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**Datasheet for the decision
of 18 February 2022**

Case Number: T 0677/20 - 3.5.05

Application Number: 09837802.9

Publication Number: 2374053

IPC: G06F3/048, G06F3/041, G06F3/14

Language of the proceedings: EN

Title of invention:
VIRTUAL PAGE TURN

Applicant:
Microsoft Technology Licensing, LLC

Headword:
E-book page turn/MICROSOFT

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:



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Case Number: T 0677/20 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 18 February 2022

Appellant: Microsoft Technology Licensing, LLC
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Redmond, WA 98052-6399 (US)

Representative: CMS Cameron McKenna Nabarro
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 25 October 2019
refusing European patent application No.
09837802.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: P. Cretaine
K. Kerber-Zubrzycka

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 25 October 2019, refusing European patent application No. 09 837 802.9 according to the state of the file. The decision referred to the official communications dated 4 October 2019 and 9 April 2019 in which inventive-step objections (Article 56 EPC) were raised against the claims of a main request and a first auxiliary request. These objections were based on:

D1: KR 2007 0100544 as the closest prior art

or D1 in combination with the common technical knowledge as illustrated by

D6: "Choices in Uncoated Offset", 27 March 2006

or D1 in combination with

D5: YI-CHUN et al., "Realistic books: a bizarre homage to an obsolete medium?", 7 June 2004, 78-86

Alternatively, inventive-step objections were raised by using:

D2: US 5 463 725 or

D3: JP 2000 163193 or

D4: EP 0 366 578 as the closest prior art instead of D1

- II. Notice of appeal was received on 19 December 2019, and the appeal fee was paid on the same date. The statement setting out the grounds of appeal was received on 24 February 2020. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or the first auxiliary request on which the decision was based. As an auxiliary measure, the appellant requested oral proceedings.
- III. A summons to oral proceedings was issued on 16 September 2021. In a communication pursuant to Article 15(1) RPBA 2020 sent on 23 December 2021, the board gave its preliminary opinion that it agreed with the inventive-step objections raised by the examining division with respect to the main request and the first auxiliary request.
- IV. With a letter of response dated 18 January 2022, the appellant filed a set of claims according to a second auxiliary request and provided further arguments on inventive step.
- V. Oral proceedings were held on 18 February 2022. The appellant requested that the decision under appeal be set aside and that a patent be granted based on the main request, the first auxiliary request on which the decision was based or the second auxiliary request filed by letter of 18 January 2022. The decision of the board was announced at the end of the oral proceedings.
- VI. Claim 1 according to the main request reads as follows:
- "A digital reading device (10, 12), comprising:
a touch display (26);

a logic subsystem (22, 36) operatively coupled to the touch display (26); and
a data-holding subsystem (24, 38) holding instructions executable by the logic subsystem (22, 36) to:
display a front side (247) of a page (48) on the touch display (26);
recognize a page-turning gesture directed to the turning page (48) on the touch display (26); and
display a virtual page turn that actively follows the page-turning gesture, the virtual page turn curling a lifted portion of the turning page (48) to progressively reveal a back side (248) of the turning page (48) while progressively revealing a front side (249) of a subsequent page (58), the lifted portion of the turning page (48) having an increased transparency that allows visual information (60) from the back side (248) of the turning page (48) to be viewed through the front side (247) of the lifted portion of the turning page (48)."

Claim 1 according to the first auxiliary request adds at the end of claim 1 of the main request the wording:
",while a portion of the turning page that remains flat on the subsequent page is opaque, or at least less transparent than the lifted portion; and
where a corner (56) of the turning page (48) tracks an object (54) performing the page-turning gesture as the object (54) moves across the touch display (26)."

Claim 1 according to the second auxiliary request differs from claim 1 of the first auxiliary request in that the wording ", or at least less transparent than the lifted portion" is deleted.

The three requests comprise further independent claims directed to a corresponding method (claim 8) and

computer program (claim 15 in the main request, claim 14 in the first and second auxiliary requests).

Reasons for the Decision

1. Main request- Article 56 EPC
- 1.1 It was common ground in the oral proceedings that D1 represented the closest prior art to the subject-matter of claim 1 and that the difference between claim 1 and D1 was feature A: "the lifted portion of the turning page has an increased transparency that allows visual information from the back side of the turning page to be viewed through the front side of the lifted portion of the turning page". Figure 4 of D1 showed an opaque full page, i.e. both the portion remaining flat and the portion being lifted were opaque.
- 1.2 The appellant argued that feature A would help the user search for passages in the e-book by enabling them to see through the lifted portion of the content of the back side of a page. The board is not convinced by this argument. The visual information presented to the user by feature A is part of the content of a book page but seen in an inverted view. If the page contains text, the user is not able to read an intelligible text from this view. Even an illustration in an inverted view may be difficult for the reader to identify. Therefore, in the board's view and contrary to what the appellant has argued, the user searching for a passage of text or an illustration by flicking through pages of an e-book would definitely not benefit from the visual information provided by feature A. This information would not help accelerate the user's search and is thus not to be considered as assisting the user in managing

a technical task, as was the case in T0643/00 mentioned by the appellant, or as improving the readability of a text, as was the case in T0049/04 mentioned by the appellant. Moreover, as shown by Figure 4 (see at time t_1) of the current application, the visual information given by the lifted portion of a revealed page (248 in Figure 4) provides the user with much more relevant and readable information about the next page 248 than the inverted view 60 resulting from feature A.

The board also disagrees with the appellant that the visual information of feature A is related to an internal state, dynamically changing and automatically detected, prevailing in a technical system, and that its presentation enables the user to properly operate this technical system and prompts the user to interact with the system, for example to avoid technical malfunctions. The visual information of feature A is not related to an internal state of the e-book reading device itself but to a state of progress of an interactive simulation of an e-book running on the e-book reading device. Although this state of progress is dynamically changing upon actions of the user, it relates to an output of a program running on the e-book reading device and not to the internal functioning of the e-book reading device. Moreover, the visual information of feature A is not information which is not predetermined and automatically detected in the e-book reading device but which is presented in response to an action of the user and which is determined by this action. Furthermore, the board does not see any technical malfunction of the e-book reading device that the user could avoid by using the visual information of feature A. Turning too many pages at once or failing to turn a page when turning a page is desired, as mentioned by the appellant, are technical malfunctions

of the e-book simulation program which the user cannot avoid by any action.

However, the appellant plausibly argued that a technical effect of this distinguishing feature was to provide a more realistic digital reading device while still maintaining readability. According to it, transparency as defined by feature A would provide the user with a realistic reading experience. It was common ground in the oral proceedings before the board that the objective technical problem could be formulated as how to provide the e-book system of D1 with a more realistic simulation.

- 1.3 As acknowledged by the appellant in its letter of 27 January 2014 in the first-instance proceedings, the skilled person is well aware that some paper books have pages made of thin paper sheets with a certain degree of "see through" capability. When the user progressively lifts a page of such a book by its corner, the incident ambient light behind the lifted portion progressively increases, thus enabling the user to see the inverted picture, text and graphics printed on the back side of the paper sheet constituting the page. This common knowledge is illustrated by D6 (see the paragraph "Opaque Offset"). The skilled person would thus implement in the simulation of the page turning of the e-book reading device of D1 an interactive simulation of the page turning of such a real paper book without the exercise of inventive step.

For these reasons, the board holds that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC) having regard to the disclosure of D1 and the common general knowledge as illustrated by D6.

Independent claims 9 and 15 contain the same features as claim 1 but expressed in terms of a method and a computer program, respectively, and also do not meet the requirements of Article 56 EPC.

- 1.4 Furthermore, the skilled person looking to achieve a more realistic simulation would also consult document D5, which also deals with e-books. D5 discloses in the last sentence of page 80 that the pages of an e-book may be slightly transparent. Therefore, the skilled person would consider implementing in the e-book of D1 a simulation of slightly transparent pages as disclosed in D5, which, when lifted, allows visual information from the back side of the turning page to be viewed through the front side of the lifted portion of the turning page. In addition, the skilled person would implement increased transparency of the lifted portion of such a page to simulate the well-known characteristics of a thin paper becoming more and more transparent when the incident light increases.

For these reasons, the board holds that the subject-matter of claim 1 also does not involve an inventive step (Article 56) having regard to D1 in combination with D5.

- 1.5 The appellant argued that D6, although teaching that thin paper can have "see through" quality enabling a reader to see type and graphics printed on the other side of the sheet, did not disclose that the portion of the real sheet remaining flat on the subsequent page was opaque. In support of its arguments, the appellant provided Figures 1 and 2 in its response to the board's communication. According to the appellant, Figures 1 and 2 showed two possible lighting conditions using thin paper for a real book where in both cases, the

flat portion of a page was not opaque. The board is not convinced by this argument and considers it well known in the art that the transparency of a paper sheet having "see through" property depends on the intensity of the light seen through the paper sheet and the degree of "see through" capability of the paper chosen. When a portion of a paper sheet remains flat on the subsequent page, an appropriate choice of the "see through" capability of the paper can lead to having the portion remaining opaque.

The appellant further argued that the feature of having a combination of opaque and transparent parts in the same e-page was not disclosed in D5, such that a combination of D1 with D5 would not lead to the subject-matter of claim 1. However, the board holds that the skilled person would, based on their common general knowledge of "see through" paper (see above), simulate the property that the portion of page remaining flat on the subsequent page be opaque to maintain the readability of that portion.

2. First auxiliary request - Article 56 EPC

2.1 Claim 1 of this request adds to claim 1 of the main request the following features:

- a portion of the turning page that remains flat on the subsequent page is opaque or at least less transparent than the lifted portion
- a corner of the turning page tracks an object performing the page-turning gesture as the object moves across the touch display

The first additional feature is disclosed in D1, Figure 4, showing that the upper portion of page 401 being

turned which remains flat on subsequent page 403 is opaque.

The second additional feature is also disclosed in D1, which relates to an e-book having pages being able to be turned by an edge upon tracking the position of the user's finger (see claims 1 and 2).

Therefore, following the reasoning for the main request, the board holds that claim 1 does not meet the requirement of Article 56 EPC having regard to the disclosure of D1, either taking into account the common general knowledge as illustrated by D6 or in combination with D5.

3. Second auxiliary request - Article 56 EPC

This request was filed after the summons to oral proceedings. Since the amendments to the claims are not substantial, the board decided in oral proceedings to admit this request into the appeal proceedings (Article 13(2) RPBA 2020).

Claim 1 was amended with respect to claim 1 of the first auxiliary request by deleting the wording "or at least less transparent than the lifted portion". Claim 1 thus defines that the portion of the turning page that remains flat on the subsequent page is opaque. Since the assessment of the first auxiliary request in point 2 is based on the feature that the flat portion is opaque, and not only less transparent than the lifted portion, the reasoning regarding the first auxiliary request applies equally, and the second auxiliary request does not meet the requirements of Article 56 EPC either for the same reasons as detailed

for the first auxiliary request, building on the reasons detailed for the main request.

4. Conclusion

Neither the main request nor the first and second auxiliary requests are allowable under Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated