



PATENTS ACT 1977

APPLICANT	Avaya Inc
ISSUE	Whether patent application GB1401780.0 complies with sections 1(1)(b), 1(2)(c), 14(5)(c) and 76(2) of the Patents Act 1977
HEARING OFFICER	Phil Thorpe

DECISION

Introduction

- 1 Patent application GB1401780.0 entitled “Timeline interface for multi-modal collaboration” was filed on 3rd February 2014 claiming priority from US application 13/760,668 which was filed on 6th February 2013. The GB application was published on 1st October 2014 having publication number GB2512454.
- 2 Despite a number of rounds of correspondence between the examiner and the applicant’s attorney, and amendments of the claims, the applicant was unable to satisfy the examiner that the application met the requirements of the Patents Act 1977 (the Act). In particular the examiner was not satisfied that the claimed invention is inventive, that it is not excluded from patentability, that it doesn’t contain added subject matter, and that is supported by the description.
- 3 With the position unresolved, the applicant, in correspondence dated 31st October 2017, has asked for a decision on the papers. The examiner subsequently summarised their objections in an examination report dated the 12th December 2017.
- 4 A discretionary extension to the compliance period was requested on 31st October 2017 to extend the compliance period to 6th December 2017. A further request for another discretionary extension was filed on the 6th February. I can confirm that both of these requests have been accepted and that the compliance period therefore extends to 6th February 2018.

The invention

- 5 The invention relates to a conference management system and method for displaying a record of conference events. The start of a conference is identified by a conference bridge. For example, the start of the conference is identified when a host dials into the conference bridge. A timeline is created by a timeline generator for the conference based on a first event that occurs at the start of the conference. The

timeline starts with the first event and is updated in real-time by the timeline generator with a second event as the second event occurs during the conference. This process is repeated throughout the conference. The timeline is rendered by a presentation module for display to one or more participants in the conference. The conference is then displayed to the conference participants, thus providing the conference participants with a real-time timeline of the conference.

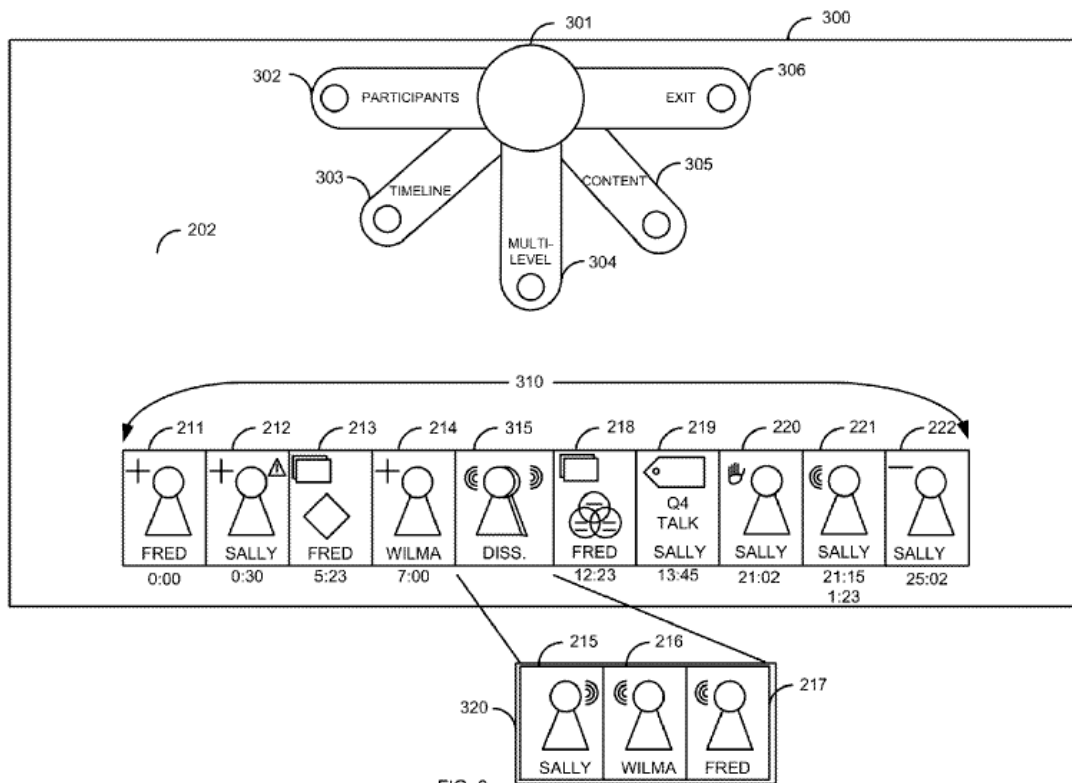


FIG. 3

- 6 The timeline (shown above in figure 3) may include one or more compressed discussion events 315 that represent a plurality of discussion events 215-217 by two or more participants in the conference. A participant can select the compressed event 315 (e.g., by clicking on the compressed event 315) to display the represented events 215-217 either in a compressed timeline window 320, or by replacing the compressed discussion event 315 with events 215-217 in timeline 310.
- 7 An event detector which is described as being any hardware or software that can detect events is used to detect the discussion event. Individual participants may be identified in a variety of ways such as through voice recognition.
- 8 The latest claims are those filed on the 31st October 2017. These comprise 14 claims in total, two of which, claims 1 and 9, are independent claims. Claim one reads as follows:

A method for displaying a record of events in a conference between a plurality of communication devices comprising:

identifying, by a microprocessor in a conference bridge, a start of the conference;

monitoring, by the microprocessor, the conference;

creating, in real-time, by the microprocessor, a timeline for the conference based on a first event that occurs at the start of the conference, wherein the timeline includes the first event;

detecting, by the microprocessor, a second event in the conference, wherein the second event comprises a plurality of audio discussion events associated with a plurality of participants on the plurality of communication devices, wherein the plurality of audio discussion events are detected in real-time in the conference between the plurality of participants on the plurality of communication devices;

updating, by the microprocessor, the timeline in real-time, with the second event, as a second event occurs during the conference;

sending by the microprocessor, the updated timeline to the plurality of participants on the plurality of communication devices, wherein the updated timeline displays a compressed event that represents the second event;

receiving and displaying, at two or more communication devices the updated timeline;

in response to receiving input, by the microprocessor, from one of the plurality of participants on the plurality communication devices to select the compressed event, sending for display on a communication device of one of the plurality of participants a second update of the timeline, wherein the second update of the timeline identifies the plurality of participants in the second event;

receiving and displaying, at the communication device of the one of the plurality of participants, the second update of the timeline.

- 9 Independent claim 9 is directed to a system for displaying a record of events in a conference between a plurality of communication devices wherein the system includes various elements configured to implement the method of claim 1.

Support

- 10 I will consider the issue of support first as it may have a bearing on claim construction.
- 11 Section 14(5) states:

The claim or claims shall -

(a) define the matter for which the applicant seeks protection;

(b) be clear and concise;

*(c) **be supported by the description;** and*

(d) relate to one invention or to a group of inventions which are so linked as to form a single inventive concept.

- 12 The feature of the amended application that the examiner considers is lacking support relates to the requirement in the claim that the second update of the timeline

identifies the plurality of participants in the second event. It is argued that the description only discloses displaying the participants through switching between a compressed and an uncompressed event. The examiner states that other operations which were not disclosed in the application are now covered by the scope of this wording. Therefore, the wording in the claim is not a generalisation of switching between a compressed and an uncompressed event.

- 13 The only disclosed method in the application of obtaining more information about a compressed event is to switch to an uncompressed view with the uncompressed view being the display of the collection of events that made up the compressed event. Each event would have the participant and their action associated with it. Claim 1 has the specific limitation that the compressed event is a discussion between a plurality of participants. In this specific example the view of the uncompressed events is simply the participants of the discussion and their action being that they were a participant in the discussion.
- 14 The wording identified by the examiner requires that on selection of the compressed discussion event (second event) the timeline is updated to identify the participants of the discussion (second event). I consider that any update to the timeline falling within the scope of this limitation would provide exactly the same information as that described in the application. Given that the applicant should be allowed to cover all obvious modifications and equivalents to what they have described, I am happy to proceed on the basis that this wording is supported. Had the compressed event represented a collection of events that wasn't a discussion the result may have been different but that is not the case here.

Inventive Step

- 15 Section 1(1) states:

A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –

(a) the invention is new;

(b) it involves an inventive step;

(c) it is capable of industrial application;

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

- 16 Section 3 then sets out how the presence of an inventive step is determined. It says:

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).

17 It is well-established that the approach to adopt when assessing whether an invention involves an inventive step is to work through the steps set out by the Court of Appeal in *Windsurfing*¹ and restated by that Court in *Pozzoli*². These steps are:

(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;

(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?

18 The examiner has based their inventive step objection primarily on US 2011/0267419 A1 (Quinn) when considered in light of the common general knowledge of the person skilled in the art. They also refer to the following documents as examples of background art intended to demonstrate the common general knowledge: US 2009/0019369 A1 (Borovsky), US 2008/0262641 A1 (You), GB 2363044 A (IBM), and WO 00/25198 A1 (VTEL). According to the examiner these documents show that it is well known to selectively display user interface elements in a way that avoids a cluttered display whilst allowing large numbers of interface elements to be accessed when necessary.

Applying the *Windsurfing/Pozzoli* test

Identify the notional “person skilled in the art” and the relevant common general knowledge of that person

19 The skilled person in this instance can be considered to be a team including a person skilled in network conferencing systems and a person skilled in the design of user interfaces. The relevant common general knowledge of this team is considered to include conventional network conferencing architecture and design as well as typical user interface methods and design.

Identify the inventive concept of the claim in question or if that cannot readily be done, construe it.

20 I believe the inventive concept of claim 1 can be summarised as follows:

A computer implement method of displaying a record of events in a conference between a plurality of communication devices wherein a timeline is created in real time based on detecting a first event in the conference. The timeline is updated on detecting a second event comprising a plurality of

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

² *Pozzoli SpA v BDMO SA* [2007] EWCA Civ 588, [2007] FSR 37

audio discussion events associated with a plurality of participants of the conference, the second event being displayed on the timeline as a compressed event. In response to a participant input to select the compressed event a second update to the timeline is sent to the participant, which identifies the plurality of participants in the second event.

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 and 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?

- 21 Like the application in issue here, Quinn discloses a method and system of conferencing where a participant is able to view or hear parts of the recorded conference. A conference data analyser is also disclosed which enables speech activities such as time points where a particular speaker begins speaking or stops speaking to be identified. These points can be presented to a user. Quinn does not however disclose the real-time detection of a discussion event representing a conversation between a plurality of participants in the conference for display on a timeline as a single event (compressed event). Nor does Quinn disclose that, on selection of the event, the timeline is updated to display participants of the event.
- 22 If anything Quinn teaches away from considering the discussion as a collection of events, instead pointing towards identifying each segment of speech by a particular participants within the discussion as an area of interest.
- 23 In relation to the second difference Quinn teaches that when a user selects an indicated area of interest they are automatically transported to portions of the conference corresponding to the selection. The indicated areas may be highlighted by being displayed as textual indications, audio sound cues, and/or as video cues. It is implicit that the indication contains information identifying the content of the area of interest. Further information about the area of interest is obtained by being transported to that portion of the conference, rather than by an update to the timeline. Given that none of the areas of interest disclosed in Quinn relate to multiple participant events, such as a discussion, there would appear to be no motivation for the skilled person to alter the invention of Quinn so that on selection of the event the timeline is updated to display the participant of the event. Whilst the selective display of user interface elements/information is part of the common general knowledge of the skilled person the motivation for this alteration would only arise in the instance of an event having multiple participants.
- 24 I do not believe that the differences I have just described when taken in combination amount to a step which would not have been obvious to the skilled person in the art, even if I take the common general knowledge to include the disclosures in the other documents relied on by the examiner. As such, the invention as defined in claim 1 is considered to involve an inventive step over Quinn. Similar reasoning is applicable to claim 9 which is also considered inventive.

Excluded subject matter

25 The examiner has raised an objection under section 1(2) of the Patents Act 1977 that the invention is not patentable because it relates inter-alia to one or more categories of excluded matter. The relevant provisions of this section of the Act are shown with added emphasis below:

1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the 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 provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.

26 As explained in the notice published by the UK Intellectual Property Office on the 8th December 2008³, the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*⁴.

27 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian*⁵. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel* the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*⁶ which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case.

28 Subject to the clarification provided by *Symbian*, it is therefore appropriate to proceed on the basis of the four-step approach explained at paragraphs 40-48 of *Aerotel* namely:

(1) Properly construe the claim.

(2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).

³ <http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm>

⁴ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

⁵ *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1

⁶ *Merrill Lynch's Appn.* [1989] RPC 561

(3) *Ask whether it falls solely within the excluded matter.*

(4) *If the third step has not covered it, check whether the actual or alleged contribution is actually technical.*

Applying the Aerotel test

Step 1 - Properly construe the claim

29 For the purposes of this decision no real issues of construction arise.

Step 2 - Identify the actual contribution

30 The applicant argues that the ability to monitor a media conference requires more than just a generic computer. It notes that the audio and/or video has to be converted from an analogue to a digital format to allow it to be analysed by the microprocessor. The applicant also highlights the ability of the invention to detect real-time events and to display these in real-time. It also highlights the problem of being able to identify participants in a conference. It notes that the conference bridge can detect and identify in real-time participants as they join, leave and speak in the conference. I am not persuaded that the actual contribution made by the claimed invention resides especially in any of these areas. Quinn shows that these concepts are known in a conferencing system. I would also note that the application in issue gives no real indication that any of these concepts are not known or are difficult to implement. There is for example no explanation of particular problems that have been overcome in this respect. Rather it seems from the application that the system described comprises an entirely conventional networked computer with the contribution instead lying in the program operating on the hardware which provides an application for the real time generation of a timeline of conference events.

31 Taking the above into account, I consider the contribution of claim 1 to be:

A computer implemented method for the real time generation of a timeline representing conference events, wherein a plurality of audio discussion events can be represented on the timeline as a single compressed event and in response to user selection of the compressed event the timeline can be updated to display participants of the discussion to the user.

Step 3 and 4 – Ask whether the actual or alleged contribution falls solely within the excluded subject matter and check whether the actual or alleged contribution is actually technical in nature

32 I will consider steps 3 and 4 together. I have no doubt that at the heart of claim 1 is a computer program however the fact that the proposed invention is effected in software does not mean that it should be immediately excluded as a computer program as such. What matters is whether or not the program provides a *technical contribution* as it is very well established in the case law that a program which provides a technical contribution is not excluded i.e. it is not a program for a computer *as such*.

- 33 Lewison J (as he then was) in *AT&T/CVON*⁷ set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC* the signposts were reformulated slightly in light of the decision in *Gemstar*⁸. 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.*
 - 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.*
- 34 The applicant's submissions are based around signposts 1 and 5. Firstly the applicant submits that the contribution is technical in nature because "the conference bridge that detects the event sends the events for display to other devices involved in the conference." This is said to be more than sending information from one device to another as in *Lantana*⁹ because it involves the real-time detection of audio events. Secondly the applicant submits that the invention addresses technical problems associated with electronic conference calls. Particularly in that participants can join/leave or talk within a conference without other parties knowing. The solution which identifies participants/events through electronic means is said to overcome these problems, and therefore provide a technical effect.
- 35 Looking at the contribution of claim 1 I cannot identify a technical effect on a process which is carried on outside the computer. The invention identifies audio discussion events at a conference bridge and sends these events for display on a plurality of communication devices. Then based on user selection the identities of participants of a discussion event are sent and displayed on the communication device of the user. However, for the purpose of this analysis 'the computer' can be considered to encompass each of the systems which would communicate over the network, as the network itself is conventional. This is considered in line with the point made by Birss J. at paragraph 30 of *Lantana*. As such the sending of information between devices does not evoke the first signpost as the communication is not considered a process external to 'the computer'. The event detection contributes no more than the application of conventional event detection methods to the specific task of identifying a discussion event and adds no technical character to the contribution.

⁷ *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat); [2009] FSR 19

⁸ *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2009] EWHC 3068 (Pat); [2010] RPC 10

⁹ *Lantana v Comptroller-General of Patents* [2013] EWHC 2673 (Pat)

- 36 The program clearly does not operate at a level of the architecture of the computer. Therefore I can see nothing in the second signpost that would indicate that the program provides a technical contribution.
- 37 With regards to the third signpost I can see nothing other than the sort of effect that any computer would have if programmed differently. Therefore I can see nothing in the third signpost that would indicate that the program provides a technical contribution. Similarly the program is not intended to, and does not, make the computer a better computer. Therefore I can see nothing in the fourth signpost that would indicate that the program provides a technical contribution.
- 38 The fifth signpost looks at the technical character of an alleged invention by means of the problem addressed. When the problem is a technical one, the alleged invention can be considered to have a technical nature leading to it falling outside the exclusion if (but not only if) it solves the problem. In *Lantana* Birss J. stated:
- “It makes sense to think of something which is a solution to a technical problem as itself having technical character because it takes that character from the technical nature of the problem to be solved. But if a thing is not solving the technical problem but only circumventing it, then that thing cannot be said to have taken any technical character from the problem.”
- 39 The applicant submits that the invention addresses technical problems associated with electronic conference calls. Particularly in that participants can join/leave or talk within a conference without other parties knowing. However the problem identified in the application is described more as one of how to present a record of conference events to a user so that they can easily ascertain what events occur during the course of the conference. The contribution I have identified above would appear more applicable to this description of the problem to be overcome. As discussed above I can see no contribution on any technical level to event detection, (i.e. the detection of a discussion event) and the problem of how to best display a record of conference events is not a technical problem but an organisation problem. As such I can see nothing in the fifth signpost which would indicate a technical effect.
- 40 Having considered each of the signposts in relation to the proposed invention I can see nothing that suggests that the proposed invention makes a technical contribution. Furthermore even if I step back and consider the claimed invention more broadly I still cannot find anything that would provide the necessary technical contribution.
- 41 The contribution is considered to relate solely to exclude subject matter as a computer program. Similar reasoning can be applied to independent claim 9 which is similarly excluded. I would add that the examiner did not seek to rely on any of the other categories of excluded matter including the presentation of information and I will therefore say no more about that.
- 42 I would note however that having carefully considered the entire application I have been unable to identify any matter which would provide a contribution beyond the excluded fields.

Added matter

43 Section 76(2) states:

No amendment of an application for a patent shall be allowed under section 15A(6), 18(3) or 19(1) if it results in the application disclosing matter extending beyond that disclosed in the application as filed.

44 The examiner has maintained added matter objections raised in the examination report dated 17th October 2017. In that report the examiner identified two amendments filed with the agent's letter dated 5th October 2017 which were said to extend the scope of the disclosure. The passages in issue with added emphasis are as follows:

Page 6, lines 18-21 which read:

"The conference bridge 121 can be any hardware/software that provides **audio** conferencing services, such as a mixer, an audio conference system, a video conference system, an Instant Message server, a PBX, a central office switch, and/or the like".

and page 8, lines 9-11 which read:

"The conference can be any type of conference **incorporating audio discussion** such as an audio conference **or** a video conference, **a text conference** and the like."

45 The examiner notes that these amendments "add definitive statements about the audio nature of the conference not found in the original disclosure, the effect of which is to disclose matter not found in the original description."

46 I am not persuaded that they do. The amendments both act to narrow the type of conference specifically to audio conferencing. Audio conferencing is one of a limited subset of conferencing types and was clearly taught in the application as filed. For example page 8 lines 9-11 of the application as filed state: "The conference can be any type of conference, such as an audio conference, a video conference, a text conference, and the like". The limiting of the disclosure to one of these limited subset of conferencing types is regarded as a restriction of the disclosure rather than as added subject-matter.

Decision

47 I find that the amendments to the claims and description are supported and do not add matter and that the invention defined in independent claims 1 and 9 is inventive over the cited prior art.

48 However, I find that the contribution made by the invention falls solely within matter excluded under section 1(2) as a program for a computer as such. Having carefully considered the specification as a whole, I can see nothing that could be reasonably expected to form the basis of a valid claim. I therefore refuse this application under section 18(3).

Appeal

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

Phil Thorpe

Deputy Director, acting for the Comptroller