



PATENTS ACT 1977

APPLICANT	Global Media IP Limited
ISSUE	Whether patent application GB1803928.9 complies with the requirements of sections 1(1)(b), 1(1)(d) and 1(2) of the Patents Act 1977
HEARING OFFICER	B Micklewright

DECISION

Introduction

- 1 Patent application number GB1803928.9 was filed on 12 March 2018 in the name of Global Radio Services Limited, making no claim to priority. Since filing, the applicant changed name to Global Media Group Services Limited on 14 June 2021, and then subsequently the registered applicant was changed to Global Media IP Limited on 23 June 2023. The application was published as GB 2573734 A on 20 November 2019.
- 2 The examiner issued a letter on 5 August 2019 under section 17(5)(b) of the Patents Act 1977 (“the Act”) reporting that a search would serve no useful purpose. The letter was accompanied by an examination opinion in which the examiner outlined that the reason a search would serve no useful purpose was because they considered the claims were excluded from patentability as a method for doing business and a program for a computer as such.
- 3 The applicant subsequently requested substantive examination and there followed several rounds of correspondence between the applicant and the examiner. The examiner performed a search on 13 March 2023, though this was truncated and remains incomplete. The examiner maintains that the claims are excluded from patentability under section 1(2), and following the search, also considers the claims to lack inventive step. The applicant requested a decision be made based on the papers on file. The applicant has made no further submissions following the examiner’s latest communication dated 1 June 2023, but I have considered all the applicant’s submissions on file.

The invention

- 4 The invention relates to attributing associations between interstitial content in streamed media content and subsequent activity performed by the media consumer.

The interstitial content may be advertisements and the streamed media content may be an audio or video programme.

- 5 Cookies are commonly used to track individual users on multiple websites in order to allow analysts to monitor associations, for instance between a user being presented an advert for a product and subsequently visiting another website in order to purchase that product. This may lead to the operator of the website that presented the advertisement being paid, or to guide which advertisements to show in the future. The aim of the invention (as stated on page 2) is to be able to establish a similar association with respect to advertisements presented in streamed media.
- 6 The invention purportedly achieves its aim by storing, remotely from the consumer, data which associates content information of the interstitial content in the media stream with an identifiable media consumer that the media stream is streamed to, the media consumer being a media playback device. Subsequent to the streaming of the media stream and storing of the data, content information of the interstitial content is correlated with subsequent activity performed at a remote server by the media playback device. The activity comprises accessing content from the remote server, and the remote server could be a web server operating a commerce site such as an online shop where products or services can be acquired or consumed.
- 7 The latest amendments to the claims were filed on 20 February 2023. Claim 1 is the only independent claim and reads as follows:
 1. *A method for streaming media from a computer-implemented media streaming system, the method comprising:
 - receiving a primary media stream;*
 - receiving a plurality of items of interstitial content, each item being associated with content information specifying the content of the respective item;*
 - combining the items of interstitial content with the primary media stream to form a playout media stream;*
 - streaming the playout media stream to an identifiable media consumer over a publicly accessible communications network; and*
 - storing history data remotely from the consumer, the history data, the history data associating (i) the content information of the interstitial content in the media stream streamed to the consumer with (ii) the media consumer, wherein the media consumer is a media playback device,**

subsequent to the streaming and storing steps:

 - receiving information, from a remote server, comprising an identity of the media consumer and an activity performed by the media consumer, the activity comprising accessing content from the remote server; and*
 - based on the received information, correlating i) the content information of the interstitial content, stored in the history data, streamed to the media consumer with ii) the subsequent activity performed by the media consumer on the remote server.*

The law

8 Section 1(1) of the Act states:

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) ...

(d) the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A below;

9 Section 3 of the Act states:

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).

10 Section 2(2) explains what is meant by the state of the art for the purposes of inventive step:

The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any other way.

11 In *Windsurfing*¹, the Court of Appeal formulated a four-step approach for assessing whether an invention is obvious to a person skilled in the art. This approach was restated and elaborated upon by the Court of Appeal in *Pozzoli*² where Jacob LJ reformulated the Windsurfing approach as follows:

(1)(a) Identify the notional “person skilled in the art”

(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;

¹ *Windsurfing International Inc v Tabur Marine (Great Britain) Ltd* [1985] RPC 59

² *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

- (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?*

12 Section 1(2) of the Act states:

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—

...

(c) *A scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;*

...

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.

13 The provisions of Section 1(2) were considered by the Court of Appeal in *Aerotel*³ where a four-step test was set out to decide whether a claimed invention was excluded from patent protection:

(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.*

14 It was stated by Jacob LJ in *Aerotel* that the test is a re-formulation of and is consistent with the previous 'technical effect approach with rider' test established in previous UK case law. Kitchin LJ noted in *HTC v Apple*⁴ that the *Aerotel* test is followed in order to address whether the invention makes a technical contribution to the art, with the rider that novel or inventive purely excluded matter does not count as a 'technical contribution'.

15 Lewison J in *AT&T/CVON*⁵ set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. Lewison LJ reformulated the signposts in *HTC v Apple* in light of the decision in *Gemstar*⁶. The signposts 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;

³ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371

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

⁵ *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

⁶ *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

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.*

Assessment – Inventive step

- 16 In order to determine if the claimed invention involves an inventive step I will follow the approach laid out in *Windsurfing* and reframed in *Pozzoli*.

Step (1): identify the notional person skilled in the art and the relevant common general knowledge of that person

- 17 The person skilled in the art may be taken to be a software and systems development team involved in tracking and analysing the conversion of advertisements and other content on computing devices. The team would have technical knowledge of the delivery of advertisements on websites and applications and conventional ways of tracking engagement and conversion of said advertisements.

- 18 The examiner suggests the skilled person's relevant common general knowledge would also include the use of interstitial advertisements and how to intersperse them into a media stream. The examiner points to a number of prior art documents cited previously to conclude this is well known in the art and so would form part of the common general knowledge. I agree.

Step (2): Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

- 19 Claim 1 firstly defines combining items of interstitial content with a primary media stream in order to form a playout media stream that is streamed to an identifiable media consumer over a network.

- 20 In the main embodiment described, the "interstitial content" relates to advertisements, but the description states that such content may also relate to public service announcements, short documentaries or artistic content (as stated on page 6).

- 21 A "primary media stream" may be an audio or video programme (as stated on page 4).

- 22 As defined in the claim, the "media consumer" is a media playback device. The media playback device may be a desktop computer, laptop, smartphone, tablet or any other suitable computing device (page 6).

- 23 Subsequently, the claim defines storing history data remotely from the consumer, and specifies that the history data associates content information of the interstitial content with the media consumer.

- 24 The "history data" may include an indication of which advertisements have been played to which consumers. For instance, this may specify an advertisement by

reference to a unique identity of the advertisement or an indication of the subject or promotor of the advertisement (page 6).

- 25 Finally, the claim defines subsequently receiving information, from a remote server, comprising an identity of the media consumer and content accessed from the remote server by the media consumer in order to correlate content information of the interstitial content streamed to the media consumer with the subsequent activity performed by the media consumer on the remote server.
- 26 For instance, this may correlate instances of the presentation of an advertisement for a certain product with an action to purchase that product, or to purchase a rival product (page 9).
- 27 “An identity of the media consumer” may be a unique identity associated with the computer’s hardware such as a serial number or IMEI (international mobile equipment identity), as stated on page 8.
- 28 The “remote server” (server 13 in the description and figure) may operate a commerce site such as an online shop by means of which products or services can be acquired or consumed (page 8). The content accessed by the consumer may be identified by a URL or another identity such as its title or unique reference by which content is designated on the remote server (page 9).
- 29 As the examiner points out, it is not apparent from the claim what device is carrying out the “receiving”, “combining”, “streaming”, “storing” and “correlating” steps of the claim. It is, however, clear that it is not the media playback device. The description, with reference to the figure, describes servers 7, 12, 16 and 17 as performing the various steps of the claim. It is stated on page 9 that the servers could be provided by respective hardware devices or could be coalesced physically in any combination.
- 30 The examiner suggests that the claim does not explicitly state that the activity is carried out subsequent to the streaming, rather instead it merely defines the information concerning the activity is received subsequent to the streaming. However, I do not agree with this point. While the claim does initially state that the information is received subsequent to the streaming step, it then goes on to say that, based on the received information, the method comprises correlating “the content information of the interstitial content ... streamed to the media consumer with *the subsequent activity* performed by the media consumer”. In my view, it is therefore clear that the activity itself is carried out subsequent to the streaming step.

(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

- 31 The examiner cited the following document:

D1: US 2017/0200199 A1 (O'REILLY)

- 32 This document discloses a method and system for advertising conversion attribution. A conversion tracking server stores an association between an advertisement and a user device that receives the advertisement (paragraph [0012]). Similarly, the conversion tracking sever stores an association between a conversion event and the

user device. The system is then able to identify an advertising conversion (paragraph [0013]). It is stated that the method avoids the use of cookies as these may not be available (paragraphs [0005] and [0006]).

- 33 No submissions have been made by the applicant in relation to the disclosure of this document. I agree with the examiner's analysis, which is summarised in the following paragraphs.
- 34 When an advertisement is shown on the user device, the user device sends a signal to the conversion tracking server which includes information about the advertisement (such as the advertiser, the product, product category or any other suitable feature of the advertisement (paragraph [0035])) and data that uniquely identifies the user device (such as a unique device identifier, MAC address, etc.) (paragraph [0038]). The conversion tracking server can then define an association between the advertisement information and user device (paragraph [0039]). This document therefore clearly discloses the features required by the "storing history data" step of claim 1.
- 35 Subsequent to the advertisement being shown, the user device accesses a merchant server in order to carry out a conversion action (such as making a purchase, visiting a website, registering for a service, etc. (paragraph [0030])) (paragraphs [0040] and [0042]). The conversion tracking server receives information on the merchant, the product, product category of the action (paragraph [0044]), and data identifying the user device (paragraph [0048]). The conversion tracking server subsequently defines an association between the conversion action and the user device which is used to identify a conversion event. This is done by matching the advertisement information with the information related to the conversion action and matching the user devices (paragraphs [0049] and [0050]). This document therefore clearly discloses the features required by the "receiving information" and "correlating" steps of claim 1.
- 36 D1 is silent on the form of the advertisement content. It therefore does not disclose receiving a primary media stream, receiving a plurality of items of interstitial content, combining the interstitial content with the primary media stream to form a playout media stream, and streaming the playout media stream to a media consumer.

Step (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?

- 37 D1 simply discloses that advertising content is displayed on a user device. It is silent as to what form this advertising content takes or how and where it is placed in relation to other content being displayed to the user.
- 38 The examiner argues that streaming interstitial advertisements is one of a commonly known selection of ways to present advertisements online. The skilled person would therefore readily apply the method of D1 to conversion tracking of interstitial advertisements in streamed media.
- 39 I agree with the examiner. D1 does not constrain the skilled person to a particular form of advertisements, and as interstitial advertisements in streamed media are part of the common general knowledge it would be obvious for the skilled person to apply the

teachings of D1 to interstitial advertisements in streamed media. Claim 1 therefore lacks an inventive step over the disclosure of D1.

- 40 I have examined the dependent claims 2-12 and these, in my view, fall within the common general knowledge of the skilled person. I therefore conclude that all claims lack an inventive step.

Assessment – Excluded matter

- 41 To determine whether the claimed invention can be considered to be more than a program for a computer and/or a method for doing business as such, I am required to follow the approach set out by the Courts in *Aerotel*.

(1) Properly construe the claim

- 42 I have already construed the claim in relation to inventive step above.

(2) Identify the actual contribution

- 43 Identifying the contribution in the second step of this test is critical and I refer to paragraph 43 of *Aerotel* for guidance:

“The second step – identifying 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 judgement 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 the substance not form – which is surely what the legislator intended.”

- 44 I have found that the claims do not make an inventive step over the prior art. For the purposes of this decision, I will however consider the contribution separately, with reference to the cited prior art as necessary.

- 45 In the pre-hearing report, the examiner identified that the problem being addressed by the invention relates to assessing the effectiveness of advertisements streamed interstitially. The invention works by using a remote computer system to receive data associated with advertisements streamed to a user device and data associated with subsequent activity and correlating the data.

- 46 As in the discussion of inventive step, the examiner refers to several previously cited documents to show that streaming media with interstitial advertisements is common in the art. The examiner also points to D1 to show that a remote device correlating display of an advert on a user device with subsequent activity on that user device is known.

- 47 The examiner goes on to determine the contribution to be:

a computer program which causes a known arrangement of computing hardware, with associated comms and storage, to track exposure to interstitial adverts in conventionally streamed media and track the use of associated websites and then draw a potential correlation between the adverts and the merchant website usage for marketing purposes.

- 48 In their most recent arguments, the applicant emphasises that the contribution is distinct from simply monitoring engagement with an advert. In contrast, embodiments of the present invention enable monitoring of when a user accesses content from a remote server. They also argue that the contribution is not merely that of monitoring conversion but doing so without explicitly interrogating the user.
- 49 These points appear to be entirely consistent with the contribution the examiner has suggested. I will proceed on the basis of the contribution determined by the examiner.
- (3) *Ask whether it falls solely within the excluded subject matter;*
(4) *Check whether the actual or alleged contribution is actually technical in nature*
- 50 The third and fourth steps of the *Aerotel* test involve considering whether the contribution falls solely within excluded categories, and then checking whether the contribution is technical in nature. It is appropriate to consider these two steps together because whether the contribution is technical in nature will have a direct impact on whether it falls solely within excluded matter.
- 51 The examiner identifies the contribution is a method for doing business. The examiner argues that there is no technical advance in tracking advertisement conversion data associated with streamed advertisements, as the obtention and correlation of the data is performed in a technically known manner. They go on to say that the decision to track data associated with streamed advertisements is for marketing purposes and is therefore a business activity.
- 52 With regards to the business method being performed by a computer, the Examiner points to *Merrill Lynch*⁷ and *Halliburton*⁸ to argue that the mere use of a computer does not confer patentability and that even if the invention can be considered an improvement on previous business methods it will still be excluded because the prohibition in section 1(2)(c) is generic.
- 53 In their letter dated 30 August 2019, the applicant argues that the claim encompasses other embodiments not related to advertisements. In response, the examiner points to the judgment of *Kapur*⁹ which states that exclusions still bite to the extent that excluded subject matter is claimed. That is, even if the claim is wide enough to encompass embodiments that are not excluded it will not be sufficient to save it.
- 54 In their letter of 26 July 2022, the applicant acknowledges that the invention might result in the ability to generate marketing data, but they argue that utilisation of such data (such as how to improve a business operation) is subsequent to the steps defined by the claim and so the claim does not define how the gathered data is used. Similarly, in their letter of 20 February 2023, the applicant argues that the invention is concerned with how certain data can be obtained and how correlations can be formed between that data. They therefore argue that the invention does not encompass the administrative processing of marketing data and does not relate to an improved method of doing business.

⁷ *Merril Lynch's Application* [1989] RPC 561

⁸ *Halliburton Energy Services Inc's Application* [2012] RPC 12

⁹ *Kapur v Comptroller-General of Patents* [2008] EWHC 649 (Pat)

55 Having considered the applicant's submission, it seems to me that the correlation of interstitial content streamed to a consumer with subsequent activity performed by the consumer serves no technical purpose. As the applicant acknowledges in their letter of 20 February 2023, this enables monitoring conversion of advertisements. The description suggests analysis of such data may allow for the presenters of the advertisement to be paid, or may be used to guide which advertisements to show in the future. This is clearly a business activity. The claim is therefore excluded as a method for doing business as such, regardless of whether other embodiments are encompassed by the claim.

56 The examiner further identifies the contribution as a program for a computer. As the examiner states, although the contribution is implemented using a computer program, that does not mean that it should immediately be excluded as a computer program as such. In *Symbian*¹⁰, the Court of Appeal stated that a computer program may not be excluded if it makes a technical contribution. In order to determine if the contribution is technical in nature, I will make use of the *AT&T* signposts.

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

57 The examiner argues that the invention occurs entirely within the computing system, noting that a conventional network of computers is considered as "the computer" for the purposes of this signpost, as emphasised in the judgment of *Lantana*¹¹.

58 The applicant notes that the invention monitors conversion without requiring explicit action from a user, and without requiring explicit feedback via the streaming service. They argue this obviates a user having to take additional physical steps and draw comparison with the case of *Lenovo*¹², where a card clash problem was solved without the user having to take any extra physical step at the point they use their contactless card.

59 In response, the examiner argues that the prior art document D1 demonstrates the automatic monitoring of conversion without requiring explicit action from the user. This is therefore not a part of the contribution of the invention. The examiner notes that, in any case, the automation of a business process is not comparable to the solving of the technical problem of card clash in *Lenovo*.

60 I agree with the examiner. There is no technical effect on any process conducted outside the computer.

Signposts ii)-iv)

61 These signposts relate to whether the claimed technical effect operates at the architecture level of the computer, makes the computer itself a better computer or makes the computer operate in a new way. In this case I will consider them together. The applicant has not made any particular submissions in relation to these signposts, and this can be dealt with briefly.

¹⁰ *Symbian Ltd v Comptroller General of Patents* [2009] RPC 1

¹¹ *Lantana v Comptroller-General of Patents* [2013] EWHC 2673 (Pat)

¹² *Lenovo (Singapore) Pte Ltd v Comptroller General of Patents* [2020] EWHC 1706 (Pat)

62 In the present case it is evident that the invention does not have any such effect on the computer itself. The computer is working in the way it normally does. These signposts do not therefore point to a technical contribution.

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

63 The applicant argues, in their letter of 20 February 2023, that the invention provides a solution to the technical problem of how to determine a correlation between content information contained in interstitial content of a media stream and the user subsequently acting on the content information via a remote server. The technicality of the problem arises because of the constraints of the environment, for instance users may choose not to (or may not be able to) store cookies.

64 The examiner considers the problem to be related to the collection and correlation of non-technical data for tracking conversion. The examiner does not consider this problem to be technical and does not consider the contribution to provide a technical solution to the problem. The invention simply applies a known technique for the collection of marketing data (as shown in D1) for use with interstitial advertisements.

65 I agree with the examiner. The problem relates to the collection of data related to monitoring conversion between a user receiving interstitial advertisements shown in a media stream and the user subsequently acting upon it. This is not a technical problem, so whether or not the problem is overcome or circumvented there is no technical character to be derived from it. This signpost is therefore of no help to the applicant.

66 I therefore conclude that none of the signposts point to the present invention making a technical contribution.

67 Taking a step back and considering the contribution more generally, it relates to the task of correlating the content of interstitial advertisements streamed to a user with subsequent activity performed by the user. This is for the purposes of monitoring conversion of the advertisements. In my view this is an administrative task in relation to conducting a business activity, and as such is nothing more than a method for doing business. The contribution simply relates to a computer program carrying out this business activity. I cannot see any technical effect. I therefore conclude that the identified contribution is excluded as a program for a computer and method for doing business as such.

68 I do not find any technical effect in any of the remaining claims nor has any been brought to my attention. Accordingly, the invention is excluded from patentability under section 1(2)(c) of the Act.

Conclusion

69 I have found that the claimed invention does not involve an inventive step as is required by section 1(1)(b) of the Act. I have also found that the claimed invention is excluded from patentability as a program for a computer as such and a method for doing business as such under section 1(2)(c) of the Act. I therefore refuse the application under section 18(3).

Appeal

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

B Micklewright

Deputy Director, acting for the Comptroller