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**Datasheet for the decision
of 6 September 2021**

Case Number: T 0306/19 - 3.5.05

Application Number: 06123889.5

Publication Number: 1921532

IPC: G06F3/023

Language of the proceedings: EN

Title of invention:

Method for automatically preferring a diacritical version of a linguistic element on a handheld electronic device based on linguistic source and associated apparatus

Applicant:

BlackBerry Limited

Headword:

Disambiguation scheme for reduced keyboard/BLACKBERRY

Relevant legal provisions:

EPC Art. 54(3), 56

Keyword:

Novelty - (yes)
Inventive step - (yes)



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Case Number: T 0306/19 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 6 September 2021

Appellant: BlackBerry Limited
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Representative: Murgitroyd & Company
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 28 September
2018 refusing European patent application No.
06123889.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: P. Cretaine
F. Blumer

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 28 September 2018, refusing European patent application No. 06123889.5. A main request was refused for lack of novelty (Article 54(3) EPC) over the disclosure of:

D7: EP 1 816 548 A1

and lack of inventive step (Article 56 EPC) having regard to the disclosure of:

D1: Motorola, Inc.: "V525", Mobile Phone, 2003

D2: Motorola, Inc.: "UG_Vodafone.V600.book", October 2003

The first to fourth auxiliary requests were not admitted into the examination proceedings under Rule 137(3) EPC as they were late filed and could not *prima facie* overcome the inventive-step objection.

II. The notice of appeal was received on 28 November 2018, and the appeal fee was paid on the same date. The statement setting out the grounds of appeal was received on 21 January 2019. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of a main request or one of four auxiliary requests, all requests filed with the statement setting out the grounds of appeal. The main request was identical to the main request on which the decision was based. As an auxiliary measure, oral proceedings were requested.

III. A summons to oral proceedings was issued on 21 April 2021. In a communication pursuant to Article 15(1) RPBA sent on 15 July 2021, the board gave its preliminary opinion that the main request lacked novelty (Article 54(3) EPC) over D7 and lacked novelty and inventive step (Articles 54 and 56 EPC) over D2. The board also expressed the view that the first to fourth auxiliary requests were not able to overcome the novelty and inventive-step objections based on D2. Since these requests also corresponded in substance to the first to fourth auxiliary requests not admitted by the examining division, the board expressed the opinion that they should not be admitted into the appeal proceedings.

IV. With a letter of response dated 29 July 2021, the appellant submitted a new main request and a new first auxiliary request replacing all the previous requests.

V. Oral proceedings were held on 6 September 2021. The appellant submitted a new main request and withdrew all previous requests. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed during the oral proceedings before the board. The decision of the board was announced at the end of the oral proceedings.

VI. Claim 1 of the main request reads as follows:

"A method of enabling input on a handheld electronic device (2), said handheld electronic device including an input apparatus (6), an output apparatus (8), and a linguistic source (39) stored on a memory (12), said input apparatus having a number of keys (18) with at least some of said keys each having at least one non-

diacritical version of a linguistic element assigned thereto and at least one diacritical version of the linguistic element assigned thereto, the method comprising:

detecting an input of text into said handheld electronic device (2);

responsive to detecting an input of text, outputting as a first output said text;

detecting (100), as a linguistic element input, a selection of one of the number of keys having assigned thereto both said non-diacritical version and said diacritical version;

determining whether to output the non-diacritical version or the diacritical version in response to the selection, the output determination comprising:

determining (102) whether the selection corresponds to an alphanumeric input for the enabled input;

based on a determination (102) that the selection corresponds to the alphanumeric input, determining (104) whether there has been a previous input of text;

in response to a determination (104) that there has been said input of text, identifying (112) as a preferred output the diacritical version based on determining (110) that the text of said input of text includes a verb of a certain class; and

outputting (108), as a second output, said preferred output."

The main request comprises a further independent claim (claim 9) directed to a corresponding device.

Reasons for the Decision

1. Admissibility of the main request

The main request was filed during the oral proceedings. It is based on the main request filed in response to the board's communication, which itself was based on the third auxiliary request filed with the statement setting out the grounds of appeal.

Taking into account that the main request filed in response to the board's communication was a valid attempt to overcome the objections under Articles 54(3), 54 and 56 EPC raised in the communication, the board exercised its discretion under Article 13 RPBA and admitted this request into the appeal proceedings. The current main request differs slightly from this request and was also admitted into the appeal proceedings.

2. Novelty - Article 54(3) EPC

D7 is a prior-art document under Article 54(3) EPC which discloses a mobile phone device with a reduced keyboard and disambiguation software adapted for the language active on the device (see the abstract and paragraphs [0056] and [0057]). The disambiguation process is based on a generic word list and a new words database comprising words constructed of letters of an alphabet (see paragraph [0122]). The generic word list comprises a large proportion of words in a specific language, e.g. the English language, but also words not belonging to this language (see paragraph [0126], column 27, lines 3 to 10: "...relative large portion of English words..."). The new words database comprises words that were not originally in the generic word list that the user has previously entered on the reduced keyboard. Some of these new words may comprise diacritical versions of letters which are then

incorporated into the alphabet (see paragraph [0128] and Figures 13, 14, 15B, 15C and 16).

Thus, the scheme of D7 relies on identifying words to which the letter with a diacritical and non-diacritical version under disambiguation belongs in lists of words stored in the handheld device. By contrast, the method of claim 1 analyses the previously inputted text, or word, that precedes the input comprising the letter under disambiguation and is a distinct word to the word to which the letter under disambiguation belongs to determine whether this text includes a verb of a certain class and, in that case, output the diacritical version of the letter.

Therefore, as argued by the appellant, D7 does not anticipate the subject-matter of claim 1. Independent claim 9 comprises the same features as claim 1 but expressed in terms of a device claim. Thus, claim 9 also meets the requirements of Article 54(3) EPC over the disclosure of D7.

3. Novelty and inventive step - Articles 54 and 56 EPC.

D2 was considered the closest prior art in the impugned decision. D2 discloses a mobile phone with a reduced keyboard operable with disambiguation software (see the "méthode iTAPTM" on pages 42 and 43). The characters listed in the table on page 42 are allocated to keys on the reduced keyboard. To some of these keys, a diacritical and a non-diacritical version of a linguistic element (see, for instance, the letters a, e, i, o, and u) are assigned. Disambiguation software like the "méthode iTAPTM" progressively builds up a preferred output with each successive actuation of a key on the reduced keyboard, based on the previously

actuated keys of the intended word. To disambiguate a letter corresponding to a pressed key assigned to several letters, disambiguation software usually compares the letter under disambiguation alone or in combination with previously inputted letters considered to be part of the same word as the letter under disambiguation, with words or root words in an internal database for identifying stored words including the letter under disambiguation. D2 does not explicitly disclose how the iTAP™ disambiguation software selects the diacritical or non-diacritical version of the letter based on the identified words. However, it would be implicit for the skilled person that the "méthode iTAP™" is a predictive text system based on a probabilistic approach, i.e. using settings such as frequencies of use associated with the identified stored words comprising the diacritical or non-diacritical version of the letter.

Thus, claim 1 differs from D2 in that, in response to detecting the selection of a key assigned to both a non-diacritical and diacritical version of a letter, and in response to determining that there has been a previous input of text (i.e. a previous input of a word), the diacritical version of the letter is selected based on determining that the previously inputted text includes a verb of a certain class.

The appellant has plausibly argued that the technical advantage of the scheme of claim 1 lies in providing the most appropriate version of a letter with both a diacritical and a non-diacritical version by taking into account the grammatical content of the phrase preceding the word to which the letter under disambiguation belongs, based on the detection of a verb belonging to a certain class. For this purpose,

the appellant relied on the examples in Figures 3 and 4 of the application. The board agrees that in certain text-entry circumstances, using a certain class of verb, the scheme of claim 1 provides a more accurate reflection of the user's wish to select a word than the scheme of D2.

The objective technical problem can thus be formulated as how to improve the selection of a diacritical or non-diacritical version of a letter in a disambiguation scheme for a reduced keyboard.

The board agrees with the appellant that the skilled person would not find any prompt in D2 to change from a probabilistic determination as used in D2 to a deterministic approach based on an analysis of the previously inputted text as claimed and the detection of a verb of a certain class in this text.

For these reasons, the board holds that the subject-matter of claim 1, and of the corresponding system in claim 9, involves an inventive step having regard to the prior art on file. Claims 2 to 8 are dependent claims and, as such, also meet the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division with the order to grant a patent on the basis of claims 1 to 9, filed per e-mail as the main request during the oral proceedings before the board, and the description and drawings to be adapted.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated