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Only Humans are Inventors Under the Patents Act, But For How Long?

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Artificial Intelligence Systems or Devices cannot be "inventors" under the Australian Patents Act, the Full Federal Court has confirmed. The inventor of a patent must be a natural person. Does there need to be legislative change to address the role of Artificial Intelligence in the Australian patents scheme?

An expanded five judge appeal bench of the Full Federal Court has recently handed down its judgment confirming that artificial intelligence (**AI**) systems or devices cannot be an "inventor" under the *Patents Act 1990* (*Commissioner of Patents v Thaler* [2022] FCAFC 62), reversing the decision of Justice Beach at first instance and bringing Australia into line with the position taken in other jurisdictions including the US, UK and Europe.

In his patent application, Dr Thaler named an AI device that he created, DABUS, as the inventor. The central question for the Full Court was whether AI can be an "inventor" pursuant to the *Patents Act* and the *Patents Regulations 1991* (**the Regulations**). The Full Court held that the application filed by Dr Thaler did not comply with reg 3.2C(2)(aa) because it failed to identify a natural person as the inventor. The Full Court also held that section 15 of the *Patents Act*, which provides for circumstances where a person draws entitlement to the grant of a patent from an inventor, requires the inventor to be a natural person. It came to this view having regard to the statutory language, structure and history of the *Patents Act* and the policy objectives underlying the legislative scheme.

Who can be considered as an inventor?

The term "inventor" is not defined in the Act, although Reg 3.2C(2)(aa) requires the name of the inventor of the invention to which the application relates to be provided and the term is used in section 15 of the Act to describe who may be granted a patent. The Full Court noted that whilst policy considerations can inform statutory construction, the surest guide to ascertaining the legislative intent is the language of the text of the legislation itself.

Regard was had to the legislative history of the Australian patents scheme, in particular the relevance of the term "invention" in the chapeau to section 15(1), defined in the Act by reference to the *Statute of Monopolies*. Reference was made to s 6 of the UK *Statute of Monopolies 1624* (21 Jac c 3) which provides an exception to the prohibition on monopolies to the "*true and first Inventor*", and which has always been confined to human inventors. A person's entitlement to a

reward of a patent, as consideration for disclosure of the invention, is closely linked to the act of invention by the true and first inventor, which lies in human endeavour and is rewarded by the grant of a limited term monopoly.

The Full Court considered existing case law regarding inventorship. References to "person" in the cases was not taken by the Court to definitively require that an inventor under the *Patents Act* and Regulations must be human. However, the case law does suggest that the law relating to entitlement of a person to the grant of a patent is premised upon an invention for the purposes of the Act arising from the mind of a natural person or persons. This accords with the legislative history of the Australian patents scheme, in which "*the origin of entitlement to the grant of a patent lies in human endeavour, which is rewarded by the grant of a limited term monopoly*".

Entitlement to a Patent from the Inventor – Not Quite "like the owner of a fruit tree"

Dr Thaler argued that, as he is the owner and creator of DABUS, he derived title to the invention from the inventor pursuant to section 15(1)(c) of the Act. Dr Thaler likened the scenario to that of an owner of a fruit tree who is entitled to the fruit produced by that tree or the ownership of the progeny of animals, with which the Primary Judge agreed. In this regard, Dr Thaler's position was that each of ss. 15(1)(a), (b), (c) and (d) are alternatives and that a person may draw entitlement to the grant of a patent from an inventor who is not the person identified in s.15(1)(a).

The Full Court disagreed with this approach, finding that where section 15(1)(a) provides that a patent for an invention may only be granted to "*a person which is an inventor*", the reference to "*a person*", in context, is a natural person. Further, on a natural reading of section 15(1) of the Act, each of sections 15(1)(b), (c) and (d) provide for circumstances where a person becomes entitled to the grant of a patent by ultimately receiving that entitlement from the inventor identified in section 15(1)(a). There must be a legal relationship between the actual inventor and the person first entitled to the grant. Something without a legal entity cannot give effect to an assignment under section 15(1)(b)-(d) and "inventor" in section 15(1)(c) is most naturally understood to refer to the same inventor as in s15(1)(a), who is a natural person. Otherwise "inventor" in section 15(1)(c) would have a different meaning to section 15(1)(a). The Full Court noted that the interpretation of the text of the section they adopted is supported by reference to the legislative history of the Patents Act and no other provision in the Act is inconsistent with the construction preferred by the Full Court.

Further, the Full Court noted that in the absence of identifying a natural person as the inventor, the question of Dr Thaler's entitlement to the grant of a patent under sections 15(1)(b)-(d) did not arise.

The Role of AI in the Patent Scheme

The Full Court acknowledged that there are many issue that arise in the context of AI and inventions, for example:

- As a matter of policy, should an "inventor" in the Act be redefined to include AI and, if this occurs, to whom should a patent be granted in respect of its output? Complex ownership and entitlement issues may arise in the context of inventions developed by AI systems.
- To be patentable, an invention must involve an inventive step when compared with the prior art base. If an AI system is recognised as an "inventor" in the Act, what effect will this have on the standard of inventive step pursuant to s 7(2) of the Act? Should the standard of a hypothetical person skilled in the art be recalibrated to be a person as assisted by AI? This could make it more

difficult for patents by human inventors to be granted.

The Full Court considered this policy debate to be "*important and worthwhile*", and that it should be "*attended to with some urgency*". However, it also warned against the judiciary "*approaching the task of statutory construction by reference to what it might regard as desirable policy, imputing that policy to the legislation, and then characterising that as the purpose of the legislation*". The Full Court noted that it would appear that this was the approach of the primary judge.

It is clearly the view of the Full Court that any changes to the Act and Regulations to accommodate AI need to be instigated at the legislative level rather than attempting to shoehorn AI into the existing legislation by construing the statute by reference to what might be regarded as desirable policy.

If DABUS is not the inventor, then who is?

Whilst the Full Court held that the AI system (DABUS) could not be considered an "inventor" pursuant to the Act, it did not accept the proposition that was accepted by the primary judge, that if DABUS Is not accepted to be an inventor, no invention devised by an AI system is capable of being the subject of a granted patent. The question of whether the invention the subject of the application filed by Dr Thaler has a human inventor was not determined in this case.

There could be various possibilities as to who would be the human inventor of the output of an AI system such as DABUS. For example, the owner of the copyright in the source code; the person who is responsible for the programming and training of the AI; the person responsible for the maintenance and running costs of the AI; or the person who invested capital to produce the output could all have valid claims to entitlement.

What does the future hold?

This case has highlighted the need for global dialogue on the approach to be taken to patentability of AI inventions given the increasing importance of AI to a number of industries, including the pharmaceutical industry.

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