Intellectual Property Office

BL O/0038/25

15 January 2025

PATENTS ACT 1977

APPLICANT	Motorola Mobility LLC
ISSUE	Whether patent application GB 2107099.0 complies with Section 1(2) of the Patents Act 1977
HEARING OFFICER	Nigel Hanley

DECISION

Background

1 This decision relates to whether patent application GB 2107099.0, published as GB 2598448 A, complies with Section 1(2) of the Patents Act 1977 ("the Act").

2 The application was filed on 18 May 2021 with a claim to a priority date of 24 June 2020.

3 The first examination report on this application was a Combined Search and Examination Report issued on 17 December 2021. That exam report was confined to issues regarding a lack of novelty and inventiveness. Following amendment and argument, a further examination report was issued objecting to the application on the basis that it was excluded by virtue of Section 1(2) of the Act. Further amendment and argument followed but the attorney was unable to persuade the examiner that the excluded matter objection was overcome. Consequently, the examiner offered the applicant a hearing to resolve the issue, to which the attorney responded by requesting a decision on the papers.

4 The latest amendments were those received on 18 April 2023, and the latest arguments from the attorney were those received on 18 July 2024. The examiner's position is set out in their report of 8 November 2024. No response to that report was received from the applicant.

5 The only matter which falls to be decided is whether or not the invention is excluded under Section 1(2) as being presentation of information and/or a computer program.

6 Examination of the application is nevertheless incomplete, and if I find that the application is allowable then I will remit it to the examiner for completion of the examination, including completion of the prior art search.

Subject matter

7 The invention is broadly directed to using specific portions of the screen of an electronic device as an indicator of the status of the user of that device to people in the vicinity. In particular, the electronic device is a smartphone with a curved wraparound screen edge. The user's status is displayed by illuminating the edge of the screen in a particular way so that it is visible to people who are not necessarily looking directly at the screen. In this way there is improved visibility of the user's status for people in the vicinity of the user. The arrangement is illustrated by figure 1 of the application. The status display is indicated at 140 and the different statuses that may be displayed are indicated at 130, 131 and 132, which will typically be illuminated in red, yellow or green. Sensors associated with the smartphone can be used to change the status. For example, virtual buttons may be displayed, the activation of which is sensed by the touchscreen.

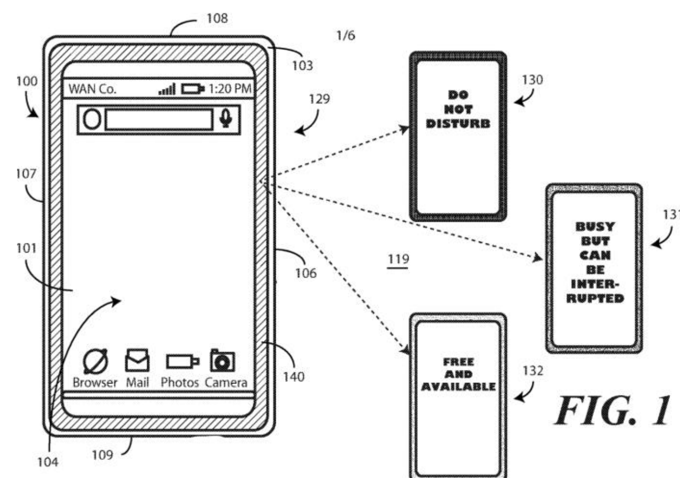
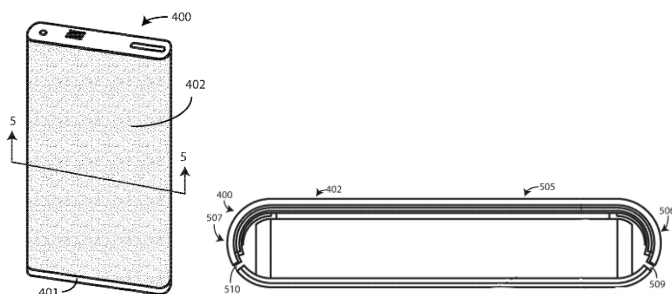


FIG. 1

8 The part of the display used for displaying status is illustrated in figures 4 and 5 of the application.



9 The screen (402) comprises a major face (505) and arched bridging members (506, 506) on either side of the major face, arched bridging members being used to indicate the user's status.

10 Paragraph [32] describes situations in which the invention may be used as follows:

> *[32] To better illustrate how the status indicators of the present disclosure can be used, consider the situation where a user is in a conference call. In one or more embodiments, the methods and systems described below would present a red status indicator output along the sides of the electronic device, thereby*

alerting third parties to the fact that the user is busy and should not be disturbed. Similarly, consider a student doing homework or studying for an exam. The student may not want anyone to interrupt. Accordingly, the student may deliver user input to the electronic device causing a red status indicator output to be presented. In a restaurant, the presentation of a status indicator output indicating that one should not be disturbed would allow a waiter to see that the diner is busy and should not disturb the conversation….

The law

11 The examiner raised an objection under Section 1(2) of the Act that the invention is not patentable because it relates to one or more categories of excluded matter. The relevant provisions of this section of the Act are shown below:

> *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.*

12 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]. In *Aerotel* the court reviewed the case law on the interpretation of Section 1(2) and set out a four-step test to decide whether a claimed invention is patentable. In *Emotional Perception*[3], the Court of Appeal expressed (at [31]) that the four steps of the Aerotel test are:

> *(1) Properly construe the claim.*
>
> *(2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).*
>
> *(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.*

13 The Court of Appeal in *Symbian* made it clear that the four-step test in *Aerotel* was not intended to be a new departure in domestic law; it was confirmed that the test is

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[1] *Aerotel Ltd v Telco Holdings Ltd & Ors Rev 1* [2007] RPC 7
[2] *Symbian Ltd v Comptroller General of Patents* [2009] RPC 1
[3] *Comptroller-General v Emotional Perception AI Ltd* [2024] EWCA Civ 825

consistent with the previous requirement set out in case law that the invention must provide a “technical contribution”. Paragraph 46 of *Aerotel* states that applying the fourth step of the test may not be necessary because the third step should have covered the question of whether the contribution is technical in nature. It was further confirmed in *Symbian* that the question of whether the invention makes a technical contribution can take place at step 3 or 4.

14 Lewison J (as he then was) in *AT&T/CVON*[4] set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC/Apple*[5] 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.*

Application of the Aerotel approach

<u>Step (1): Properly construe the claim</u>

15 The latest claims are those filed on 18 April 2023.

16 There are two independent claims, claims 1 and 12. They read as follows:

> 1. A method in an electronic device, the method comprising:
>
> detecting, with one or more sensors of the electronic device, a first actuation event input requesting performance of a status indicator;
>
> operating, by one or more processors operable with the one or more sensors, the status indicator in a first state in response to the first actuation event input;
>
> detecting, with the one or more sensors, a second actuation event input while the status indicator is operating in the first state; and

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[4] *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)
[5] *HTC v Apple* [2013] EWCA Civ 451
[6] *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

in response to the detecting the second actuation event input, operating, by the one or more processors, the status indicator in a second state that is different from the first state;

the status indicator causing an emission of light from a first arched bridging member and a second arched bridging member of a pre-formed display assembly spanning a major face and at least two minor faces of a device housing of the electronic device when operating in the first state;

wherein the first state and the second state identifying a status function indicating a status of an authorized user of the electronic device.

12. An electronic device, comprising:

one or more sensors;

one or more processors operable with the one or more sensors; and

a status indicator operable with the one or more processors in at least a first state and a second state that is different from the first state; and

the one or more processors operating the status indicator in the first state in response to a first actuation event input and transitioning operation of the status indicator from the first state to the second state upon the one or more sensors detecting a second actuation event input occurring while the one or more processors operate the status indicator in the first state;

the status indicator causing an emission of light from a first arched bridging member and a second arched bridging member of a pre-formed display assembly spanning a major face and at least two minor faces of a device housing of the electronic device when operating in the first state;

wherein the first state and the second state identifying a status function indicating a status of an authorized user of the electronic device.

17 I do not consider that there are any issues with construction of the claims.

18 Although claim 12 is directed to a device whilst claim 1 is to a method, it is clear that they both share all the same features and are intended to define the same functionality. Accordingly the scope of these claims is the same and they either stand or fall together. I need therefore only consider one of these claims.

19 In summary, claim 1 defines:

A method of displaying a status of an authorised user of an electronic device on a status indicator formed on curved edges of a screen of the electronic device, the method comprising detecting a first actuation and illuminating the status indicator to show a first status, and subsequently detecting a second actuation and illuminating the status indicator to show a second different status.

Step (2): Identify the actual or alleged contribution

20 Guidance on how to identify the contribution is given in paragraph 43 of *Aerotel*, where the court accepted the proposition that identifying the contribution is:

> *"an exercise in judgment 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."*

21 Although identifying the contribution involves more than just working out what is new and inventive in the claimed invention, some consideration of the prior art is nevertheless helpful when assessing what the inventor has really added to human knowledge.

22 In particular, it is noted that curved displays comprising *first and second arched bridging members of a pre-formed display assembly spanning a major face and at least two minor faces of a device housing of the electronic device* were known at the priority date. The examiner referred to two examples of such (US 2020/150763 and US 2018/224963) in his examination report of 21 December 2022. I refer to these simply so that it is clear that the hardware was itself known at the priority date. The actual use of this hardware in the way described is considered to be the main feature of the contribution.

23 Neither the attorney nor the examiner have explicitly set out what they consider the contribution to be. The attorney has however stated that:

> *The inventive contribution stems from a realisation that, when a user is at their desk, the edge display of the electronic device is both:*
>
> *i) Not used to provide information to the use; and*
>
> *ii) Typically visible to passers-by independent of the orientation of the electronic device on the desk.*

24 I do not fully agree with either of these statements. In particular, it is not clear that two opposite edges of the device on which the edge display is situated would be visible independent of the orientation of the device. Nevertheless, it is accepted that the use of the edge display provides generally improved visibility to passers-by, and that this forms part of the contribution.

25 I consider that the contribution is:

> Use of an edge display of an electronic device to indicate the status of a user of the device, the status being updateable by the user using sensors associated with the device, wherein the edge display provides improved visibility of the status to passers-by.

Steps (3) & (4): Does the contribution fall solely within excluded subject matter; check if the contribution is actually technical.

26 The contribution appears to be nothing more than a different way of presenting particular information in a particular way on a known electronic device. It is known information being displayed in different way and in a different place to the prior art. The applicant has simply chosen to provide that information in a new place on the display. As such it is considered to be nothing more than presentation of information.

27 Although there may be benefits in relation to the visibility of that information, I do not consider that those benefits are technical.

28 In particular, using the curved edges to display the information makes it more convenient for third parties to see that information. The convenience of the display of information was considered by Lewinson J in *Autonomy Corp Ltd v Comptroller General of Patents*[7].

> *45. …. The Hearing Officer seems to have been persuaded that the claimed contribution was not excluded because the information was provided in a convenient place. I cannot see that this makes any difference. Choosing where and how to display information is, in my judgment, still the presentation of information. It is part of the decision how to present the information. In my judgment the Hearing Officer ought to have held that the second element of the contribution was excluded because it related to the presentation of information. Claim 2 explicitly requires the icon to be embedded in an unobtrusive place. I cannot see that this makes any difference. It is still choosing where to display the information. That is also the presentation of information.*

29 Simply providing the information in a more convenient place is not therefore considered to provide any technical effect.

30 I have also considered the High Court decision in *Gemstar v Virgin Media*[8]. In that decision the Single Channel patent was refused as being, at least in part, presentation of information. At paragraphs 56-57, Mann J considered the EPO guidance[9] regarding presentation of information and stated that:

> *"56 … if the presentation of information has some technical features over and above the information and its delivery, then it might be patentable. So the contrast is between the content or its mere delivery, on the one hand, and that material plus some additional technical aspect of its delivery, on the other. That approach is consistent with the law on computer programs, discussed above."*

31 At paragraph 57 Mann J quotes the EPO guidelines which includes examples of presentation of information with additional technical features as follows:

> *"57 …*

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[7] *Autonomy Corp Ltd v Comptroller General of Patents* [2008] EWHC 146(Pat)
[8] *Gemstar TV Guide International Inc v Vergin Media Ltd* [2010] RPC 10. See paragraphs 53 to 60.
[9] EPO Guidelines C-IV, 2.3.7 – June 2005 version.

> *"…. Examples in which such a feature may be present are: a telegraph apparatus or communication system using a particular code to represent the characters (eg pulse code modulation); a measuring instrument designed to produce a particular form of graph for representing the measured information; a gramophone record having a particular groove form to allow stereo recordings; a computer date structure … defined in terms which inherently comprise the technical features of the program which operates on the said data structure (assuming the program itself in the particular case, to be patentable); and a diapositive with a soundtrack arranged at the side of it."*

"So what achieves patentability is some real world technical achievement outside the information itself."

32 The Single Channel patent was found to lack a technical effect:

> *59 I reach the same conclusion by standing back and looking at the thing overall. It is still the presentation of information with no, or no new, technical effect. Mr Birss sought to say that there was a technical effect, and it lay in a better user interface (his mantra in this part of the case). I think that that is a form of words which disguises the reality. Providing a better (or new) user interface is not a technical description. What matters is technical effects, and that description does not shed any light on that. He frankly admitted that if that is not a technical effect, then he loses. It is not, and he does.*

33 I do not consider that the contribution defines any real world technical achievement of the sort set out in the examples. The better visibility of the user's status seems comparable to the better user interface of *Gemstar* and does not provide any technical effect. There is not considered to be any technical effect which takes it outside the exclusion of Section 1(2)(d).

34 Nevertheless, the fact that it is implemented on a computer may give rise to a patentable invention if there is a technical contribution in that implementation.

35 In order to further determine if the contribution is technical in nature, I will consider the AT&T signposts.

First signpost – whether the claimed technical effect has a technical effect on a process which is carried on outside the computer

36 If there is an effect outside the computer, then I consider such an effect is simply as a consequence of using the curved edges of the display to present information, e.g. the improved visibility an indicating colour denoting a status to passers-by. This being the case the effect cannot be characterised as technical. This signpost does not therefore point to the invention being patentable.

Second signpost - 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

Third signpost - whether the claimed technical effect results in the computer being made to operate in a new way

Fourth signpost - whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer

37 Signposts (ii), (iii), or (iv), are often referred to as the *better computer* signposts. They relate to whether or not the computer is a better computer at an underlying level e.g. the architecture of the computer.

38 Although the attorney has suggested that the electronic device is caused to operate in a new way, I do not consider that to be the case. The invention causes a particular part of the display to be illuminated in a particular way. Although the particular configuration of the display is new it is nevertheless normal operation of a phone. Neither the display nor the underlying electronics operate in a new or technically improved manner.

39 No argument has been made in respect of signposts (ii) or (iv). These signposts are not relevant in determining whether or not there is a technical contribution in this case. I consider it self-evident that there is no change at the architectural level of the system and the system is not made to operate in a new way. Nor is it a more efficient or effective computer *per se.*

Fifth signpost - whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented

40 In order to meet the fifth signpost the problem must be a technical problem. An invention which overcomes such a technical problem is considered to have a technical character derived from the technical nature of the problem (per Birss J in *Lantana*).

41 The attoreny has indicated that the problem being solved is:

> *"giving a real world indication of personal status to physically near-by users"*

42 However, the visibility of an indication of a user's status is not considered to be a technical problem. It is no more than a convenience for the user to avoid unnecessary interruptions.

43 I do not consider that this signpost helps the applicant.

44 I have considered whether there are any technical computing features which would take the contribution outside the exclusions, but none have been found.

45 Inasmuch as the contribution is a program for a computer then it also falls within the exclusion of Section 1(2)(c) of the Act. As set out at paragraph 60 of *Gemstar:*

> *"…It is established on the authorities that an invention can be unpatentable as a result of a combination of two or more of the statutory exclusions – see for example Raytheon…"*

46 I consider that the application relates to nothing more than presentation of information and/or a program for a computer. It therefore falls within the exclusion of section 1(2) of the Act and is excluded from patentability.

47 The application is therefore refused.

Appeal

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

Nigel Hanley

Divisional Director, acting for the Comptroller