Intellectual Property Office

PATENTS ACT 1977

APPLICANT	Unanimous A.I. Inc.
ISSUE	Whether patent application GB1805236.5 is excluded under section 1(2)
HEARING OFFICER	H Jones

DECISION

Background

1   This application, entitled "Methods and systems for enabling a credit economy in a real-time collaborative intelligence", is the national phase of a PCT application filed on 1 July 2016 by Unanimous A.I. Inc, published as WO 2017/004476 and republished as GB 2561458.

2   The examiner has maintained throughout the processing of the application that the claimed subject-matter relates to one or more of a computer program, a business method and the presentation of information. Despite amendments to the claims and accompanying reasoned arguments, the applicant has been unable to persuade the examiner otherwise. The matter came before me at a video hearing on 5 January 2022, at which the applicant was represented by Dr Mark Jones of Hoffman Eitle.

3   I am grateful to Dr Jones for providing extensive skeleton arguments prior to the hearing, and to the examiner for setting out his objections so clearly in his pre-hearing report. I have considered these carefully, along with the earlier correspondence which may be viewed at the IPO's online file inspection service.

The invention

4   By Dr Jones' own admission, the application title, substantial portions of the rather lengthy description, and indeed elements of the claim itself, do not immediately give the impression that there exists a technical innovation which is capable of patent protection. The overarching aim of the claimed invention is to harness the collective intelligence of a group of individuals to provide an answer to a question. Each individual uses a computing device to provide an input in response to the question. The computing devices are networked to a server which receives and processes the inputs from the individual computing devices, and provides feedback to the computing devices. It is the precise nature of the how the system actually works that is key to the outcome of this decision, as I will explain later.

5   There is a single independent claim which reads as follows:

A collaborative system for determining a group result in real-time from a group of users presented with a group question, comprising:

a plurality of computing devices, at least one user associated with each computing device, each computing device comprising a communications infrastructure coupled to each of a processor, a memory, a timing circuit, a display interface coupled to a display and configured to receive input from at least one user;

a collaborative approval application stored on each memory and configured to run on each processor to:

receive the group question from a collaboration server in networked communication with each of the plurality of computing devices;

convey to the user, using the display interface, the group question;

display a target board including a plurality of input choices arranged spatially;

receive, repeatedly in real-time, user input as a vector;

send, repeatedly in real-time, a vector representation of the user input to the collaboration server;

receive, repeatedly in real-time, a pointer location from the collaboration server; and

present, repeatedly in real-time, a graphical pointer, wherein a location of the graphical pointer on the target board is updated based on the pointer location;

the collaboration server in networked communication with the plurality of computing devices, the collaboration server including a server processor and a server memory, the server processor configured to run a collaboration application stored on the server memory, the collaboration application configured to perform the steps of:

send the group question to the plurality of computing devices;

receive, repeatedly in real-time, the vector representation of the user input from each of the plurality of computing devices;

responsively determine, repeatedly in real-time, the pointer location from the vector representations of the user input by combining the vector representations of the user input received from each of the plurality of computing devices and updating the pointer location based on the combined vector representation; and

send, repeatedly in real-time, the group result including the location of the pointer to the plurality of computing devices,

whereby a closed-loop system is formed between the collaboration server and each collaborative intent applications;

determine a final group result; and

send the final group result to the plurality of computing devices.

The law

6   There is no dispute that section 1(2) is the relevant provision of the Patents Act and that the leading authority on the question of excluded matter is the judgment of the Court of Appeal in *Aerotel*[1].

Argument and analysis

7   The point of disagreement between the examiner and the applicant is at the second step of the *Aerotel* test, namely identifying the contribution. Dr Jones' argument, in a nutshell, is that while the invention defined in the claims might be couched in terms of a group of users collaborating to answer a question, the system which allows them to do so actually involves an advance in a technical field of endeavour, namely the field of improved input devices for computers.

8   It will be helpful to briefly summarise Dr Jones' explanation of how the invention works. Each of a plurality of users has a computing device which displays a question. The devices also display a target board, i.e. a range of possible inputs that the user may wish to select in order to provide their answer to the question. In the described embodiment this takes the form of the letters of the alphabet, spatially arranged on the display, by which the user can spell out their answer. Each user makes an input to their respective computing device, such as swiping a touch-screen or tilting the device. The input is a vector input, i.e. it has both a magnitude and a direction. The display also shows a current pointer location. Each computing device repeatedly and in real-time sends a vector representation of the user input to a server. The server combines the received inputs from the plurality of users and from this information it calculates an updated pointer location, which it sends to all the computing devices. All the computing devices then move their pointer to the same updated position relative to the target board, which provides each user with feedback as to what the other users have been inputting. The users can react to the movement of the pointer by making further inputs in order to try to steer its trajectory, if they so wish, and the process continues repeatedly in a closed loop until the collective will of the group for the pointer's location becomes clear and thus the answer to the question may be determined. The claim is directed towards the system which enables this process to occur.

9   The argument that Dr Jones makes is that at heart of this is a new mechanism which allows multiple users, in distributed locations, to interact together via vector inputs to their individual devices to collaboratively influence the position of a single, shared pointer and hence to make a collective selection, or in other words to make an input into a computer. That, while expressed somewhat broadly, does indeed seem to have been added to the stock of human knowledge and is thus a fair assessment of the contribution.

10   Dr Jones submitted that if the contribution can be defined in terms of an input device then that is unquestionably technical. I do not need to go so far as to say that all inventions that relate to input devices are inherently technical, but in this particular case I have no hesitation in agreeing with Dr Jones, as I indicated at the hearing.

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

11   I note that the skeleton arguments contain comprehensive submissions on the *AT&T signposts*[2] but since, as I have already determined, the contribution is technical and plainly more than a computer program, there is no need for me to consider them.

Auxiliary claim

12   The applicant provided the examiner with an auxiliary independent claim during processing of the application. I will not repeat it here for the sake of brevity but, save for some insignificant drafting variations, the essential difference is that the auxiliary claim does not contain any reference to a group question, nor to a target board. In that respect the claim is broader in scope. The examiner's initial view was, not unreasonably, that such a broadening of the claim might constitute added subject-matter, which is not permissible under section 76. Dr Jones briefly drew my attention to a few portions of the description which in his opinion provide a basis for a broader claim. On the face of it there is at least a debate to be had, but this decision is not the place for it. However, on the excluded matter question I am of the preliminary view that the auxiliary claim necessarily embodies the same technical contribution as the claim I have considered.

Conclusion

13   The claimed invention is not excluded from patentability under section 1(2). I therefore refer the application back to the examiner to conclude the examination process.

Further processing

14   I note that the search requires updating, but as the examiner indicated at the hearing he will also need to consider whether additional searching is necessary in view of the light that my decision casts upon the true nature of the invention.

15   Furthermore, the applicant and examiner will need to address a number of minor claim construction issues that arose during the discussions at the hearing. There is a lack of clarity over what the input device comprises, as the conflict between claims 1 and 4 highlights, and there is inconsistent terminology used to describe the application which runs on the plurality of computing devices. It may also be wise to consider whether there are arrangements that the applicant no longer intends the claim to cover but are still described as embodiments and might genuinely cast doubt on the scope of the claim.

16   Dr Jones suggested that the applicant is considering filing a divisional application directed towards the subject-matter of the auxiliary claim discussed earlier. Such an application should normally be filed with more than three months of the compliance period remaining. That period will end on 1 April 2022 so the applicant will need to request an extension under rule 108 and is advised to file any divisional application without delay.

Huw Jones
Deputy Director, acting for the Comptroller

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[2] AT&T Knowledge Ventures LP, Re [2009] EWHC 343 (Pat), and HTC v Apple [2013] EWCA Civ 451