Patenting computer-implemented inventions in Australia
Part 2

Yes, it is still possible to patent software-based inventions in Australia!

Dr Sudhanshu Ayyagari, Wednesday 15th July 2020

This article is the second of a two-part series on patenting software-based inventions in Australia. Previously, in the first part of this series, we explored some of the key software-related patent judgements in Australia, which also included a discussion on the origins of uncertainty, and the current approach followed by IP Australia in relation to the patentability of claims that target software implementations.

In this second part, we now start by comparing the software patentability approach of IP Australia with other major jurisdictions including the United States and Europe. In addition, some practice notes are also provided on drafting specifications and claims for software-based inventions that pass the patentability requirements in Australia. Finally, the article also explores additional avenues for IP protection (other than patents) for the concerned players in the software domain.

Comparison to the US and EP practice

In the more recent times, it appears that the patent eligibility process followed by the US examiners appears very similar to that of the Australian practice (Aristrocrat[1]) as indicated below:

i.   Firstly, the U.S. examiners determine whether the claimed invention is directed to an "abstract idea",

ii. In the second stage, the Examiners then assess whether the claim, on the whole, amounts to "significantly more" than the abstract idea. "Significantly more" in this context means that the claimed feature is part of the inventive concept[2].

Therefore, it appears as if, it is simply not enough to say that the invention is a generic computer implementation but instead, the computer implemented feature needs to contribute to the inventive concept of the invention[3]. The European patent law also has a similar requirement for patentable subject matter, but majority of the patent applications meet the requirement by formally

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1   Aristocrat Technologies Australia Pty Limited v Commissioner of Patents [2020] FCA 778.

2   Alice Corp. v. Cls Bank [134 S. Ct. 2347 (2014)].

3   Ayyagari, S., (2017). Securing Software Patents In New Zealand | Baldwins. [online] Baldwins.com. Available at: <https://www.baldwins.com/news-resources/news/software-patents-in-new-zealand> [Accessed 10 June 2020].

claiming a "computer-implemented method", for example. Whereas, the bigger problem in Europe is overcoming the inventive step, which can only reside in the technical features of the claims. In determining the patent eligibility, the typical approach followed by the EPO is:

i. determining whether the claim involves a "technical" feature which aims to solve a technical problem. This test could generally be satisfied if the claim describes any hardware aspects, e.g. a computer, computer network, server, or any tangible technical element.

ii. The significant hurdle is the second step wherein the examiner is required to assess whether the technical feature(s) in the claim would be non-obvious to a skilled person in light of the technical problem to be solved[4].

In light of the recent decisions of Rokt[5] and Aristrocrat, it appears that the law in relation to the test for patentable subject matter in Australia is moving towards the two-step test for eligible subject matter in the US and the EP. Furthermore, the Rokt and Aristrocrat judgements provide a consistent line of thought that when a "technological innovation" is provided as the substance of the invention, then the patentable subject matter requirements are satisfied without further consideration.

In the contrary, if a "mere scheme" is identified as being the substance of invention, then further determination should take place as to whether there is a threshold degree of inventiveness in the manner in which the scheme is implemented.

Observations and practical guidance

The patentability factors detailed in part one of this series, especially in Research Affiliates[6], RPL Central[7], Encompass[8] and Rokt were not expressed as a series of questions or steps of which each was a definite result for patentable subject matter, but instead as considerations which should be accounted for. In summary, these judgements also indicate that: if the test was simply that a computer implemented portion could not be considered patentable subject matter it would not be possible to find patentable subject

matter in any machine using the known machine but improving the operation of a processor or computer attached to the machine.

Furthermore, in any invention there is an abstract idea or intellectual information, a key step which creates patentable subject matter is applying this idea to a technical field. Drawing attention Encompass and Rokt decisions, patentable subject matter is not a question of if the invention requires a computer or is implemented on a computer. Instead, it may be considered to be a question of whether the computer has been used to provide the claimed effect previously.

Taking into account the learnings from these recent decisions in Australia, some practical guidance/insights when drafting patent applications for computer implemented inventions could be that:

*   it is important to frame the patent specification so that it clearly details the technical details and technical advantages overcome by the invention in light of the existing prior art,

*   claiming those technical effects and advantages, rather than only including a generic description of the implementation of the invention using computer technology will likely meet the patentability threshold;

*   merely stating one or more features of the invention contribute to a technical invention or broadly describing the idea behind the implementation or the flow of information may not be sufficient to meet the patentability threshold;

*   focus should be placed on describing how an improved technical functionality of the computer technology can be achieved by the interaction between the hardware, firmware or software components used in carrying out the invention,

*   the description needs to demonstrate that the inventive concept lies within the computerisation itself, rather than what the end result of that computerisation is;

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4   T 1173/97; G3/08; GL G-II, 3.6, Programs for computers – EPO Guidelines for Examination.

5   Commissioner of Patents v Rokt Pte Ltd [2020] FCAFC 86.

6   Research Affiliates LLC v Commissioner of Patents [2014] FCAFC 150.

7   Commissioner of Patents v RPL Central Pty Ltd [2015] FCAFC 177.

8   Encompass Corporation Pty Ltd v InfoTrack Pty Ltd [2019] FCAFC 16.

- for demonstrating that the computerisation of certain features of the invention involves more than a generic utilisation of the computer, it may be beneficial to downplay in the specification, the use of, or recitation of, broad statements such as "any generic system, matter, technique, mechanism and/ or manner";

- when describing the result or purpose of a step in the invention, it is better to not rely on the functional language;

- as a fall-back position, for every independent claim in the specification, providing at least one dependent claim that recites all the technical details will likely improve the odds when arguing for patent eligibility of at least that claim during prosecution;

- in the claims, avoid terminology that reads on pure mental thoughts or abstract ideas, or that is either at a high-level or is vague (for e.g., instead of saying "determining a crash occurrence" consider phrasing it as "analysing data from an on-board sensor to determine if the received sensor value exceeds a deceleration threshold");

- avoid characterizing any claim elements as conventional, routine, or commercially available;

- in cases where the individual steps are "well known," then emphasize that the combination of these steps (i.e., the claimed process) is far from routine and/ or conventional;

- incorporating detailed flowcharts, figures and algorithms of the computer implementation which support the description may increase the likelihood of the invention being considered more than an abstract idea or a genericized implementation of the computer.

Conclusion

Although the recent case law suggests that obtaining broad protection for some computer implemented technologies is becoming difficult, it is still apparent that there are a number of areas in which computer programs remain patentable inventions in Australia. Software programs that define a new method or process for solving a particular real-world problem in a way that would not be obvious to a programmer familiar with the industry are always likely to overcome the patentability threshold. On the other hand, ideas which are not tied to a particular apparatus or device(s) that contribute to an inventive concept in a patentable field of technology, are unlikely to pass the above threshold.

In light of the above developments, while coming up with an IP strategy, it seems prudent for any inventor/ company to think critically about whether their inventions will pass the above threshold and prepare themselves accordingly. If it is determined that the patentability threshold cannot be met, the Applicants could rely on adopting to other protection measures such as design patents (for protecting unique user interface and/ or user experience), trade secrets, copyright, technology transfer or licencing or confidentiality agreements to exploit their invention.

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