



PATENTS ACT 1977

APPLICANT	Highlight Games Ltd.
ISSUE	Whether patent application 1515653.2 complies with section 1(2)(c)
HEARING OFFICER	Ben Micklewright

DECISION

Background

- 1 This decision relates to whether patent application number GB1515653.2, meets the requirements of section 1(2)(c) of the Patents Act 1977 (“the Act”).
- 2 Throughout the examination process, the examiner has maintained that the application is excluded from patentability under section 1(2)(c) of the Act. The applicant did request to attend a hearing but, due to a change in circumstances, requested on 18 June 2020 that the application be passed to a Hearing Officer for a decision on the papers. My analysis is based upon the claims filed on 11 February 2019 and the corresponding specification. The examiner considered the latest arguments and amendments and summarised her objections in her letter dated 21 March 2019. The applicant’s amendments and arguments are set out in their letter dated 11 February 2019. For the avoidance of doubt, no further arguments, amendments or auxiliary requests have been filed since the examiner’s last report of 21 March 2019.
- 3 The examiner has also determined that certain elements of claim 1 constitute added subject matter not in the application as originally filed. If I find that the application is not excluded from patentability then this will need consideration. The added matter in question is not material to my decision on excluded matter and I will touch on it in my construction of the claims.

The invention

- 4 The invention relates to a virtual gaming console for playing a virtual game. The console includes a display device and a user interface both linked to a processor. The processor has access to multiple databases, one of which has a plurality of recorded video clips of ‘real world’ games and another which has stored challenges. A virtual game is initiated via the user interface and one or more virtual participants are determined and a tag assigned to each participant. A plurality of video clips associated with the tags of the participants are randomly selected from the database.

A sequence of video clips from the random selection are rendered and displayed on the display device. A challenge is selected from the challenge database and rendered on the display device. An outcome to the challenge is determined. The description sets out an embodiment in which the virtual participants are football teams and the video clips relate to matches between the teams. The user is presented with challenges such as predicting the score, the number of goals, or the winning team.

5 Claim 1, the only independent claim, reads:

1. A virtual gaming console comprising:

a display device;

an input device that receives a session initiation input to initiate a virtual game and that receives a challenge response to a challenge presented during the virtual game that corresponds to the virtual game, the challenge being presented via the display device;

a processor, in operable communication with a challenge database and a video clip database storing a plurality of prerecorded video clips of one or more real games, that initiates the virtual game based on the session initiation input, determines one or more virtual participants of the virtual game, determines a subset of the plurality of prerecorded video clips stored in the video clip database with a tag that identifies the one or more virtual participants, randomly selects a plurality of virtual game clips from the subset, renders a sequence of the plurality of virtual game clips on the display device, determines the challenge from the challenge database based on the tag, renders the challenge on the display device, and determines an outcome to the challenge response.

6 The applicant also makes arguments in relation to claims 2 and 3, which read:

2. The virtual gaming console of claim 1, wherein the processor further determines a fixed maximum time for the display device to render the sequence of the plurality of virtual game clips.

3. The virtual gaming console of claim 2, wherein the processor performs the random selection of the plurality of virtual game clips based on the fixed maximum time until a total run time for the plurality of virtual game clips equals the fixed maximum time.

The law

7 Section 1(2) of the Act states that certain things are not inventions for the purposes of the Act:

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.

8 The test of determining whether an invention relates to one of these things was laid down by the Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application*¹. The four steps of the test are:

(1) Properly construe the claim;

(2) Identify the actual 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 Subsequently, the Court of Appeal in *Symbian*² made clear that the *Aerotel* test is not intended to provide a departure from the previous requirement set out in case law, namely that the invention must provide a "technical contribution" if it is not to fall within excluded matter.

10 Guidance on whether a computer implemented invention makes a technical contribution was provided by the Court in *AT&T/CVON*³. This guidance is set out in the form of five signposts. These signposts were reformulated in *HTC v Apple*⁴ in and read as follows:

i) Whether the claimed technical effect has a technical effect on a process which is carried on outside the computer.

ii) Whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run.

iii) Whether the claimed technical effect results in the computer being made to operate in a new way.

iv) Whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer.

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

² *Symbian Ltd's Application* [2009] RPC 1

³ *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

⁴ *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451

v) *Whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.*

Assessment

11 I will consider the *Aerotel* steps in turn in my analysis.

Step (1) Properly construe the claim

12 The invention relates to a “virtual gaming console”. According to the description this could be a physical console or a system on a general-purpose device such as a smartphone, tablet or computer. The term “virtual” refers to the nature of the game, which is defined as a “virtual game”. An input device receives a session initiation and a challenge response.

13 The virtual console also includes a challenge database and a video clip database, the latter storing video clips of real games. According to the claim, a processor communicates with these databases and determines one or more of the virtual participants of the virtual game. These virtual participants are not the players of the game but rather relate to participants in the video clips, for example football teams. The processor then identifies a subset of the pre-recorded video clips using a tag that identifies the one or more virtual participants. A selection of video clips is then randomly chosen from this subset and are rendered on the display device of the console. The processor determines a challenge from the challenge database based on the tag, displays the challenge, and then determines an outcome to the challenge response (for example, win or lose).

14 The examiner considers that several of the above features constitute added subject matter. The first of these relates to the processor determining “one or more participants”. The examiner is of the view that the disclosure in the application as filed only supports determination of up to two virtual participants. For present purposes I will construe the claim as being restricted to a selection of up to two participants, although this does not impact on my decision.

15 The second piece of added matter identified by the examiner is that the processor “determines the challenge from the challenge database based on the tag”. The examiner contends that there is no disclosure in the application as originally filed of selection of challenges based on such tags. For present purposes it is sufficient to assume that the processor selects a challenge in some manner.

16 The third piece of added matter identified by the examiner is that there may not be disclosure in the application as filed of a single input device which receives both the session initiation and the challenge response. Again, this is not material to my decision on excluded subject matter, and for the purposes of this decision I will assume that these two inputs are received in some way from input means.

17 Claims 2 and 3 relate to determining a fixed maximum time for the display device to render the sequence of the plurality of video game clips, and the selection of video clips until a total run time equals the fixed maximum time.

Step (2): Identify the actual contribution

- 18 Jacob LJ outlined the considerations to be applied when identifying the contribution made by the claims in paragraph 43 of *Aerotel*:

“The second step – identify the contribution – is said to be more problematical. How do you assess the contribution? Mr Birss submits the test is workable – it is an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best sums up the exercise. The formulation involves looking at substance not form – which is surely what the legislator intended.”

- 19 The examiner has argued that consoles comprising user inputs, displays and processors, and systems additional comprising databases of videos and challenges are known, based on documents found during the search. She therefore considers the contribution to be the steps taken by the processor in initiating the game, determining participants, selecting more than one video clip and a challenge from a database, displaying these and determining an outcome to a challenge response. The applicant argues that the contribution includes apparatus for playing a game.
- 20 It is important when identifying the contribution to consider the claimed invention as a whole. I note that the specific apparatus claimed is general, comprising a display means, an input device and a processor. The invention could be implemented on bespoke apparatus designed specifically for the purposes of the game, or on a general-purpose data processing device such as a computer, tablet or smartphone. The description envisages both implementations. Although the processor must carry out specific steps in the claimed console, a general-purpose processor could be programmed to carry out these steps. The invention also requires two databases, a challenge database and a video clip database, but there is nothing in the claimed invention that requires any specific hardware implementation of these databases and they could sit in storage either on the local device or on a remote server, both of which are standard. I therefore conclude that, although the contribution involves implementation on an apparatus, the specific details of the apparatus, beyond that it must include a display device, input means, a processor and presumably storage for the two databases, are not material to the contribution.
- 21 On this basis I consider the contribution to relate to the following:

A virtual gaming console comprising a display device, input means and a processor, whereby, once a game is initiated, up to two participants are determined, at least one of them by the processor, video clips are selected from a video clip database by the processor based on tags that identify the participants, a subset of these clips are randomly selected and displayed on a display device, and a challenge is selected from a challenge database and displayed on a display device, the console receiving a challenge response and determining an outcome based on that challenge response.

- 22 The contribution made by claims 2 and 3 also includes the processor determining a fixed maximum time for the display device to render the sequence of the plurality of video game clips, and the selection of video clips until a total run time equals the fixed maximum time.

Steps (3) and (4): Ask whether it falls solely within the excluded subject matter;
Check whether the actual or alleged contribution is actually technical in nature

- 23 For convenience I will consider steps (3) and (4) together. The examiner considers the invention to lie wholly in the excluded categories of a method for playing a game and a program for a computer as such.
- 24 The applicant makes two main arguments in the correspondence on file.
- 25 Firstly, the applicant argues that the invention does not relate solely or actually to a method of playing a game, rather it relates to the apparatus for playing a game and a method of configuring and operating apparatus for enabling playing of a game. They consider the apparatus to be specifically adapted and to provide a technical effect. The operations of the respective elements are technical and lead to a technically better outcome in the provision of the game. The applicant considers the operations of the respective input device and the other elements of the system to be technical and their configuration and interaction lead to a technically better outcome on the provision of the game. The game provided is thereby much more engaging for the player than existing games.
- 26 Secondly, the applicant submits that the benefits of the invention include improved search times and a smaller memory requirement. According to the applicant the improved search times arise from tags attached to the video game clips in the video clip databases. These tags enable the processor to improve search times by searching for particular tags rather than having to search through all possible video clips. Furthermore, the applicant claims that search time is further improved by randomly selecting video clips rather than searching through all clips with the corresponding tag. The applicant's argument in relation to a smaller memory requirement relate to the features of claims 2 and 3, whereby the processor stops selecting virtual game clips once a fixed maximum time has been reached, thereby resulting in reduced memory requirements.
- 27 In my identification of the contribution above I have accepted that the contribution involves implementation on an apparatus, but that the details of the apparatus are not material to the invention and the apparatus could be a general-purpose computer. Although the applicant argues that the video clips are specifically adapted, I cannot find an arrangement of hardware specific to the invention of claim 1. I do not therefore share the applicant's view that the invention relates to apparatus for playing and configuring a game rather than the method of playing the game itself. Rather the invention relates in substance to the details of how the virtual game works, namely by selecting challenges based on video clips selected from a database of such clips, the clips being selected based on tags that identify participants of real games that form the subject of each of the stored video clips. Although the nature of the challenges themselves are not defined in the claim I consider that the invention relates to a scheme, rule or method for playing a game. There does not seem to me to be any technically better outcome in the provision of games such as this.
- 28 The second argument made by the applicant relates to the implementation of the invention as a program for a computer. The *AT&T/Cvon* signposts provide a helpful

guide for determining whether an invention implemented as a program for a computer makes a technical contribution.

- 29 The first signpost asks whether the claimed technical effect has a technical effect on a process which is carried on outside the computer. In the present case the contribution relates entirely to the virtual gaming console which constitutes the computer system. The only effect outside the computer is in the playing of the game, and I have found that this does not have a technical effect.
- 30 With regards to signpost (ii), in the present case the contribution relates to the operation of the game and does not operate at the architectural level of the computer. Nor does the contribution result in the computer operating in a new way in accordance with signpost (iii). The computer operates in the same manner and it is the computer program which carries out the functions of the claimed invention. It does not alter the way that the computer operates.
- 31 The applicant's second argument relates mainly to the fourth signpost, namely that improved search times and a smaller memory requirement make the computer a better computer in the sense of running more efficiently and effectively as a computer. I am not convinced that the computer itself operates in a better way in this manner. The video tags enable video clips relating to the identified participants to be selected. It may be a more efficient method of searching such data than having to carry out some sort of search of each video clip in the database, but any such efficiencies relate to the way the database operates in the game, not to any improvements in the computer itself. Moreover, such tagging is a commonly used technique and applying it to the video clips in the game of the present invention does not result in a better computer in the sense of running more efficiently or effectively as a computer. Neither does the random selection of video clips result in a better computer. This is a feature of the way the game works rather than the way the computer works. The computer is operating in the same manner. The features of claims 2 and 3, whereby the processor stops selecting virtual game clips once a fixed maximum time has been reached, also do not result in a better computer in the sense of signpost (iv). This is a feature of the game and, whilst it might result in a smaller memory requirement for the claimed invention, this is not an improvement to the computer itself but rather an artefact of the game rules. I therefore conclude that neither of these features point to the presence of a technical contribution in the sense of signpost (iv).
- 32 Signpost (v) asks whether the perceived problem has been overcome or merely circumvented. The perceived problems of increasing search speed of the video clips and reducing memory requirements are not solved in any technical sense, for example by improving the way memory is accessed or the way the processor works, but rather relate to the way that the game works in tagging video clips based on virtual participants and setting a fixed maximum time for the selected video clips.
- 33 I therefore conclude that the *AT&T/Cvon* signposts do not point towards the invention making a technical contribution. Taking a step back, the invention relates in substance to the manner in which a video clips database involving participants and a challenge database are used to enable users to play a game involving these video clips and the challenges. The system is implemented as a program for a computer running on conventional hardware arrangements. The contribution lies entirely in the

way the game operates and is implemented as a computer program. It does not make any technical improvements to the computer itself or to the way the computer operates. The contribution does not therefore make a technical contribution and I therefore conclude that the claimed invention is excluded from patentability.

- 34 As I have found that the invention is excluded from patentability, I do not need to go on to determine whether claim 1 includes subject matter not present in the application as filed. As I have commented above, the alleged added subject matter does not have a material impact on my decision on patentability.

Conclusion

- 35 I have found that the invention is excluded from patentability under section 1(2)(c) of the Act as a scheme, rule or method for playing a game and as a program for a computer as such. I therefore refuse the application.

Appeal

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

Ben Micklewright

Deputy Director, acting for the Comptroller