

PATENTS ACT 1977

APPLICANT Conquest Planning Inc

ISSUE Whether patent application GB2311361.6 is
excluded under section 1(2)(c)

HEARING OFFICER H Jones

DECISION

Introduction

- 1 Patent application GB2311361.6 was filed on 25 July 2023 as a divisional application of GB2110524.2 (“the parent application”), the parent application being a national phase entry of international application PCT/CA2020/050275 filed under the Patent Cooperation Treaty (PCT) on 28 February 2020. The examiner has confirmed that the divisional application meets the requirements for ante-dating as set out in section 15(9) of the Act.
- 2 The background to this application is slightly unusual in that a decision to refuse the parent application has already been issued on the basis that the claimed invention is excluded from patentability as a method for doing business and a program for a computer as such. The hearing officer’s decision is set out in [BL O/0988/23](#), issued on 24 October 2023. The examiner in this divisional application says that the hearing officer’s reasoning is applicable to the invention set out in the current set of claims, i.e. the amended claims filed on 8 December 2023, and that the divisional application must also fall to be refused. The same argument was put to the applicant earlier in the examination process, but when given the opportunity to request a hearing, the applicant instead decided to submit further amended claims (“the main request”) and arguments, as well as a set of auxiliary claims to be considered in the alternative. As is the practice of the Office in these circumstances (set out at paragraph 18.80 of the Manual of Patent Practice), the examiner referred the matter to a hearing officer for a decision.
- 3 In addition to arguments relating to the technical nature of the invention, the applicant submits that the judgment in *Emotional Perception AI Ltd’s Application*¹ (“*EPAI*”) concerning the patentability of an invention relating to artificial intelligence, which was handed down after the hearing officer’s decision (on 21 November 2023), together with the consequential updating of [UKIPO practice on handling such inventions](#), should be taken into account when considering the patentability of the invention in the divisional application.

¹ [\[2023\] EWHC 2948 \(Ch\)](#)

- 4 The examiner summarises both his own and the applicant's arguments in the pre-hearing report dated 15 December 2023. The issues I will need to address are i) to what extent does the invention set out in the divisional application relate to the same invention as that in the parent application, ii) what bearing does the hearing officer's previous decision have in the present case, and iii) would the hearing officer have come to a different conclusion had the judgment in *EPAI* been available when considering patentability of the invention in the parent application. Addressing these issues in turn will assist the determination of the main issue before me, namely whether the invention set out in the divisional application relates to an excluded category.

The inventions

- 5 The main request has two independent claims (1 and 14): claim 1 is to a non-transitory computer-readable medium bearing code which, when executed, causes the computer system to implement a software tool for generating a holistic financial plan, and claim 14 to a method of training an artificial intelligence to develop a similar holistic financial plan. The two independent claims comprise the exact same steps a) to l), the same conditional parameters, characterising features and configuration step. The invention can be considered with respect to claim 1 alone:

1. A non-transitory computer-readable medium bearing code which, when executed by at least one processor of a computer system, causes the computer system to implement a software tool for generating a holistic financial plan comprising:

a) issuing, over a network, a stream of questions to a user using a computing device;

b) receiving, over the network, a stream of inputs from the user for a financial plan module in response to the stream of questions, at least a first subset of the stream of inputs defining one or more financial goals, a second subset of the stream of inputs defining client lifestyle preferences and a third subset of the stream of inputs defining client financial information;

c) executing the financial plan module to generate a first financial plan comprising the one or more financial goals using the stream of inputs, said first financial plan showing what percentage of each selected financial goal is projected to be met under said first financial plan;

d) displaying the first financial plan to the user in real time;

e) running an artificial intelligence engine, said artificial intelligence engine:

f) analyzing the stream of inputs and determining client lifestyle parameters from the client lifestyle preferences;

g) accessing each respective one of a set of financial strategies and executing the financial plan module to generate a respective one of a set of modified financial plans, each respective one of the set of modified financial plans representing the first financial goal as modified by the respective one of the set of financial strategies;

h) assigning a score to each respective one of the set of modified financial plans based on an increase in said respective one of the set of modified financial plans relative to the first financial plan and a cost of the corresponding respective one of the series of financial strategies based on the client lifestyle parameters;

i) ranking each respective one of the set of modified financial plans relative to each other based on said respective score; and

j) selecting a highest ranked modified financial plan of the set of modified financial plans;

k) modifying the display to show the respective one of the series of financial strategies corresponding to the highest ranked modified financial plan,

l) at the user computer device, said user accepting or rejecting the respective one of the series of financial strategies corresponding to the highest ranked financial plan, wherein:

if the user rejects the highest ranked financial plan, modifying the display to show the next respective one of the series of financial strategies corresponding to the highest ranked financial plan;

if the user accepts the highest ranked financial plan, showing the user the impact the selected financial strategy has on meeting all financial goals and asking the user if the first financial goal has been met, wherein:

if the first financial goal has not been met, setting the accepted highest ranked financial plan as the first financial plan and repeating steps (e) to (l) until the financial goal has been met, and modifying the display in real time,

if the first financial goal has been met, the software tool further comprises repeating steps (c) to (l) for a second financial goal,

characterized in that the artificial intelligence module performs strategy impact assessment as well as the ranking and prioritization in real time while re-ranking and re-prioritizing the financial plans, the artificial intelligence module learning from client inputs to better predict choices of future clients, and

training the artificial intelligence to develop the financial plan for achieving the one or more financial goals, said artificial intelligence engine being configured to learn knowledge about general financial plan preferences from past ones of client financial plans and apply the learned knowledge to future ones of client financial plans.

- 6 The parent application has one independent claim, claim 1, defining a non-transitory computer-readable medium bearing code which, when executed, causes the computer system to implement a particular method set out in subsequent steps. In his decision, the hearing officer considered claims 1, 8 and 11 together as they were relevant to the applicant's submissions on the contribution made by the invention. He

describes the invention in general terms at paragraphs 3-5, which I copy below for ease of reference.

3. The invention relates to the generation of financial plans relating to financial goals. It could, for example, be used by financial advisors as a tool to assist them in suggesting financial plans to their clients. The tool, in response to answers to questions entered by the user, the answers defining at least one or more financial goals, client lifestyle preferences and client financial information, generates a first financial plan and displays it to the user. The questions could for example relate to the age of the client, number and age of dependents, physical location of the client, current salary and projected retirement age. The lifestyle preferences could relate to projected retirement lifestyle, tolerance to investment risk, willingness to save tax refunds, willingness to delay retirement, willingness to reduce retirement spending, willingness to save more now by spending less now, and willingness to downsize in retirement. The financial goals could be home purchase, estate planning, retirement, insurance, a major purchase, and education.

4. An AI module then analyses the client lifestyle preferences to determine client lifestyle parameters. It generates, for the first financial goal, a set of modified financial plans modified by one of a set of financial strategies. The application discloses a number of possible financial strategies, for example increasing savings, increasing investing, delaying retirement age, delaying pension withdrawal age, optimising withdrawal plans, and optimising investment strategies. Each modified financial plan is assigned a score based on an increase in the respective modified financial plan relative to the first financial plan, and a cost of the corresponding respective financial strategy based on the client lifestyle parameters. The modified financial plans are then ranked, and a highest ranked plan is selected, the financial strategy corresponding to the highest ranked plan being displayed to the user.

5. The user may then either accept or reject the financial strategy corresponding to the highest ranked financial plan. If it is rejected the financial strategy corresponding to the next highest ranked financial plan is displayed. If it is accepted the user is asked if the financial goal has been met. If the first financial goal has not been met, the AI carries out further analysis and the process is repeated until the first financial goal has been met, with the display updated in real time.

- 7 The examiner says that claims 1, 8 and 11 of the parent application generally correspond with claim 1 of the main request in the divisional application. Comparing these claims side-by-side, I broadly agree with the examiner's assessment: there are minor differences in terms of showing the user the impact that the selected financial strategy has on meeting all financial goals before asking the user if the financial goal has been met, and ranking results in real-time. Also, claim 1 of the main request includes the step of training the artificial intelligence to develop the financial plan for achieving the one or more financial goals. Nevertheless, I agree with the examiner that the invention set out in claim 1 of the main request is, in substance, the same invention considered by the hearing officer in the parent application.

Estoppel

- 8 The next issue to consider is what bearing does the hearing officer's decision on the parent application have in the present case. As another hearing officer noted in his decision in Kappur's applications ([BL 033/09](#)), estoppel "is a general principle of law which is intended to ensure that litigation is generally final and cannot be subsequently fought all over again. It has a number of versions; the important one for present purposes is "estoppel by record" which is explained in the Office Hearings Manual....". This Manual, also known as the [Patents Hearing Manual](#), provides the same guidance on estoppel as considered by the hearing officer back in 2009, as follows:

1.96 Estoppel by record (doctrine of res judicata) applies where a relevant judgment (and that includes a decision of a tribunal such as the comptroller) has already been given. The judgment stands forever, as between the parties unless it is modified by the normal course of appeal (in which case the modified judgment stands in its place). For example, in an infringement action (*Poulton v Adjustable Cover & Boiler Block co* (1908) 25 RPC 529 the plaintiff was awarded damages which were ordered to be assessed and paid by the defendant in due course. However, before the damages had been paid, the defendant caused the patent to be revoked on the basis of new evidence. Accordingly, he argued that he need no longer pay the original damages since the patent must, at the time of the first action, have been invalid. He was however held to the terms of the first decision. This judgment although old remains good law - see [Coflexip SA v Stolt Offshore MS Ltd \(No 2\) \[2004\] EWCA Civ 213](#), [2004] FSR 34, discussed below with regard to abuse of legal process. See also [Unilin Beheer BV v Berry Floor NV and](#)

[Others \[2007\] EWCA Civ 364](#) in which it was decided that a later finding of invalidity of an EP(UK) patent in an EPO opposition would not disturb a finding in the UK Courts that the patent was valid and infringed as between the parties in the UK action, so that any damages must still be paid.

1.97 There are two types of estoppel by record. The first is "cause of action" estoppel where the same cause of action lies in a final judgment (cf the example given above). The second is issue estoppel which, per Lord Denning in *Fidelitas Shipping Co Ltd's v v/o Exportchleb* [1966] 1 QB 630 at p640, applies where, within one cause of action, there are several issues raised which are necessary for the determination of the whole case. Once an issue has been raised and distinctly determined (even if the question was in fact not the subject of any dispute or argument) then as a general rule neither party can be allowed to fight that issue all over again. But not always - cf, for example, *Rose Bro's (Gainsborough) Ltds Appln* [1960] RPC 247 and *Hodgkinson & Corby Ltd & anr v Wards Mobility Services Ltd* [1997] FSR 178. [Cinpres Gas Injection Limited v Melea Limited \[2008\] EWCA Civ 9](#) contains a discussion of the difference between cause of action and issue estoppel - see paragraphs 66 to 77. Estoppel was not established in that case, the judgment holding that there had been perjury by a witness closely identified with one of the parties; (see paragraphs 105 to 107), and adoption of the fraud by the party itself; (paragraphs 108 - 120).

- 9 On the basis of the guidance on estoppel set out above, it is clear that the applicant is prevented from asserting that the invention defined by claim 1 of the main request

falls outside the exclusions from patentability of a method for doing business and a program for a computer if the scope of those exclusions remain unchanged. This brings me to the third issue: what effect has the judgment in *EPAl* had on the scope of the exclusions from patentability. In the case of *EPAl*, the judge, Sir Anthony Mann, found that a system for recommending data files using an artificial neural network (ANN) could not be excluded as a program for a computer because a claim to the process of training the ANN was not, as a matter of construction, a claim to a computer program at all. The judge went on to consider the possibility he might be wrong on this point, and found that the system produced a particular file containing a recommended match based on certain technical criteria, “so the output is of a file that would not otherwise be selected.... That seems to me to be a technical effect outside the computer for these purposes” (para 76).

- 10 As I have noted above, claim 1 of the main request includes the step of “training the artificial intelligence to develop the financial plan for achieving the one or more financial goals”. In the light of *EPAl*, the applicant argues that this is sufficient to determine the question of patentability in the applicant’s favour. If further reason were needed, the applicant says that the financial plan recommendation is a file containing recommendations that a user may follow, similar to the file recommendation found to provide a technical effect outside a computer in *EPAl*.
- 11 The examiner states that the claims and the specification as a whole do not define the use of neural networks, but instead refer in general terms to an artificial intelligence (AI) engine. He goes on to suggest that not all AI is implemented using neural networks and that it follows that the application does not necessarily relate to ANNs. He also notes that the claim and the specification provide no detail regarding the training of the AI beyond that it “learns knowledge about general financial plan preferences from past ones of client financial plans and apply the learned knowledge to future ones of client financial plans”. His argument is that while the scope of the computer program exclusion may have changed with respect to ANNs, the present invention cannot be understood to be limited to ANNs or to the training of such ANNs.
- 12 Having read the specification in detail, I agree with the examiner that the claimed invention does not relate to a trained ANN, or indeed to the training of an ANN, but instead relates to a generic artificial intelligence engine module where the training is characterised on the basis of financial data. Therefore, as the examiner says, it cannot be said that the claims of the present application do not engage the exclusions as in *EPAl*, because they do not relate to an ANN or a process for training an ANN. In general terms, the invention can be described in similar terms to that of the parent application, i.e. a computer-implemented financial planning application tool which uses AI to analyse inputs and make recommendations. The hearing officer found the parent application to be excluded. Therefore, given identical facts and identical law (so far as this invention is concerned), I am bound to follow that decision.

The auxiliary claims

- 13 The auxiliary claims include two independent claims (1 and 7), which differ from claim 1 of the main request by the additional detail provided about the questions asked of a user (e.g. lifestyle preferences, motivation for financial planning, financial circumstances, etc.), the detailed elements of the proposed financial strategies and the ranking of strategies based on certain indicators. The applicant has provided no

additional arguments why these claims should avoid the exclusions to patentability over and above the arguments presented in respect of the claims of the main request. My conclusion as to the allowability of these claims is the same as those of the main request.

Conclusion

- 14 The application is refused under section 18(3) because the application relates to subject-matter excluded from patentability under section 1(2)(c), namely a method for doing business and a program for a computer as such.

Appeal

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

Huw Jones

Deputy Director, acting for the Comptroller