



PATENTS ACT 1977

APPLICANT	Canon Kabushiki Kaisha
ISSUE	The Patents Act 1977: whether patent application GB1912645.7 complies with sections 1(2) and 1(1)(b) of the Act
HEARING OFFICER	Dr L Cullen

DECISION

1. This decision concerns patent application GB1912645.7 (“the application”), entitled “*Electronic Apparatus and method for controlling same*” in the name of Canon Kabushiki Kaisha
2. The issues to be decided in this case relate to (i) whether the invention as claimed is excluded from patentability under section 1(2)(c) of the Patents Act 1977 (“the Act”); and (ii) whether the invention as claimed has an inventive step under section 1(1)(b) of the Act.

Introduction

3. Application GB1912645.7 was filed under the Act on 3 September 2022. Following combined search and examination, the examiner raised objections to this application under excluded subject matter and lack of an inventive step and, despite several rounds of correspondence with the applicant, including amendments to the claims, they maintained these objections.
4. In their letter dated 31 August 2022, the applicant requested a hearing, but subsequently they decided they would not attend the hearing and requested a decision based on the papers on the file.
5. As a consequence, my decision below is based upon the claims filed on 31 August 2022 and the corresponding specification as amended. The examiner’s objections are set out in some detail in an amended pre-hearing report dated 18 November 2022 which is in response to the applicant’s latest arguments and observations in a letter dated 31 August 2022. For the avoidance of doubt, no further arguments, amendments or auxiliary requests have been filed by the applicant since the above-mentioned pre-hearing report dated 18 November 2022.

6. The specification including the claims; the objections raised by the examiner; and the applicant's arguments and observations can all be viewed using the Intellectual Property Office's (IPO) online file inspection service, *Ipsum* at:

<https://www.ipo.gov.uk/p-ipsu.htm>

The Invention

7. The invention relates to an electronic apparatus and a method for controlling an electronic apparatus in which a language used by a user can be changed, in some cases, using identification of the language of a voice input received by a voice receiving unit included in the electronic apparatus. Paragraph 3 of the description identifies a problem in the prior art that "*when the language of the user's voice is incorrectly recognized, the electronic apparatus undesirably changes the setting to this incorrectly recognized language, thereby inconveniently changing the setting to a language that was not intended by the user.*" Whilst it is not stated explicitly, it seems clear to me that the application is concerned with a solution to this problem, specifically in seeking confirmation from a user before changing the language following receipt of voice input.
8. Embodiments of the invention are described in the context of a smartphone as shown in figures 2 to 4 and described in paragraphs 29 to 32 of the specification as filed.

The Claims

9. Independent apparatus claim 1 and independent method claim 11 relate to the same concept. Claim 1, as currently amended, reads:

1. *An electronic apparatus comprising:*
a voice receiving unit;
an operation unit;
a display unit for displaying a screen for changing a setting of a primary language which is set as a language used by a user on the electronic apparatus, the screen displaying a plurality of languages available for use on the electronic apparatus;
and
a control unit,
wherein
the control unit is configured to perform control so as to identify a language of a voice input received by the voice receiving unit in a case where the screen for changing a setting of a primary language is displayed,
wherein,
in a case where the control unit identifies a plurality of candidate languages for the language of the received voice input at a time, each of the plurality of candidate languages being different from a first language set as the primary language in the electronic apparatus, the control unit is configured to display on the display unit in the first language for each of the plurality of candidate languages a message for confirming whether to change the primary language from the first language and in each of the plurality of candidate

languages a message for confirming whether to change the primary language from the first language,

wherein,

in a case where the user demands by operating the operation unit that the primary language be changed from the first language to one of the plurality of candidate languages, the control unit is configured to change the primary language from the first language to the one of the plurality of candidate languages, and

wherein,

in a case where no voice input is received in a case where the screen for changing a setting of a primary language is displayed, and where one of the plurality of languages displayed on the screen is selected by operating the operation unit by a user, the control unit is configured to change the primary language from the first language to the one language selected by operating the operation unit without displaying a message for confirming whether to change the primary language from the first language.

The Issues to be decided

10. As noted above, there are two issues to be decided in the present case:

(i) does the invention as claimed relate to matter excluded under Section 1(2) of the Act, specifically part (c), a computer programme as such;

and

(ii) does the invention as claimed show an inventive step under section 1(1)(b) of the Act.

If I find that the answer to issue (i) is negative and that the invention is not excluded, I will then go on to consider the issue under (ii), inventive step. However, if I find that the answer to issue (i) is positive and that the invention is excluded, I will not need to go on to consider Issue (ii).

(i): Excluded Matter under Section 1(2) of the Act

The Relevant Law & Case Law

11. The relevant law on excluded matter is defined in section 1(2) of the Act. It can be viewed online at the IPO website¹:

<https://www.gov.uk/guidance/the-patent-act-1977>

12. The Manual of Patent Practice explains the IPO's practice under the Act and makes helpful references to relevant case law. The Manual can be viewed online at the IPO website:

¹ See <https://www.gov.uk/government/publications/the-patents-act-1977>

<https://www.gov.uk/guidance/manual-of-patent-practice-mopp>

13. In particular, sections 1.18-1.25.1 and 1.35-1.39.2 are helpful, relating to the *Aerotel/Macrossan*² approach to assessing excluded matter and the *AT&T/CVON*³ signposts as amended in *HTC v Apple*⁴ which provide guidance in considering whether a computer program provides a technical contribution.
14. There is no dispute concerning the relevant law and its application to the facts of this application.

Analysis

15. There is also no dispute that the correct approach to dealing with excluded matter cases is the four-step test set out in *Aerotel/Macrossan*². The test comprises four steps, which are as follows:
 1. Properly construe the claim;
 2. Identify the actual or alleged contribution;
 3. Ask whether it falls solely within the excluded subject matter;
 4. Check whether the actual or alleged contribution is actually technical in nature.
16. In this case we are concerned with an objection against the application in suit that it relates to matter that is excluded from patentability as a computer program as such.

Step 1: Properly Construe the Claim

17. Regarding construction, the examiner describes the various cases that arise from claim 1 (see para 5-10 of the pre-hearing report dated 18 November 2023), but ultimately finds no difficulty in understanding the claim. I agree that the claim is clear and that it requires no further elaboration.

Step 2: Identify the Actual Contribution

18. As for the contribution, the examiner arrives at the following in his pre-hearing report of 18 November 2022:

“Displaying on the display unit in the first language for each of the plurality of candidate languages a message for confirming whether to change the primary language, and displaying a message in each candidate language for confirming whether to change the primary language, and changing the primary language if demanded to by the user; or

² *Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan’s Application* [2006] EWCA Civ 1371; [Aerotel Ltd v Telco Holdings Ltd & Ors Rev 1](#) [2007] RPC 7.

³ *AT&T Knowledge Ventures LP and CVON Innovations Limited v Comptroller General of Patents* [2009] EWHC 343.

⁴ *HTC v Apple* [2013] EWCA Civ 451.

Changing the primary language if demanded to by a user without displaying a message for confirming whether to change the primary language.

19. As I noted at the outset, no arguments have been filed by the applicant since the examiner's pre-hearing report so I do not have the benefit of any observations from the applicant regarding the examiner's formulation of the contribution.

20. The letter dated 31 August 2022 accompanying the latest amendments includes the following observation:

"Thus, the claimed invention provides an improved user interface that avoids issues with incorrect speech recognition and setting the primary language used in the electronic device to the wrong language."

21. Whilst it is not stated explicitly, I take it that this is effectively what the applicant regards as the contribution. It is also consistent with paragraph 3 of the application as filed which reads (my emphasis added in underline):

"However, Japanese Patent Application Laid-Open No. 2006-65528 involves a problem that, when the language of the user's voice is incorrectly recognized, the electronic apparatus undesirably changes the setting to this incorrectly recognized language, thereby inconveniently changing the setting to a language that was not intended by the user."

22. An earlier letter from the applicant dated 13 April 2022, provided in support of previous amendments, states (my emphasis added in underline):

"It is believed that the contribution of the invention is an improved user input device which provides an improved mechanism for selecting a language for operation of an electronic device that may be selected by voice input or by operating the operation unit in a way which is easy to use and efficient and which ensures language selection is accurate (and not unintended)."

23. It seems to me that the applicant, in both of the formulations above, and the examiner, in the formulation provided in their pre-hearing report dated 18 November 2023, are essentially in agreement regarding the contribution. The formulation provided by the examiner simply adds a little more detail regarding how the issues with incorrect speech recognition are avoided.

24. I consider that the improvement to which the applicant refers lies not in improved language recognition based on voice input, but rather in avoiding incorrect language selection by seeking user confirmation before changing language setting.

Step 3: *Ask whether the contribution falls solely within the excluded subject matter.*

25. As the examiner explains in his pre-hearing report:

"In Symbian v Comptroller General of Patents [2008] EWCA Civ 1066, the Court of Appeal stated that a computer program may not be excluded if it makes a technical contribution. The decision in AT&T Knowledge Ventures LP and Cvon Innovations Ltd v Comptroller General of patents [2009] EWHC 343 (Pat) provides guidance in the form of a number of signposts

which may indicate that a computer program provides a technical contribution. The signposts were updated in *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451 and are as follows:

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.”

26. In his pre-hearing report, the examiner considers each signpost in turn, and I shall do the same. In the correspondence relating to the application, I can only find one specific comment from the applicant regarding the signposts – see discussion of fourth signpost below.
27. I cannot see a technical effect on a process which is carried on outside the computer, which is the electronic apparatus in the language of claim 1. Arguably that which is displayed on the screen is outside the computer, but any effect lies in the nature or content of the messages displayed rather than in some technical effect. Thus, the first signpost does not indicate a technical contribution in my view.
28. Similarly, there is no effect that I can see at the level of the architecture of the computer and so the second signpost does not indicate a technical contribution either.
29. The computer is not made to operate in a new way and so the third signpost does not suggest a technical contribution.
30. I do not believe that the computer runs more efficiently or effectively and so to my mind the fourth signpost does not indicate a technical contribution. Although, the letter from the applicant dated 13 April 2022 refers briefly to relevance of this signpost, stating that “*the technical contribution provided by the invention is a better computer user interface to control a computer and thus falls under at least signpost iv)*”, the argument is not developed. In my view, the effect lies at the interface between the user and the computer rather than at a deeper level within the computer. Convenience to the user may be improved, but not as a result of the computer running more efficiently or effectively.
31. Finally, I do not feel that the fifth signpost indicates a technical contribution. As the examiner has contended, the problem to which the application is addressed is not a technical one.

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

32. As a final step I must check whether the actual or alleged contribution is actually technical in nature. My consideration under step 3 has effectively addressed this question, but to be clear, my view is that the contribution is not technical in nature.
33. In their letter dated 13 April 2022, discussed above, the applicant drew attention to IPO decision, BL O/017/20, and specifically to a comment of the Hearing Officer that “*user interaction whilst controlling a computer, is a technical field of endeavour ...*”.⁵ While decisions of IPO hearing officers are not binding on each other and each case is decided on its particular facts, such decisions can be helpful in ensuring consistency and providing support in relation to an on-going case. Thus I have reviewed this decision and considered its relevance (if any) to the present case. I note that the comment from the hearing officer in BL O/017/20 referred to by the applicant, was made in the context of step 2 of the *Aerotel/Macrossan* test, i.e., identifying the contribution, and was not, in itself, decisive. Further, in my view, the hearing officer in BL O/017/20 did not mean that such a user interaction whilst controlling a computer is a field of endeavour to which somehow section 1(2) of the Act cannot apply and, as such, it is necessarily patentable! Rather, it is a field in which a technical contribution could be made and the relevant analysis needs to be carried out in order to identify if one has been made. The hearing officer in BL O/017/20 considered that the contribution was a broader one than that identified by the examiner. Then, using the same analysis as I have above to explore if the identified contribution was excluded as a computer programme as such, they found that it was not. However, in the present case, I have not found a difference in the contribution identified by the examiner which, as I have indicated above, is in agreement with that identified by the applicant. Having conducted the same analysis of the contribution as in BL O/017/20 in line with the relevant case-law, I have not been able to identify a technical contribution.
34. I consider that in the present case, the invention is directed specifically towards confirming the selection of a primary language based on voice input in, for example, a phone settings application. By contrast, in BL O/017/20, the improved input device worked at the level of handwriting recognition, analogous to the language recognition of the present application. However, whereas the invention in BL O/017/20 provided improved handwriting recognition, the present application does not provide improved language recognition. Thus, having reviewed BL O/017/20 and considered the argument presented by the applicant in relation to that decision and its relevance to the present case, I am not persuaded that my view in relation to the present case should alter, i.e., that, as claimed, the present application relates to matter that is excluded as a computer programme as such.

(ii): Inventive Step under Section 1(1)(b) of the Act

35. Given my finding above in relation to excluded matter, and as noted earlier, I do not need to go on and consider inventive step.

⁵ For full text of this decision see, [Patent Decision O/017/20 \(ipo.gov.uk\)](https://ipo.gov.uk/patent-decision-o/017/20) (Lenovo (Singapore) Pte. Ltd.)

Conclusion

36. I find that the claimed invention does not provide a technical contribution and defines subject matter that is excluded from patentability by section 1(2)(c) of the Act as a computer program as such.
37. As a consequence of this finding, it is not necessary for me to go on and consider the issue of inventive step under section 1(1)(b) of the Act and I have not done so.
38. As patent application GB1912645.7 fails to meet the requirements of section 1(2)(c) of the Act, I refuse it under section 18(3) of the Act.

Appeal

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

Dr L Cullen

Deputy Director, acting for the Comptroller