’s decision is conducted by way of rehearing. He must satisfy me that the Assistant Commissioner’s decision was wrong.<sup>3</sup> If my opinion is different from the conclusion of the Assistant Commissioner, then I must allow the appeal.<sup>4</sup>

## **Relevant patent law**

### *Legislative history*

[7] As Mr Elliott KC says, patent law is known to be arcane. In 1623, in an attempt to curb royal power in issuing letters patents, the Statute of Monopolies (Eng) first gave statutory expression to patent law. Section 6 made an exception for the “true and first inventor”. Section 6 of the Statute of Monopolies is still referred to in s 14 of the 2013 Act.

[8] Section 2 of New Zealand’s Patent Act 1860 provided that “any person being the originator or discoverer of any new invention or improvement” could apply for letters patent to be granted for the exclusive use of the invention in the Colony. Subsequent Acts all similarly contemplated the true first inventor to be the person eligible to apply for a patent.<sup>5</sup>

[9] The Patents Act 1953 did not include a definition of “inventor” in its interpretation section. But:

(a) Section 7(1) specified:

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:

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<sup>3</sup> *Austin, Nichols & Co Inc v Stichting Lodestar* [2008] 2 NZLR 141 (SC) at [4].

<sup>4</sup> At [16].

<sup>5</sup> See: Patents Act 1870, s 5; Patents Act 1883, s 4; Patents, Designs and Trade Marks Act 1889, s 6(3); Patents, Designs and Trade-Marks Act 1908, s 5(3); and Patents Design and Trade-Marks Act 1921, s 3(1).

(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,—

And may be made by that person either alone or jointly with any other person.

(b) Section 8(2) required:

Every application (other than a convention application) 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 him to be the true and first inventor.

(c) Section 23 required the Commissioner, if satisfied “the person” who is claimed to be the inventor, is the inventor, shall cause “him” to be named in the patent and in the register of patents, stating:

(2) For the purposes of this section the actual deviser of an invention or a part of an invention shall be deemed to be the inventor, notwithstanding that any other person is for any of the other purposes of this Act treated as the true and first inventor; and no person shall be deemed to be the inventor of an invention or a part of an invention by reason only that it was imported by him into New Zealand.

[10] Regulation 21 of the Patents Regulations 1954, and Patents Form No 6, required the applicant to state the name, address, and nationality of the inventor.

[11] From 2000 to 2013, there was a lengthy law reform process:

(a) In 2004, an exposure draft of a Patents Bill was released for public consultation. It did not include a general definition of “inventor”. But it did contain provisions relating to the meaning of “inventor” for specific purposes. So cl 21 provided that a patent could only be granted to “a person” who is the true and first inventor, derives title from such a person, or was the personal representative of a deceased person in either category.

(b) In 2005, the Ministry of Economic Development reported to the Associate Minister of Commerce that a number of submissions had

commented adversely on the “true and first inventor” concept included in the Bill. Submitters noted that judicial interpretation of that concept included an importer who had no part in actually devising the invention.<sup>6</sup> Yet, “invention by importation” had been rendered internationally obsolete by the move to “absolute novelty” standards, which were incorporated in the Bill.<sup>7</sup> The Ministry noted that using the words “true and first inventor” may give the impression that New Zealand grants rights on a “first to invent” as opposed to a “first to file” basis.<sup>8</sup> It therefore recommended replacement of the term “true and first inventor” by a defined term, “inventor”.

- (c) Those proposals were reflected in the Bill as introduced in 2008 and as passed in 2013. The Bill’s Explanatory Note said, on introduction, that the Bill updated the criteria for granting a patent which “more closely aligns them with the criteria applied in most other countries”:<sup>9</sup>

*Clause 5* defines a number of terms and expressions used in the Bill. This includes a definition of inventor. Under the Bill, the inventor is the actual deviser of the invention. The term does not include a person who has merely imported the invention into New Zealand.

### *The 2013 Act*

[12] The 2013 Act provides, relevantly:

#### **3 Purposes**

The purposes of this Act are to—

- (a) provide an efficient and effective patent system that—
- (i) promotes innovation and economic growth while providing an appropriate balance between the interests of inventors and patent owners and the interests of society as a whole; and
  - (ii) complies with New Zealand’s international obligations; and

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<sup>6</sup> Ministry of Economic Development *Submissions on Exposure Draft of Patents Bill* (27 May 2005) at [14].

<sup>7</sup> At [15].

<sup>8</sup> At [16].

<sup>9</sup> Patents Bill 2008 (235–1) (explanatory note) at 5 and 12.

- (b) ensure that a patent is granted for an invention only in appropriate circumstances by—
  - (i) establishing appropriate criteria for the granting of a patent; and
  - (ii) providing for procedures that allow the validity of a patent to be tested; and
- (c) provide greater certainty for patent owners and the users of patented inventions that patents will be valid after they are granted; and
- ...
- (e) ensure that New Zealand's patent legislation takes account of developments in the patent systems of other countries; and
- ...

## **5 Interpretation**

- (1) In this Act, unless the context otherwise requires,—

### **applicant—**

- (a) means a person who has applied for a patent for an invention; and
- (b) includes a person in whose favour a direction has been given under section 28(2)(b)(i), 129, or 131(1)(a) and the personal representative of a deceased applicant

### **inventor,—**

- (a) in relation to an invention, means the actual deviser of the invention; but
- (b) in section 9, has the meaning set out in section 9(2)

## **9 Disclosure to be disregarded in certain circumstances**

...

- (2) For the purposes of this section,—

### **inventor, in relation to an invention,—**

- (a) means the actual deviser of the invention; and
- (b) includes any owner of the invention at the relevant time

## **22 Who may be granted patent**

- (1) A patent for an invention may only be granted to a person who—



- (a) is the inventor; or
  - (b) derives title to the invention from the inventor; or
  - (c) is the personal representative of a deceased person mentioned in paragraph (a) or (b).
- (2) A patent may be granted to a person whether or not the person is a New Zealand citizen.

**71 Time for putting application in order for acceptance**

- (1) A patent application is void unless, within the prescribed period, the applicant ensures that—
- (a) the application and the complete specification comply with the requirements of this Act and of the regulations; and
- ...

**73 Notice of entitlement must be filed before acceptance**

- (1) The applicant must file, in the prescribed manner, a notice stating the grounds on which the nominated person is entitled to be granted the patent under section 22—
- (a) before the expiry of the prescribed period under section 71; or

[13] Regulation 50 of the Patent Regulations 2014 requires:

**50 Application for patent**

- (1) The prescribed manner for making a patent application is as follows:
- (a) the application must be made in accordance with Part 1; and
  - (b) an application must contain, or be accompanied by, the following information:
    - (i) the name and address of each applicant; and
    - (ii) the nationality or principal place of business of each applicant; and
    - (iii) the title of the invention that is the subject of the application; and
    - (iv) the name and address of each inventor; and
    - (v) an abstract, if the application is accompanied by a complete specification.

- (2) If the name, address, nationality, or principal place of business of an applicant changes from that notified, the applicant must give the Commissioner a notice of the change as soon as practicable after the change occurs.

[14] Aspects of the 2013 Act and associated 2014 regulations reflect, refer to, and incorporate into New Zealand law the Patent Cooperation Treaty of 1970:

- (a) Article 4(1)(v) requires “the name and other prescribed data concerning the inventor” to be furnished in an international application for the protection of inventions. The Treaty does not explicitly require an inventor to be a person.
- (b) Article 27(1) of the Treaty provides that “[n]o national law shall require compliance with requirements relating to the form or contents of the international application different from or additional to those which are provided for in this Treaty and the Regulations”.
- (c) Rule 4.1(a)(iv), of the regulations made under the Treaty, requires a request to contain “indications concerning the inventor where the national law of at least one of the designated States requires that the name of the inventor be furnished at the time of filing a national application”. Rule 4.4 specifies how to indicate the names and addresses of natural persons and of legal entities. Rule 4.6 provides:

4.6 *The Inventor*

- (a) Where Rule 4.1(a)(iv) or (c)(i) applies, the request shall indicate the name and address of the inventor or, if there are several inventors, of each of them.
- (b) If the applicant is the inventor, the request, in lieu of the indication under paragraph (a), shall contain a statement to that effect.
- (c) The request may, for different designated States, indicate different persons as inventors where, in this respect, the requirements of the national laws of the designated States are not the same. In such a case, the request shall contain a separate statement for each designated State or group of States in which a particular person, or the same person, is to be considered the inventor, or in which

particular persons, or the same persons, are to be considered the inventors.

## **Overseas applications and cases**

[15] Dr Thaler has made parallel patent applications in other jurisdictions.

### *United Kingdom*

[16] In the United Kingdom, s 7 of the Patents Act 1977 (UK) provides:

#### **7 Right to apply for and obtain a patent**

- (1) Any person may make an application for a patent either alone or jointly with another.
- (2) A patent for an invention may be granted—
  - (a) primarily to the inventor or joint inventors;
  - (b) in preference to the foregoing, to any person or persons who, by virtue of any enactment or rule of law, or any foreign law or treaty or international convention, or by virtue of an enforceable term of any agreement entered into with the inventor before the making of the invention, was or were at the time of the making of the invention entitled to the whole of the property in it (other than equitable interests) in the United Kingdom;
  - (c) in any event, to the successor or successors in title of any person or persons mentioned in paragraph (a) or (b) above or any person so mentioned and the successor or successors in title of another person so mentioned; and to no other person.
- (3) In this Act “inventor” in relation to an invention means the actual deviser of the invention and “joint inventor” shall be construed accordingly.

#### **13 Mention of inventor**

- (1) The inventor or joint inventors of an invention shall have a right to be mentioned as such in any patent granted for the invention and shall also have a right to be so mentioned if possible in any published application for a patent for the invention ....
- (2) Unless he has already given the Patent Office the information hereinafter mentioned, an applicant for a patent shall ... file with the Patent Office a statement—
  - (a) identifying the person or persons whom he believes to be the inventor or inventors; ...

[17] In relation to Dr Thaler’s application for a patent in the United Kingdom:

- (a) In December 2019, the Comptroller-General of Patents, Trade Marks and Designs declined Dr Thaler’s application. On appeal, in September 2020, Marcus Smith J, in the Patents Division of the High Court, upheld the decision, on the basis that the “actual deviser” in s 7(3), and the concept of an inventive step, connotes a natural person.<sup>10</sup>
- (b) In September 2021, the Court of Appeal refused the appeal, by a majority:<sup>11</sup>
  - (i) All the judges agreed that only a person can be an “inventor” because of the definition in s 7(3), the wording of s 7(2), and the way the term is used elsewhere in the Act.<sup>12</sup>
  - (ii) Arnold and Laing LJ considered the application did not comply with s 13(2) because, on its face, it stated a legal impossibility — that DABUS, a non-person, was the inventor.<sup>13</sup>
  - (iii) Arnold LJ noted that s 13(1) gave effect to Article 4*ter* of the Paris Convention for the Protection of Intellectual Property 1883 (Stockholm Act 1967), conferring a species of moral right on inventors to be identified as the creator of something, and only persons can have moral rights.<sup>14</sup>
  - (iv) Laing LJ agreed with Birss LJ that s 13 does not require the Comptroller to investigate the factual or legal merits of an application, but considered the applicant’s statement must satisfy the Comptroller that the inventor is a person.<sup>15</sup>

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<sup>10</sup> *Thaler v Comptroller General of Patents Trade Marks and Designs* [2020] EWHC 2412 (Pat) at [45].

<sup>11</sup> *Thaler v Comptroller General of Patents Trade Marks And Designs* [2021] EWCA Civ 1374.

<sup>12</sup> At [49]–[54] per Birss LJ, [102] per Laing LJ, and [116] per Arnold LJ.

<sup>13</sup> At [110] per Laing LJ, and [143] per Arnold LJ.

<sup>14</sup> At [121].

<sup>15</sup> At [71] per Birrs LJ, and [109] per Laing LJ.

- (v) Birss LJ considered Dr Thaler had complied with s 13(2) because he specified who he believed to be the inventor and it is not the Comptroller’s statutory role to query or examine applicants’ claims regarding the identity of the inventor.<sup>16</sup>
  
- (c) The United Kingdom government reviewed this and other issues in relation to AI.<sup>17</sup> After consultation, the government concluded:<sup>18</sup>

8. For AI-devised inventions we plan no change to UK patent law now. Most respondents felt that AI is not yet advanced enough to invent without human intervention. But we will keep this area of law under review to ensure that the UK patent system supports AI innovation and the use of AI in the UK. We will seek to advance Ai inventorship discussions internationally to support UK economic interests.
  
- (d) The United Kingdom Supreme Court is scheduled to hear an appeal from the Court of Appeal’s decision in May 2023.

*Australia*

[18] In Australia, there is no definition of “inventor” in the Patents Act 1990 (Cth). Section 15 provides:

**15 Who may be granted a patent?**

- (1) Subject to this Act, a patent for an invention may only be granted to a person who:
  - (a) is the inventor; or
  - (b) would, on the grant of a patent for the invention, be entitled to have the patent assigned to the person; or
  - (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 paragraph (a), (b) or (c).

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<sup>16</sup> At [68] and [72].

<sup>17</sup> “Artificial Intelligence and Intellectual Property: copyright and patents” (28 June 2022) United Kingdom Intellectual Property Office <[www.gov.uk](http://www.gov.uk)>; and “Artificial Intelligence and Intellectual Property: copyright and patents: Government response to consultation” (28 June 2022) United Kingdom Intellectual Property Office <[www.gov.uk](http://www.gov.uk)>.

<sup>18</sup> “Artificial Intelligence and Intellectual Property: copyright and patents: Government response to consultation”, above n 8.

- (2) A patent may be granted to a person whether or not he or she is an Australian citizen.

[19] In relation to Dr Thaler’s application for a patent in Australia:

- (a) In July 2021, Beach J, in the Federal Court of Australia, upheld a judicial review of the decision by the Deputy Commissioner of Patents denying Dr Thaler’s application.<sup>19</sup> He held that “inventor” has its ordinary meaning as an agent noun, which allows the agent to be a person or a thing. The term should be subject to flexibility and evolution to allow for non-human inventors, as that is consistent with the purpose of the Act there, to promote innovation.<sup>20</sup> No specific aspect of patent law excludes a non-human inventor.<sup>21</sup>
- (b) In April 2022, a Full Court of the Federal Court of Australia overturned the Federal Court’s decision.<sup>22</sup> It discussed the historic connection between the identity of the inventor and the entitlement to apply for a patent.<sup>23</sup> It considered the natural reading of s 15, supported by the legislative history and development of patent law in Australia, was that persons eligible for a grant of a patent become entitled through a legal relationship with the actual inventor who must be a natural person.<sup>24</sup> The Court considered the question of whether the application had a human inventor remained undecided.<sup>25</sup> It considered that, while the outcome was the same as that in the United Kingdom and it agrees with the reasoning there, the task focusses on the particular statutory language which materially differs from the United Kingdom legislation.<sup>26</sup>

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<sup>19</sup> *Thaler v Commissioner of Patents* [2021] FCA 879.

<sup>20</sup> At [120]–[124].

<sup>21</sup> At [64].

<sup>22</sup> *Commissioner of Patents v Thaler* [2022] FCAFC 62, (2022) 401 ALR 551.

<sup>23</sup> At [84]–[100].

<sup>24</sup> At [98]–[111].

<sup>25</sup> At [121].

<sup>26</sup> At [122].

- (c) On 11 November 2022, the High Court of Australia refused leave to appeal.<sup>27</sup>

*United States of America*

[20] In the United States, § 100 of the Patent Act 35 USC provides “the term ‘inventor’ means the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention”.

[21] In September 2021, in Eastern Virginia, District Judge Leonie M Brinkema held that a machine cannot be an “inventor” under the Patent Act.<sup>28</sup> As the term “individual” and “individuals” were used in the definition of “inventor”, the Judge stated the issue turned on whether an AI could be considered an “individual”.<sup>29</sup> Due to previous Supreme Court and Federal Court authority that the term “individual” refers to a natural person, the Court held: inventors must be natural persons; Congress deliberately used personal pronouns adjacent to the term “individual” or “individuals” throughout the Patents Act; and an AI could not be considered an “individual”.<sup>30</sup>

**Submissions**

[22] Mr Elliot KC, for Dr Thaler, submits:

- (a) By the time the Act was passed in 2013, AIs existed and working in various way, including inventing.<sup>31</sup> Unlike the United Kingdom and Australian Acts, the 2013 Act allows the “actual deviser” to be named as the inventor regardless of whether the deviser is human and there is no requirement for the inventor to be a person. The 2013 Act removed the previous Act’s qualification, which was present since 1860, of “inventor” as “the person” who is the actual inventor. The definition is now “person independent”. This was more than just a carve-out of importers. It effectively discarded the very words the Commissioner

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<sup>27</sup> *Thaler v Commissioner of Patents* [2022] HCATrans 199.

<sup>28</sup> *Thaler v Hirshfeld* 558 F Supp 3d 238 (ED VA 2021) at 240.

<sup>29</sup> At 246.

<sup>30</sup> At 246–248.

<sup>31</sup> See Nic Flemming “Computer-calculated compounds” (2018) 557 S55 at S57.

now seeks to import. There is no requirement the inventor be a natural person. The naming of an inventor is a procedural formality not a substantive requirement. It should be given its ordinary meaning, as an agent noun. The agent can be a person or a thing. Dictionary definitions of “devise” do not refer to “person” or require human involvement. There is no statutory support for a narrow interpretation of “devise”. The legislation should be read as forward-looking not enshrining the past.

- (b) Sections 9 and 189, which refer to an inventor being a person, just refer to instances where the inventor may be a person. A patent application is required to fully identify the applicant as a natural or legal person but s 33 and reg 50 of the Patents Regulations 2014 only require the name and address of the inventor. Their purpose is to enable the examiner to check whether the applicant is entitled to the benefits of any of the Patent Treaties, particularly the right to claim priority under the Paris Convention.<sup>32</sup> New Zealand has never been attracted to the French concept of moral rights that has found its way into United Kingdom patent law.
- (c) Dr Thaler’s agenda is for AI to be recognised for what it is. It would be factually incorrect, and encourage litigation and revocation of a patent, to say anyone but DABUS is the inventor. The term “inventor” should be construed so as to promote technological innovation by rewarding it, regardless of whether it is made by a human or human and machine working together. Even an animal can invent. Being an inventor does not have any legal effect, instead it provides kudos and the ability to get funding. But if an AI is not an inventor of what it invents then those inventions cannot be patented. The 2013 Act would achieve the opposite of encouraging and supporting innovation and arbitrarily exclude a class of important inventions from patentability.

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<sup>32</sup> World Intellectual Property Organisation *Paris Convention for the Protection of Industrial Property* (as at 28 September 1979), art 4A.



The decision of the Full Court of the Australian Federal Court is not reasoned to the same extent as Beach J's decision.

- (d) Dr Thaler has complied with all the requirements of a New Zealand patent application. The Commissioner has no power to question or reject the identification of the inventor as he has. The Assistant Commissioner's interpretation limiting "inventor" to a natural person and not extending the definition to a non-human entity is plainly erroneous.
- (e) Alternatively, if the Court does not accept an AI can be the sole inventor, then Dr Thaler seeks leave to amend the request to specify that the invention was autonomously generated by the actual deviser of the invention, DABUS, which was invented by Dr Thaler.

[23] Mr Connolly, for the Commissioner, submits:

- (a) The Commissioner does not agree that DABUS actually devised or invented the invention, or that an AI can invent, but submits that whether it did, or can, is irrelevant to this case. The only issue here is whether an "inventor", for the purposes of the 2013 Act and regulations, is required to be a natural person or can accommodate an AI. It is within the Commissioner's role to determine whether the application complies with the 2013 Act on its face. If it does not, it is void.
- (b) There is no suggestion in any of the legislative material that, by inserting a new definition of "inventor", Parliament intended to remove the requirement that an inventor be a natural person. Some express acknowledgement of such an intention would be expected if it had. When Parliament used "actual deviser" in the definition of "inventor", its intention was to achieve the same outcome s 23(2) of the 1953 Act did — allowing the inventor to be named in a patent. There was nothing to suggest Parliament intended the inventor would no longer need to be a natural person. The removal of the requirement to state the national

identity of the inventor cannot seriously be suggested to reflect an intention to expand the concept of inventor to include non-persons.

- (c) Other provisions that mention “inventor”, such as ss 22, 177, and 189 to 193, clearly contemplate the inventor is a person. Extending them to non-persons, such as an AI, would be a strained and unnatural interpretation. The patent system promotes innovation, and balances the interests of the inventor and patent owners and the interest of society, by conferring a time-limited monopoly on exploitation of the invention. The inventor has the primary right to be granted a patent. Interpreting “inventor” as natural person will not stifle innovation and human ingenuity. The Court should have close regard to the Australian and United Kingdom decisions, given the close similarity in the statutory provisions. Parliamentary Counsel’s marginal note in s 22 of the 2013 Act refers directly to s 15 of the Patents Act 1990 (Cth).
- (d) The “inventor” must be a natural person so cannot be an AI and Dr Thaler did not specify a valid inventor in the application as required by reg 50(1)(b)(iv). Accordingly, the application is void under ss 71 and 73 and the notice of entitlement did not demonstrate a valid basis under s 22 on which he is entitled to the grant of a patent.

### **Can DABUS be named as inventor?**

[24] The legal implications of AI are interesting and are sure to be the subject of increasing debate and focus as AI capabilities develop. But, perhaps disappointingly, those implications in this case are simply a matter of statutory interpretation. Does the 2013 Act allow an AI to be named as an inventor?

[25] The meaning of the statute must be ascertained from its text and in the light of its purpose and context, as required by s 10 of the Legislation Act 2019 and the

Supreme Court’s interpretive approach in *Commerce Commission v Fonterra Co-operative Group*:<sup>33</sup>

Even if the meaning of the text may appear plain in isolation of purpose, that meaning should always be cross checked against purpose in order to observe the dual requirements of [what is now s 10]. In determining purpose, the court must obviously have regard to both the immediate and the general legislative context. Of relevance too may be the social, commercial or other objective of the Enactment.

[26] In addition, s 11 of the Legislation Act provides that “[l]egislation applies to circumstances as they arise”. So, in 2020, the Supreme Court interpreted “object” in s 131 of the Copyright Act 1994 to include digital files as a matter of text, context, policy, legislative history, and consistency with international obligations.<sup>34</sup>

[27] The text of the definitions of “inventor” in ss 5 and 9 of the 2013 Act refers to the “actual deviser” of the invention without explicitly saying that an inventor has to be a person (which the definition of “applicant” does say). Section 22(1) states that a patent may only be granted to a person who satisfies one of three conditions, including that they are “the inventor” or derive title to the invention from the inventor. But Dr Thaler is not applying for DABUS to be granted the patent, only for DABUS to be named as the inventor. Section 22 does not provide explicitly that an inventor must be a person. But it is fair to say that the natural reading of the section suggests the inventor is a person. That is what the Full Court of the Federal Court of Australia said in relation to very similar wording in s 15 of the Patents Act 1990 (Cth), which New Zealand Parliamentary Counsel explicitly noted was an inspiration for s 22.

[28] The legislative context of the 2013 Act matches those indicia, in being strictly ambivalent but leaning in favour of an inventor being a person:

- (a) Section 9 refers to “the inventor” and to “any other person” for the purposes of disregarding disclosure of matter constituting an invention.

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<sup>33</sup> *Commerce Commission v Fonterra Co-operative Group Ltd* [2007] NZSC 36, [2007] 3 NZLR 767 at [22].

<sup>34</sup> *Ortmann v The United States* [2020] NZSC 120, [2020] 1 NZLR 475 at [314].

- (b) So does s 177, for the purpose of exercising the powers of court on certain applications.
- (c) Sections 189 to 193 relate to inventors who are persons, where a request or claim is made to be mentioned as an inventor.

[29] These sections sit most easily with inventors who are persons. But, strictly speaking, those sections do not necessarily have to apply to all inventors. It is not clear that ordinary usage of language envisages an AI to have an address, as required by reg 50(1)(b)(iv) of the New Zealand regulations and reg 4.6 of the international regulations. But neither is it clear there is yet much “ordinary usage” of language in relation to AI.

[30] Even the purpose of the 2013 Act can be argued both ways. Section 3 begs the key question in referring to the “appropriate circumstances” in which a patent is granted and the “appropriate criteria” for granting a patent. Innovation and economic growth, referred to in s 3(a)(i), might generally be argued to be promoted by granting a temporary monopoly, a patent, that allows the patent-holder to capture the gains of a patent. That would give potential patent-holders incentives to invest in inventive AIs. But, in the case before me, it is not clear that naming an AI as an inventor makes any difference to that either way. If the owner of an AI cannot capture the gains from inventions by the AI, by applying for a patent, that might make a difference to the promotion of innovation and economic growth. But that point has not been established and cannot be established in this case.

[31] Unusually, the point I find most persuasive in confirming the interpretation of this statute is its legislative history. New Zealand patent legislation from 1860 to 2013 was predicated on an inventor being a person. Sections 7 and 23 of the 1953 Act made that quite clear, similarly to ss 7 and 13 in the Patents Act 1977 (UK). The question is: were the 2013 amendments, which removed the direct references to “persons” in the relevant provisions, intended by Parliament to open up the possibility of an AI being an inventor?

[32] There is nothing in the legislative history to indicate Parliament intended to open up the possibility of an AI being an inventor under the 2013 Act. The Explanatory Note to the Bill on introduction indicates the purpose behind the amendment was to prevent mere importers, who are not actual devisers of the invention, from qualifying as inventors. That is entirely consistent with the scheme of the Act adopting absolute novelty standards, as the Ministry of Economic Development recommended to the relevant Minister in relation to the pre-introduction development of the Bill. It is consistent with the decisions of the Full Court of the Federal Court of Australia and the Court of Appeal of England and Wales in relation to their Acts, in the context of their developments patent law, which share a common heritage and international influences with New Zealand patent law. And I do not discount the possible relevance of moral rights.

[33] Given the purpose of Parliament, I do not consider it is appropriate for the Courts to effectively expand the definition of inventor through statutory interpretation. Such a step is more appropriately reserved, in our constitution, for Parliament. In the United Kingdom, after the first instance Court decision on Dr Thaler's application, the government decided not to propose expanding the definition.

[34] Finally, Dr Thaler claims to derive title to the invention, through the surrounding circumstances, because he is the owner, and in possession of, DABUS. Whether that is so, or not, is not an issue that arises in these proceedings so I do not deal with it. Similarly, regarding Mr Elliott's alternative submission, leave of the Court is not required to amend an application before the Commissioner. Dr Thaler can request that of the Commissioner under s 202 of the 2013 Act.

## **Result**

[35] I dismiss the appeal. By consent, costs will lie where they fall.

Palmer J