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Commissioner's Decision #1646

Décision du Commissaire n°1646

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TOPIC: F01 Novelty - Anticipation

O00 Obviousness

SUJET: F01 Nouveauté - Antériorité

O00 Évidence

Application No. : 2,915,678

Demande n° 2 915 678

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,915,678 having been rejected under subsection 199(1) of the *Patent Rules*, has consequently been reviewed in accordance with paragraph 86(7)(c) of the *Patent Rules*. The recommendation of the Patent Appeal Board and the decision of the Commissioner are to withdraw the rejection and allow the application.

Agent for the Applicant:

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INTRODUCTION

- [1] This recommendation concerns the review of rejected Canadian patent application number 2,915,678 (“the instant application”), which is entitled “DEVICE, METHOD AND GRAPHICAL USER INTERFACE FOR ZOOMING IN ON A TOUCH-SCREEN DISPLAY” and is owned by Apple Inc. (“the Applicant”). A review of the rejected application has been conducted by the Patent Appeal Board (“the Board”) pursuant to paragraph 86(7)(c) of the *Patent Rules*. As explained in more detail below, the Board’s recommendation is that the Commissioner of Patents withdraw the rejection and allow the application.

BACKGROUND

The Application

- [2] The instant application, a divisional application based on a previously filed Patent Cooperation Treaty application, is considered to have been filed in Canada on January 4, 2008 and was laid open to public inspection on July 17, 2008.
- [3] The instant application generally relates to devices with touch-screen displays, and more particularly to scrolling lists and to translating, rotating, and scaling electronic documents on devices with touch-screen displays.

Prosecution History

- [4] On August 31, 2021, a Final Action (“FA”) was written pursuant to subsection 86(5) of the *Patent Rules*. The FA stated that the instant application was defective because all the application claims 1-12 received at the Patent Office November 30, 2020 (“claims on file”) were either anticipated or obvious and therefore did not comply with paragraph 28.2(1)(b) and section 28.3, respectively, of the *Patent Act*.
- [5] In a January 6, 2022 response to the FA (“RFA”), the Applicant submitted arguments in favour of the patentability of the claims on file.
- [6] As the Examiner still considered the application not to comply with the *Patent Act*, pursuant to paragraph 86(7)(c) of the *Patent Rules*, the application was forwarded to the Board for review on May 9, 2022 along with an explanation outlined in a

Summary of Reasons (“SOR”). The SOR set out the position that the specification on file was still considered to be defective.

- [7] In a letter dated May 13, 2022, the Board forwarded to the Applicant a copy of the SOR and requested that the Applicant confirm their continued interest in having the application reviewed.
- [8] In a letter dated August 15, 2022, the Applicant confirmed their interest in having the review proceed.
- [9] A Panel of the Board (“the Panel”), comprised of the undersigned members, was formed to review the instant application under paragraph 86(7)(c) of the *Patent Rules*. Given our recommendation that the rejection be withdrawn and the application allowed, no further written or oral submissions from the Applicant are necessary.

ISSUES

[10] The issues to be addressed by the present review is whether:

- the claims on file lack novelty and do not comply with paragraph 28.2(1)(b) of the *Patent Act*; and
- the claims on file would have been obvious and do not comply with section 28.3 of the *Patent Act*.

LEGAL PRINCIPLES

Purposive Construction

- [11] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66, essential elements are identified through a purposive construction of the claims done by considering the whole of the disclosure, including the specification and drawings (see also *Whirlpool Corp v Camco Inc*, 2000 SCC 67 at paras 49(f) and (g) and 52). Purposive construction is performed from the point of view of the person skilled in the art in light of the relevant common general knowledge.
- [12] In carrying out the identification of essential and non-essential elements, all elements set out in a claim are presumed essential unless it is established

otherwise or where such a presumption is contrary to the claim language.

Novelty

[13] Subsection 28.2(1) of the *Patent Act* requires claimed subject matter to be new:

The subject-matter defined by a claim in an application for a patent in Canada (the “pending application”) must not have been disclosed

(a) before the one-year period immediately preceding the filing date or, if the claim date is before that period, before the claim date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant, in such a manner that the subject-matter became available to the public in Canada or elsewhere;

(b) before the claim date by a person not mentioned in paragraph (a) in such a manner that the subject-matter became available to the public in Canada or elsewhere;

[remainder of subsection omitted]

[14] There are two separate requirements to show that prior art anticipates a claimed invention: there must be a prior disclosure of the claimed subject-matter and the prior disclosure must enable the claimed subject-matter to be practised by a skilled person (*Apotex Inc v Sanofi–Synthelabo Canada Inc*, 2008 SCC 61 [*Sanofi*] at paras 24–29, 49).

Obviousness

[15] Section 28.3 of the *Patent Act* requires claimed subject-matter not to be obvious:

The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to

(a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and

(b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

[16] In *Sanofi* at para 67, the Supreme Court of Canada stated that it is useful in an obviousness inquiry to follow a four-step approach. Below we consider the claims according to that approach.

ANALYSIS

Purposive Construction

The person skilled in the art

[17] The FA at page 2 identified the skilled person thus:

The person skilled in the art to whom the instant application is directed has a background in the field of user interfaces for mobile devices (see current description, paragraphs 0002 - 0005).

[18] The Applicant did not dispute this identification of the person skilled in the art.

[19] In our view, the skilled person is identified as a team comprising one or more programmers or other technologists experienced with user interfaces, including touch-screen displays, and their implementations in an electronic device.

The relevant common general knowledge (CGK)

[20] The FA at page 2 identified the CGK as:

The common general knowledge of the skilled person is:

- portable communication devices with display screens of small size,
- user interfaces for such devices.

[21] We generally agree with this characterization and the Applicant did not contest it.

[22] We identify the relevant CGK as also including:

- the design, implementation, operation and maintenance of communication device hardware and software including user interfaces such as touch-screen displays;

- the design, implementation, operation and maintenance of computer systems, servers, networks and software, including:
 - general purpose and special purpose computers, electronic devices, computing devices, input and output devices, processors, and user interfaces;
 - computer hardware and computer programming techniques; and
 - computer network and internet technologies and protocols.

[23] The Panel bases this identification on the definition of the skilled person. It is supported by the application's description of what is typical in the field ([0002]-[0006], [0052]-[0100]) and by the amount of detail in the present application concerning the implementation of the proposed system for viewing documents on the touch screen display of communication devices. The level of detail suggests that such implementation must be within the grasp of the skilled person and thus not in need of further explanation.

[24] The claims are directed to methods and a device directed to displaying a portion of a document on a touch screen display with the same elements; therefore we may consider claim 1 as representative of the independent claims and is presented here:

1. A computer-implemented method:

at an electronic device with a touch screen display:

displaying a first portion of a document;

detecting movement of an object on the touch screen display;

in response to detecting the movement, translating the document in a first direction to display a second portion of the document;

in response to an edge of the document being reached while continuing to detect movement of the object on the touch screen display, displaying an indication that the edge of the document has been reached; and

in response to detecting that the object is no longer in contact with the touch screen display, ceasing to display the indication.

Essential elements

- [25] There has been no suggestion during the prosecution that any elements of the claims on file are non-essential.
- [26] The Panel considers that all elements set out in a claim are presumed essential unless it is established otherwise or such presumption is contrary to the claim language. In our view, the skilled person reading claims 1-12 on file in the context of the specification as a whole and the CGK would understand that there is no use of language in the claims indicating that any of the elements are optional, preferred or were otherwise intended as being non-essential. Our view is therefore that all of the elements of claims 1-12 are essential.

Meaning of terms used in the claims

- [27] The crux of this review rests on the definition of a “document” as would be understood by the person skilled in the art with their CGK when reading the instant application. The FA did not explicitly define the term, but it interpreted D3 as disclosing a “document” as claimed. The RFA at pages 10-12 did not agree with this interpretation {emphasis in the original}.

It is respectfully submitted that reference D3 does **not** disclose a **document** as recited in present claim 1, nor does reference D3 disclose the feature of “translating the **document** in a first direction to display a second portion of the document”. Rather, reference D3, at best, discloses that a **document** which is served to a device having a **small display** or a **small display window**, such as a telephone or handheld computer “can be reformatted **such that the width of the document is divided into columns, with each column being displayable across the entirety of the small display or display window**”. In other words, while reference D3 refers to a document, reference D3 is **not** concerned with the beginning or the end of the document, “translating the document”, **nor** identifying “an edge of the document”. Rather, reference D3 is concerned with displaying **columns of a document** on a small display where the document has been “**reformatted such that the width of the document is divided into columns, with each column being displayable across the entirety of the small display or display window**”

Accordingly, as is clear from reference D3, while reference D3 discusses in one aspect “**viewing an electronic document in a display window of a display**”, reference D3 is specifically concerned with “**detecting a layout of an electronic document** and comparing the layout of the electronic **document to a width of the display window**”. Reference D3 then goes on to explicitly state that the electronic document “is reformatted into at least **two columns**, with **each of the** columns having a width that does **not** exceed the width of the display window”.

It is respectfully submitted that reference D3 therefore is concerned with viewing **columns of a document, rather than displaying an indication of the edge or end of a document...**

- [28] The Examiner took a position in the Summary of Reasons at pages 1-2 that D3 does indeed disclose a document.

In view of the claims and the specification, a document may be defined by the following characteristics: it is displayed on the screen, it is translated on the screen, and has edges. A web page, a digital image or an email in a list of emails are examples of documents (see pars. 0141-0142 of the current description, which describe translating a list of emails).

Contrary to applicant's submission, the reformatted columns of text in D3 qualify as electronic documents, as they present the three characteristics mentioned above. They can be displayed, can be translated and have edges. It is noted that column edges or boundaries are tracked by the computer, although they may not be distinguished visually (which is not required by the claims).

- [29] The specification defines a “document” as a web page, a digital, image, a word processing document, spreadsheet, email or presentation document ([00147]; [00154]). It also describes a document as being able to be displayed on an electronic screen ([00147]). The specification also describes the documents as being able to be translated or moved in the display screen ([00157]-[00160]). We agree with the FA, in that “a document may be defined by the following characteristics: it is displayed on the screen, it is translated on the screen, and has edges”.
- [30] However, there is nothing in the specification to indicate that the claimed term “document” includes any kind of reformatting or logical representation or reinterpretation of a digital document. The specification states that if an edge of a

document is reached, an area beyond the edge of the document can be displayed as visually distinct from the document itself ([00149]; [00161]). We agree with the Applicant that the claimed term “document” is a full page document rather than a reinterpretation or representation of a document.

- [31] In our view, a person skilled in the art would understand that the term “document” as claimed is a digital element that is able to be displayed and translated on a screen with visually distinct edges but does not include any kind of reformatting or logical representation or reinterpretation of a digital document.

Novelty

- [32] In the FA at pages 2-4, it was asserted that claims 1, 2, 4-6, 8-10, and 12 lacked novelty in view of the following prior art document:

D3 : WO 03/081458 LIRA October 2, 2003

- [33] D3 discloses the ability to detect a web page layout, compare the layout to the display dimensions and then reformatting the web page into columns so that they are viewable on the display window. D3 also discloses the ability to ensure that while scrolling through a document, the columns remain centered on the display.

- [34] To illustrate the lack of novelty of claim 1 on file, the FA at page 3 set out an analysis indicating that D3 disclosed all elements of the claim:

As per independent claim 1, D3 discloses a computer- implemented method:

at an electronic device with a touch screen display: displaying a first portion of a document

(page 1, lines 16-21);

- (i) detecting movement of an object on the touch screen display

(page 14, lines 18-21: *the user can use a stylus 1200 to scroll a display window 1205 vertically down a page 1210 in order to read a column 1215, 1220 or 1225 of text of the page 1205 ...*; Fig. 14B);

- (ii) in response to detecting the movement, translating the document in a first direction to display a second portion of the document

(page 14, line 31: ... *the user scrolls the page up or down with the stylus 1200* ... ; Fig. 14B);

(iii) in response to an edge of the document being reached while continuing to detect movement of the object on the touch screen display, displaying an indication that the edge of the document has been reached

(The embodiment that is relevant to this feature is the one illustrated by Fig. 14B. While the user is moving window 1205 [which corresponds to “while continuing to detect movement of the object on the touch screen display”], in response to the user moving window 1205 beyond the boundary between the centre and the right columns [which corresponds to “an edge of the document being reached”], an area beyond that boundary is displayed as illustrated in the zoomed-in circle of the figure [which corresponds to “displaying an indication that the edge of the document has been reached”]. Given that the corresponding boundary is traversed before window 1205 snaps back, displaying the indication takes place while movement continues to be detected on the touch screen display. Therefore, the functionality taught by D3 corresponds to feature (iii) of the claim); and

(iv) in response to detecting that the object is no longer in contact with the touch screen display, ceasing to display the indication

(As shown by Fig. 14B, upon lifting the object, the sub-page is automatically translated in a second direction different from the first translation direction such that the previously displayed area disappears; page 15, lines 18-21: ... when the user lifts the pen 1200 from the display 1205. This causes the logical column 1220 to snap into alignment with the display window 1205 as the user stops scrolling ...).

Therefore D3 teaches all of the features of claim 1.

[35] The Applicant stated in the RFA at pages 23-25 that {emphasis in the original}:

At best, reference D3 discloses that a document “can be reformatted **such that the width of the document is divided into columns, with each column being displayable across the entirety of the small display or display window**” (see page 1 of reference D3). It is respectfully submitted, that these columns do not correspond to a document as recited in the present claims.

...

Reference D3 discloses that the user can use a stylus 1200 to **scroll a display window** vertically down a page 1210 **in order to read a column 1215, 1220 or 1225** of the text of the page. It is respectfully submitted that actuating a display window 1205 with a stylus 1200 to scroll the display window 1205 vertically down a page to read a column 1215, 1220 or 1225 of the page 1205 does not correspond to the feature of **“in response to detecting the movement, translating the document in a first direction to display a second portion of the document”**. It is respectfully submitted that reference D3 has no disclosure whatsoever of a document (which appears to correspond to the page 1210 of reference D3) translating in a first direction to display a second portion of the document

...

The columns of reference D3 are created by reformatting a document so that it may be visually seen on a smaller display screen. The document of reference D3, at best, appears to correspond to the page 1210. On this basis, there is no disclosure of the edge of the page 1210 being reached in reference D3. Moreover, displaying additional content from an adjacent column **within the same document**, does **not** correspond to **“displaying an indication that the edge of the document has been reached”**.

...

reference D3 discloses that the vertical alignment control (which causes the logical column 1220 to snap into alignment with the display window 1205 **as the user stops scrolling**) is enabled when the **user lifts the pen 1200 from the display 1205**. However, this does **not** disclose the feature of the present invention that, in response to detecting that the object is **no longer in contact with the touch screen display, ceasing to display the indication** that the edge of the document has been reached. Snapping back the column 1220 into alignment with the display window 1205 would **continue** to show the content of the adjacent column, which the Examiner appears to have equated with the indication, and therefore, reference D3 does not disclose “ceasing to display the indication”.

- [36] We agree with the FA that D3 discloses an electronic device with a touch screen display able to display a first portion of a reformatted document as well as able to detect the movement of an object as specified as stated in claim 1 on file. However, based on the skilled person’s understanding of the term “document” as discussed above, we agree with the Applicant that D3 does not disclose translating the document to display another portion of the document, or in response to an

edge of the document being reached, displaying an indication that the edge of the document has been reached and ceasing to display the indication when the object is no longer in contact with the touch screen display.

[37] There is no teaching in D3 regarding what were to occur if the edge of a document were to be reached, since reaching the edge of the column is not viewed as the same as reaching the edge of the document.

[38] In regards to enablement, the RFA at pages 26-28 stated that {emphasis in the original}:

In particular, there is **no** enablement for displaying “**an indication that the edge of the document has been reached**”. There is simply **no** enablement of this feature because reference D3 is **not** concerned with the **edge of the document**, but only with **constraining the position of the visible portion of the page of information on the display if the user motion does not exceed the threshold**. This is also consistent with the passage on page 14 of reference D3, discussed above, where the problem that reference D3 is intended to solve relates to “**vertical touch-and-drag scrolling has a drawback in that slight horizontal motion or "wobbling" of the pen 1200**”.

...

In this case, there is simply **insufficient disclosure** in reference D3 to permit a person skilled in the art **to perform the invention as defined in claim 1**. This is at least the case because the description in reference D3, as evidenced by Fig. 15 of reference D3 and the associated description, makes **no** reference whatsoever to the feature “**in response to an edge of the document being reached while continuing to detect movement of the object on the touch screen display, displaying an indication that the edge of the document has been reached**” sufficient for a person in the art to perform the invention defined by the present claims “without undue burden”.

...

Similarly, there is **no** disclosure in reference D3 relating to the feature of “**in response to detecting that the object is no longer in contact with the touch screen display, ceasing to display the indication**” that the edge of the document has been reached, as recited more fully in present claim 1. This is the case at least because reference D3 does **not** identify that the edge of a document has been reach, nor does reference D3 display an indication that the edge of the document has been reached.

Moreover, at best, reference D3 discloses that the vertical alignment control is **enabled when the user lifts the pen 1200 from the display 1205**, thus causing the logical column 1220 to **snap into alignment** with the display window 1205 as the **user stops scrolling**, but this alone would **not** be sufficient for a person skilled in the art to perform the invention as defined by this particular feature “without undue burden”.

- [39] A person skilled in the art would not equate the “document” of the instant application as the same as the “document” of D3. We agree with the Applicant that D3 discloses the ability to manipulate a document to fit a small sized screen through the use of multiple columns (page 1, lines 16-21), changing and manipulating those columns is not considered to be the same as being able to view a full document through moving the page on the screen in the instant application. In D3, the edge of the document can not be viewed as it has already been manipulated to fit on the screen.
- [40] As such, in our view, the subject matter of claim 1 on file is not disclosed nor enabled by D3 and therefore is novel in view of this prior art document.
- [41] As independent claims 5 and 9 contain similar limitations as those of claim 1, they too are novel in view of D3. Likewise, dependent claims 2-4, 6-8 and 10-12, which depend directly or indirectly on independent claims 1, 5 or 9, are also novel in view of D3.
- [42] In summary, the claims on file are novel and comply with paragraph 28.2(1)(b) of the *Patent Act*.

Obviousness

(1)(a) Identify the notional “person skilled in the art”

- [43] The person skilled in the art has been identified above under Purposive Construction. We apply the same characterization here.

(1)(b) Identify the relevant CGK of that person

- [44] The relevant CGK has also been identified under the Purposive Construction analysis. In our view, the same CGK applies for the purpose of the assessment of obviousness.

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

[45] We will consider the independent claims 1, 5, and 9 first as they are determinative of our obviousness analysis. These claims all recite the same elements; therefore we may consider claim 1 as representative of the independent claims and as presented above.

[46] We consider all the claim elements to be essential and to form the inventive concept.

(3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed

[47] With respect to the representative claim 1, in our view, D3 discloses the following

at an electronic device with a touch screen display (page 1, lines 16-21);

displaying a first portion of a document (page 1, lines 16-21); and

detecting movement of an object on the touch screen display (page 14, lines 18-21: the user can use a stylus 1200 to scroll a display window 1205 vertically down a page 1210 in order to read a column 1215, 1220 or 1225 of text of the page 1205 ...; Fig. 14B).

[48] In our view, D3 does not disclose the following features:

- 1) in response to detecting the movement, translating the document in a first direction to display a second portion of the document; and
- 2) in response to an edge of the document being reached while continuing to detect movement of the object on the touch screen display, displaying an indication that the edge of the document has been reached; and
- 3) in response to detecting that the object is no longer in contact with the touch screen display, ceasing to display the indication.

[49] In the RFA, the Applicant argued that the prior art did not disclose these differences.

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

[50] The Summary of Reasons submitted that D3 disclosed the differences and that the columns of D3 were equitable to the document of the instant application.

[51] Difference 1 describes the ability to display a second portion of the document, determined by a step of translating the document. D3 features scrolling through the pre-determined columns of a document (page 14, line 31: ... the user scrolls the page up or down with the stylus 1200 ... ; Fig. 14B). The feature of the claims allows views of a complete document to be moved around a screen through the translation instead of a limited scrolling action of a column as part of a document as presented in D3. In our view, the person skilled in the art would not view the translating of the document in the instant application as obvious in view of scrolling the columns of D3.

[52] In regards to differences 2 and 3, D3 discloses a vertical alignment feature that snaps the column into alignment with the display window and presents (page 15, lines 18-21). Differences 2 and 3 disclose displaying an indication that the edge of a document has been reached while movement of an object is detected on the touch screen and removing the indication when the object is no longer in contact with the touch screen. The FA presented Fig 14B as illustrating this feature. In our view, the figure shows a scroll bar and the snap back movement of the vertical alignment. The person skilled in the art would not view the document edge indication as obvious in view of the vertical alignment feature of D3. D3 does not disclose the edge of a document being reached; it discloses the edge of a column being scrolled past and a feature to properly align the column on the screen.

[53] In the Panel's view, the claimed features of translating a document to display a different portion of the document, displaying an indication that the edge of a document has been reached, and ceasing the display indication are not viewed as obvious in view of the column display and scrolling features as presented in the FA. In the claimed invention, the user views a portion of a full document and is able to view different areas of the document and the edge of the document, which is not disclosed in D3. Therefore in our view D3 does not disclose these

differences nor would they have been obvious to the person skilled in the art.

Conclusions on Obviousness

- [54] In light of our obviousness analysis above, in our view, representative claim 1 would not have been obvious and complies with section 28.3 of the *Patent Act*.
- [55] Independent claims 5 and 9 also would not have been obvious as they recite the same inventive elements of claim 1. Therefore in our view, independent claims 5 and 9 also comply with section 28.3 of the *Patent Act*.
- [56] The dependent claims would also not have been obvious as they depend on non-obvious claims 1, 5, and 9. Therefore, in our view, all dependent claims also comply with section 28.3 of the *Patent Act*.

CONCLUSION AND RECOMMENDATION OF THE BOARD

- [57] For the reasons set out above, we are of the view that the rejection is not justified on the basis of the defect indicated in the FA notice and we have reasonable grounds to believe that the instant application complies with the *Patent Act* and the *Patent Rules*. We recommend that the Applicant be notified in accordance with subsection 86(10) of the *Patent Rules* that the rejection of the instant application is withdrawn and that the instant application has been found allowable.

Mara Gravelle

Member

Lewis Robart

Member

Sean Wilkinson

Member

DECISION OF THE COMMISSIONER

[58] I concur with the findings and the recommendation of the Board. In accordance with subsection 86(10) of the *Patent Rules*, I hereby notify the Applicant that the rejection of the instant application is withdrawn, the instant application has been found allowable, and I will direct my officials to issue a Notice of Allowance in due course.

Konstantinos Georgaras
Commissioner of Patents

Dated at Gatineau, Quebec

this 6th day of April 2023