



PATENTS ACT 1977

APPLICANT Warner Bros Entertainment Inc.

ISSUE Whether patent application GB2018653.2 contains new subject matter contrary to section 76(2), is excluded under section 1(2) and has inventive step under section 1(1)(b)

HEARING OFFICER Peter Mason

DECISION

Introduction

- 1 Patent application GB2018653.2 is a divisional of patent application GB1804452.9. GB1804452.9 is the national phase of PCT patent application PCT/US2016/056297 filed on 10th October 2016, having an earliest priority date of 9th October 2015. The PCT application was initially published as WO2017/062960 on 13th April 2017 and republished as GB2557152 on 13th June 2018. This divisional application was published as GB1587280 on 24th March 2021.
- 2 The original section 20 period ended on 17 April 2021. This period was extended to end on 17th June 2021 upon request. A further request for a discretionary extension, filed on 9th July 2021, is allowed. The section 20 period was extended to the 17th August 2021.
- 3 The examiner considers that the invention relates to subject-matter excluded from patentability under section 1(2)(c) and (d) of the Patents Act 1977 (“the Act”), specifically to a program for a computer and/or the presentation of information. Additionally, the examiner considers that the application as amended contains added matter and that the amended claims lack an inventive step.
- 4 The applicant has attempted to overcome the raised objections through amendment and argument but has been unable to persuade the examiner that the invention has met the requirements of the Act.
- 5 The examination report dated 25th June 2021 sets out the issues to be decided. A letter filed on 9 July 2021 from the applicant’s attorney (Withers and Rogers LLP) included extensive arguments relating to the amended set of claims filed on 16 June 2021, arguments in relation to the added matter objection, arguments in relation to

the objection of a lack of inventive step, an amended description and a hearing request. The applicant asked that a decision be made based upon the papers on file. I confirm that all papers on file have been considered.

- 6 The issues to be decided are whether the application comprises added matter contrary to section 76(2), whether invention consists solely of a program for a computer and/or the presentation of information, which the Act excludes from patentability under section 1(2)(c) and (d), and whether the amended claims contain an inventive step.

The law: added matter

- 7 The relevant provisions with regard to added matter is section 76(2) of the Act, which reads as follows:

76 (2). No amendment of an application for a patent shall be allowed under section ...18(3) ..if it results in the application disclosing matter extending beyond that disclosed in the application as filed.

This was summarised in Richardson-Vicks Inc.'s Patent¹ as: "the test of added matter is whether a skilled man would, upon looking at the amended specification, learn anything about the invention which he could not learn from the unamended specification.

- 8 Guidance on applying section 76 can be found in Bonzel and Schneider² , where Aldous J described the task of determining whether additional matter was disclosed by an amendment as being: a) to ascertain through the eyes of the skilled addressee what is disclosed, both explicitly and implicitly in the application. b) to do the same in respect of the patent as granted [or the amended application in this case]. c) to compare the two disclosures and decide whether any subject matter relevant to the invention has been added whether by deletion or addition. The comparison is strict in the sense that subject matter will be added unless such matter is clearly and unambiguously disclosed in the application either explicitly or implicitly.

The law: excluded matter

- 9 The examiner has raised an objection that the invention is not patentable because it relates to one or more of the categories of subject-matter which are not considered to be inventions under the Act. This 'excluded matter' is set out in section 1(2) of the Act:

1(2). 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;

¹ Richardson-Vicks Inc's Patent [1995] RPC 586

² Bonzel and Schneider (Europe) AG v Intervention Ltd [1991] RPC 553

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.

10 The Court of Appeal's judgement in *Symbian*³ tells us that in order to determine whether an invention falls solely within the any of the exclusions listed in section 1(2), the four-step test set out in its earlier judgement in *Aerotel*⁴ must be used. The four steps are:

- (1) properly construe the claim(s);
- (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.

11 The fourth step of the test is to check whether the contribution is technical in nature. In paragraph 46 of *Aerotel* it is stated that applying this fourth step may not be necessary because the third step should have covered the question. I shall consider whether the contribution is excluded alongside the question of whether the contribution is technical in nature, meaning I will consider the third and fourth steps of *Aerotel* together.

The law: inventive step

12 The relevant provisions in relation to inventive step are sections 1(1)(b) and section 3, which state:

1(1). A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say - (a) ... (b) it involves an inventive step; (c) ...

3 An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).

13 The Court of Appeal in the case of *Windsurfing*⁵ formulated a four-step approach for assessing whether an invention involves an inventive step. This approach was restated and elaborated upon by that Court in *Pozzoli*⁶, as follows:

- (1)(a) Identify the notional "person skilled in the art";
- (1)(b) Identify the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- 3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

³ *Symbian Ltd. v Comptroller-General of Patents* [2008] EWCA Civ 1066

⁴ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371

⁵ *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*, [1985] RPC 49

⁶ *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 5889

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

Argument and analysis

Added subject matter

14 The latest claims were filed on 16th June 2021 and there is one independent claim:

1. A method comprising:

configuring, by at least one computer, audio-video data for providing a virtual reality (VR) output when processed by a VR headset, wherein the VR output is organized according to a predefined narrative; and

packaging the audio-video data in a computer-readable medium with additional content coordinated with the predefined narrative and configured for providing an alternative output, wherein the alternative output comprises an augmented reality (AR) output and at least one of a stereoscopic three-dimensional (3D) audio-video output or a two-dimensional (2D) audio-video output, and the AR output is configured to simulate the VR output when used in conjunction with the at least one of two-dimensional (2D) audio-video output or stereoscopic three-dimensional (3D) audio-video output.

15 The invention relates to a method for providing audio-video data to provide a virtual reality (VR) display output when processed by a VR headset, including providing additional content packaged with the audio-video data; the additional content configured to provide an alternative display output which alternative output comprises an augmented reality (AR) output and at least one of 3D or 2D audio-video output.

16 The claimed invention further requires that the AR output is configured “to simulate the VR output” when it is used in conjunction with the at least one of a 2D or 3D audio-video output.

17 The examiner objects that the application as filed did not require that the AR output is configured to simulate the specific VR output when used in conjunction with the 2D or 3D audio-video, and instead the application either disclosed that the AR output simulated an unspecified VR output or that the AR output and VR output provided equivalent but visually distinct environments. The examiner refers to paragraphs 90, 52, 55, 74, 75 in relation to this objection. The examiner also objects that the initial amendment, and later removal, of the phrase “the additional content is configured as a duplicate of the predefined narrative in another format” is also considered to add matter.

18 The applicant argues that paragraph 16 makes it clear that the alternative output can be an AR output...configured to simulate a VR output when used in conjunction with at least one of a 2D or 3D output, and that the skilled person would understand that the simulated VR output referred to in paragraph 16 is the VR output described in paragraph 15. The applicant also referred to paragraph 74.

- 19 The application as filed clearly discloses that the additional content may be coordinated with the predefined narrative (of the VR content) and configured for providing an alternative output (paragraph 88), that the additional content may be configured to simulate a VR output when used in conjunction with at least one of 2D or 3D video output (paragraph 90) and that the additional content may be configured as a duplicate of the predefined narrative or as a complimentary, non-duplicate, of the predefined narrative (paragraph 92).
- 20 Paragraph 74 states that a first user with an AR headset views a content object 910 partially on a screen 902 and partially in an augmented space around the screen...a second user is viewing the screen with naked eyes and sees the content object 910 and the actual physical surroundings of the screen, the third user using a VR headset does not see the screen at all, but views an equivalent content object 912 for the object 910 displayed on the screen. All the users share the experience of the content playing on the screen 902, but AR and VR users can enjoy enhanced content.
- 21 Therefore, it appears clear that the first, second and third users are experiencing the same predefined narrative content at the same time. Additionally, from paragraph 90, it is disclosed that the additional content may be configured to simulate a VR output when used in conjunction with at least one of a 2D or 3D video output (paragraph 90). I find that the amended claim is supported in the description as originally filed and so contains no added subject matter.
- 22 However, the phrase “the AR output is configured to simulate the VR output when used in conjunction with the at least one of 2D or 3D audio-video output” is not clear. The support from the description uses the same wording, and so does not assist. The applicant argues that the removal of the term “the additional content duplicates a narrative of the VR content in another format” does not add matter as it is already implicit in claim 1 in the phrase “the AR output is configured to simulate the VR output when used in conjunction with at least one of 2D or 3D audio-video output” and this will assist when construing the claim to assess whether the subject matter is excluded from patentability.

Excluded subject matter

- 23 I will now consider the excluded subject matter. Following the *Aerotel* approach and the four step test.

Step 1 - Properly construe the claim

- 24 The examiner construed the claim as:

Providing audio-video data organised into a narrative and which provides a VR output when processed by a VR headset, and providing alongside the audio-video data additional content coordinated with and duplicating the narrative in another format (AR, 2D or 3D) and which enables an alternative output which comprises an AR output and a 2D or 3D audio-video output, and the AR output is able to simulate a VR output when combined with a 2D or 3D output.

- 25 The applicant did not comment on this construction. However, the phrase “the AR output is able to simulate a VR output when combined with a 2D or 3D output” is not considered to be clear. As the description makes clear that the “simulation” is a duplication of the displayed content and applicant considers that the phrase “the additional content duplicates a narrative of the VR content in another format” is implicit in the claim, the claim is therefore construed as:

A method comprising:

configuring audio-video data for providing a virtual reality (VR) output display when processed by a VR headset, wherein the VR output display is organised according to a predefined narrative; and

packaging the audio-video data in a computer readable medium with additional content coordinated with the predefined narrative and configured for providing an alternative output, wherein the alternative output comprises an augmented reality AR output and at least one of a stereoscopic 3D audio-video output or a 2D audio-video output, and the AR output is configured to duplicate the narrative content of the VR output when used in conjunction with the at least one of 2D audio-video output or stereoscopic 3D audio-video output.

Step 2 – Identify the actual (or alleged) contribution

- 26 Paragraph 43 of *Aerotel* suggests that the contribution can be assessed from the point of view of the problem to be solved, how the invention works and what the advantages are, stating “What has the inventor really added to human knowledge perhaps sums up the exercise”. Knowledge of the prior art plays a role in assessing the contribution, and as Lewison J noted⁷, the examiner should have some notion of the state of the art. This does not necessarily mean however that the contribution is defined by what is new and inventive in the claim.
- 27 The application states that the method produces and packages narrative content to enhance the appeal and enjoyment of narrative content for new immersive technologies such as VR and AR (paragraph 8) and that the packaged content allows all users to share the experience of the content playing on a screen while AR/VR users enjoy enhanced content (para 74).
- 28 The examiner and applicant agree that none of the prior art documents disclose that the AR, VR and 2D/3D data are organised and coordinated based upon a predefined narrative. Additionally, none of the prior art identified discloses packaged data relating to a predefined narrative, which data can provide a VR output display and an AR output display which duplicates the VR output display when used with a 2D or 3D audio-video output. It is clear that the applicant considers that the provision and coordination of the multiple outputs is considered to be key to the contribution, and I agree.
- 29 I assess the contribution to be:

⁷ AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat), paragraph 8.

configuring audio-video data for providing a virtual reality (VR) output display when processed by a VR headset, wherein the VR output display is organised according to a predefined narrative; and

packaging the audio-video data with additional content configured for providing alternative coordinated duplicate outputs comprising an augmented reality AR output and at least one of a stereoscopic 3D audio-video output or a 2D audio-video output, wherein the AR output is configured to duplicate the VR output when used in conjunction with the at least one of the 2D or 3D audio-video output.

Steps 3 & 4 - Whether the actual or alleged contribution falls solely within the excluded matter and check whether it is actually technical

Program for a computer

- 30 It is clear that the contribution is put into effect by a computer suitably programmed to configure and package the audio-video data. The computer consists of conventional data processing hardware. The specific method of configuring or packaging the data is not disclosed and so is assumed to be conventional. The specific methods of creating VR, AR, 2D or 3D displays from the audio-video data are also not disclosed.
- 31 To assist in determining whether the contribution relates solely to a program for a computer, the examiner used the signposts to technical contribution set out in *AT&T/CVON*⁸ and by the Court of Appeal in *HTC/Apple*⁹. These are:
- 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;
 - v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.
- 32 These signposts are useful guidelines only, providing a list of some of the factors that can indicate whether a contribution may be technical.
- 33 Under signpost (i) the applicant argues that the invention has a technical effect on a process carried on outside the computer through the improved compatibility and reproducibility of the predefined narrative “which relies on the composition of the

⁸ AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat)

⁹ HTC Europe Co Ltd v Apple Inc [2013] EWCA Civ 451

output which is packaged together”. In the absence of technical details of the method of packaging the data or how the duplicate outputs are coordinated, signpost (i) does not help us identify a technical contribution.

- 34 It is clear that there is no technical effect at the level of the architecture of the computer, the computer does not operate in a new way and the computer is not a better computer, and so signposts (ii), (iii) and (iv) do not assist me to identify a technical contribution.
- 35 The problems overcome by the invention relate to the enjoyment of narrative content displayed in AR and VR and the packaged content allowing all users of VR, AR and 2D/3D displays to share the experience of the narrative content. These are not technical problems and so overcoming them does not reveal a technical contribution.
- 36 None of the signposts point to any technical contribution and the other arguments raised do not lead us to a technical contribution. I therefore consider that the invention is excluded as a program for a computer.
- 37 For completeness I confirm that I have also considered the dependent claim and the rest of the specification. I have been unable to identify anything which would shift the contribution beyond a computer program as such.
- 38 The examiner’s primary objection to excluded matter was that the invention is excluded as a computer program, but she has also objected under the presentation of information exclusion. Having decided that the invention is excluded as a computer program I do not see the need to consider the presentation of information exclusion.
- 39 Similarly, having decided that the invention is excluded as a computer program I do not see the need to consider the inventive step objections raised.

Conclusion

- 40 Having carefully considered all of the arguments and papers on file, I am of the view that the contribution made by the invention falls solely within the computer program exclusion.
- 41 I therefore find that the invention claimed in GB2018653.2 is excluded by section 1(2)(c) as a program for a computer as such. I therefore refuse the application under section 18(3).

Appeal

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

PETER MASON

Deputy Director, acting for the Comptroller