

PATENTS ACT 1977

APPLICANT Innoplexus AG

ISSUE Whether patent application GB1722308.2 is
excluded under section 1(2)

HEARING OFFICER H Jones

DECISION

Background

- 1 Patent application GB1722308.2, now published as GB2569955, was filed in the name of Innoplexus AG on 30 December 2017.
- 2 The examiner is of the view that the application relates to a computer program, and despite a number of rounds of correspondence, the applicant has failed to change the examiner's opinion. The application has not been searched. This decision relates to a second of four applications filed by the same applicant for which I have been asked to issue a decision on the papers. All four application 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, a system, and a computer program, but they do not differ in substance. Claim 1 is as follows:

A method of providing at least one suggestion for completing a user-query, characterised in that the method comprises:

- a) receiving the user-query related to a domain of user-interest;
- b) determining if the domain of user-interest corresponds to a subject matter using an ontology that relates to the subject matter, wherein the method further comprises developing the ontology that relates to the subject matter;
- c) identifying at least one element of the user-query when the domain of user-interest corresponds to the subject matter;
- d) classifying the at least one element into at least one class using the ontology, characterized in that the at least one class comprises a concept class and an others class;
- e) changing the class of the at least one element occurring at an end position within the user-query to the others class, if the class of the at least one element is the concept class;

- f) identifying the at least one element of the concept class occurring at a farthest position within the user-query;
- g) concatenating the at least one element of the concept class occurring at the farthest position within the user-query with each of the at least one element occurring thereafter, to obtain a concatenated string of elements;
- h) identifying at least one suggestion associated with the concatenated string of elements using the ontology; and
- i) providing the at least one suggestion for completing the user-query.

- 4 The application relates to providing a user of a search engine with search suggestions based upon words or phrases entered by the user as a query. Conventional “auto-complete” techniques rely upon a user’s browser history. Where such browser history is restricted due to a privacy setting or because the user has never accessed relevant subject matter in the past, the conventional techniques are unable to provide suggestions. Also, conventional techniques typically only base their suggestions on the last keyword entered by the user. The applicant has sought to overcome these limitations by making use of ontologies, that is a collection of keywords, phrases and concepts associated with related subject matter. Words and phrases of the user’s query are classified according to whether they relate to concepts present in the ontology or not. The final word or phrase in the user’s entered query is not used in isolation to determine a suggestion, but is rather concatenated with the preceding word or phrase of the query which has been classified as a concept present in the ontology. The applicant alleges that this results in a more accurate suggestion for the user.

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;

¹ [2006] EWCA Civ 1371, [2007] RPC 7

- 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).

- 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 the objections in his letter of 5 May 2021. I have considered this letter carefully, along with the previous correspondence on file.
- 9 The examiner has not raised any issues of claim construction. There has been very little correspondence about the contribution. The applicant says that it can be viewed as a system for providing relevant and accurate suggestions for completing a user's query, and points out that it has the advantage of providing answers to search queries based on a determined context, that its use of ontologies means that the way the context is determined is different, and that it enables analysis and determination of subjects previously unknown to the computer. The examiner has not disputed this, and I agree that in a broad sense the alleged contribution can be characterised in such a way.
- 10 The disagreement between the examiner and the applicant has focussed on the second, third and fifth *AT&T* signposts.
- 11 The second signpost is "whether the claimed technical effect operates at the level of architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run". The applicant's argument is that the computer is improved by implementing their technique by allowing more accurate suggestions for users in a faster, efficient, and reliable way. This, they say, greatly reduces the amount of processing resources and time necessary for processing the information and as such a technical effect is achieved at the level or architecture of the computer system.
- 12 The third signpost is "whether the claimed technical effect results in the computer being made to operate in a new way". The applicant has pointed to the fact that computer not only uses the ontology for providing autocompletion of searches, but also develops the ontology. This, they submit, results in the computer operating in a new way because it enables analysis of subjects previously unknown to the computer.
- 13 The fifth signpost is "whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented". The applicant's position is that the inability of search engines to provide accurate suggestions is a technical problem, and that their solution is a technical solution in that the user is saved from

² [2008] EWCA Civ 1066, [2009] RPC 1

³ [2009] EWHC 343 (Pat)

⁴ [2013] EWCA Civ 451

physical effort of entering all the elements of their query and there will be less load on the processor because the search suggestions are more accurate.

- 14 Having fully considered the agent's arguments, I am in agreement with the examiner's conclusion. There is no sense in which there is an effect at the level of architecture of the computer, and nor is there an effect which makes a computer operate in a new way; there is nothing beyond the normal interaction between an application program and a standard computer. There is no technical problem, such as how to provide a better computer or perform a technical task. The problem is merely a software task. The second, third and fifth *AT&T* signposts do not point towards a technical contribution and therefore I am not persuaded that the application relates to anything beyond a computer program as such.
- 15 I have, for the sake of completeness, considered whether the remaining *AT&T* signposts might assist the applicant, but they do not. The examiner has made observations on the remaining signposts in his letter of 5 May 2021, with which I agree.
- 16 I note that two sets of auxiliary claims have been filed. These add details of how the ontology is developed. The examiner was of this view that these additional claim limitations do not materially affect the analysis of patentability, and I fully agree.

Conclusion

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

Appeal

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

Huw Jones

Deputy Director, acting for the Comptroller