BL O/331/05

21st December 2005

PATENTS ACT 1977

APPLICANT Overture Services Inc.

ISSUE Whether patent application GB 2 379 062 A relates to a patentable invention

HEARING OFFICER Stephen Probert

DECISION

Introduction

1 Patent application GB 0224320.2 entitled "Information retrieval system and method employing spatially selective features" was filed on 11th February 2002. The application is proceeding in the name of Overture Services Inc. It claims priority from a Canadian application that was filed on 9th February 2001. The application was published by WIPO as WO 02/065331 A2 on 22nd August 2002, and the front page was re-printed by the UK Office on 26th February 2003 with the serial number GB 2 379 062 A.

2 During the course of substantive examination in the UK Patent Office, the examiner reported that the application relates to a scheme, rule or method for performing a mental act or doing business, or a program for a computer, as such. Other objections were also raised, on the grounds that the claims lacked clarity, novelty and/or inventive step, and also (initially) that the application relates to the presentation of information.

3 The novelty and inventive step objections have been put to one side in view of the potentially fatal objection that the application does not relate to a patentable invention. In his third examination report, the examiner focussed his objections on the computer program and mental act exclusions. He observed that it was unlikely that further correspondence would resolve the issue, and invited the applicant to request a hearing. The applicant agreed, and requested that a hearing be appointed. The matter therefore came before me at a hearing on 19th September 2005, at which the applicant was represented by Mr Geoffrey Dallimore of Boult Wade Tennant.

4 Shortly after the hearing, two new judgments[1] were handed down by the courts which might possibly have had a bearing on the issues in this case. I have therefore delayed making a decision in this case for a few extra weeks in order to give the applicant an

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[1] *Shopalotto.com Ltd's Application* [2005] EWHC 2146 (Pat) and *Cecil Lloyd Crawford's Application* [2005] EWHC 2417 (Pat).

opportunity to consider these judgments and make further submissions if they wished. I received further submissions in writing from Mr Dallimore on 12 December 2005, and I have taken these into account in making my decision.

The Invention

5 The invention concerns a search engine for searching "geo-coded" records in a database. A person using such a search engine is able to specify a geo-spatial search range as a limitation on the field of search, so that for example, it is possible to search for a pizza store within (say) 10 miles of the user's address. The particular advance over the prior art arrangements provided by this invention is that if no results are found within the specified geo-spatial range, the search engine automatically extends the range until a certain number of results are found. In other words, rather than the user being informed that there are no pizza stores within 10 miles, he or she is presented with a list of the nearest ten pizza stores, albeit they would all be more than 10 miles away.

6 Claim 1, as amended, reads as follows:

> 1. An information retrieval method, comprising:
> storing geo-coded records in a database;
> receiving a search location, a search request, and a geo-spatial search range;
> locating search results within the geo-spatial search range from the set of the geo-coded records relevant to the search request;
> if no search results are located in the geo-spatial search range, automatically determining a geo-spatial distance from the search location needed to locate a specified number of search results from a set of geo-coded records relevant to the search request and extending the geo-spatial search range to the determined geo-spatial distance; and
> retrieving the specified number of search results.

7 There is one other independent claim, claim 9, that defines the same invention in terms of an information retrieval system. The only other claim of any significance to my decision is claim 6, for reasons which I shall explain towards the end of this decision. It reads as follows:

> 6. The method of any preceding claim, wherein each geo-coded record includes a range attribute defining a range beyond a standard search area availability of the geo-coded record within which such a record may be located and retrieved.

8 Mr Dallimore described the variation of claim 6 in terms of a map. A geo-coded record in the database would normally have just a longitude and latitude value — ie. a single point on a map. The geo-spatial search range is gradually extended from the centre of the search like an expanding circle, in order to find the required number of results. If the expanding circle passes a point representing a geo-coded record in the database, then that record is added to the list of search results. What claim 6 then adds is the concept of an area (typically a circle) associated with certain geo-coded records in the database. If the expanding circle of the search range intercepts any part of the area

associated with a record, rather than just passing a point, then that record is included in the list of search results.

9 The specification suggests that this might be useful where, for instance, a florist is willing to deliver flowers to anyone within a 50 km radius of his/her shop. If a potential customer was 35 km away, and searching for florists within a 10 km radius, then without the refinement defined in claim 6, the florist would not appear in the list of search results.

The Law

10 The examiner has reported that the application relates to a scheme, rule or method for performing a mental act, and a program for a computer as such. This objection is based on section 1(2) of the Act, the essential parts of which are shown in bold below:

> **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.**

11 Although he was also keen to present his case along the lines of the old "technical contribution" test that was established in *Fujitsu* [2], Mr Dallimore recognised that the Patents Court has recently provided some helpful guidance explaining how this section of the Act should be interpreted in the *CFPH* case [3]. He agreed that the appropriate test is the two stage test set out by the deputy judge in *CFPH*. That is:

> (1) Identify what is the advance in the art that is said to be new and not obvious (and susceptible of industrial application).
>
> (2) Determine whether it is both new and not obvious (and susceptible of industrial application) under the description "an invention" in the sense of Article 52 of the European Patent Convention (EPC) — broadly corresponding to section 1 of the Patents Act 1977.

12 In his written submissions, Mr Dallimore referred to the more recent judgments in *Shopalotto.com* [1] and *Crawford* [1]. He argued that these judgments, together with the judgment in *CFPH*, all affirm the reasoning in the 1997 judgment of the Court of Appeal in *Fujitsu*. Mr Dallimore added:

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[2] *Fujitsu Limited's Application* [1997] RPC 14.

[3] *CFPH LLC's Application* [2005] EWHC 1589 Pat.

> "Despite small variations in approach, Mr Justice Kitchen, in the Cecil Lloyd Crawford judgment, went as far as saying that he did not believe the approach in CFPH's application to be inconsistent with the decision of [the] Court of Appeal in Fujitsu."

13 I struggle somewhat to see how these judgments can be reconciled with each other quite so easily. It may be that in general terms they are indeed pointing in the same direction, but that when one is forced to look at the facts of a specific case near the borderline, the subtle differences between these judgments assume greater significance. In any event, I take some comfort from the fact that if I follow the guidance given in *CFPH* (as I intend to do), then I am not departing in substance from the decision of the Court of Appeal in *Fujitsu*.

Mr Dallimore's submissions

14 Mr Dallimore took as his starting point the fact that the invention relates to an improvement in the field of search engines. He submitted that it was quite clear that search engines and methods of searching databases are technical things. It was, he suggested, natural to place them in the "technical" category.

15 As far as the first part of the two step test is concerned, Mr Dallimore very helpfully identified "the advance in the art that is said to be new and not obvious" as follows:

> "If no search results are located in the geo-spatial search range, automatically determining a geo-spatial distance from the search location needed to locate a specified number of search results from a set of geo-coded records relevant to the search request and extending the geo-spatial search range to the determined geo-spatial distance."

16 Mr Dallimore submitted that this invention reduces the amount of effort that a searcher has to put into performing a search. It was, he said, improving efficiency, improving speed, and reducing the amount of internet traffic (because only a single search request has to be sent and only a single set of results has to be returned).

17 Nevertheless, Mr Dallimore conceded that the description of the invention makes it clear that the invention is intended to be implemented entirely using computers. But as he added (correctly in my view), that does not automatically result in his application being refused. The crucial question, it seemed to me, was whether this application relates to a program for a computer as such. Obviously Mr Dallimore thought that it did not. With this question at the back of my mind, I asked Mr Dallimore to comment on one paragraph in particular from the judgment in *CFPH* — paragraph 103, where the deputy judge refers to the policy reasons behind the computer program exclusion (the so-called teleological approach).

18 This paragraph (103) says that:

> 103. **It was the policy of the "computer program" exclusion that computer programs, as such, could not be foreclosed to the public under patent law.** (Copyright law is another matter.) They would be foreclosed if it was possible to patent a computer when running under the instructions of the program, for example, or magnetic disk when storing the program. (My emphasis)

19 If computer programs as such are not to be foreclosed to the public, then it follows that the Patent Office must not grant a patent application if the only things foreclosed by the claims of that patent are computer programs as such. On the other hand, if the scope of the claims encompasses territory beyond the realm of computer programs, then either the claims cannot be said to relate to computer programs ***as such***, or at least, they do not relate *only* to computer programs as such. (In this latter case, the true extent of the monopoly defined by the claim must presumably be interpreted in the light of the computer program exclusion.)

20 This view seems to me to be reinforced by the opening sentence of the next paragraph of *CFPH*, which reads:

> 104. But the mere fact that a claimed artefact includes a computer program, or that a claimed process uses a computer program, does not establish, in and of itself, that the patent would foreclose the use of a computer program.

21 Having read the claims of the present application, it appears to me that they would foreclose computer programs to the public. Moreover, I cannot see that the claims would foreclose anything other than computer programs in practice. Mr Dallimore agreed with me that the claims (if granted) would stop someone from producing, selling, distributing and/or using a computer program. That is not to say that he agreed with my understanding of what the deputy judge said in *CFPH*. He most certainly did not. In particular he did not agree with my reasoning as set out in paragraph 19 above, or the consequences of that reasoning when applied to the facts of this case.

22 As Mr Dallimore expressed it, that could not be what the deputy judge meant because otherwise no computer-implemented invention would be patentable. Mr Dallimore's submission on this point would have been more persuasive if it were not for the very next sentence in paragraph 104 of *CFPH* which provides two concrete examples of computer implemented inventions that the deputy judge considered ought, in principle, to be patentable — ie. the automatic pilot of an aircraft and an industrial process for making canned soup.

23 What these two examples have in common is that while they both rely to some extent on computer programs for their implementation, in neither case can "the invention" be said to be a computer program as such. They are both examples of computer programs being used to control something physical or tangible in the real world; that is to say, something other than the computer that executes the computer program. In both of these examples, the computer program is merely a tool that is used because it is the most convenient means for implementing various parts of the invention. The deputy judge in *CFPH* contrasts these examples with a situation where the computer program is more than just a mere tool — ie. when the invention ***is*** the computer program itself. Clearly if the invention ***is*** the computer program itself, then it is a computer program as such, and is unpatentable.

24 In his written submissions, Mr Dallimore challenged the reasons given by the deputy judge in *CFPH* for the computer program exclusion. He drew my attention to a paper

written by Dr Justine Pila [4]. Mr Dallimore submitted that this paper presents a balanced summary of the history behind the various exclusions in the EPC and the UK Patents Act, and supports the view that the exclusion of computer programs from patentability was originally intended to be only a narrow restriction, at a time when patent offices in Europe were not equipped to search prior art concerning computer programs.

25 The paper also suggests that when the EPC was being negotiated, the UK argued strongly in favour of the proposed exclusion of computer programs, supporting its argument with a definition of computer programs as "non-inventive mathematical methods". According to Mr Dallimore, this paper gives a useful insight into the intentions of the framers of the EPC, and in particular what they understood by the term "computer programs". However, I have to say that while the computer program exclusion made it into the final text of the EPC, the definition (ie. non-inventive mathematical methods) did not, apparently because it was felt that it would "tie the hands of the [EPO] and of the national courts".

26 Mr Dallimore also submitted that Dr Pila's paper shows throughout that the framers of the EPC deliberately rejected the possibility of fixing definitions of terms such as 'invention' and 'computer program', preferring to leave these concepts sufficiently flexible to adapt to future scientific and technical developments. Quoting from Mr Dallimore's written submissions, he goes on to say:

> "It was therefore decided to leave it to the courts to determine the precise extent of the exclusions as technology develops. This overarching theme of the travaux preparatoires perhaps suggests that a purposive construction of the exclusions is actually wholly undesirable, particularly in light of the leaps and bounds that have been made in computer program technology since 1971. Instead, far more weight should be placed on the jurisprudence of the UK courts, while also taking appropriate guidance from the case law of the Boards of Appeal of the EPO."

27 In fairness to Mr Dallimore these are well presented arguments, but they are not arguments that I can easily accept without completely disregarding the authority of the Patent Court — something I am not prepared to do.

28 In the present case, whichever way I look at it, I keep coming back to the fact that the invention in this case is a computer program; a computer program and nothing more. Mr Dallimore stressed on several occasions that the invention is a search engine; a term deliberately chosen to emphasise the technical nature of the invention. Not that I needed to be persuaded that search engines are technical in nature. But the fact remains that a search engine is a computer program that is used for searching data, eg. in databases or on the World Wide Web. I do not think it sits comfortably with the examples of computer-implemented inventions that *CFPH* says ought, in principle, to be patentable.

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[4]Entitled "Article 52(2) of the Convention on the Grant of European Patents: What did the framers intend? A study of the travaux preparatoires".

29 For example, the computer program in this invention is not being used as a tool (or part of a tool) to control something in the real world. The invention is entirely self-contained within the computer program. If computers did not exist, then this invention would have no raison d'être. It would not be simply a matter of looking for an alternative means of providing the control functions (eg. such as the little man in *CFPH* [5]). All of which leads me to conclude that the invention described and claimed in this application is a program for a computer as such.

30 Picking up the two stage test from *CFPH* (see paragraph 11 above), I am content to accept Mr Dallimore's suggestion (précised here for convenience) in respect of the advance in the art that is said to be new and not obvious. So, if the field of the invention is taken to be search engines that are geared to find results within a specified geo-spatial search range, then the 'advance' in the art is the teaching that if no search results are located in the original geo-spatial search range, then that range is automatically extended as necessary to locate a specified number of search results.

31 The second part of the two stage test requires me to determine whether this said advance is both new and not obvious (and susceptible of industrial application) under the description "an invention" in the sense of Article 52 of the European Patent Convention (EPC).

32 As I have indicated near the beginning of this decision, there remains an objection against this application that it does not involve an inventive step. That objection, which arises under section 1(1)(b), has been put to one side. However, for the purposes of considering the second part of the two stage test from *CFPH*, I am considering the advance that is ***said*** to be new and not obvious. Mr Dallimore, on behalf of the applicant, has identified the advance that he ***says*** is new and not obvious.

33 Therefore it seems to me that, for the purposes of applying the two stage test, I should assume that the advance is new and not obvious. What I have to decide is whether the novelty and inventive step of the said advance fit within (or under) the description 'an invention'. In order to do this, I do not think I need to determine whether the invention as described and claimed in this application falls squarely within one or more of the excluded categories of invention. According to *CFPH*, the various categories of excluded items are not intended to form the basis of specific objections to patentability in themselves. Rather they are provided as a means of telling us what an 'invention' is not. As the deputy judge put it in *CFPH*:

> 18. Therefore, in telling us about patentable inventions the Patents Act 1977 does not try to define what is an 'invention'. Instead, it contains a list of things that are *not* inventions.

34 This distinction may be important because although I have already concluded that the invention is a program for a computer as such, there are aspects of the invention that could equally well be described as a mental act or possibly even a method for doing business. For example, if someone were to ask me whether there was a postbox in my

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[5] *CFPH* - see paragraph 104

road, I would say “No, there isn’t”. But I cannot imagine many situations where I would not go on immediately to add, “... but there is one just around the corner on the main road”.

35 Similarly, if I was in the business of helping people to find things (as the operators of search engines undoubtedly are), it would not make very good business sense to return a nil result. It would be much better to offer my customers the next best thing if I cannot give them exactly what they have requested. I believe most people “in business” would regard this as plain common sense.

36 I do not mean to imply that the invention in this application is as simple as these examples might suggest. The inventors have added a new and very helpful function to a search engine. I have no doubt that this involved a lot of effort and considerable skill. But after giving the matter careful thought, I have decided that this advance in the field of search engines is not new and inventive under the description “an invention” in the sense of Article 52 (EPC). Rather, the new and inventive element(s) of the invention all lie outside this description, in fields that are not inventions for the purposes of patent law.

37 In the event that I reached this conclusion in relation to the invention as defined in claim 1, Mr Dallimore asked me to give further consideration to the particular variation defined in claim 6. I think I can understand why Mr Dallimore drew my attention to claim 6. As described above, claim 6 introduces the additional concept of regarding an entry in the field of search as being associated with a geographically significant *range*, rather than being just *a single point* on a map. I can readily accept that it is different to the invention in claim 1, but it seems to me that the difference, at best, is another invention outside the description “an invention” in the sense of Article 52 (EPC). The motivation for providing such a refinement in a search engine appears to be the potential business advantage that it provides in terms of a better service to customers. Therefore I do not consider that the variation defined in claim 6 is any more patentable than the invention in claim 1.

Conclusion

38 I have decided that the advance in the art that is said in this application to be new and not obvious (and susceptible of industrial application) does not satisfy these criteria under the description “an invention”. I have read the whole application carefully, and I cannot see any amendment that would overcome this deficiency. Consequently I refuse this application under section 18 on the grounds that the advance it describes and claims as an invention does not satisfy the requirements of section 1.

Appeal

39 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days of the receipt of this decision.

S J PROBERT
Deputy Director acting for the Comptroller