

- 6 The specification suggests that conventional calendar or organisational applications tend to be application specific, limited to providing notifications/reminders regarding calendar or other entries, and so miss the broader context of the user's life. The invention aims to address this problem by providing, according to one embodiment, "a mechanism for determining what is of interest or trending for the device user right now and may thus be used to intelligently organise upcoming events accordingly".
- 7 The latest claims were filed on 9 May 2018. There are 18 claims, of which three are independent. Claim 1 is a method claim which reads:

A method, comprising:

recording contextual data derived from a variety of sources, wherein the contextual data include a user search history, a user purchase history, current and past location events, people the user communicated with, as well as the contents of communications, and collectively communication events;

building a user profile based on the recorded contextual data, wherein the user profile is built daily early in the morning, and wherein the user profile is further built based on calendar entries/activities, user's habits, current location of the user, past purchases of the user, people the user has communicated with frequently or repeatedly at a given time or range of time, as well as the contents of communications, and corresponding times related to such events;

accessing, using a processor, the user profile based on user context information, wherein the user context information utilizes user device events;

preparing, using the processor, a list of items based on the user profile related to a particular time period organised according to importance based on the user profile; and

presenting, using the processor, the list of items related to the particular time period.

- 8 Independent claim 10 is directed towards an information handling device, and reads as follows:

An information handling device, comprising:

a processor;

a memory device which stores instructions accessible to the processor, the instructions being executable by the processor to:

record contextual data derived from a variety of sources, wherein the contextual data include a user search history, a user purchase history, current and past location events, people the user communicated with, as well as the contents of communications, and collectively communication events;

build a user profile based on the recorded contextual data, wherein the user profile is built daily early in the morning, and wherein the user profile is further built based on calendar entries/activities, user's habits, current location of the user, past purchases of the user, people the user has communicated with frequently or repeatedly at a given time or range of time, as well as the contents of communications, and corresponding times related to such events;

access the user profile based on user context information, wherein the user context information utilizes user device events;

prepare a list of items based on the user profile related to a particular time period organised according to importance based on the user profile; and

present the list of items related to the particular time period.

9 Independent claim 18 is directed towards a product, and reads as follows:

A product, comprising:

a storage device having code stored therewith, the code comprising:

code that records contextual data derived from a variety of sources, wherein the contextual data include a user search history, a user purchase history, current and past location events, people the user communicated with, as well as the contents of communications, and collectively communication events;

code that builds a user profile based on the recorded contextual data, wherein the user profile is built daily early in the morning, and wherein the user profile is further built based on calendar entries/activities, user's habits, current location of the user, past purchases of the user, people the user has communicated with frequently or repeatedly at a given time or range of time, as well as the contents of communications, and corresponding times related to such events;

code that accesses, using a processor, the user profile based on user context information, wherein the user context information utilizes user device events;

code that prepares, using the processor, a list of items based on the user profile related to a particular time period organised according to importance based on the user profile; and

code that presents, using the processor, the list of items related to the particular time period.

The law

10 Section 1(2) declares that certain things are not inventions for the purposes of the Act, as follows:

It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of –

(a) a discovery, scientific theory or mathematical method;

(b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;

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

(d) the presentation of information;

but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such.

- 11 The assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*¹, as further interpreted by the Court of Appeal in *Symbian*².
- 12 In *Aerotel*, the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of what is often called “excluded matter”, as follows:
- Step one: properly construe the claim*
- Step two: identify the actual contribution (although at the application stage this might have to be the alleged contribution)*
- Step three: ask whether it falls solely within the excluded matter*
- Step four: check whether the actual or alleged contribution is actually technical in nature.*
- 13 Subsequently, the Court of Appeal in *Symbian* made clear that the *Aerotel* test is not intended to provide a departure from the previous requirement set out in case law, namely that the invention must provide a “technical contribution” if it is not to fall within excluded matter. The *Aerotel* test has subsequently been endorsed by the Court of Appeal in its decisions in both *HTC*³ and *Lantana*⁴.
- 14 Lewison J (as he then was) 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. In *HTC* the signposts were reformulated slightly 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.*
- 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.*
- 15 The attorney agrees that it is correct to use the established *Aerotel* test, and that the *AT&T* signposts should also be considered.

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

² *Symbian Ltd's Application* [2008] EWCA Civ 1066; [2009] RPC 1

³ *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451; [2013] RPC 30

⁴ *Lantana Limited and The Comptroller General of Patents, Designs and Trade Marks* [2014] EWCA Civ 1463; [2015] RPC 16

⁵ *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat); [2009] FSR 19

⁶ *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2009] EWHC 3068 (Pat); [2010] RPC 10

Arguments and analysis

- 16 The examiner maintains that the claims define an invention which is excluded under section 1(2). His position is set out most recently in his pre-hearing report of 23 May 2018, which takes account of amended claims filed on 9 May 2018. The pre-hearing report also refers to the examiner's previous examination report of 9 January 2018 in its entirety, the examiner stating that the amendments filed on 9 May 2018 do not change the substance of the objections made in that previous report.
- 17 While the pre-hearing report sets out the examiner's position that the invention is excluded under section 1(2)(c) as being a rule, scheme or method for doing business and a program for a computer, the examination report of 9 January 2018 also suggests that the invention is excluded under section 1(2)(d) as presentation of information. I will consider both paragraphs (c) and (d) of section 1(2) in my analysis.
- 18 Detailed arguments against the examiner's position are contained in the applicant's letter of 9 May 2018, with which amendments to the claims were filed. These arguments generally relate to the *AT&T* signposts, specifically signposts (i)-(iii). Mr Leffers elaborated this position clearly and helpfully at the hearing.
- 19 Taking all these arguments into account, I must determine whether the claimed invention relates solely to excluded subject matter under section 1(2).

Properly construing the claims

- 20 As noted above, there are three independent claims, directed towards a method (claim 1), an information handling device (claim 10), and a product (claim 18). In his examination report of 9 January 2018, the examiner suggests that the hardware of claim 10 and the product of claim 18 are entirely conventional, such that the inventions of those claims are characterised by their implementation of the method of claim 1. Therefore, the examiner suggests that considering the allowability of claim 1 will be sufficient to determine if any of the independent claims are excluded. At the hearing, Mr Leffers agreed that the independent claims would stand or fall together.
- 21 In his examination report of 9 January 2018, the examiner discusses various aspects of construction with regard to claim 1. While this analysis was carried out before the latest amendments to the claims, the examiner states in his pre-hearing report that those amendments do not change the substance of the objections. Therefore the examination report of 9 January 2018 provides a useful summary of the examiner's views with regard to claim construction.
- 22 In their letter of 9 May 2018, the applicant recites claim 1 but does not offer any further arguments with regard to claim construction. This is also the case for previous amendment rounds. Furthermore, at the hearing Mr Leffers confirmed that the applicant and examiner were in agreement regarding the construction of the claims. Therefore I will consider the examiner's analysis outlined in their examination report of 9 January 2018 when construing the claims, while taking into account the amendments filed on 9 May 2018.
- 23 Claim 1 defines a method comprising the following steps (alphabetic notation added to aid discussion below):

- (a) *recording contextual data derived from a variety of sources, wherein the contextual data include a user search history, a user purchase history, current and past location events, people the user communicated with, as well as the contents of communications, and collectively communication events;*
- (b) *building a user profile based on the recorded contextual data, wherein the user profile is built daily early in the morning, and is based on calendar entries/activities, user's habits, current location of the user, past purchases of the user, people the user has communicated with frequently or repeatedly at a given time or range of time, as well as the contents of communications, and corresponding times related to such events;*
- (c) *accessing, using a processor, the user profile based on user context information, wherein the user context information utilizes user device events;*
- (d) *preparing, using the processor, a list of items based on the user profile related to a particular time period organised according to importance based on the user profile; and*
- (e) *presenting, user the processor, the list of items related to the particular time period.*

- 24 In his examination report of 9 January 2018 the examiner suggests that, while claim 1 is not explicitly tied to a computer, it is clear from the description that the method is carried out using information handling device circuitry in a user device. I note also that steps (c), (d) and (e) above refer to the use of a processor. Furthermore, independent claim 10 relates to an "information handling device" comprising a processor and a memory device which stores executable instructions for carrying out the method steps. Independent claim 18 is directed to a "product comprising a storage device having code stored therewith" where the code carries out the method steps. It is therefore clear to me that the method should be construed as being carried out on a computing device, and claims 10 and 18 should be construed accordingly.
- 25 With regard to step (a), claim 1 outlines a list of elements which the contextual data is said to "include". I take this to mean that the contextual data are not limited to this list, though must include the claimed elements at least. The list provides a useful indication of the nature of the contextual data and so I would consider the expression "contextual data" to include, as well as the mentioned elements, any other data which a computing device is capable of recording and which provide information about a user and their habits.
- 26 With regard to step (b), the claim defines that the user profile is built "daily early in the morning". In his examination report of 9 January 2018, the examiner states that the scope of "early in the morning" is not clear, but notes that the description explains this is "before the user typically gets up to look at the weather and/or what activities the user needs to prepare for". The examiner states, however, that while the scope of this feature is indeterminate, this does not substantially affect their analysis of the contribution.
- 27 I agree with the examiner's view and for the purposes of construing the claims, I think it is sufficient to say that the user profile is built daily, at a predetermined time.
- 28 Regarding the remainder of step (b), the wording appears to outline a more specific list of elements which fall within the scope of "contextual data" as defined by step (a). Since the wording of step (b) already defines that the user profile is built "based on the recorded contextual data", and step (a) sets out a non-exhaustive list of possible

contextual data sources, it seems to me that this additional list of elements in step (b) adds nothing further for the purposes of construing the claim.

- 29 With regard to step (c), the claim defines that the user profile is accessed “based on user context information, wherein the user context information utilizes user device events”. In his examination report of 9 January 2018, the examiner suggests some overlap between the use of terms “event” and the term “item” found in steps (d) and (e). He notes that the “items” are described (at paragraph [0032] of the description) as being for example “calendar events, email notifications requiring response, phone calls requiring response, daily routines or locations (even if not scheduled in a calendar application, e.g., getting coffee in the morning at a particular location), etc.”.
- 30 I note that “user device events” and “events” more generally are defined in various ways throughout the description. For example, paragraph [0026] refers to “user device events such as communications received (and the contents of such communications), the user’s purchasing activities, the user’s locations..., the user Internet searches or device searches generally...”. Paragraph [0027] meanwhile states that events may include “calendar entries/activities, user’s habits..., current location of the user, past purchases of the user, people the user has communicated with frequently or repeatedly at a given time or range of time, as well as the contents of communications”. Furthermore, paragraph [0029] refers to “past device events (e.g., email received over night, voicemail received over night) and future device events (e.g., calendar entry for an afternoon meeting)”.
- 31 While there is no precise definition of the term “event”, what is clear to me is that the term is given a broad meaning in the specification as a whole. The term “event” is not used exclusively to refer to calendar-type events, but may refer to all manner of incidents which the computing device is capable of recording, based upon which the contextual data is obtained and user profile built. Meanwhile the term “items” appears to be used exclusively in the context of the list prepared and presented to the user in steps (d) and (e) of the method. Thus the terms are not in my view used interchangeably.
- 32 Taking all of the above into account, I construe the invention of claim 1 as a computer-implemented method of prioritising items to be presented to a user, comprising the steps of:
- (a) *recording contextual data derived from a variety of sources (which contextual data may include any data which a computing device is capable of recording and which provides information about a user and their habits);*
 - (b) *building a user profile based on the recorded contextual data, wherein the user profile is built daily at a predetermined time;*
 - (c) *accessing, using a processor, the user profile based on user context information, wherein the user context information utilises events which the computing device is capable of recording;*
 - (d) *preparing, using the processor, a list of items for action by the user, based on the user profile related to a particular time period organised according to importance based on the user profile; and*

(e) *presenting, user the processor, the list of items for action by the user related to the particular time period.*

33 It follows that claim 10 is construed as a computer device comprising a processor and a memory device which stores executable instructions for carrying out the above method, and claim 18 is construed as a product comprising a computer device programmed with code which carries out the above method.

Identifying the actual or alleged contribution

34 In paragraph 43 of *Aerotel*, it is made clear that identifying the contribution is probably best summed up as determining what the inventor has really added to human knowledge, and this involves looking at the substance and not the form of the claim (as construed in step one). However, the court in *Aerotel* acknowledged that, for a patent application (as opposed to a granted patent), it may only be possible to identify the alleged, and not the actual, contribution.

35 In their letter of 9 May 2018, the applicant contends that the contribution is the provision of “a method for determining what is of interest or trending for a user of an information handling device right now and at a particular location and [which] may thus be used to intelligently organize upcoming events accordingly”. The applicant goes on to argue that conventional solutions to the organisation of user activities “do not really help users based on what is currently important to them in a broad context”, and this is because such solutions tend to be application-specific; for example a calendar application is limited to providing notifications or reminders regarding calendar entries. Thus, they argue, the claimed invention is a “method for leveraging contextual data” to determine user interests and how such interests influence the relevance or priority of upcoming events. Mr Leffers confirmed the applicant’s view of the contribution at the hearing.

36 In his pre-hearing report, the examiner recites the applicant’s submission regarding the contribution, accepts this submission and summarises it as “the use of a broader range of data in formulating a prioritised suggested activity list or schedule”. At the hearing, Mr Leffers expressed his understanding that the examiner and the applicant agree on the contribution identified in step 2.

37 Having considered it carefully, I am content to accept the applicant’s view of the contribution. Noting the terminology used in the analysis of the claims above, I would state the (actual or alleged) contribution to be: the provision of a method for determining what is of interest or trending for a user of an information handling device at a particular time and at a particular location, which may be used to intelligently organise upcoming items for action accordingly.

Does the contribution fall solely within excluded matter/is it technical in nature?

38 What I must now decide is whether the contribution identified above relates solely to excluded matter. This corresponds to step three of the *Aerotel* test.

39 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. This is because a contribution which consists solely of excluded matter will not count as being a

“technical contribution” and will not, as the fourth step puts it, be “technical in nature”. Similarly a contribution which consists of more than excluded matter will be a “technical contribution” and so will be “technical in nature”.

40 In this case, the arguments concerning whether the invention is excluded are principally focussed on the *AT&T* signposts, and therefore very closely linked to the question of whether the contribution is technical in nature. Thus I have considered the third and fourth steps together.

41 As noted above, the pre-hearing report sets out the examiner’s position that the invention is excluded under section 1(2)(c) as being a rule, scheme or method for doing business and a program for a computer, while the examination report of 9 January 2018 also suggests that the invention is excluded under section 1(2)(d) as presentation of information. I will deal with these points separately, in the order in which they were addressed at the hearing.

Program for a computer

42 The attorney’s arguments in their letter of 9 May 2018 focus on the *AT&T* signposts, and these arguments were reiterated during the hearing, during which Mr Leffers suggested that signpost (iii) was the most relevant.

43 Signpost (iii) suggests that a computer program may be considered to make a technical contribution if the claimed technical effect results in the computer being made to operate in a new way. The attorney argues that this is the case in respect of the present invention because:

- Claim 1 requires that contextual data is recorded, wherein that contextual data among other things includes the content of received communications. Therefore, each time such a communication is received, a means to determine the contents of the communications has to be actuated. As common information handling devices usually do not record content of communications, the computer is made to operate in a new way.
- Claim 1 also states that the user profile is based, among other things, on the user’s habits, for example past activities such as stopping for a coffee every morning. Not only is the location determined, but also a further means must be actuated to determine what the user is doing at that location (“location events”), i.e. by determining what kind of location it is.
- According to claim 1, not only is the user profile based on device events, but also the corresponding times related to such events. Therefore each time such an event is recorded and determined, a means for measuring the time has to be correspondingly actuated.
- Furthermore, the user profile is built daily early in the morning and this profile is based (amongst other things) on the user location determined at that point.

44 Summarising these arguments at the hearing, Mr Leffers noted that all these further components have to be actuated, so the components of the computer itself have to be addressed in a new way. Therefore, he argued, there is a technical effect arising

from the computer itself operating in a new way, and so signpost (iii) points towards the contribution being not excluded.

- 45 In his pre-hearing report, the examiner notes that little detail is provided in the application regarding how data is collected and the means by which time and location is measured. There is therefore no suggestion, he argues, that these things are achieved in “any new and inventive technical manner”. In his report of 9 January 2018 he explains his view that the computer arrangement is conventional and the contribution relates solely to differences “at an application level”.
- 46 I have considered the specification and the arguments carefully and I can see no evidence, at any stage of prosecution or in the arguments put before me, that the invention causes data to be received, recorded or collected, or that it causes time or location to be measured, in a way which is anything other than conventional in a technical sense.
- 47 The attorney agreed at the hearing that the components themselves and their arrangement are conventional (which is what I understood from the description and drawings, in particular figures 1 and 2). But beyond this, there is no suggestion that the contribution made by the invention lies in any technical improvements concerning the way in which data is recorded or collected, or the way in which time and location are determined. The specification does not suggest or set out any new technical steps that are taken when determining and recording these parameters – it refers simply at various points to deriving and recording them.
- 48 The contribution concerns the use of software to record particular data (communication content, location, time, user activity, etc) in order to build up and use a contextualised user profile. Choosing to determine and record certain data, in particular circumstances or in a particular order, is a choice made entirely in software. It may perhaps involve either actuating (physical) components of the device or actuating “means” which are themselves envisaged purely in software. But either way it is clear the components or means are actuated or addressed by software in a technically conventional sense, in order to derive the required data.
- 49 At best, the software causes components or means of the device to be actuated or addressed in a different sequence from prior devices or methods. However, it seems to me that any novel and inventive computer program running on any device may potentially cause conventional components or existing software to be actuated or addressed in a different order. If this alone were enough to meet the requirements of the Act, then any new and inventive computer program running on any device would potentially be patentable under section 1(2), rendering the exclusion redundant. This cannot be the case.
- 50 Of course if actuating or addressing the components or other means in a different order were to lead in itself to a technical improvement through the computer operating in a new way, then signpost (iii) could point to patentability in such a case. But for the reasons given above, I do not see that the present case fits that description. I do not consider that the computer is made to operate in a new way, as indicated by signpost (iii).

- 51 In their arguments, the attorney has also stated that signpost (ii) is relevant. Signpost (ii) suggests that a computer program may be considered to make a technical contribution if the claimed technical effect operates at the level of the architecture of the computer; that is to say the effect is produced irrespective of the data being processed or the applications being run.
- 52 In their letter of 9 May 2018, the attorney states that the user profile is “built daily early in the morning based on a current user location and, therefore, irrespective of the data being processed and the applications being run”. At the hearing, they further argued that the user profile, which is built to determine or infer user interests, provides a benefit for a wide variety of software programs running on the information handling device, for example web searching and targeted advertising applications, and not only a sophisticated calendaring application. This is because it enables an intelligent organisation of upcoming user events via the improved user profile. At the hearing Mr Leffers suggested that the user profile provides a benefit to “nearly any software which runs on the system”. Based on an interpretation of signpost (ii) – that it should be met if the claimed technical effect would provide a benefit to any software program running on the system – he argued it was also likely that this signpost was met.
- 53 In his pre-hearing report, the examiner states that the building of the user profile is the compilation of a data set, which is compiled using a range of data collected by the user device in a conventional manner, and there is no technical advance in the way the data are collected. The examiner states that he does not consider the building of a data set to be a technical advance, and suggests that the compiled data are used “at an application level”, and cannot be considered to be an effect at an architectural level, which is achieved irrespective of the data being processed.
- 54 In the formulation of signpost (ii) in *AT&T/CVON*, Lewison J (as he then was) considered the decision of the EPO Technical Board of Appeal in *IBM/Data processing network*⁷, which concerned an improved method of communication between programs and files held at different processors within a known network. Commenting on the allowability of the patent in this case, he noted:
- “22. The key here seems to be that the invention works irrespective of the nature of the data and irrespective of the particular application programs which are used. It thus relates to the architecture of the computer system and produces a better computer as a result.”*
- 55 Paragraph 1.38.2 of the *Manual of Patent Practice* provides further guidance on this point:
- “If the effect being produced would provide a benefit to any software program which runs on the system, it is likely to meet this signpost. If the effect being produced is specific to a particular data set, type of data, or benefits only particular applications, it is likely it will fail to meet this signpost.”*
- 56 I do not agree with the attorney’s line of argument that the user profile being built daily early in the morning based on a current user location means that it is built irrespective of the data being processed and the applications being run. Claim 1

⁷ *IBM/Data processing network* (Decision T06/83), [1990] E.P.O.R. 91

clearly states that the user profile is built based on recorded contextual data. It is clear from the invention that certain types of data would give the required contextual information, in order to build up the user profile and use it according to the invention – and the description gives examples of such data. Other data available to the device may not give any required contextual information useful for this purpose. So it seems clear to me that the operation of the claimed invention must be dependent on the data being processed.

- 57 Turning to the argument that the building of the user profile provides a benefit to a wide variety of programs, it seems to me that – if the user profile does provide such a benefit – it does so precisely because of the type of data it comprises, rather than irrespective of the data. Furthermore, such a benefit would only be realised by particular applications, i.e. those which would operate more effectively as software as a result of having access to contextual data about a user – for example web searching and targeted advertising applications as suggested by the attorney.
- 58 At the hearing, I asked whether the contribution giving benefit to various applications meant that, in the attorney’s view, it operates at the level of the computer architecture. Mr Leffers suggested that it does not change how the processor or any other internal components run, but reiterated that the contribution provides a wide benefit to nearly any program, irrespective of the particular program.
- 59 Since the contribution does not change how any of the internal components run, nor does it concern a new arrangement of components, it does not provide a technical effect operating at the level of the architecture of the computer. Neither, for the reasons given above, is there any technical effect produced irrespective of the data being processed or the applications being run. Signpost (ii) does not point towards patentability.
- 60 Although not addressed at the hearing, in their letter of 9 May 2018 the attorney also states that the user’s search history (which may form part of the contextual data on which the user profile is built) can also include data relating to searches for files on a remote storage account, and therefore something external to the information handling device itself. Although this argument is not elaborated further, it appears to be a reference to signpost (i), which suggests that a computer program may be considered to make a technical contribution if it has a technical effect on a process which is carried on outside the computer.
- 61 Addressing this point in their pre-hearing report, the examiner suggests that the conventional transfer of data from one computer to another does not constitute a technical advance. The examiner also states that they do not consider the effect to take place outside of the computer, noting that a remote device may be considered to be part of the “computer”, as emphasised by Birss J in paragraph 30 of the first instance decision in *Lantana*.⁸
- 62 I agree with the examiner on this point; as noted by Birss J in paragraph 30 of *Lantana*, “two computers connected across the internet is an entirely conventional computing arrangement”, and “is not what makes a software invention patentable”. I do not consider, therefore, that accessing “data relating to searches for files on a

⁸ *Lantana v Comptroller-General of Patents* [2013] EWHC 2673 (Pat)

remote storage account” amounts to the invention having a technical effect on a process which is carried on outside the computer as required by signpost (i).

- 63 While the attorney made no submissions regarding signposts (iv) and (v), either on paper or at the hearing, the examiner did consider them in his examination report of 9 January 2018.
- 64 Regarding signpost (iv), the examiner suggests that the computer works in a conventional way and the program does not lead to the computer itself running more efficiently or effectively as a computer. I agree; following my analysis above I find that there is nothing in the claims or the application as a whole to suggest that the program has such an effect.
- 65 Regarding signpost (v), the examiner suggests that the perceived problem is related to the relevance of information displayed to a user (of a computing device). While this problem may be overcome by the invention, the examiner suggests that this is not a technical problem, and therefore the invention does not derive any technical character from solving this problem. Again, I agree; for this signpost to point towards a technical contribution, the problem in question must be a technical problem, and that is not the case here.
- 66 Therefore, the *AT&T* signposts point away from there being any technical contribution, and towards excluded matter. Having reviewed all the arguments before me, I can find no other basis for concluding that the contribution made by the invention is more than a program for a computer and is technical in nature. I conclude under steps three and four that the contribution is excluded on this basis.

Presentation of information

- 67 The examiner’s arguments concerning presentation of information are set out in his examination report of 9 January 2018. Noting that the method displays a prioritised list to the user, the examiner suggests that the contribution may fall under the presentation of information exclusion. Although this objection was not explicitly sustained in the pre-hearing report, it was touched on briefly at the hearing and I deal with it for completeness here.
- 68 At the hearing, Mr Leffers argued that the main effect of the invention should not be regarded as the presentation of a list of items at the end of claim 1, but should be regarded as the building of an improved user profile that could be used for example to organise upcoming events.
- 69 I need only record briefly that I agree with the attorney’s arguments on this point. The contribution, as I have identified above, is the provision of a method for determining what is of interest or trending for a user of an information handling device at a particular time and at a particular location, which may be used to intelligently organise upcoming items for action accordingly. The contribution does not include the step of presenting the list of items to the user, but is instead concerned with determining contextualised data and organising it in a particular way. It is not characterised *solely* by the content of the information itself, and amounts to more than simply the presentation of information. So it cannot be said that the contribution falls under this exclusion.

Rule, scheme or method for doing business

- 70 The examiner's arguments concerning the business method exclusion are set out most clearly in his examination report of 9 January 2018. The examiner states that the hardware used to implement the invention is entirely conventional, and the use of computer technology for user profiling and location detection is commonly known. (As already noted, Mr Leffers agreed that the hardware is arranged and run conventionally). The examiner therefore argues that the contribution of the invention is purely administrative and non-technical, being "the automation of the functionality carried out by a good secretary who knows their employer and is able to better prioritise information their employer will find most useful".
- 71 At the hearing, Mr Leffers argued that the invention is not a business method or equivalent to what a good secretary could do, because it relates to device events on the information handling device itself, for example the contents of communications received – which even a good organised secretary could not be aware of. He added that further information is recorded beyond the usual information which a secretary has, and this further information is also processed as part of the steps taken by the invention.
- 72 Again, it should be borne in mind that the question to be asked is whether the contribution, as identified in step two, falls solely within excluded matter. With that in mind, it seems to me that it is a purely administrative task to assimilate and review information and data (such as search or purchase history, location events, contacts, or other information or activities). It is also an administrative or organisational task then to use that information to make judgments about what is of interest or importance for a device user. I also think it is clearly then an administrative task to organise actions or other items on the basis of these judgments.
- 73 I am not persuaded by the argument that the contribution amounts to more than an administrative task simply because certain information may be more easily obtained from a device and would not be particular information that was easily obtained by a secretary. The process nevertheless remains a purely administrative one. Although not binding on me, I note that paragraph 1.33.2 of the *Manual of Patent Practice* says that the expression "doing business" is "not restricted to financial or commercial activities, but embraces administrative, organisational and managerial activities". I also note that it may be the case that a computer would be able to perform the steps of the contribution much more quickly than a secretary or other person, but that does not overcome the business method exclusion. As suggested by HHJ Birss QC (as he then was) in *Halliburton*⁹, the use of a computer to implement a better business method does not confer patentability.
- 74 I conclude that the contribution is excluded as being no more than a scheme, rule or method for doing business. For the reasons already given above, I am satisfied that it is not technical in nature. On this basis, it again fails at steps three and four.

⁹ *Halliburton Energy Services Inc's Applications* [2012] RPC 129, HHJ Birss QC at paragraph 35

Conclusion

- 75 I conclude that the claimed invention is excluded from patentability under section 1(2)(c) because it is no more than a program for a computer and a rule, scheme or method for doing business.
- 76 I can find no other disclosure in the specification upon which patentable claims might be based. I therefore refuse the application under section 18(3) for failure to comply with section 1(2)(c).

Appeal

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

Dr J E PORTER

Deputy Director, acting for the Comptroller