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For Creativity and Innovation

BL O/213/08

28th July 2008

PATENTS ACT 1977

APPLICANT CVON Innovations Ltd

ISSUE Whether patent application number GB 0704837.4 complies with section 1(2)

HEARING OFFICER P Marchant

DECISION

1 Patent application number GB 0704837.4 entitled "A method for ranking search results", was filed on 13 March 2007 claiming priority from an earlier PCT application PCT/FI2007/050125.

2 The application concerns the ranking of Internet search results, particularly in the context of mobile phone access to Internet content with content providers paying to improve their position in the ranking of search results.

3 The examiner objected in his examination reports of 18 September 2007 and 21 February 2008 that the subject matter of the application was excluded from patentability because it consists of a computer program and/or a method for doing business. The applicant's attorney argued to the contrary in a letter dated 18 January 2008, maintaining that the search results were ranked in accordance with the amount of data to be transmitted and an amount of resource allocated by the content provider which could be a network resource, and she considered this to be a technical activity.

4 The examiner and the applicant were unable to resolve the issue, and the matter came before me at a hearing on 19 June 2008 at which the applicant was represented by patent attorneys Dr Heather McCann and Mr Chris Price.

The Invention

5 New claims in the form of a "main request" and an "auxiliary request" were filed for consideration shortly before the hearing. Claim 1 of the main request reads:

> *1. A method of generating and transmitting a search results list for receipt by a user terminal in a data communications network in response to a search request received from said terminal via said data communications*

network, the request comprising one or more search terms, said search terms corresponding to data held in a storage system arranged to store a plurality of search listings, search terms, and ranking criteria, wherein each search listing is associated with a network location providing access to a set of data, the method comprising:

receiving a search request from a user terminal; and

accessing the storage system so as to identify search listings associated with search terms generating a match with the received search request, and for each of a plurality of identified search listings:

retrieving data indicative of a first ranking criterion and a network location corresponding to a matched search term, the network location providing access to a set of data corresponding to the matched search term; and

generating a second ranking criterion in dependence on the first ranking criterion and an amount of data associated with the set of data accessible via the network location,

the method further comprising ordering said plurality of identified search listings into a search results list in accordance with values corresponding to respective second ranking criteria for the identified search listings; and

transmitting data indicative of the ordered search result list for receipt by the user terminal, said transmitted data comprising a plurality of selectable links, each corresponding to a said network location.

6 Claim 16 claims a data communications system corresponding to the method of claim 1. Other claims are dependent on claims 1 and 16 and import further limitations. The claims in the auxiliary request are the same as those in the main request except that the words “for receipt by” in the first line of claims 1 and 16 of the main request are substituted with the word “to” in the auxiliary request.

7 There is a question whether the replacement of the words “first bid amount” in the original versions of the independent claims by “ranking criteria” involves added subject matter contrary to section 76 of the Act. I have not decided this point here but have based my determination of the excluded matter issue on my understanding of the original teaching of the specification.

8 The purpose of the invention is to provide a system for the ranking of internet search results returned when searches are performed on mobile phones or other wireless connected terminals. Wireless connection involves costs which would normally be borne by the user. The invention contemplates the content provider subsidising or paying all of the cost as a quid pro quo to promoting their content up the ranking of search listings returned to the user.

9 In the example given in figure 9 of the specification, the mobile user searches for “Hotels London”. Three content providers are prepared to contribute towards the cost of providing their information over the wireless link. Hotel 1 wishes to send 3Mb of data and is prepared to pay 5 Euros. Hotel 2 will send 4 Mb and pay 4€, while hotel 3 will send 0.5 Mb and pay 1€. It costs the network provider 1.1€ per Mb to send the data to the user, so it is profitable to send hotel 1 and hotel 3 data free. These results can be promoted up the search result ranking and offered to the user free of charge. Hotel 2’s results can be promoted to a lower ranking

position and offered as subsidised. The results of other hotels which do not provide any subsidy will be listed at a still lower ranking.

The Law

10 The provisions in the Act relating to excluded matter are set out in section 1(2) which reads:

> *(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.*

11 These provisions are based on and are equivalent in their effect to those in Article 52(2) of the European Patent Convention. This area of the law was considered comprehensively by the Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan's Application* [2006] EWCA Civ 1371, [2007] RPC 7. That judgment established a four-step test for the assessment of patentability, namely:

a) Properly construe the claim

b) Identify the actual contribution (or, per paragraph 44 of the judgment, the alleged contribution will do at the application stage)

c) Ask whether it falls solely within the excluded subject matter

d) Check whether the actual or alleged contribution is actually technical in nature.

12 Paragraph 46 of the judgment adds that the fourth step may not be necessary because the third step may already have covered the point.

13 Dr McCann mentioned also *Symbian Ltd v Comptroller General of Patents* [2008] EWHC 518 (Pat) and *Shopalotto.com Limited's Application* [2005] EWHC 2416 (Pat) to highlight the requirement, in order for an invention to lie outside the excluded items, for it to involve some technical attribute over and above the normal running of a program on a computer, and to point out that in her view the present invention involved the necessary attributes.

Discussion

14 Applying the first step of the *Aerotel* test, I consider that the scopes of claims 1 and 16 of both the main and auxiliary proposed claims can be understood without difficulty from their wording.

15 The second step is to identify the contribution. As Jacob LJ put it in paragraph 43 of his judgment, this can best be summed up by asking: "what has the inventor really added to human knowledge". In her letter of 18 January 2008 Dr McCann identified the contribution as: "generation and output of search results, the ordering of which is based on a bid amount and an amount of data associated with individual search results". At the hearing Dr McCann resiled from the characterisation of payment by content providers as "bids" and preferred to identify them as "resources" since she contended that technical resources might be put in play by service providers as an alternative to financial ones. I discuss that point below but shall bear in mind, without for the moment deciding whether this would be a legitimate generalization proceeding from the content of the specification, that Dr McCann might prefer some broader wording than "bid" in this definition.

16 I think Dr McCann's definition focuses too narrowly on the mechanism and not sufficiently on the context. In my view the contribution consists of an arrangement, operating within an environment consisting of the provision of Internet[1] search results and content to mobile users, for allowing content providers to pay towards the cost of providing data to mobile users, taking into account the value offered and the amount of data to be transmitted, in order to promote the ranking of their content in search listings. This contribution applies to the claims of the auxiliary request equally to those of the main request.

17 Considering the third *Aerotel* step, whether the contribution falls solely within excluded matter, Dr McCann argued that the system of the invention did not (or perhaps did not necessarily, or did not only) relate to an economic transaction, in that, as described in the specification, the content provider instead of offering money could offer network resources, as indeed is described in the specification. She said furthermore that "network resources" could include the offer of for example "quality of service" which was not an economic factor. In addition, the ranking of content offerings was dependent on the quantity of data to be transmitted. Looking at the transaction in this way, she argued, it constitutes a

[1] The claims are not limited to Internet implementations but I use that as shorthand to refer to the Internet type networks specified in the claims.

technical activity rather than an economic one.

18 I observe that even if the invention can be construed as including non-economic embodiments, as this argument asserts, it certainly also includes purely economic ones, since that is clearly the main thrust of the disclosure. It seems to me prima facie that purely economic arrangements falling within the claims would be excluded as business methods and Dr McCann did not advance any arguments to suggest that any such non-technical embodiment could be brought within the requirements of s1(2). That being the case, the present claims would in any case be unpatentable as they would include arrangements consisting of business methods within their scope. In considering the arguments advanced as to the possibility of a technical interpretation therefore I am addressing the argument that there may be a disclosure relating to such a technical aspect and that if that is the case, it may be possible to draft claims restricted to such a technical aspect alone.

19 Looking at the argument as to a non-economic interpretation then, I am not convinced by the proposition relating to "quality of service". We discussed it at some length at the hearing but I'm not sure that I got to the bottom of Dr McCann's argument. However, in the end I don't think the detail matters; the point of the argument was to suggest that instead of the content provider offering money, or network resources value equivalent to money, to pay for its promotion in the ranking, the system could instead operate by the content provider offering some network resource in a capacity *other than* its financial value. I do not find that such an arrangement is disclosed in the specification. Where the specification refers to network resources, it clearly intends them to be offered as a proxy for money, either such that the content provider pays, or that it bears the cost in network resources to avoid the network provider having to pay. The whole basis of the disclosure is that money, or the equivalent network resource value, is exchanged for an advantage in ranking. There is no doubt in my mind that the teaching of the specification is that the content provider pays, in whatever currency, for the opportunity to have its content promoted in the search listings.

20 The other limb of the argument was that the quantity of data to be transmitted forms part of the calculation as to ranking. I understand that to be the case, but the purpose is not to manage data flow, as was implied by Dr McCann's argument, and in particular not to allow users to select low data content search results, but is necessary rather to arrive at the cost of transmitting a particular content provider's information. If the data is charged at so much per Mb, and the content provider wants to transmit X Mb and has offered Y Euros, a calculation involving the amount of data is required in order to determine how much profit can be made by sending that data. According to the disclosure, such calculations are done in relation to all content providers and those that would provide more profit are promoted ahead of others.

21 There is no direct relationship between the quantity of data associated with the offering of a content provider and their position in the ranking. Any such relationship that arises from data quantity will be disrupted by the different amounts of money bid by the different content providers. That can be seen from the examples in the specification. Consequently the user would not be able to draw any conclusion about the data quantity associated with any content offering

from its position in the ranking, as was suggested by Dr McCann's argument. It is apparent that the relevance of data quantity, as described, arises only in relation to economic issues, not technical ones.

22 I consequently conclude that the operation of this system as described is purely in the economic sphere. I can find no technical aspect in the factors discussed by Dr McCann at the hearing. I consider that the invention as claimed falls squarely within the business method exclusion of section 1(2) of the Act and that there is no scope for amendment of the claims to limit them to non-economic aspects.

23 I do not need to apply the fourth step of the *Aerotel* test since I have already considered the point as part of step 3.

24 Ms McCann also argued that the system effectively provides a new kind of information to the user in the form of content results ranked in a particular order. That is of value to them because they are able to see what results they can have free of charge, which ones will be subsidised and which ones will cost them the full price to receive. That is not what is currently claimed but I will consider the point in case it is something that could give rise to an allowable claim. I take the *Aerotel* contribution in this respect to be as I have just set out above. While the arrangement may provide the user with new information, it seems to me that that information relates solely to the cost of accessing the information provided by different content providers resulting from an Internet search. That information arises partly from the quantity of data to be transmitted but primarily from the degree to which the content provider is prepared to subsidise the transaction. It seems to me that this aspect too, falls within the business method exclusion and is consequently excluded form patentability. Again I do not need to consider the technical content of this aspect of the invention separately as I have already done so in my discussion above.

Summary

25 I have found that the present claims and those proposed as auxiliary requests are excluded from patentability because they relate to a method for doing business as such, contrary to section 1(2)(c) of the Act. I have considered the further possibility that a patentable invention may lie in the provision of new information to the user, but have found that too to be excluded as a method for doing business. I can find no further disclosure in the specification upon which patentable claims might be based. I therefore refuse the application under section 18(3) of the Act for failure to comply with section 1(2).

Appeal

26 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days. In the event of a successful appeal it would be necessary for the examiner to address the question of added subject matter I refer to in paragraph 7 above.

P MARCHANT
Deputy Director acting for the Comptroller