Intellectual Property Office

BL O/097/18

13 February 2018

PATENTS ACT 1977

APPLICANT	Avaya Inc.
ISSUE	Whether patent application GB1112924.4 complies with Section 1(2) of the Act
HEARING OFFICER	Stephen Brown

DECISION

Introduction

1 Patent application GB1112924.4 relates to the tagging of media events. It was filed on 27th July 2011, with an earliest date of 30th July 2010. It was published as GB2482415 A on 1st February 2012. The examiner has maintained throughout the examination process that the invention is excluded under section 1(2) of the Patents Act as both a program for a computer and as the presentation of information as such. After several rounds of amendment the applicants requested, in their letter dated 7th September 2017, a decision based on the papers on file. The matter has accordingly come before me.

2 The unextended compliance period for the application expired 26th September 2017. Since then the applicants have twice extended the compliance period, once 'as of right' and once with my permission. Thus, currently, the extended compliance period expired on 26th January 2018.

3 I confirm that, as set out in the examiner's pre-hearing report of 13th September 2017, this decision will only cover the issue of excluded matter under section 1(2) of the Act. Should I find the invention not to be excluded then it will need to be remitted back to the examiner to address various other issues. I further confirm that in reaching my decision I have considered all of the applicants arguments present on file.

The Invention

4 The invention provides means for the users of communication devices which are monitoring a media stream of an event to tag portions of it, and to receive an additional media stream including tags associated with respective time intervals of the event.

5 The current claims were filed on 8th August 2017. There are three independent claims: method claim 1, claim 6 to a server comprising a processor and a computer-readable storage device storing instructions to cause the processor to perform operations, and claim 11 to a computer-readable storage device storing instructions to cause a processor to perform operations. With some minor differences, which I believe do not significantly affect the assessment of the invention, the operations of claims 6 and 11 essentially correspond with the method of claim 1. I will therefore firstly consider independent claim 1, and only go on to consider the other independent claims individually if it appears that the assessment of the invention might be affected by these minor differences. Claim 1 reads:

> *1. A method comprising:*
>
> *receiving, via a network, at a server, a primary media stream of an event;*
>
> *obtaining, at the server, temporal metadata for a plurality of tags associated with the primary media stream of the event, wherein the plurality of tags associated with the primary media stream of the event are received from a plurality of user communication devices monitoring the primary media stream of the event and wherein the plurality of tags associated with the primary media stream are user defined tags received from the plurality of user communication devices;*
>
> *generating, via the server, a secondary media stream for the event, the secondary media stream comprising a sequence of representations of [a] first portion of the plurality of tags based on the temporal metadata, wherein:*
>
> *each representation in the sequence of representations comprises a respective tag from the plurality of tags associated with a time interval of the event, wherein non-temporal metadata comprises an emotion state associated with each of the plurality of tags; and*
>
> *each representation in the sequence of representations visually depicts a relative significance of the respective tag with respect to other tags in the plurality of tags during an interval of time of the event; and*
>
> *delivering, via the network and by the server, a second portion of the secondary media stream to a user communication device along with a corresponding portion of the primary media stream, wherein the second portion and the corresponding portion of the primary media stream are configured to be navigable at the user communication device based on user input commands and/or signals.*

The Law

6 The relevant parts of section 1(2) of the Patents Act read as follows:

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 -

…

(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.

7 In *Aerotel/Macrossan*[1], the Court of Appeal reviewed the case law on the interpretation of section 1(2) and approved the following four-step approach to help decide the issue:

(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.

8 The case law in this area has been further elaborated in *Symbian*[2], *AT&T/CVON*[3] and *HTC v Apple*[4]. In particular, *AT&T/CVON*[3] provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*[4], Lewison LJ amended the fourth of these signposts. The signposts, as modified in *HTC v Apple*[4], 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;

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[1] Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371
[2] Symbian Limited's Application [2008] EWCA Civ 1066
[3] AT&T Knowledge Ventures LP and CVON Innovations Limited [2009] EWHC 343
[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.

Application of the *Aerotel* test

Step 1: Properly construe the claim

9 The invention relates to the provision of time-based media stream tagging, whereby users of networked communication devices may tag timed portions of a primary media stream and will be presented with a navigable secondary media stream related to the time-based tags applied to the primary stream. To help construe this concept it is useful to unpack what a 'tag' is in the context of the current application. Paragraphs 0002 & 0003 of the application helpfully explain that in the prior art:

> *[0002] A conventional tag cloud or word cloud (or weighted list in visual design) generally provides a visual depiction of user-generated tags, metadata, or content of a web site or other on-line content. Tags in a tag cloud are usually single words and are normally listed alphabetically, and the importance of a tag is shown with font size or colour….*
>
> *[0003] Tag clouds can also be used to provide a summary of tags for other types of media events, such as teleconferences, video conferences, and television broadcasts, in real time or thereafter. For example during a concert, users viewing the event can tag portions of the concert with tags such as "nice guitar solo", "Hotel California", or "MP3 available at iTunes". Thereafter the tags can be summarised in a tag cloud…. Unfortunately, as tag clouds for media events are an offshoot of tag clouds for web sites and other on-line content, such tag clouds are typically limited to displaying an overall summary of tags associated with a media event.*

10 The invention of the current application aims to overcome this limitation. As paragraph 0005 explains:

> *[0005] Disclosed are systems, methods, and non-transitory computer-readable storage media for presenting temporal aspects of a group of tags associated with a primary media stream. In one embodiment, a tag is explicitly attached to one or more specific portion of a live or recorded media event, such as an instant or a segment…. The temporal aspects of the tags are presented by obtaining temporal metadata for the group of tags, generating a secondary media stream for the media event, and delivering at least a portion of the secondary media stream to at least one user terminal, where the flow of the delivered portion of the secondary media stream is configured to be adjustable and/or navigable at the use terminal.*

11 From these sections I believe that in the current application the term 'tags' relates to user generated content or, on occasion, to links to associated commercial products. Nowhere in the application can I find any evidence that the term relates to any technical features of the primary media stream, by which I mean features such as its

data coding, data compression, or aspects affecting image or sound quality, among other things.

12 I thus construe claim 1 as relating to providing a primary media stream and a secondary media stream to users, the secondary stream comprising navigable user generated content related to specific time intervals of the primary stream.

Step 2: Identify the actual contribution

13 *Aerotel/Macrossan*[1] provides guidance for this step in paragraph 43 of the judgement (my emphasis added):

> *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 substance not form – which is surely what the legislator intended.*

14 In my view, what has been added to human knowledge is effectively my construction of claim 1, as summarised in paragraph 12, above. As discussed in the description of the application, this invention has the advantage over conventional static tag clouds in that it conveys time-dependent information.

15 Whilst the Attorneys for the applicants have not provided their own assessment specifically following the four Aerotel[1] steps, they have identified what they consider to be the technical contribution of the invention. In so doing they have effectively addressed this second step. I note that it was explicitly intended that the *Aerotel* approach should be equivalent to the prior case law test of "technical contribution".

16 Specifically, the attorneys have emphasised that the system will require network interfaces, that the secondary media stream is generated from the primary media stream, and that the secondary media stream is then navigable. For the sake of argument, at least, I am happy to accept this gloss on the contribution I have identified in paragraph 14.

Step 3: Ask whether it falls solely within the excluded subject matter

17 It is clear to me that the invention must be implemented by one, or more, programs running on one, or more, computers. Furthermore, the invention is clearly concerned with how interesting information may be presented to a user alongside a primary media stream. The presentation of information - specifically the time navigable tag clouds of the secondary media stream - is the end result of the invention. The key question though is does the invention relate to these things 'as such'?

18 To answer this question I believe that it would be useful to turn to the AT&T signposts. Again, whilst the Attorneys have not specifically addressed the signposts, they have argued that the technical effect of the invention lies outside what they consider to be the computer. This effectively addresses the first signpost:

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

19 The Attorneys have rightly noted that the invention involves inter-operation between the server and user communication devices, so the contribution is not restricted to a process carried on within a single computing device.

20 However, it was established in *Lantana*[5] that a system operating as a network can be considered as "the computer" for the purposes of the first signpost. The communication devices and the server intercommunicate across the network and interoperate in the gathering, processing, formatting and presentation of information. However, I can see no effect on any process carried on outside this network of computing devices, other than in the presenting of the information to a user. I thus conclude that there is no technical effect on a process outside of the computer network.

(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

21 I will consider these three signposts together. I will begin by noting that I can only find disclosures of known computer network hardware in the current application. For example paragraph 0026 states:

> *[0026] In one configuration, the communications devices 120, 148, and 150 can be packet-switched stations or communication devices, such as IP hardphones, IP softphones, Personal Digital Assistants or PDAs, Personal Computers or PCs, laptops, packet-based video phones and conferencing units, packet-based voice messaging and response units, peer-to-peer based communications devices, and packet-based traditional computer telephony adjuncts.*

22 Indeed Paragraph 0017 of the description states that the network disclosed in the application is only an example of one in which the current invention may operate:

> *[0017] ....Although communications architecture 100 will be described below as including specific number and types of components, this is for illustrative purposes. Rather, the present disclosure contemplates the use of other architectures, including architectures with more or less components than shown in FIG.1.*

23 I thus conclude that since the invention is independent of the computer network hardware and architecture the contribution cannot be said to operate at that level.

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

Furthermore, the computer network itself cannot be operating in a new or more efficient way.

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

25 As reasoned above, the problem addressed by the invention is how to present user provided content in a navigable way. In my view, this is entirely a problem concerning the presentation of information solved by the application of clever software. Thus while the problem is overcome by the invention it is not a non-excluded technical solution to a non-excluded technical problem. The invention thus fails to meet all five signposts and furthermore, it is my view that it thereby fails the third Aerotel step.

Step 4: Check whether the actual or alleged contribution is actually technical in nature

26 This fourth step has already effectively been answered by the reasoning laid out in the previous paragraph in respect of the fifth AT&T signpost. Since the contribution identified falls entirely within excluded categories there is no non-excluded technical contribution.

27 Returning briefly to independent claims 6 & 11, the differences between these two claims & claim 1 relate only to known hardware operating in known ways. Thus I can see nothing in these claims that would lead to a different conclusion to that reached in respect of claim 1.

Decision

28 I thus decide that the invention defined in the claims falls solely within matter excluded under section 1(2) as some combination of a program for a computer and the presentation of information as such. Having reviewed the application, I do not consider that any saving amendment is possible. I therefore refuse this application under section 18(3).

Appeal

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

Stephen Brown
Deputy Director, acting for the Comptroller