Intellectual Property Office

BL O/0315/23

30 March 2023

PATENTS ACT 1977

APPLICANT	WNS Global Services (UK) Limited
ISSUE	Whether patent application GB1820734.0 complies with Section 1(2)(c) of the Patents Act 1977 (as amended)
HEARING OFFICER	Peter Mason

DECISION

Introduction

1 Patent application GB1820734.0 was filed on 26th May 2017, claiming a priority date of 27th May 2016, and subsequently published on 27th February 2019 as GB2565965, the application is entitled "Method and system for determining equity index for a brand". This decision concerns whether the invention, as defined in the claims, is excluded from patentability under Section 1(2)(c) of the Patents Act 1977.

2 The application is derived from International Application number PCT/IB2017/053103. While in the international phase an International Search Report (ISR), identifying three citations, was issued by the European Patent Office on 4th September 2017. A Written Opinion was subsequently issued on the 27th November 2018 which, as well as objecting that the invention is not inventive in light of the identified citations, also noted the present application addresses a business problem.

3 A full summary of the application history is provided by the examiner in the pre-hearing report dated 9th December 2012 at paragraphs 6 to 13. I see no need to repeat that here, other than to say that the examiner has maintained objections to the patentability of the claimed invention, specifically that the claims are excluded as a business method as such and a computer program as such, over several rounds of correspondence. All other substantive issues have been deferred. Despite minor amendments to the claims and reasoned arguments provided by the applicant, the examiner and applicant have not been able to reach agreement and therefore the application has come before me to make a decision based on the papers available on file, as requested by the applicant. I confirm that I have considered all of the correspondence on file in reaching my decision.

The invention

4 The application relates to the gathering of raw data relating to a brand from various sources across the internet and, in particular, social media sites. The raw data is classified, interpreted and weighted to determine a 'social equity index' which

provides an indication of how well regarded a particular brand is. This quantifiable measure of the social reputation of a brand can be compared against an industry benchmark and/or other similar brands. This provides insights into a brands real-time reputation and can form the basis for future business decisions. For example, the effect a particular promotion campaign has on the public perception of a brand can be monitored.

5 The details of the invention are self-explanatory from the latest filed claims, dated the 24th May 2022, which consist of 14 claims in total including two independent claims - claim 1 to a computer implemented method and claim 8 to a corresponding system. The independent claims are reproduced here:

1. A computer implemented method for determining an equity index for a brand in real-time, the method comprising:

- building, by a data procurement module, a data record by continuously procuring input data from at least one platform related to the brand;
- enriching, by a data enrichment module, the data record to remove noise from the input data to obtain an enriched data record;
- classifying, by a classifier, the enriched data record into at least one category of one or more categories to obtain a classified data record, wherein the one or more categories are related to a domain of the brand;
- determining, by a sentiment analyzer, a sentiment ratio for the classified data record;
- determining, by an engagement metric module, an engagement metrics for the brand; and
- determining, by an index formulation module, the equity index for the brand based on a weighted average of the at least one category, the sentiment ratio, the engagement metrics, and one or more variables.

8. A system for determining a social equity index for a brand, the system comprising:

a hardware processor;

a data procurement module, coupled to the hardware processor, to build a data record by continuously procuring input data from at least one platform related to the brand;

a data enrichment module, coupled to the hardware processor, to enrich the data record to remove noise from the input data to obtain an enriched data record;

a classifier, coupled to the hardware processor, to classify the enriched data record into at least one category of one or more categories to obtain a classified data record, wherein the one or more categories are related to a domain of the brand;

a sentiment analyzer, coupled to the hardware processor, to determine a sentiment ratio for the classified data record;

an engagement metric module, coupled to the hardware processor, to determine an engagement metrics for the brand; and

an index formulation module, coupled to the hardware processor, to determine the equity index for the brand based on a weighted average of the classified data record, the sentiment ratio, the engagement metrics, and one or more variables.

6 As can be seen, claim 8 defines a system utilising the computer implemented method of claim 1 and therefore both claims will stand or fall together.

The law

7 The examiner has raised an objection that the invention is not patentable because it relates to one or more of the categories of subject-matter which are not considered to be inventions under the Act. This 'excluded matter' is set out in Section 1(2) of the Act below (my emphasis):

> *1(2). It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of –*
>
> *(a) a discovery, scientific theory or mathematical method;*
>
> *(b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;*
>
> ***(c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;***
>
> *(d) the presentation of information;*

but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such. [my emphasis]

8 The Court of Appeal's judgement in Symbian[1] tells us that in order to determine whether an invention falls solely within the any of the exclusions listed in section 1(2), the four-step test set out in its earlier judgement in Aerotel[2] must be used. The four steps are:

(1) properly construe the claim(s);
(2) identify the actual (or alleged) contribution;
(3) ask whether it falls solely within the excluded subject-matter;
(4) check whether the actual or alleged contribution is actually technical in nature.

9 The fourth step of the test is to check whether the contribution is technical in nature. In paragraph 46 of Aerotel it is stated that applying this fourth step may not be necessary because the third step should have covered the question. I shall consider whether the contribution is excluded alongside the question of whether the contribution is technical in nature, meaning I will consider the third and fourth steps of Aerotel together.

Argument and analysis

Step 1 - properly construe the claim(s)

10 The claims are considered to be generally clear and I note from the applicant's correspondence that they are on common ground with the examiner in construing at least the independent claims. I similarly have no concerns in the construction of the claims subject to my comments below.

11 For the avoidance of doubt, I have construed the 'equity index' of claim 1 to be equivalent to the 'social equity index' of claim 8 and as defined in the description as relating to *"a quantifiable value…. of a brand driven by customer perception, loyalty and recall across the social media firmament",* rather than a more generalised measure of equity.

12 The examiner has noted within the pre-hearing report that the modules defined in the claims may be merely "computer-readable instructions" or in other words, part of a computer program. The modules themselves are defined in the description as being *"implemented as signal processor(s), state machine(s), logic circuitries, and/or any device or component".* I agree with the examiner that the term is so broad as to not place any real limitation upon the claims.

13 The examiner has deferred full consideration of the sufficiency of the claims but has noted in the pre-hearing report a lack of detail around the hardware modules and the specifics of the algorithm used to determine the social equity index. While I have not

[1] Symbian Ltd. v Comptroller-General of Patents [2008] EWCA Civ 1066
[2] Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application [2006] EWCA Civ 1371

considered the matter of sufficiency here, this does not cause any difficulty in construing the claims for the purposes of determining whether they are excluded.

Step 2 – identify the actual (or alleged) contribution

14 In paragraph 43 of Aerotel/Macrossan, Jacob LJ addresses this step as:

> *"The second step – identify the contribution – is said to be more problematical. How do you assess the contribution? Mr Birss submits the test is workable - it is an exercise in judgement probably involving the problem said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best sums up the exercise."*

15 Jacob LJ goes on to say that in the end:

> *"the test must be what contribution has actually been made, not what the inventor says he has made".*

16 The examiner has, in paragraphs 29 to 35 of the pre-hearing report, fully considered the above points and has identified the contribution as follows:

> *"a method or system for processing user data obtained from electronic sources and subjecting the data to filtering and analysis so as to assign a score or social equity index to a particular brand. The method or system is implemented by means of a computer program running on conventional hardware*"

17 This is a restating of the contribution as per the previous examination report, dated 10th November 2022. The applicants detailed response to this can be found in paragraphs 5 to 10 of the Annex dated 17th November 2022 where the applicant has asserted the problem to be solved as:

> *"inefficient data gathering and subsequent flawed analysis of such data gathering, associated with prior known systems"*

18 The applicant then goes on to explain how this problem has been solved, concluding with the statement:

> *"technical features in the independent claim contributes to solve the technical problems described above"*

19 At this point, it is worth considering the prior art identified during the search stage, which can be useful in determining the contribution of the present claims. I will briefly summarise the three documents here. WO2014/207753 discloses the assessing of the value of a brand based on data captured from the internet, such as social media sites. WO2013/059290 describes a method for analysing the sentiment and influence of social media sites. US2014/136541 describes the analysis of social media data sources. What is clear from these disclosures is that the analysis of data on social media platforms was known at the filing date of the application, and in the case of WO2014/207753 the analysis is done for the same purpose as the present claims, to assess the value of a brand.

20 It seems to me that the thrust of the applicant's argument is that the contribution is within the data acquisition and processing aspects of the invention. Given the prior art available I would agree this must be where the contribution lies. I am also content that this is captured within the examiner's definition of the contribution.

Steps 3 & 4 – ask whether it falls solely within the excluded subject matter and check whether it is actually technical

Method for doing business

21 The examiner has referred to Merrill Lynch[3] in the examination report dated 30th September 2022 in relation to the computer program exclusion. Further, at page 569 of that judgement, Fox LJ sets out that the business method exclusion is generic, where a claim to a computerised system for making a trading market was rejected:

> *"Now let it be supposed that claim 1 can be regarded as producing a new result in the form of a technical contribution to the prior art. That result, whatever the technical advance may be, is simply the production of a trading system. It is a data-processing system for doing a specific business, that is to say, making a trading market in securities. The end result, therefore, is simply "a method of doing business", and is excluded by section 1(2)(c). The fact that the method of doing business may be an improvement on previous methods of doing business does not seem to me to be material. The prohibition in section 1(2)(c) is generic; qualitative considerations do not enter into the matter. The section draws no distinction between the method by which the mode of doing business is achieved. If what is produced in the end is itself an item excluded from patentability by section 1(2), the matter can go no further".*

22 Therefore, the fact that an application may provide a better way of conducting business is not relevant. If this is the end result, the application will be excluded.

23 The examiner has characterised, in paragraph 36 of the pre-hearing report, the end result of working the invention as:

> *"a combined numerical score is calculated as a weighted average of various other scores generated in different steps of the process (or modules of the system)"*

24 The applicant has summarised the objectives of the invention at paragraph 13 of the annex dated 17th November 2022 as:

> *"to provide a method and system that provides a unified platform to analyze the performance of a brand by discovering and monitoring a brand's feedback on social media, analyzing content related to a brand, benchmarking with the industry and quantifying a brand's online social equity index"*
>
> *"to facilitate computation of a quantifiable value as a social equity index of a brand driven by customer perception, loyalty and recall across the social media firmament"*

[3] Merrill Lynch's Application [1989] RPC 561

"to provide a reliable method and system to provide insights into the information available about a brand so as to enable the brand company to formulate an effective long-term strategy"

25 It seems clear to me, that in both the examiners and applicant's assessment the end result is related to a better method of doing business.

26 The applicant further adds at paragraph 14 that:

"the mere use of an invention in any business does not indicate that the invention itself is a business method. In the present case, the technical solution captured by the claims is to determine the equity index associated with a brand, by performing technical steps such as data gathering, data enrichment, data processing, etc".

27 I agree that simply using an invention within a business does not automatically exclude it from patentability. However, as set out above, it is the end result of working the invention that must be considered. As is clear from the contribution, and from the objectives of the invention stated by the applicant, the end result is clearly related to providing information about the performance of a business to enable business decisions to be made. There is no application of this invention which can take place outside of a business or administrative context.

28 Therefore, the claims are excluded as a method of doing business.

29 For completeness, I will also consider whether the claims are excluded as a program for a computer.

Program for a computer

30 The application as filed includes no technical details of the hardware that the database system runs on, and so it is clear to me that the contribution is put into effect by one or more computer program(s) running on conventional data processing hardware.

31 To assist in determining whether the contribution relates solely to a program for a computer, we use the signposts to technical contribution set out in AT&T/CVON[4] and by the Court of Appeal in HTC v Apple[5]. These are:

i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;

ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;

[4] AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat)
[5] HTC Europe Co Ltd v Apple Inc [2013] EWCA Civ 451

iii) whether the claimed technical effect results in the computer being made to operate in a new way;

iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer;

v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

32 These signposts are useful guidelines only, providing a list of some of the factors that can assist in determining whether a contribution may be technical.

33 I note that the applicant has not specifically addressed the above signposts in their responses. However, the main thrust of the arguments in the latest response concerns the perceived problem as being technical, and that this is overcome in a technical way. I will therefore begin with the most relevant signpost to this argument, signpost (v), before briefly addressing the other signposts.

34 The examiner has dismissed signpost (v) as not providing the necessary technical effect as the perceived problem is characterised as an administrative problem. From that it follows there can be no technical effect in overcoming an administrative problem.

35 The applicant has put forward several arguments in the latest annex dated 11th November 2022 which I will attempt to summarise here.

36 The applicant has argued that *"the system comprises one or more processors, an input/output interface, and a memory. The one or more processors are hardware processors. Therefore, the Applicant submits that the present claims are implemented by a hardware processor".*

37 This limitation is only present in claim 8. In any case, it is the substance, not form, of the claims that must be considered. This can be seen from the Court of Appeal in Merrill Lynch (page 569, lines 3-6):

> *"…it cannot be permissible to patent an item excluded by section 1(2) under the guise of an article which contains that item – that is to say, in the case of a computer program, the patenting of a conventional computer containing that program. Something further is necessary"*

38 Therefore, whether the system or method is implemented as software or hardware is unimportant. The substance of the invention is what counts. Therefore, this does not give the invention the required technical characteristic.

39 The applicant has also argued that the problem to be solved is technical and can essentially be characterised as *"inefficient data gathering and subsequent flawed analysis of such data gathering, associated with prior known systems".* Further reasoning is provided at paragraph 19, which states that *"data acquisition is quite technical in nature consuming APIs for various variety of unstructured data sets from social media platforms. Also, for storing and processing, the present invention requires unique design of technical components".*

40 I agree that data acquisition may be considered technical in certain circumstances, but this is not the case here. There are no technical details provided on how the data is actually collected other than to say raw data is continuously procured from a platform related to the brand. There is no detail within the description of a unique design of hardware components and as such they must be taken to be conventional components.

41 The applicant goes on to submit that *"once the data is processed, the present invention uses unique AIML algorithm get trend score, Theme, Sentiment score etc which is technical in nature. For Example, SPAM detection, Theme tagging, Contextualization, Sentiment algorithm, Topic tagging, N-gram generation are various techniques used in the present invention".*

42 The first point I make is that not all of these features listed are present within the specification as filed. For example, AIML, SPAM detection and N-gram detection do not appear within the description. Of those that are included within the claimed invention, no technical details are provided of how the various contexts, sentiments, scores or weightings are arrived at. It is purely an administrative process, based on what factors are considered relevant to the brand owner. I am in agreement with the examiner that the problem is inherently administrative, it's judging how to interpret data in the most appropriate way to determine the reputation of a brand. Therefore, signpost (v) does not provide a technical contribution.

43 In relation to signpost (i), the effect outside of the computer is the generation of an equity index for a brand, as discussed in detail under the business method exclusion. This is clearly not technical in nature and therefore signpost (i) does not assist in identifying a technical contribution.

44 Signposts (ii), (iii) and (iv) ask whether there is a technical effect at the architectural level, the computer operating in a new way or makes the computer a better computer. There is no technical detail relating to these points and therefore these signposts also do not demonstrate a technical effect.

45 None of the signposts point to a technical contribution and consequently I consider that the invention is also excluded as a program for a computer.

46 Furthermore, I have considered the dependent claims, and the specification as a whole, and have been unable to identify anything which would move the contribution beyond a business method or a program for a computer.

Conclusion

47 Having considered all of the arguments provided and all correspondence on file, I am of the view that the contribution made by the invention falls solely within the business method and computer program exclusions.

48 I therefore, find that the invention claimed in GB1820734.0 is excluded by Section 1(2)(c) as a business method and a computer program. I therefore refuse the application under Section 18(3).

Appeal

49 Any appeal must be lodged within 28 days after the date of this decision.

PETER MASON

Deputy Director, acting for the Comptroller