BL O/241/08

15 August 2008

PATENTS ACT 1977

APPLICANT   CVON Innovations Limited

ISSUE   Whether patent application number GB
                        0707711.8 complies with section 1(2)

HEARING OFFICER   J E Porter

DECISION

Introduction

1   Patent application number GB 0707711.8 entitled "Message Modification System and Method" was filed in the name of CVON Innovations Limited on 20 April 2007, claiming priority from GB 0623571.7 filed on 27 November 2006. It was published on 9 July 2008 as GB 2 445 429 A.

2   Despite correspondence between the examiner and the applicant, and amendment of the claims during the substantive examination process, the applicant has been unable to persuade the examiner that the claimed invention is not excluded from patentability under section 1(2) of the Act.

3   The applicant therefore requested to be heard, and the matter came before me at a hearing on 19 June 2008. The applicant was represented by Ms. Heather McCann and Mr Chris Price of the firm EIP, who were assisted by the inventor Mr Janne Aaltonen and also Mr Sami Saru, both of CVON Innovations Limited. The examiner, Mr. Jared Stokes, also attended.

4   The hearing was in respect of the application in suit, and also the priority application GB 0623571.7. A separate decision (BL O/240/08) has been issued in respect of that earlier application.

The invention

5   The invention lies in the field of mobile telecommunications systems, and is concerned with users who subscribe to a communications network, and who send and receive messages over that network. It is also concerned with the fact that users may be members of one or more "groups" – such as an on-line discussion forum, club or society websites, or other such communities. In

particular, the invention concerns a system which modifies the messages sent between particular users on the basis of those users' membership of particular groups. The modification to the messages may, for example, be the addition of an advertisement or other promotional information relevant to the group membership of the sender or recipient.

6   The latest set of claims, which were filed on 18 June 2008 for consideration at the hearing, comprise four independent claims: 1, 9, 16 and 17.

7   Claim 1 relates to a messaging system in a data communications network, and reads:

> *A messaging system for processing messages transmitted between user terminals through a data communications network, the messages including transmission data identifying a sending party and a receiving party of said message and a message body identifying content thereof, at least part of which is specified by the sending party,*
>
> *wherein the messaging system comprises data storage means arranged to hold group records identifying messaging parties as members of one or more groups,*
>
> *wherein, responsive to receipt of a said message from a user terminal, the messaging system is arranged to:*
>
>> *identify, from the transmission data, a sending party and a receiving party of said message;*
>>
>> *identify, from said group records, a group of which the receiving party is a member; and*
>>
>> *determine, from said group records, whether the sending party is a member of said group identified from said group records, and*
>
> *wherein, responsive to said determination, the messaging system is arranged to:*
>
>> *modify the message on the basis of the group identified from said group records; and*
>>
>> *transmit the modified message to a user terminal associated with the receiving party via the data communications network in accordance with the transmission data,*
>
> *wherein, in response to said determination and in the case of determining that the sending party is not a member of the group identified from said group records, the messaging system is further arranged to:*
>
>> *generate a further [data] message, different to the modified message; and*
>>
>> *transmit the further message to a user terminal associated with the*

> *sending party via the data communications network in accordance with the transmission data.*

8 The word "data" shown in square brackets was said at the hearing to be a drafting error. It does not appear at the equivalent point in claim 9, which is a similarly-worded claim to a method of processing messages. Claim 16 is a claim to a computer program or programs adapted to perform the method of claim 9, and claim 17 is a claim to a computer-readable medium containing the program(s) of claim 16.

The law

9 Section 1(2) of the Act declares that certain things are not inventions for the purposes of the Act, as follows:

> *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.*

10 The examiner and the applicant agree that the assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan's Application* [2006] EWCA Civ 1371, [2007] RPC 7 ("*Aerotel*"). In this judgment, the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of what is often called "excluded matter", as follows:

> Step 1: properly construe the claim
>
> Step 2: identify the actual contribution (although at the application stage this might have to be the alleged contribution)
>
> Step 3: ask whether it falls solely within the excluded matter
>
> Step 4: check whether the actual or alleged contribution is actually technical in nature.

11 At the hearing, Ms McCann also made some points in relation to the judgment of

the Patents Court in *CFPH LLC's Applications* [2005] EWHC 1589 (Pat), [2006] RPC 5 ("*CFPH*") and in relation to passages in *Symbian Ltd's Application* [2008] EWHC 518 (Pat) ("*Symbian*") which refer to the judgment of the Patents Court in *Shoppalotto.com Ltd's Application* [2005] EWHC 2416 (Pat), [2006] RPC 7 ("*Shoppalotto*"). I refer to these points again below.

Arguments and analysis

12 Despite the correspondence between the applicant and the examiner, and amendment of the claims, the examiner maintained that the claims (in the form in which they existed when he last examined them) defined an invention which related solely to a program for a computer and a method for doing business. His position is restated and clarified in his letter of 9 May 2008.

13 What I must do is determine whether the claims, as they now stand, relate solely to excluded subject matter.

Construing the claims

14 Claim construction was dealt with fairly briefly at the hearing, and in my view there is no great difficulty. The independent claims relate to a data communications network messaging system and method in which the sending and receiving parties of a message are identified, group membership of the parties is ascertained from group records, and then used as a basis for sending a modified message to the receiving party's terminal and (in certain circumstances) sending a further message back to the sending party's terminal.

15 This involves storing the group records and using them to identify a group of which the receiving party is a member. The message is modified on the basis of that group membership and then transmitted to the receiving party's terminal. The records are also used to identify whether the sending party is a member of the same group. If they are not, then a different message is generated and transmitted to the sending party's terminal.

Identifying the contribution

16 In paragraph 43 of *Aerotel*, it is made clear that identifying the contribution is probably best summed up as determining what the inventor has really added to human knowledge, and this involves looking at the substance and not the form of the claims (as construed in step one).

17 Ms McCann discussed at the hearing the contributions which she argued were made by the invention. This discussion was prefaced by a more general discussion by Mr Aaltonen on the technical background to the invention and the advantages of the system.

18 Ms McCann contended that what was different and not known in respect of the invention, and therefore what she considered to form the contribution, was:

> "modifying a message on the basis of a group that is stored, and generating a further message in response to determining that the sending party is not a member of the group of which the receiving party is a member and sending

that message to the sending party of the initial message."

19 The search conducted by the examiner under section 17 revealed prior art documents which, in the examiner's view, show that the idea of modifying messages based on the profiles of users is known. Ms McCann conceded that modifying messages on the basis of profile information is known but at the hearing both Ms McCann and Mr Price argued that there were differences between modification of a message based on a user profile as shown in the prior art, and modification of a message based on a group record. As I understood it, their argument was based on two points, which I shall deal with separately.

20 The first point was that the cited documents are concerned with message modification based on user profiles held within the messaging system. By distinction, message modification in the claimed invention is based on membership of groups which, as Mr Price said, "are pre-existing and independent of this particular service from which the profile information is derived".

21 Looking at the claims and the description, it is clear that the "group records" are records held by the messaging system which, amongst other things, identify the messaging parties as being members of one or more groups. And it is clear from the description that these groups may comprise online or virtual communities as well as real communities (clubs, committees, etc) which in either case are, as Mr Price argued, independent of the messaging service. So, although the groups are indeed external to the messaging service, the records which are kept in connection with group membership are kept by and as a part of the messaging service. And it is on the basis of these records that the messages are modified.

22 In this respect, I can discern no material difference with the arrangement described in, for example, WO 2004/100470 A1, published on 18 November 2004. This makes clear that SMS or MMS messages are modified by selecting content to be added to the message. The selection of that content is based upon stored data relating to "personal characteristics" held within the messaging system – such as data relating to age or occupation or areas of interest (the examples given being types of music, football or types of drink).

23 In relation specifically to identifying the contribution, I do not think it is material that the examples of personal characteristics in the prior art relate to, for example, an interest in football rather than, for example, membership of a particular football supporters' club. Both are examples of data concerning the personal characteristic or interest of a subscriber which may be stored in the messaging system, and on which message modification is based. In other words, if the prior art teaches that messages may be modified based on data saying "I'm interested in football", then to my mind there is nothing materially new in modifying messages based on data which says instead "I support club A" or "I am a member of club A's supporters' club".

24 The second point made was that there is a difference between using individual profiles containing information about each user, and using group records containing information about which users are in a particular group. As Ms McCann explained:

> "they cluster subscribers into groups [which] actually acts as a short cut in relation to the search space. So what you do is, you look up the groups first to see whether or not the recipient is part of that group, and you therefore significantly reduce…where you are actually looking. You focus the search. So the actual time, the latency, involved in finding a profile to use to modify the message is consequently reduced, because you are looking at the sender and receiver in relation to a particular group"

> or, as she put it later

> "you are looking out just for groups that the sender and receivers are members of rather than their entire profiles to work out concordance, in the way that is done in the prior art."

25   In considering this argument I must take care not to stray from the wording of the claims as interpreted in light of the description. In this respect, I note that the description refers to "a subscriber record" being completed and/or updated for a particular subscriber and stored in a database DB1. As is explained on page 8:

> "The database is configured so that…any details relating to a group held on the database may be retrieved by selecting the appropriate group, and any details relating to a particular subscriber held in the database may be retrieved by selecting the appropriate subscriber."

This would seem to be referring to the conventional ability to interrogate a database on the basis of any one of its particular fields – one of the key functionalities of any database.

26   Subsequently, on page 15, it is explained that:

> "the selecting software 401 identifies sender and/or recipient information from an incoming message and selects, by accessing the database DB1, the respective group membership(s)….On the basis of the group memberships, the selecting software 401 identifies and processes one or more applicable rules…in order to…determine how to modify the incoming message"

27   Independent claims 1 and 9 refer to group records simply as records "identifying messaging parties as members of one or more groups". Taking this together with the relevant parts of the description, it seems to me that the "group records" as claimed are data records which contain the necessary information to discern group membership of the sending and receiving parties. And the messages are modified on the basis of that information. I don't think there is any more to be gleaned from the description and claims than that.

28   Turning back to the cited documents, these discuss the modification of messages by selecting content to be added to the message. Again, looking for example at WO 2004/100470, the selection of that content is based upon stored data contained in a database of user profile information within which are various fields for recording various characteristics, interests, etc. I have already said that I can see no material distinction between having a data record which records an

interest in football and one which records membership of a particular football supporters' club. It follows that I can see no distinction between this disclosure and the claimed feature (as I have construed it) of modifying a message based on data records which contain the necessary information to discern group membership of the sending and receiving parties.

29   Taking all these strands together, and having carefully considered the various arguments made at the hearing, I find the claimed feature of modifying messages based on group records held by the messaging system to be known.

30   I agree with Ms McCann, however, that there is no disclosure in the prior art of sending to the original sending party a further message in response to a determination that the sending party is not a member of the group of which the receiving party is a member.

Analysis of the contribution actually made

31   In determining the contribution made by the claimed invention, ascertaining that individual features are known is not the end of the matter. It does not necessarily follow that because a particular feature of a system is known, any contribution made by that particular feature can be dismissed.

32   This is because it is not as simple as slicing the invention up into its component parts and then assessing the novelty of each of those parts. What is required is to assess the contribution made by the claimed invention as a whole, and so the interaction between the various features (known or otherwise) needs to be considered when making that assessment.

33   Having carefully considered the description and the applicant's arguments presented at the hearing, I am not satisfied that there is sufficient interaction between, on the one hand, the feature of sending a further message back to the sender and, on the other, the feature of modifying a message sent to the receiving party based on group records, for it to be said that there is a contribution made by the message modification system as a whole.

34   What the known feature does is to modify messages on the basis of records relating to group membership. I have found nothing which has persuaded me that these steps are materially different as a result of any interaction with the later step of sending a further message to the sender. In other words, the known features do not in my view interact with the other features in such a way that <u>all</u> the features identified can be taken as a unitary whole to deliver a contribution.

35   I therefore conclude that the contribution made by the claimed invention is in providing a method by which a party sending a message over a data communications network is sent a further message in the circumstances where the system determines that the sending party is not a member of a group of which the receiving party is a member.

<u>Does the contribution fall solely within excluded matter?</u>

36   As is clear from *Aerotel,* what I must now do is decide whether the contribution

relates <u>solely</u> to one or more of the matters which are excluded from patentability under section 1(2).

37   It is clear from my analysis above that there is no contribution made in terms of the hardware or the arrangement of the system. It is purely in the idea of using the system to send a further message back to the sender in certain circumstances.

38   There was some discussion at the hearing about the nature of those circumstances. Although the description relates to marketing messages or advertisements, at the hearing the possibility was aired of using this further message to inform the sender that, for example, a photograph or video clip had not been received correctly, or to send information back to the sender about the receiver's choice of network operator.

39   Ms McCann appeared to concede at one point that if the message sent back to the sender was related to advertisement, then this would amount to a business method. But she argued that other possible uses, such as a message saying that a photo or video had not been received, went beyond a business method.

40   There are several points here. The first is to say that if a claim encompasses an embodiment of the invention that is wholly excluded then it is not an allowable claim. The second is that I am not entirely clear on how one reconciles the idea of the sender being sent a message that a particular video clip (for example) has not been received with the feature of the <u>claimed</u> invention that the sender is sent a message back based on his non-membership of the receiver's group.

41   But in the event these points are not determinative, because I am not persuaded that using the system to send back particular types of message brings it outside the business method exclusion. The contribution made is the idea of sending the sender a message if he and the recipient do not share the same group. There is nothing technical involved in that as an idea – it is a business decision to use a message modification system in a particular way, and I cannot see that identifying particular types of message to be sent back to the sender bestows upon it anything of a technical nature, thus making it anything more than solely a method for doing business.

42   Turning to the computer program exclusion, it is clear from my earlier analysis that I do not regard any part of the contribution to lie in the hardware which forms part of the claimed invention. The system as described involves conventional use of and connection between a mobile telecommunications network, WAP gateway, SMSC, the Internet, various servers, databases and a terminal.

43   Ms McCann argued, following *CFPH* and *Shopalotto*, that the claimed invention amounted to more than "a computer program up and running". She argued:

> "…we go beyond a normal computer up and running, because…additional messages are being generated compared to prior art systems. And again, since the effect is the modification in the case of the message that goes to a recipient, and the creation of a message that goes to the sender, because these messages exist outside of the computer program, the effect

is not confined to the computer on which the invention is implemented".

44   However, it seems to me that that contribution results from implementation by software of a conventional use of the various pieces of hardware. In particular, the software operates so as to cause a message to be sent back to the sender if he is not a member of the recipient's group. In doing so, the hardware operates in a technically conventional way, including in the manner in which messages are transmitted between both sender and recipient. I therefore do not agree that the transmission by conventional means of a further message to the sender bestows anything of a technical nature onto the contribution, nor does it bring the contribution beyond "a computer program up and running". I therefore find that the contribution made by the invention falls solely within the bounds of being a computer program.

45   I conclude that the contribution falls solely within excluded matter, as it is no more than a method for doing business and a program for a computer. It therefore fails to meet step three of the *Aerotel* test.

Is the contribution technical in nature?

46   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. This is because a contribution which consists solely of excluded matter will not count as being a "technical contribution" and thus will not, as the fourth step puts it, be "technical in nature". Similarly, a contribution which consists of more than excluded matter will be a "technical contribution" and so will, as the fourth step puts it, be "technical in nature".

47   Subsequent judgments in the Patents Court have tended to follow this approach – most notably *Oneida Indian Nation's Application* [2007] EWHC 954 (Pat), in which Deputy Judge (as he then was) Christopher Floyd QC said that

>   "the fourth step is intended merely to make sure that inventions that have passed at step three are technical in nature. So step four is exclusionary in nature".

48   However, in his judgment in *Symbian*, Patten J states at paragraph 58 that

>   "What is clear from the authorities is that the question whether the invention makes a relevant technical contribution has to be asked"

and also that

>   "Whether it is asked as part of Step 2, 3 or 4 matters much less than whether it is asked at all".

49   It is clearly not easy to find an approach to the fourth step which is consistent with, on the one hand, *Aerotel* and various Patents Court cases which followed it and, on the other, the approach taken in *Symbian*.

50   Ms McCann did not address me directly on whether I should apply the fourth step or not. However, her submissions on whether the claimed invention was

excluded or not did include consideration of whether the invention was technical in nature. It is therefore a part of the consideration I make in determining whether the contribution is excluded under step three. I have already concluded, in assessing step three, that the contribution made by the invention is solely within the realm of a business method and also that it comprises software which involves the hardware operating in a technically conventional way.

51   Regardless of whether step four of the *Aerotel* test is an optional check or not, this means that I am in any event satisfied that the contribution made by the invention contains nothing which is technical in nature – and thus it should be regarded as excluded under step three.

Conclusion

52   I conclude that the invention of independent claims 1, 9, 16 and 17 is excluded from patentability under section 1(2)(c) because it relates solely to a method for doing business and a program for a computer.

53   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) for failure to comply with section 1(2)(c).

Appeal

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

Dr J E PORTER
Deputy Director acting for the Comptroller