

PATENTS ACT 1977

APPLICANT Innoplexus AG

ISSUE Whether patent application GB1804928.8 is
excluded under section 1(2)

HEARING OFFICER H Jones

DECISION

Background

- 1 Patent application GB1804928.8, now published as GB2572749, was filed in the name of Innoplexus AG on 27 March 2018.
- 2 The examiner is of the view that the application relates to a computer program as such, and despite a number of rounds of correspondence, the applicant has failed to persuade the examiner otherwise. The application has not been searched. This decision relates to the third of four applications filed by the same applicant for which I have been asked to issue a decision on the papers. All four applications relate to very different subject matter even though an objection under section 1(2) is common to all.

The invention

- 3 The latest version of the claims contains independent claims to a method, system and a computer program, but they do not differ in substance. Claim 1 is as follows:

A system that analyses user activity to determine a user- preferred node in a network graph, wherein the system includes a computer system for executing computing tasks, characterized in that the system comprises:

- an input device configured to provide user activity;
- a memory unit configured to store context-data; and
- a processing module in communication with the memory unit and the input device, the processing module is configured to:

- (i) receive the context-data from the memory unit;
- (ii) generate the network graph based on the context-data, wherein the network graph comprises a plurality of network nodes, each of the plurality of network nodes including entity records associated with an entity;
- (iii) analyse the user activity associated with the generated network graph, wherein the user activity comprises interaction of the user with the network

graph;

(iv) assign weightage scores to the user activity, wherein the user-preferred node is predicted, among the plurality of network nodes, based on the weightage scores of the user activity; and

(v) extract the entity records of the predicted user-preferred node prior to selection of a network node by the user.

- 4 A network graph is a convenient way of representing large amounts of data. It provides a visual depiction of the data in the form of interconnected nodes. Each node represents records associated with an entity, and the interconnections between nodes depict the relationships between the entities. Conventionally a user selects a network node that they are interested in and then the records for that node are extracted. This may take some time, and the user experiences a lag. To mitigate this and improve the user experience, the applicant's system and method analyses the user's activity and predicts which node the user is interested in before they actually select it. This enables the relevant records to be extracted in advance.

The law

- 5 The relevant provision is section 1(2)(c) of the Patents Act 1977, which says that certain things cannot be protected by a patent:

1. 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...doing business, or a program for a computer;

(d) ...

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.

- 6 There is well-established case-law providing guidance on determining whether an invention falls within this exclusion. In *Aerotel Ltd v Telco Holdings Ltd & Ors Rev 1*¹ the Court of Appeal set out the following four-step test for determining whether a proposed invention is excluded under section 1(2):

- 1) properly construe the claims;
- 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.

and in *Symbian Ltd's Application*², the Court made it clear that when determining whether a proposed invention is excluded, it does not matter whether the question of "whether the contribution is technical" is asked at step (3) or (4).

¹ [2006] EWCA Civ 1371, [2007] RPC 7

² [2008] EWCA Civ 1066, [2009] RPC 1

- 7 The examiner has based his analysis on *Aerotel* and *Symbian*. He has also made use of the set of signposts of *AT&T v CVON*³ and *HTC/Apple*⁴. There is no disagreement between the examiner and the applicant as to the relevant law.

Arguments and analysis

- 8 The examiner has summarised his position and that of the applicant in his letter of 20 January 2021. I have considered this letter carefully, along with the previous correspondence on file.
- 9 The applicant and examiner agree that there are no difficulties of claim construction.
- 10 The applicant considers the contribution to be:

A system that performs a method that includes receiving context data, generating a network graph based on the context-data, analysing user activity associated with the network graph, assigning weightage scores to the user activity, predicting a user-preferred node based on the weightage scores, and extracting entity records of the predicted user-preferred node prior to selection of a network node by the user.

The examiner's view is that it is:

A system in which user interactions, such as moving a cursor, within a network graph, generated from context data, are used to predict which node in the network the user is interested in by assigning weightage scores to the user interactions.

and further notes that:

this has the advantage that records associated with the predicted node are extracted before the user actually selects the node and then the problem of the user having to wait to extract the records after selection is addressed.

I do not see any material difference in these two formulations of the alleged contribution and the advantages of the invention. I am content to adopt either.

- 11 The applicant's most recent submissions, in their letter 20 November 2020, focus on the fifth of the *AT&T* signposts i.e. "whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented". They say that there is a technical problem to be solved, namely "how to reduce latency in the display to a user of entity records from a network node of a network graph". Moreover, they say that the technical problem is solved by the various steps set out in their main claims.
- 12 The examiner's position is that the problem is one of program design rather a technical problem. He considers that the problem has been solved rather than circumvented, but that the solution is merely an improved computer program which is excluded from patentability.
- 13 I take a different view to the examiner. The problem is that it takes too long to extract and display the data once the user has selected a node; the impatient user does not

³ [2009] EWHC 343 (Pat)

⁴ [2013] EWCA Civ 451

want to experience a lag. In my view that problem is circumvented rather than overcome. What the applicants have done is to remove the problem by carrying out pre-emptive extraction of the entity records which are likely to be required before the selection of a node is made. In essence, what the system does is to start extracting the records based on a 'best guess' as to what the user is about to do. The time it takes for the records to be extracted is not reduced at all; the user merely perceives it that way because the computer is programmed to start the extraction process before they have actually made their selection. There can be no technical contribution when the problem is circumvented rather than solved in a technical sense. The fifth signpost is not met.

- 14 Incidentally there is a processing cost to this method. Sometimes the system will get it wrong and unnecessary data will have been extracted. This reinforces my view that the problem is circumvented rather than solved. Nothing is done to overcome any technical problem other than to perform a quite different process, one which may appear from the user's perspective to solve a problem but which actually just trades one problem for another.
- 15 I note that the examiner has drawn attention to an earlier decision of the hearing officer in *Adobe Systems Inc*⁵. There are some similarities with the subject matter of this decision inasmuch as it relates to preloading and caching content associated with a link on a webpage based on the determined position of a cursor. I believe my reasoning that the problem here is circumvented rather than overcome is consistent with the that of the hearing officer in *Adobe*.
- 16 I note that in an earlier response to the examiner the applicant advanced some arguments on the second and third *AT&T* signposts. I have considered whether these arguments might assist the applicant, but I agree entirely with the examiner that they do not. I can see no effect which operates at the level of architecture of the computer, and I do not believe that one can genuinely say that the computer is being made to operate in a new way.
- 17 Having fully considered the applicant's arguments, I am in agreement with the examiner's conclusion, even if it is for slightly different reasons. I am not persuaded that the application relates to anything beyond a computer program as such.

Conclusion

- 18 The application is refused under section 18(3).

Appeal

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

Huw Jones

Deputy Director, acting for the Comptroller

⁵ BL O/530/19