Intellectual Property Office

BL O/509/18

16 August 2018

PATENTS ACT 1977

APPLICANT	Globoforce Limited
ISSUE	Whether GB 1410082.0 Complies with Section 1(2) of the Patents Act 1977
HEARING OFFICER	Mrs S E Chalmers

DECISION

Introduction

1 GB1410082.0 is derived from a PCT application published by WIPO as WO2013/086399. This was filed on 7 December 2012 and claims priority (from 9 December 2011) from US application 61/568999. The application entered the GB national phase on 6 June 2014 and was published as GB 2511013 A.

2 The first examination report, dated 15 August 2017, raised the objection that the invention was excluded from patentability as a method for doing business, a computer program and/or the presentation of information. Given the issues relating to excluded matter, full examination and completion of the search were deferred.

3 Despite amendment and several rounds of correspondence the applicant has been unable to convince the Examiner that the invention is patentable under Section 1(2). The applicant accepted the offer of a hearing to resolve the matter. This took place by videoconference on 11th July 2018 and was attended on the Attorney side by the applicant's attorney, Mr Simon Davies of D Young and Co and an observer Mr Sam Keyes and on the UKIPO side by Mrs Emma Porter who assisted me and the Examiner, Mr Gareth John. Mr Chris Davidson and Dr Joanna Manning also attended in the UKIPO as observers.

4 No skeleton arguments or potential amendments were filed before the hearing. I am grateful for the list of decisions referred to which I have taken full account of in reaching my decision.

5 The initial Section 20 date of 15th August 2018 has been extended as of right by two months to 15th October 2018.

The invention

6 The invention claimed is a system and method for collating and displaying personnel recognition data within an organisation; more particularly systems and methods for analysing and displaying recognition data along with company organisational data to generate a recognition graph for employees.

7 According to the specification, previous methods of collating feedback to provide rewards and recognition for employees were limited to specific times, i.e. annually or biannually, and limited to specific people, i.e. direct managers. These previous methods only included feedback on a limited portion of the employees' impact. Further, the time taken to analyse this limited feedback meant that the employee could wait weeks or months to receive the collated feedback.

8 The application states a need to provide all employees and supervisors with a solution that can allow for the recognition of beneficial actions and the impact of employees in "real-time" such that employees may be awarded for actions that align with corporate goals and values or that have impact on other teams and divisions, or even on other organisations.

9 The invention receives and processes "recognition moments" alongside organisational information and so provides employers with real-time access to such data in a manner that will allow the employers to efficiently determine employee performance, influence, and impact in the organisation.

The claims

10 The current claims were filed on the 18th December 2017 and comprise two independent claims a computer system of claim 1 and a computer-implemented method of claim 11.

11 Claim 1 presently reads as follows:

> A computer system comprising:
>
> a recognition data collection module for:
>
> > receiving organizational data of the organization, the organizational data including at least organizational relationship data of a plurality of employees;
> >
> > receiving in real-time recognition details associated with one or more recognition moments and on an ongoing basis;
> >
> > storing in memory the recognition details and the organizational data; and
>
> a recognition graph module for generating, using at least one processor, a recognition network graph based on at least the recognition details and the organizational data containing the organizational relationship data, wherein the generated recognition network graph contains a plurality of nodes representing the plurality of employees.

12 Claim 11 presently reads as follows:

> *A computer implemented method comprising:*
>
> *performing the following operations at one or more computers comprising a memory and a processor:*
>
> *receiving organizational data of the organization, the organizational data including at least organizational relationship data of a plurality of employees;*
>
> *receiving in real-time recognition details associated with one or more recognition moments;*
>
> *storing in the memory the recognition details and the organizational data and on an ongoing basis; and*
>
> *generating a recognition network graph based upon at least the recognition details and the organisational data containing the organisational relationship data, wherein the generated recognition network graph contains a plurality of nodes representing the plurality of employees.*

13 Mr Davies agreed that claims 1 and 11, relating to a computer system and a computer implemented method respectively, are of very similar scope and should stand or fall together. In the discussions that follow we focussed on claim 1.

The law

14 The section of the Patents Act 1977 concerning inventions excluded from patentability is Section 1(2), which reads:

> "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)...
> (b)...
> (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."

15 In order to decide whether an invention relates to subject matter excluded by Section 1(2), the Court of Appeal has said that the issue must be decided by answering the question of whether the invention reveals a technical contribution to the state of the art. The Court of Appeal in *Aerotel/Macrossan*[1] set out the following four-step approach to help decide the issue:

> 1) Properly construe the claim;
> 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

[1] Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371

16 The operation of the approach is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.

17 The case law on computer implemented inventions has been further elaborated in *AT&T/CVON*[2] which provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*[3], Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. The signposts 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;
>
> iii) whether the claimed technical effect results in the computer being made to operate in a new way;
>
> iv) whether the program make the computer a better computer in the sense of running more efficiently and effectively as a computer; and
>
> v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

Application of the Aerotel approach

Step 1: Properly construe the claim

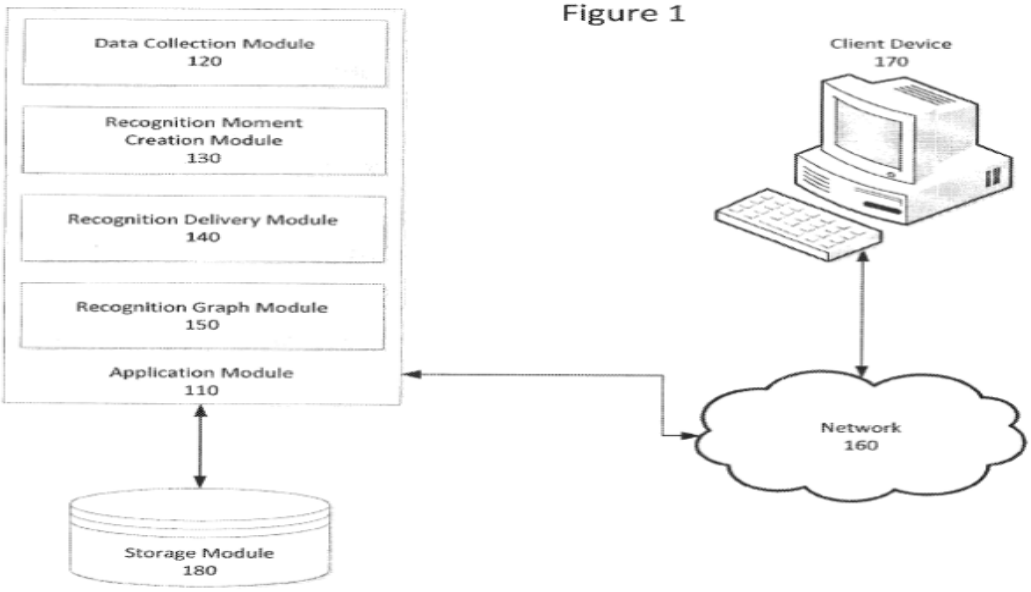
18 The terms “organizational data”, “recognition details”, “recognition moments” and “recognition network graph” appearing in the claims are clearly defined and described in the application as filed, and so do not present any difficulties of claim construction.

Step 2: Identify the Contribution

19 Mr Davies stated that the system of claim 1 contains two distinct modules: a ‘recognition data collection module’, which can be considered to be the input side of the system, and a ‘recognition graph module’, which can be considered to be the output side of the system. The two modules are shown in Fig.1 at 120 and 150 (among other modules).

[2] AT&T Knowledge Ventures LP and CVON Innovations Limited v Comptroller General of Patents [2009] EWHC 343
[3] HTC v Apple [2013] EWCA Civ 451

Figure 1



20 Mr Davies explained that the 'recognition data collection module' collects and stores data from multiple client devices, and also receives organisational data to give context to the feedback data, so that the system understands how the providers and recipients of the feedback fit into the organisation. The information is gathered from multiple people who are spatially spread, each using client devices, and this information is received, stored and incorporated on an ongoing basis and made available whenever a user would like an output.

21 Mr Davies went on to state that the 'recognition graph module' presents a recognition graph, similar to that shown in Fig.9 of the application, which outputs the information obtained from multiple people of a broad spatial range. The display is created in real-time, in that it reflects all of the current information received, rather than the previous systems which ask for feedback at specific points in time.

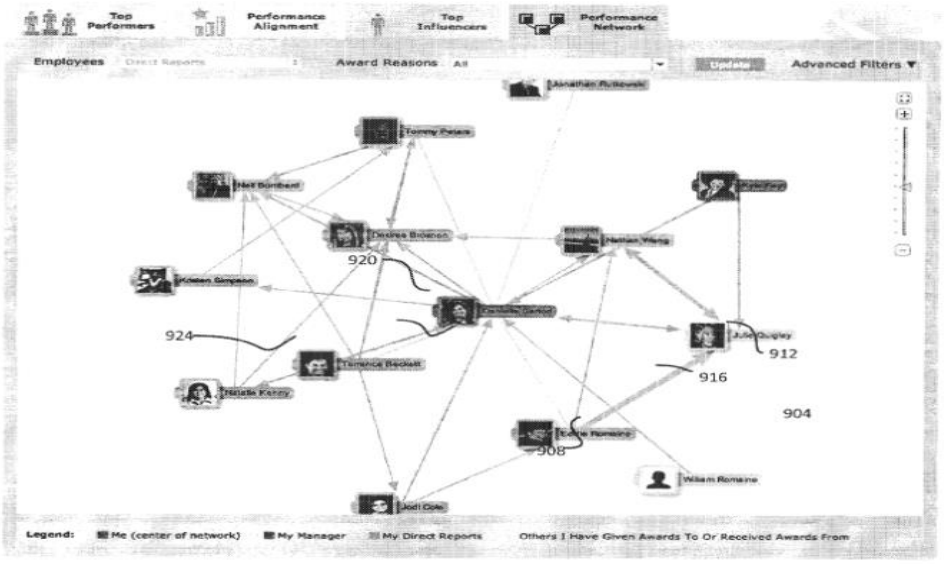


Figure 9

22 In the examination report dated 15th August 2017, the examiner stated that the contribution was "a program for facilitating reward and recognition of employees in an organisation"

23 Mr Davies said that in his view the contribution is much broader than the examiner's high-level assessment, and should be considered to be "a computer system which collects and stores recognition data from spatially and temporally diverse sources on an ongoing basis". He acknowledged that computer systems which collect and store employee recognition data *per se* are known.

24 However, the 'recognition data collection module' of claim 1 does not specify the spatial or temporal origin of the "real-time recognition details" which are associated with "one or more recognition moments". The recognition details of the claims may be only associated with a single recognition moment. Additionally, a single instance of feedback cannot be said to be distributed in space and time.

25 Creating the recognition graph whenever a user would like an output, which I understand to mean collating, processing and displaying the information collected on demand, is also not included in the independent claims, and so that aspect does not form part of the contribution either.

26 I shall take the contribution to be "A computer-implemented method for facilitating reward and recognition of employees in an organisation, comprising combining organisational data with the receiving and processing of real-time recognition data to create a recognition graph".

27 Steps 3 and 4: Does the contribution fall solely within excluded matter?; Is it technical in nature?

28 The third and fourth steps of the *Aerotel* test involve asking whether the identified contribution falls entirely within the excluded categories, and then checking whether it is technical in nature. Given that the consideration as to whether the contribution is technical in nature has a direct bearing on whether it falls solely within excluded matter, and the arguments that have been put before me in this case, it seems appropriate to consider these two steps together.

Program for a computer

29 It is common ground that the invention is a computer-implemented one and that the contribution takes the form of a computer program. The first question to be resolved is whether the contribution resides solely in a computer program or whether it has a technical nature which takes it outside of the exclusion of s.1(2)(c) of the Act.

30 Mr Davies directed me to the decision of the EPO Board of Appeal in Vicom[4], especially paragraph 12 which states:

> The Board is of the opinion that a claim directed to a technical process which process is carried out under the control of a program (be this implemented in hardware or software) cannot be regarded as relating to a computer program as such within the meaning of Article

[4] Vicom Systems Inc./Computer-related invention [1987] OJ EPO 14

52(3) EPC, as it is the application of the program for determining the sequence of steps in the process for which in effect the protection is sought.

31 Mr Davies stated that the process of data retrieval and data processing outlined in the claims is a technical process which goes beyond what computers have done in the past in this context. He argued that to say "computers always receive and store data" is to lose the specific context and motivation for this invention. The collection of data across a wide spatial and temporal field is a technical process, and receiving data from many networked client devices is a technical process, which is reflected in the claims. Mr Davies also stated that the conventional computer has been repurposed to carry out a different technical function.

32 Mr Davies also referred to the first signpost from AT&T/CVON *"i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer*" and submitted that the recognition feedback is not just data communicated from one computer to another, but recognition data from people about other people who clearly exist outside the computer. The data initially exists outside the computers as it is with the people, and so the combination and manipulation of the data is a technical process carried on outside the computer.

33 I think it is useful at this point to explore the context of the contribution defined above. The program combines organisational data with real-time recognition information, which may be provided from one or more employees who may be using one or more client devices distributed over a wide spatial area. There is no description of novel hardware in the application as filed and so I conclude that the computers and the networking links are conventional. There is no disclosure of new data communication protocols and so I conclude that the data communication methods within the network of computers are also conventional. The function of the system is the collection, communication, storage, manipulation and display of recognition data and organisational data across a conventional computing network.

34 The contribution encompasses the instance of combining recognition details associated with only a single recognition moment with the organisational data, and this clearly does not require a technical process or the collection of data across a wide spatial and temporal field, as has been argued.

35 However, the contribution also covers obtaining multiple real-time recognition moments collated from multiple devices and combining these with the organisational data to create a recognition graph. While this is a more complex process requiring more data processing and a network of computers, the combination and manipulation of multiple sources of data to create a useful display within a computer is exactly what conventional computer programs do. Just because the invention here does not necessarily use a single computer in its implementation does not mean that there is a technical process carried on outside "the computer". Birss J in paragraph 30 of *Lantana v Comptroller-General of Patents*[5] found that systems operating as a computer network can be considered, for the purposes of the AT&T signposts as 'the computer'. Therefore, this does not mean that any effect taking place outside a

[5] *Lantana v Comptroller-General of Patents* [2013] EWHC 2673 (Pat)

single computing device would meet the first signpost for example, the technical effect would have to be outside the computer system as a whole.

36 I agree that the recognition data sources are people who exist outside the computing network, however, the recognition data and the people themselves are not "a technical process which exists outside the computer" as required by the first *AT&T* signpost, but instead are a source or subject of data existing outside the computer. The process of the contribution is the combination of the inputted real-time recognition data with the organisational data, which process is carried out entirely within the computer network, and which is a computer program *as such*.

37 The combination of organisational data with real-time recognition details provides a clever and useful system for tracking employee contribution, but there is no technical effect outside the computer or network of computers. With no relevant technical contribution to save the invention from being more than a program for a computer as such, I find that the invention relates to subject matter excluded from being patented.

38 Although I have found that the invention is excluded from patentability by being a computer program as such, for completeness I will go on to consider the business method and presentation of information exclusions.

Business method

39 Mr Davies argued that the patent system is an economic system, which grants a monopoly right, which monopoly right is a business construct, in the hope that the monopoly right will incentivise more innovation. Simply because an invention is used in business provides no guidance as to whether an invention is a method for doing business *as such*. I agree.

40 Mr Davies drew my attention to the EPO Guidelines for assessing Inventive Step[6] as a way of separating the Business and Technical aspects of an invention, and explained that the process can be summarised as "what does the Business Person give to the Technical Person to implement?".

41 Mr Davies stated that a Business Person (likely to be an employee of an HR department) would see the flaws with the single-point-in-time feedback systems of the prior art disclosed in the application, and beyond that would give the problem to a Technical Person, to ask if they were able to overcome the limitations. The claimed technical invention would result, where the Technical Person has addressed the previous limitations in space and time, to provide a recognition system that is more complete, reliable and accurate.

42 I am not persuaded that this approach is helpful given we are concerned with patentability and I am bound by the judgments of the UK courts. However, using Mr Davies' line of argument, it seems to me that the Business Person, who is likely to be an employee of an HR department, would realise the problems with the current point-in-time feedback systems and would outline how they would prefer feedback to be gathered and displayed. The Business Person would then give this commission to

[6] EPO Guidelines for Examination Part G Chapter VII "Inventive Step", section 5.4.1 "Formulation of the objective technical problem"

the Technical Person, in this case likely to be a computer programmer. The Technical Person would hear how the HR person would like to be able to gather feedback continuously from diverse sources and then display the feedback alongside organisational information, and would then proceed to code the required programs and systems to allow this to happen. The Business Person would outline the system required and then the Technical Person would implement it. Following the scenario as I see it, the contribution realised by the invention therefore falls squarely in the business area, not the technical area.

43 Mr Davies also directed me towards the decision in *Aerotel*[7] which relates to the high-level business problem of paying for telephone calls and the solution of the problem was implemented in new arrangement of hardware. Mr Davies quoted paragraph 53 onwards. I have reproduced paragraphs 52 and 53 below:

> *52. A conventional method of making a phone call involves the caller dialling the callee's number. The call goes through a number of public exchanges with an ultimate connection to the callee. The conventional route is shown in dotted lines. A system of measuring call duration applied to appropriate rates computes the cost. If the caller has no account running from his station (e.g. is in a call box) he will have to pre-pay. The patentee's idea is to have an extra piece of equipment which he calls a "special exchange". The caller has an account with the owner of that and deposits a credit with him. The caller has a code. To make a call he calls the number of the special exchange and inputs his code and then the callee's number. If the code is verified and there is enough credit he is put through: the call will be terminated if his credit runs out.*
>
> *53. The important point to note is that the system as a whole is new. And it is new in itself, not merely because it is to be used for the business of selling phone calls. So, moving on to step two, the contribution is a new system. It is true that it could be implemented using conventional computers, but the key to it is a new physical combination of hardware. It seems to us clear that there is here more than just a method of doing business as such. That answers the third step. Finally the system is clearly technical in nature. We see no Art.52(2) objection to the claim.*

44 Mr Davies split the invention as claimed into two modules, the 'recognition data collection module' and the 'recognition graph module', and went on to argue that these software modules on conventional computers could each be considered to be a new piece of hardware. The combination of the modules could then be considered to be a new physical combination of hardware, just as the new system of *Aerotel* could be considered to be a new combination of physical hardware implemented on conventional computers. The new software modules have repurposed the conventional computers into some new arrangement of hardware.

45 The *Aerotel* decision was based upon the rerouting of telephone calls through a series of existing public exchanges of a conventional telephone system (of the time) in order to pass through a new node called the special exchange, which could be implemented by new software on a conventional computer. In *Aerotel*, both the method and apparatus for making and routing the call were new. The new hardware was slotted in to the old telephone system and changed the way the old telephone system was used. Therefore, the facts of this case differ from those of the present case, and although I have considered them carefully, I did not find them of assistance in reaching a view on the present matter. In any case I am required to

[7] Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371

treat every case on a case by case basis. As Birss J made clear in the judgment in *Lantana*[8] at paragraph 17:

> *In his argument Mr Beresford conducted a thorough review of the numerous authorities on the issue of software patenting. I do not propose to engage with that review in this judgment. The general point being made suffered from the same problem as the argument about IBM T6/86 in that it was too broadly stated.* ***Simply because it is possible to construct a generalised category which includes both the claimed invention in this case and a previous decision in which a claim was held to be patentable, does not help. It shows that such things can be patentable in some cases but does not show that the invention in this case is patentable.***

46 In my view, collecting and analysing data on the performance of employees and displaying it in a form that enables managers to identify relationships between employees and details relating to their performance, impact and potential is an administrative procedure for running a business. It may be a better way of facilitating the reward and recognition of employees in an organisation but as noted in the *Halliburton*[9] and *Merrill Lynch*[10] judgements, any improvement is immaterial because the business method exclusion is generic. After careful consideration of the arguments provided, I find that the contribution relates to a business method *as such* implemented by a computer program.

Presentation of information

47 Mr Davies submitted that the 'recognition graph module' does not provide an additional technical contribution over that of the 'recognition data collection module'. He stated that the technical contribution is the data collection and processing carried out in the recognition data collection module.

48 However, this view appears at odds with the description where the emphasis is placed firmly on how the data is interpreted and displayed as a network recognition graph. In my view, producing a recognition graph, which is based on recognition data and organisational data, is merely a visual representation of inputted data to aid a manager (or managerial body), and does not provide a technical contribution. I therefore find that the invention also relates to the presentation of information *as such*.

Saving amendments

49 I have considered the specification as a whole and whether there are any saving amendments that can be made, and find that there are not.

Conclusion

50 I find that the invention is excluded under Section 1(2) of the Act because it relates to a program for a computer *as such*, a business method *as such* and the presentation of information *as such*. I therefore refuse the application under Section 18(3).

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[8] *Lantana v Comptroller-General of Patents* [2013] EWHC 2673 (Pat)
[9] Halliburton Energy Services Inc.'s Applications [2012] RPC 129, paragraph 35
[10] Merrill Lynch's Application [1989] RPC 561 (page 569 lines 12-18)

Appeal

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

MRS S E CHALMERS

Deputy Director, acting for the Comptroller