

PATENTS ACT 1977

APPLICANT Adinsight Limited

ISSUE Whether patent application number
GB1005619.0 complies with sections
1(1)(b) and 1(2)

HEARING OFFICER H Jones

DECISION

Introduction

- 1 Patent application GB1005619.0 entitled "Data collection" was filed on 1st April 2010 in the name of Adinsight Limited and was published as GB2479209. There were originally three independent claims in the application and the examiner objected that the claims defined three separate inventions. This was not disputed by the applicants and the claims were restricted to those of the first invention. The examiner also raised objections that the first claimed invention lacks an inventive step and is excluded from patentability under section 1(2) both as a computer program and a method of doing business.
- 2 The applicant disagreed with the examiner's objections and asked for the matter to be decided on the basis of the papers on file, in particular the correspondence between the examiner and the applicants' attorney, Mr David Robinson of Marks & Clerk.

The invention

- 3 The application relates to a method for allocating identifiers, in particular telephone numbers, to users of an online system. A company can collect a large amount of information from users of their websites such as web pages viewed, search terms used, etc. The collected data can be analysed to determine products the customers may be interested in, improve a customer's experience of the website and increase sales generated through the website. When a customer uses the website but completes a purchase offline, e.g. by telephone, it is possible to associate online information relating to the customer and an offline purchase by assigning a different telephone number to each user of the website. Recycling of telephone numbers is necessary to reduce the number of telephone numbers required and therefore reduce costs. Previously the telephone numbers have been recycled by associating a telephone number with a customer for a predetermined time. In this invention an

improved allocation of telephone numbers is achieved by disassociating an identifier with a user once the webpage including the identifier is no longer displayed to the user.

- 4 In practice, referring to fig. 2 of the application reproduced below, a user 1 enters an address of a web page in web browser 3a, which causes computer 3 to send request data to web server 5. In response, web server 5 sends the web page 10, including a script 12, to the computer 3 and the web page 10 is displayed by the web browser 3a. The script 12 causes the computer 3 to send referral data to tracking server 7, which then determines the telephone number 11 to be associated with the user 1. The telephone number 11 is selected from numbers in a database 8 that are currently not in use. The script 12 further causes the computer 3 to send a message to the tracking server 7 at regular intervals as long as the web page 10 is displayed by the web browser 3a. When the tracking server 7 does not receive a message from the computer 3 within a predetermined time period, the tracking server returns the telephone 11 to the numbers available for selection and the telephone number 11 may be provided to a different user.

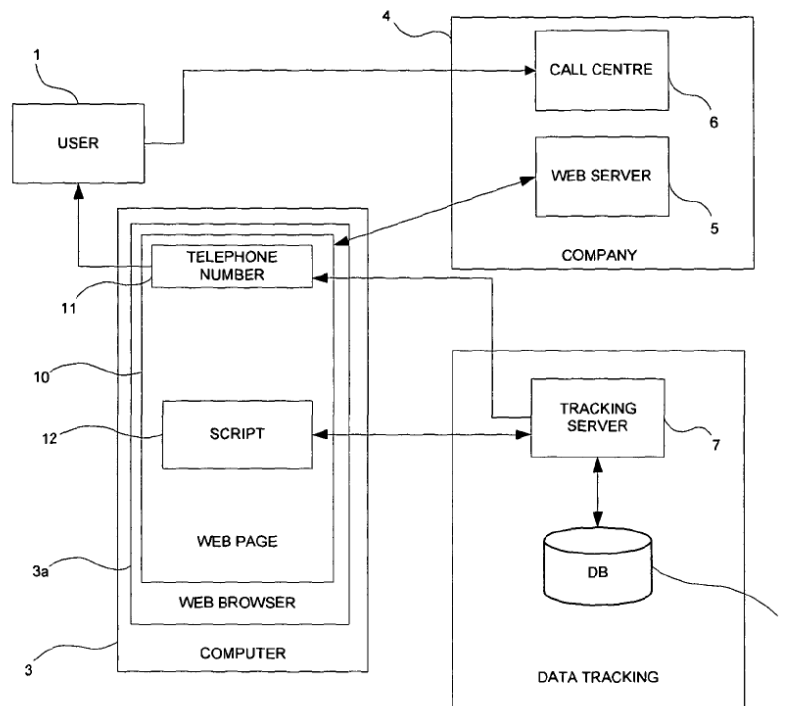


Fig. 2

- 5 The application currently has 25 claims filed on 29th September 2011. The claims include 1 independent claim, claim 1, directed to a method of allocating a plurality of identifiers to a plurality of users as follows:

1. A method of allocating a plurality of identifiers to a plurality of users, each identifier being selected from a predefined set of identifiers, the method comprising, at a first computer:

receiving a request from each of a plurality of second computers, each second computer being associated with one of said plurality of users;

selecting a respective one of said identifiers in response to each of said requests;

generating data associating each of said selected ones of said identifiers with a respective user; and

monitoring activity of each of said second computers associated with said users, said monitoring being based upon data received from said second computers, said data indicating whether a webpage including said identifier is displayed on the respective second computer; and

modifying said generated data based upon said monitored activity, said modifying disassociating an identifier and a user when the identifier is no longer displayed to the user.

The law

- 6 The relevant provisions in relation to inventive step and excluded inventions are section 1(1)(b), section 1(2) and section 3, which read:

1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say -

(a) ...

(b) it involves an inventive step;

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.

3 An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).

- 7 The examiner argues that the invention is a program for a computer and a method for doing business as such, and is therefore excluded under section 1(2)(c). The examiner also argues that the invention lacks an inventive step and is therefore also excluded under section 1(1)(b). I will deal with each of these issues in turn.

Arguments and analysis regarding excluded inventions

- 8 The provisions of section 1(2) were considered by the Court of Appeal in *Aerotel*¹ when a four-step test was laid down to decide whether a claimed invention is patentable:
- 1) *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.*
- 9 The examiner has adopted this four-step approach in line with guidance set out in the UK Intellectual Property Office's Practice Notice issued 8th December 2008². Mr Robinson asserts that "while the four-step test might be useful in some cases it can be nothing more than a guideline given the overall importance of the identification of a technical contribution". As the examiner correctly pointed out, the Court of Appeal in the case of *Symbian*³ confirmed that the four-step test is intended to be in substance the same test as that relied on in the prior UK case law, i.e. the "technical contribution" test. *Symbian* confirmed that the approach set out in *Aerotel* and the technical contribution approach should produce the same result. For the purpose of this decision I shall follow the four-step test. I also note from *Symbian* that the question of whether the contribution is technical can be asked at either step 3 or 4.
- 10 I will deal with each step in turn. Regarding step 1, claim 1 can be construed as follows: a method of allocating a plurality of identifiers to a plurality of users by associating an identifier with a user in response to a request from a computer associated with the user, monitoring whether a webpage including the identifier is displayed on the user's computer, and disassociating the identifier and user when the identifier is no longer displayed to the user.
- 11 For step 2, the contribution is an improved method of allocating an identifier to a user by monitoring whether a webpage including the identifier is displayed on the user's computer, and disassociating the identifier and user when the identifier is no longer displayed to the user.
- 12 Mr Robinson has indicated a number of advantages of the invention. The tracking of users is improved as the association between user and identifier is maintained as long as necessary, i.e. the user and identifier are not disassociated while the web page is still being displayed. On the other hand, the computer only associates a user with an identifier for the time that is necessary, i.e. while the web page is still displayed, and a consequence of this is that fewer identifiers are required when monitoring a plurality of users. This in turn results in the need for less data storage. Furthermore, the system operates more quickly as no unnecessary associations are maintained. Mr Robinson does not mention the additional computer resources presumably required to monitor whether the web page is displayed. However, I am willing to accept that the advantages indicated by Mr Robinson are likely to be achieved.

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

² <http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm>

³ *Symbian Ltd. V Comptroller-General of Patents* [2008] EWCA Civ 1066

- 13 Moving on to steps 3 and 4, which I will deal with together, I need to consider whether the contribution falls solely within the excluded subject matter and in doing so whether the contribution outlined above is technical in nature.
- 14 It is clear that the contribution requires a computer for its implementation. However, as the examiner points out, the fact that the invention is effected in software does not necessarily mean that it is excluded as a computer program as such. The question I need to answer is: does the computer program provide a technical contribution? Some guidance on this question has been provided by Lewison J in his judgement in *AT&T/CVON*⁴ where he identified five “signposts” to a relevant technical effect. However, I am reluctant to rely on the signposts too heavily. As pointed out more recently in *Really Virtual Company*⁵, “the signposts are no more than that, signposts” and are more helpful in some cases than in others. I will therefore only refer to the signposts where they have been used by Mr Robinson to strengthen his arguments.
- 15 Mr Robinson made the general point that it is supported in case law that the invention should be treated as a whole rather than considering whether particular parts of the invention relate to excluded subject matter. I agree that this is the correct approach to take. Mr Robinson has made a number of arguments supporting his assertion that the claims involve a technical contribution. I will deal with each in turn.
- 16 Mr Robinson argues that the method of the invention is concerned with monitoring whether an identifier is in use by a user by monitoring whether a webpage including an identifier is displayed on a computer. He claims these issues in themselves are technical. In particular, he argues that the monitored data that indicates whether a webpage is displayed or not is of a technical nature. Furthermore, how the data is received and processed, what form the data takes and how the data should be interpreted also have technical considerations.
- 17 It is clear that the invention is implemented using conventional hardware and that the method of the invention involves standard computer software techniques, e.g. using embedded scripts to enable a web browser to communicate with a server, reading and updating a database, etc. The step of interpreting the data as it arrives and subsequently dealing with it are common software considerations. I do not consider any of these aspects to provide a technical contribution in themselves.
- 18 Mr Robinson also asserts that the invention of claim 1 causes a computer carrying out the method to operate in a new way. He states that none of the prior art methods causes a computer to operate in such a way, i.e. monitoring whether a webpage including an identifier is displayed and disassociating the user and identifier if not. Although not specifically referred to, Mr Robinson is clearly referring to the third signpost in *AT&T/CVON*: whether the claimed technical effect results in the computer being made to operate in a new way.
- 19 I agree that the computer program(s) required to implement the invention are carrying out a new process, but this is typical of any new piece of software. The invention, however, does not cause the computer to operate in a new way - sending data between a computer and a server, and subsequently storing or modifying records is standard computer practice.

⁴ AT&T Knowledge Ventures/Cvon Ltd [2009] EWHC 343 (Pat)

⁵ Really Virtual Company Ltd [2012] EWHC 1086 (Ch)

- 20 Mr Robinson considers the invention to result in a faster and more efficient process, requiring fewer resources in the form of identifiers and less storage as discussed above. He refers to *AT&T/CVON*'s fourth signpost of whether there is an increase in the speed or reliability of the computer.
- 21 I am willing to agree that the invention has the advantages provided by Mr Robinson. However, none of these factors will increase the speed or reliability of the computer. The invention will not affect the workings of the computer in any way. The invention will simply enable the computer software to run more efficiently.
- 22 Mr Robinson also considers the invention to be an improved way of allocating resources (the identifiers) to users. He considers this to be a technical effect on something, i.e. the identifiers, outside of the computer. He refers to *AT&T/CVON*'s first signpost of whether the claimed technical effect has a technical effect on a process which is carried on outside the computer.
- 23 I agree that the invention is an improved way of allocating identifiers to users. Looking at the invention as a whole, the identifiers are requested from a server, sent to a user's computer and displayed on a web page. However, these are all clearly effects within the computer. Fewer identifiers are required and the computing process is more efficient, but both these effects occur within the computer. The identifiers may be viewed by someone outside the computer, but the identifiers remain within the computing system. Therefore, I can see no technical effect on anything outside the computer.
- 24 Mr Robinson has also asked me to consider the patentability of claim 1 where the identifier of claim 1 is a telephone number (as claimed in current claim 19). He asserts that a telephone number is a real world resource and that management of a real world resource as outlined in claim 1 cannot be excluded from patentability.
- 25 I have difficulty with this argument. In my view, a telephone number is simply a number, i.e. a series of digits, which in this invention is retrieved from a server database and subsequently displayed on a web page. I do not consider a telephone number to be a real world resource, i.e. something tangible in everyday life. A customer may go on to use the telephone number to contact the company but the number remains just that: a number. Obviously a telephone handset and the necessary telephone communication system are both tangible, physical entities. However, the invention is not concerned with these systems in any way. Any handset could be employed and the signal sent through any communication system. Therefore, I do not consider specifying the identifier to be a telephone number to render the invention patentable.
- 26 None of Mr Robinson's arguments has convinced me that the invention provides a technical contribution. I consider the invention to be a more efficient process of allocating identifiers to users by monitoring whether a webpage including the identifier is displayed on a user's computer. The process is implemented as a computer program running on conventional hardware and in the absence of a technical contribution falls within the computer program exclusion of section 1(2)(c). More generally the invention represents a more efficient means of tracking users of a customer's website. As detailed in the current application, collected data may be used to improve marketing budget efficiency, optimise a website so customers can more easily reach a product they are interested in, and increase sales generated

through the website. I therefore also consider the invention to be an improved method for doing business.

- 27 In summary, I consider the invention to be excluded from patentability under section 1(2) both as a computer program and a method of doing business.

Arguments and analysis regarding inventive step

- 28 For completeness I will also consider whether the invention involves an inventive step under section 1(1)(b). The examiner argues that the objections of novelty and inventive step are difficult to distinguish because claim 1 is not clearly defined with regard to the data received from the users' computers during the webpage monitoring process. It is clear to me from the description that the data is in the form of a recurring message which is sent as long as the webpage is still displayed. In other words, the data indicates whether the webpage is displayed or not, and this is what is defined in claim 1. As the examiner points out, once the message is no longer received, the conclusion is made that the webpage is no longer displayed. However, I do not agree that this undermines the clarity of claim 1, which leaves only the issue of inventive step to decide.

- 29 The Court of Appeal in *Windsurfing*⁶ formulated a four-step approach for assessing whether an invention is obvious to a person skilled in the art. This approach was restated and elaborated upon by the Court of Appeal in *Pozzoli*.⁷ Here, Jacob LJ reformulated the *Windsurfing* approach as follows:

- (1)(a) *Identify the notional "person skilled in the art".*
- (1)(b) *Identify the common general knowledge of that person.*
- (2) *Identify the inventive concept of the claim in question or if that cannot be readily done, construe it.*
- (3) *Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or claim as construed.*
- (4) *Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps that would have been obvious to the person skilled in the art or do they require any degree of invention?*

- 30 I will therefore use this *Windsurfing/Pozzoli* approach to determine whether the invention of the present application involves an inventive step.

- 31 Regarding steps 1(a) & (b), I agree with the examiner that the person skilled in the art is a software engineer with experience of online commerce systems. He would be equipped with the common general knowledge required to carry out that role. In particular he would be aware of the software techniques required to enable a web browser to interact with a server, including the use of scripts where required.

- 32 Regarding step 2, the inventive concept of claim 1 is: a method of allocating a plurality of identifiers to a plurality of users by associating an identifier with a user in response to a request from a computer associated with the user, monitoring whether a webpage including the identifier is displayed on the user's computer, and

⁶ *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*, [1985] RPC 49

⁷ *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

disassociating the identifier and user when the identifier is no longer displayed to the user.

- 33 The examiner has cited a single document US 2008/0267377 A1 by applicant Siegrist ("Siegrist"), which discloses a method of tracking telephone calls resulting from a referral to a company's website from a search engine such as Google. A message is sent from the user's computer to a call server requesting a tracking phone number and providing tracking parameters (e.g. a search term or user details). The call server retrieves an unallocated phone number from its database and associates the phone number with the tracking parameters. The allocated phone number is sent to the user's computer for display. After a predetermined time from when the phone number was allocated, the allocation is broken and the call server returns the phone number to the pool of unallocated phone numbers.
- 34 As far as step 3 is concerned, the difference between the disclosure in this document and the inventive concept of claim 1 is that Siegrist does not disclose a method of monitoring whether a webpage including the phone number is displayed on the user's computer and disassociating the phone number and user when the identifier is no longer displayed. It seems that the examiner and Mr Robinson are both in agreement with this assessment.
- 35 Moving onto step 4, the examiner poses two arguments. In the first he notes that in Siegrist when a request is received for a phone number, the call server checks whether the phone number is already allocated to the specified tracking parameters. If not, an unused telephone number is retrieved from the database. If it is already allocated, the predetermined time for disassociating the phone number is simply re-set. The examiner considers that the skilled person would not have to exercise any ingenuity to realise that a significant time gap between telephone requests provides data indicating that the originally allocated telephone number is no longer being displayed on the user's computer. From carefully reading Siegrist, it seems to me that a request for a phone number is made each time the company's web page is launched. Therefore in Siegrist the server is, at best, monitoring when different instances of the web page are displayed. There is no suggestion of monitoring how long an existing web page is in use. In Siegrist the telephone number is disassociated after a fixed predetermined time regardless of whether the web page is still displayed; the time is only re-set if a new instance of the web-page is launched by the same or a different user with the same tracking parameters. I agree with Mr Robinson that the time period in Siegrist does not use any data indicating whether a webpage including an identifier is displayed on the user's computer. I further agree that it would not be obvious to the skilled person to change the fixed predetermined time in Siegrist with a flexible time as specified in claim 1.
- 36 In the examiner's second argument, he notes that in Siegrist scripts embedded in the company's web page are used to determine tracking parameters which are sent to the call server along with the request for a tracking phone number. In one embodiment the web page is searched periodically so that any further information entered by the user can be sent to the call server on a regular basis. The examiner argues that it would be obvious to modify the scripts so that information on whether the web page is still displayed would be sent to the call server. Again, I agree with Mr Robinson that there is no motivation from Siegrist for the skilled person to modify the tracking scripts to result in the method of claim 1. Even if the scripts provided information on whether the web page was still displayed, I do not think it would be

obvious for the skilled person to then replace the fixed predetermined time period in Siegrist with the flexible time period of the invention.

- 37 In summary, I do not consider that the skilled person would find the difference between the inventive concept of claim 1 and the prior art to be obvious.

Conclusion

- 38 I find that the invention as set out above does involve an inventive step. However, I also find that the invention is excluded under section 1(2)(c) because it relates to both a computer program and a method for doing business as such. I can find no possible amendment in the specification that will render the claims patentable. I therefore refuse the application under section 18(3).

Appeal

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

H Jones

Deputy Director acting for the Comptroller