IPR2024-01090

U.S. Patent No. 10,725,581

Patent Owner's Hearing Demonstratives

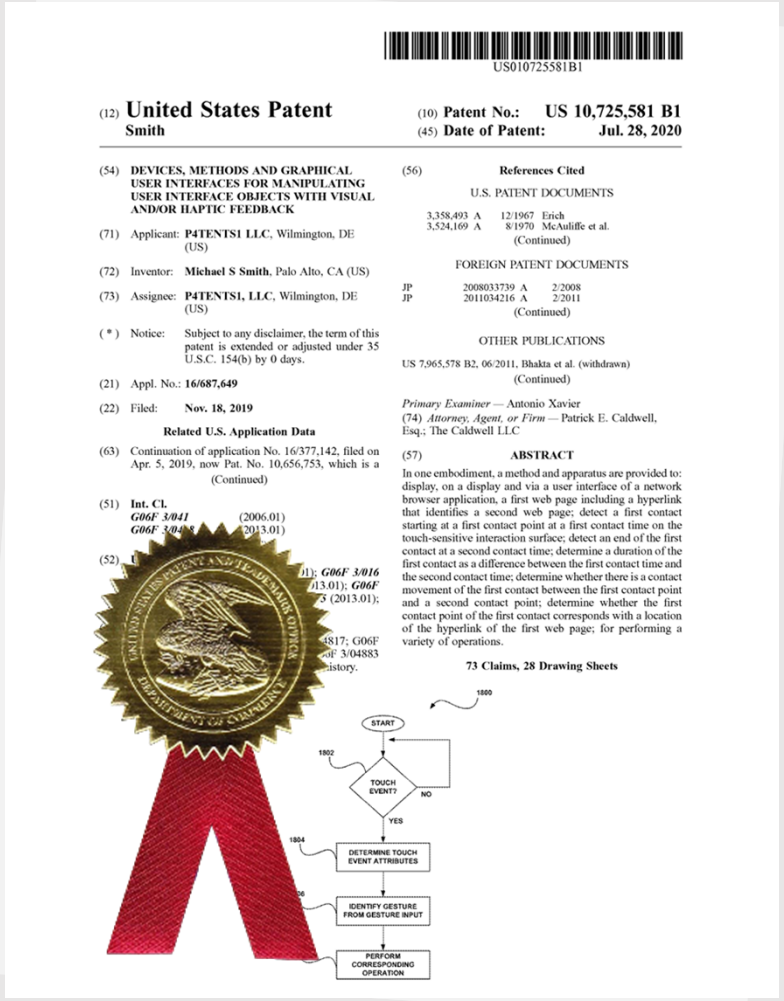
October 15, 2025

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

U.S. Patent No. 10,725,581

Petition ("Pet.")	Paper 2
Patent Owner Response ("POR")	Paper 14
Petitioner's Reply to Patent Owner's Response ("Reply")	Paper 18
Patent Owner Sur-Reply ("Sur-reply")	Paper 19

U.S. Patent No. 10,725,581



US010725581B1

(12) **United States Patent**
Smith

(10) **Patent No.: US 10,725,581 B1**
(45) **Date of Patent: Jul. 28, 2020**

(54) **DEVICES, METHODS AND GRAPHICAL USER INTERFACES FOR MANIPULATING USER INTERFACE OBJECTS WITH VISUAL AND/OR HAPTIC FEEDBACK**

(71) Applicant: **P4TENTS1 LLC**, Wilmington, DE (US)

(72) Inventor: **Michael S Smith**, Palo Alto, CA (US)

(73) Assignee: **P4TENTS1, LLC**, Wilmington, DE (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **16/687,649**

(22) Filed: **Nov. 18, 2019**

Related U.S. Application Data

(63) Continuation of application No. 16/377,142, filed on Apr. 5, 2019, now Pat. No. 10,656,753, which is a (Continued)

(51) **Int. Cl.**
G06F 3/041 (2006.01)
G06F 3/04 (2013.01)

(52) [illegible]; ***G06F 3/016*** (2013.01); ***G06F*** [illegible] (2013.01);

[illegible]817; G06F [illegible]f 3/04883
[illegible]istory.

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(57) **ABSTRACT**

In one embodiment, a method and apparatus are provided to: display, on a display and via a user interface of a network browser application, a first web page including a hyperlink that identifies a second web page; detect a first contact starting at a first contact point at a first contact time on the touch-sensitive interaction surface; detect an end of the first contact at a second contact time; determine a duration of the first contact as a difference between the first contact time and the second contact time; determine whether there is a contact movement of the first contact between the first contact point and a second contact point; determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page; for performing a variety of operations.

73 Claims, 28 Drawing Sheets

(12) **United States Patent**
Smith

(54) **Devices, methods and graphical user interfaces for manipulating user interface objects with visual and/or haptic feedback**

(45) Date of Patent: July 28, 2020

(22) Filed: Nov. 18, 2019

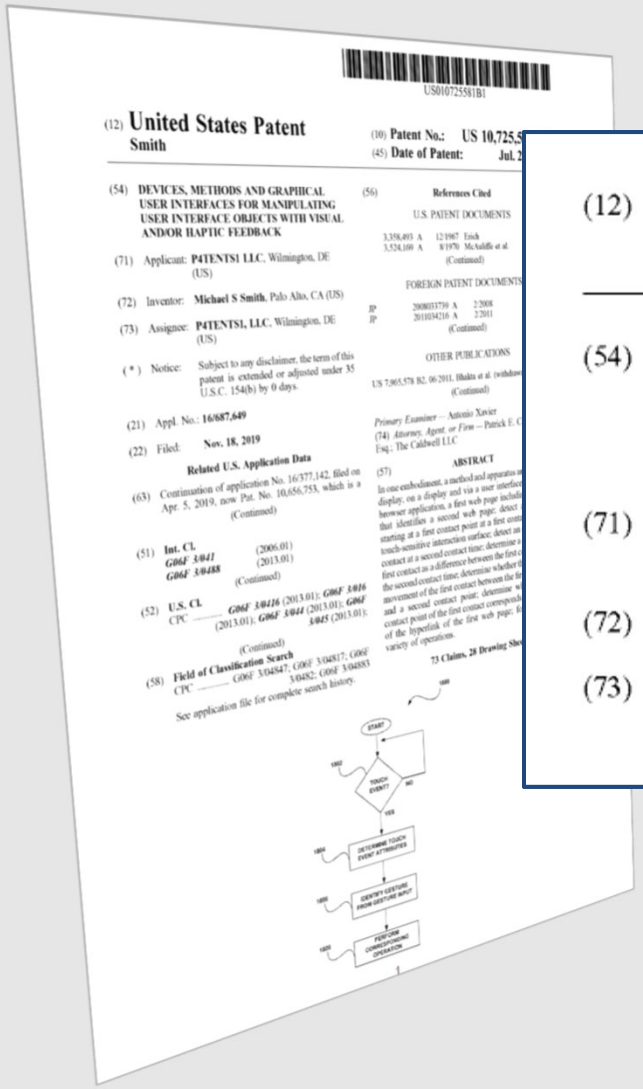
Overview

- ’581 Patent
  - Multi-Part Pattern Based Gestures
  - Claims 1 and 42
- Claim Construction
  - “when” / “based on” claim construction
  - “the first contact” claim construction
- Prior Art
  - Blumenberg / Bhumkar / Griffin
- Blumenberg-Bhumkar-Griffin
  - Combinations fail to render any challenged claims unpatentable
  - No avoid display a result of “*any operation*” based on the first contact
  - No comparing “duration of the first contact” to a predefined duration
  - No causal-connection for display of webpage preview
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

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’581 Patent



(12) **United States Patent**
Smith

(10) **Patent No.: US 10,725,581 B1**
(45) **Date of Patent: Jul. 28, 2020**

(54) **DEVICES, METHODS AND GRAPHICAL USER INTERFACES FOR MANIPULATING USER INTERFACE OBJECTS WITH VISUAL AND/OR HAPTIC FEEDBACK**

(71) Applicant: **P4TENTS1 LLC**, Wilmington, DE (US)

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(Continued)

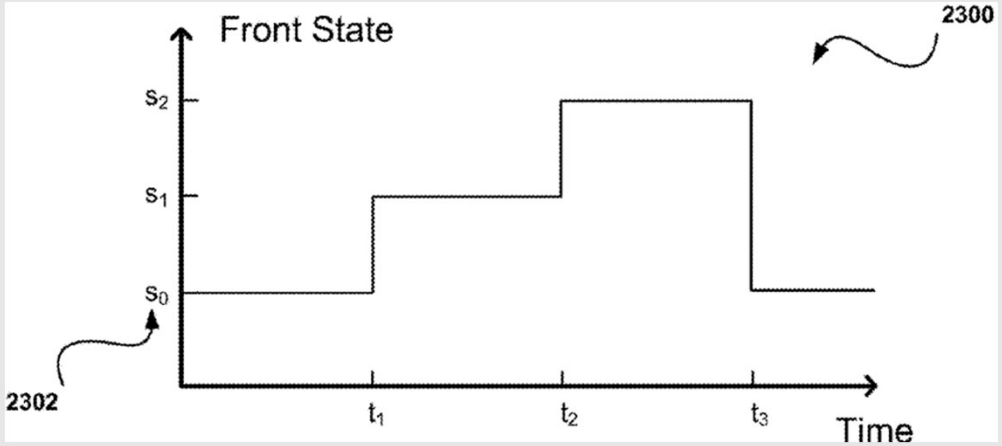
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(Continued)

’581 Patent

“Pattern-based gestures” through decision-tree-based programming logic.



’581 Patent at Fig 23; POR at 2

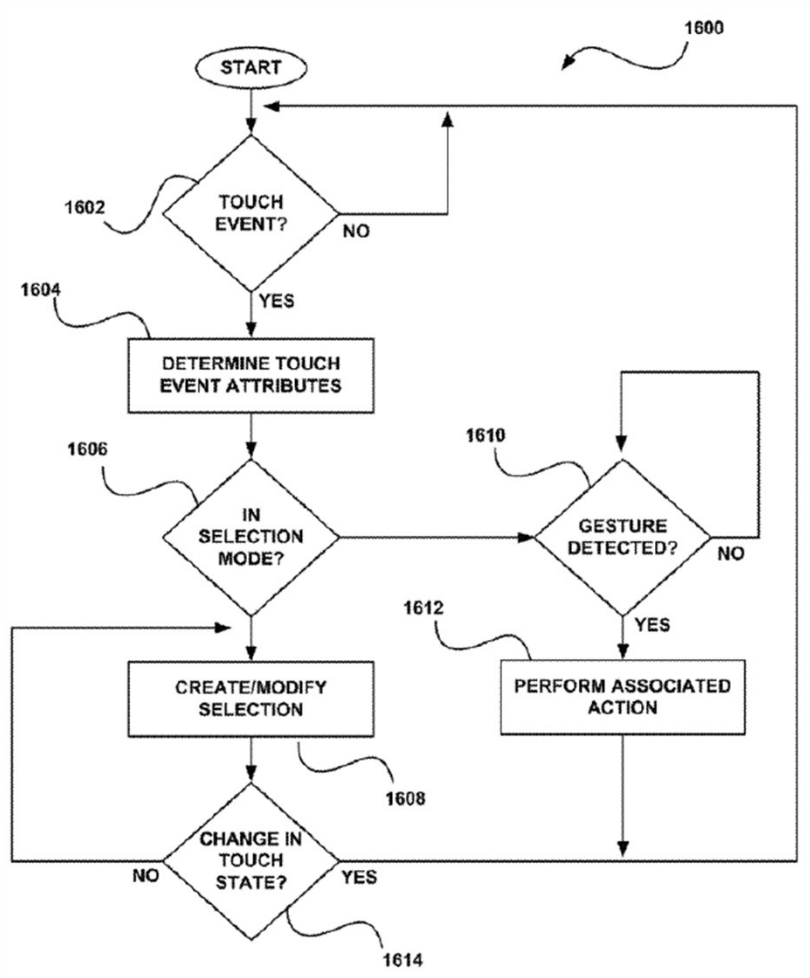
In some embodiments, pattern-based gestures may be recognized in the form of an ordered sequence of tuples using a decision tree. The use of a decision tree, or similar form of logic, has the advantage of being computationally inexpensive. This method may be more appropriate for

* * *

Pattern-based gesture **2302** is based upon three touch state transitions. At time t**1**, the contact point changes from touch state s**0** to s**1**. Similar changes of state occur at t**2** and t**3**. In various embodiments, these touch state transitions may be represented by ordered 2-tuples. For example, the first transition may be represented as (s**1**, t**1**). The pattern-based gesture itself may be represented as an ordered sequence of state transitions. For example, pattern-based gesture **2302** may be represented as {(s**1**,t**1**),(s**2**,t**2**),(s**0**,t**3**)}.

’581 Patent at 71:52-72:9; POR at 2-3

“Pattern-based gestures” through decision-tree-based programming logic.



’581 Patent at Fig 16; POR at 5

If a gesture has been detected, then an associated action is performed. See operation **1612**. In one embodiment, any gesture may be mapped to any command or operation of the device. In another embodiment, a user may be provided feedback when the action is performed. Possible feedback may include, but is not limited to, sound, flashing display, appearance of an icon, a colored border on the display, and/or any other form of user feedback.

A gesture may be associated with a variety of different actions. These actions may include, but are not limited to, scrolling a display or user interface element, zooming in or out, modifying the display brightness, and/or any other action. With respect to making or modifying a selection through method **1600**, it is important to note that, in one embodiment, a gesture may be associated with placing the system in a selection mode.

’581 Patent at 54:19-34; POR at 4-6

Decision-tree-based programming logic for selecting and activating hyperlinks.

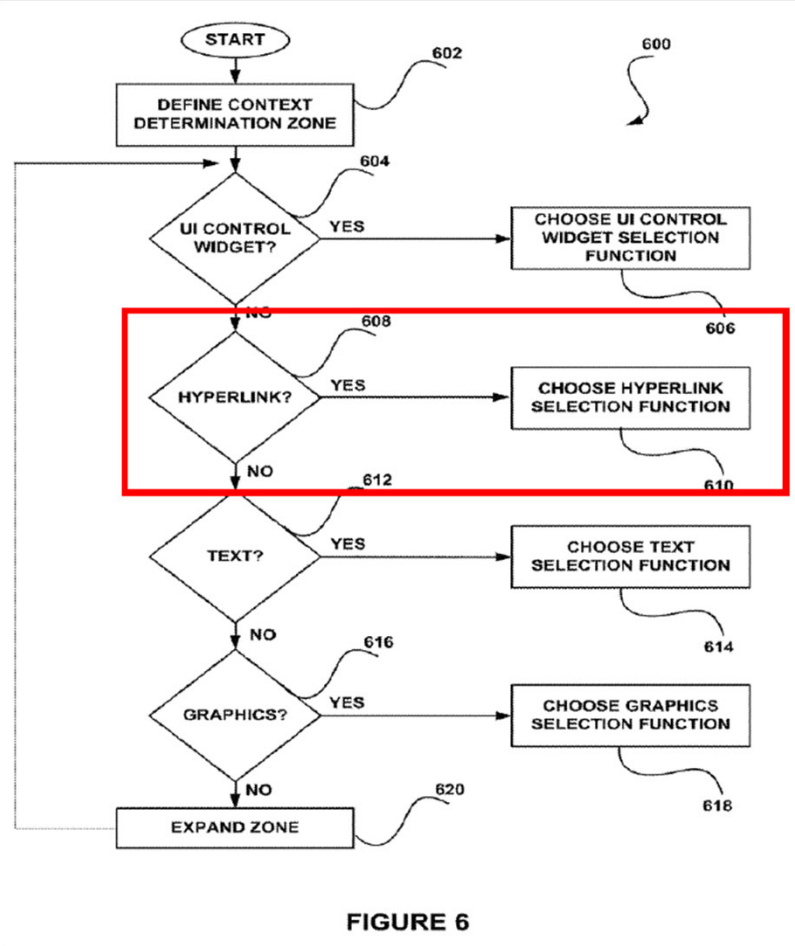


FIGURE 6

’581 Patent at Fig 6; POR at 8

In various embodiments, a context sensitive embedded hyperlink selection function may have selection establishment conditions which change, depending upon previous user input. For example, in one embodiment, if the contact pressure level surpasses a value of P_1, but not P_2, the selection establishment condition may change to require the selection of an option from a hyperlink contextual menu. The contextual menu may provide options common to web browsers, including but not limited to “open link”, “copy link”, and/or any other action which may be performed on or with a hyperlink. In various embodiments, the selection of the contextual menu item may be established using methods including, but not limited to, those described for multi-state UI control widgets, or other types of selections.

In various embodiments, once the selection establishment conditions have been satisfied, the selected embedded hyperlink may be activated.

’581 Patent at 31:39-55; POR at 7-9

Overview

- **’581 Patent**
  - Pattern-based gestures using a decision tree logic
  - **Claims 1 and 42**
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- Dependent claims

’581 Patent | Claim 1

’581 Patent, Claim 1

1. An electronic device, comprising:
a display;
a touch-sensitive interaction surface;
an actuator;
one or more processors;
memory; and
one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the one or more programs including instructions to:
display, on the display and via a user interface of a network browser application, a first web page including a hyperlink that identifies a second web page;
detect a first contact starting at a first contact point at a first contact time on the touch-sensitive interaction surface;
detect an end of the first contact at a second contact time;
determine a duration of the first contact as a difference between the first contact time and the second contact time;
determine whether there is a contact movement of the first contact between the first contact point and a second contact point;
determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;
when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoid display, on the first web page, a result of any operation based on the first contact;
when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replace the display of the first web page with the second web page via the user interface of the network browser application; and
when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: output, utilizing the actuator, a first feedback that is perceptible by touch and display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

“when” preconditions are satisfied - perform specified action

[1.m]

[1.n]

determine a duration of the first contact as a difference between the first contact time and the second contact time;

determine whether there is a contact movement of the first contact between the first contact point and a second contact point;

determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoid display, on the first web page, a result of any operation based on the first contact;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replace the display of the first web page with the second web page via the user interface of the network browser application; and

[1.o]

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: output, utilizing the actuator, a first feedback that is perceptible by touch and display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

’581 Patent at Claim 1; POR at 10-11

“based on” preconditions being satisfied - perform specified action

’581 Patent, Claim 42

42. A method, comprising:
at an electronic device including a display, a touch-sensitive interaction surface, an actuator, one or more processors, and memory:
displaying, on the display and via a user interface of a network browser application, a first web page including a hyperlink that identifies a second web page;
detecting a first contact starting at a first contact point at a first contact time on the touch-sensitive interaction surface;
detecting an end of the first contact at a second contact time;
determining a duration of the first contact as a difference between the first contact time and the second contact time;
determining whether there is a contact movement of the first contact between the first contact point and a second contact point;
determining whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;
based on detected usage where: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoiding display, on the first web page, a result of any operation based on the first contact;
based on detected usage where: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replacing the display of the first web page with the second web page via the user interface of the network browser application; and
based on detected usage where: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: outputting, utilizing the actuator, a first feedback that is perceptible by touch and displaying a context menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further displaying at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

Claim 42; POR at 11, 19; Sur-reply at 2

Overview

- ’581 Patent
  - Pattern-based gestures using a decision tree logic
  - Claims require that “when” / “based on” preconditions are satisfied - perform specified action
- **Claim Construction**
  - **“when” / “based on” claim construction**
  - “the first contact” claim construction
- Prior Art
  - Blumenberg / Bhumkar / Griffin
- Blumenberg-Bhumkar-Griffin
  - Combinations fail to render any challenged claims unpatentable
  - No disclosure of avoiding display of a result of “*any operation*” based on the first contact
  - No disclosure of comparing “duration of the first contact” to a predefined duration
  - No disclosure of causal-connection for display of webpage preview
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

"when" / "based on" connotes causal relationship

Patent Owner Sur-Reply

A. When / Based On

The dispute between the parties is whether "when" (Claim 1) and "based on" (Claim 42) connote a causal relationship between the recited conditions and actions, or whether it is enough that a recited function occurs at the time a recited condition is true. Petitioner needs the latter construction because the mapped contact exceeding a second "duration" is ***not*** the cause of Blumenberg calling up a "snippet" as Limitations [1.o] and [42.j] require, but rather merely occurs at a time when the "snippet" remains displayed. *See infra* Section V.

POR at 14, 17; Sur-reply at 1-6

Petitioner ignores the full context of the claim

Petitioner's Reply

recited action." POR, 14. Claim 1, however, doesn't say "trigger" or "in response to"; it just says "when." Plus, the '581 patent makes clear that it is not limited to the kind of "causal-connection" or "decision-tree logic" that Patent Owner concocted to distinguish the prior art, (*id.*, 14, 16)—instead, "any type of logic" will do, (EX1001, 14:21–25). So even in a hypothetical where the specification described preferred embodiments of the third claimed scenario using decision trees and causal connections, as Patent Owner inaccurately suggests, that is no reason to "import [such a] limitation into the claims." *Retractable Techs. v. Becton, Dickinson & Co.*,

Reply at 16

Dr. Mahon's testimony is undisputed.

Dr. Mahon Declaration

same operation "in response to" those conditions. Both interpretations reflect the same underlying logical construct—namely, that the action is triggered by the determination that specific input preconditions are met. *See* EX1004, claim 24 ("which when executed by a portable electronic device with a touch screen display, cause the device to…"); EX1006, claim 1 ("performing a function when the touch meets the modified touch threshold"). In programming practice, there is no difference between triggering an action "when X is true" and doing so "in response to X being true." Both invoke conditional logic that would be implemented using well-understood constructs such as if-statements or event handlers that monitor for specified conditions.

Mahon Dec (Ex. 2008) at ¶ 51; Sur-reply at 2-3

Dr. Cockburn disputes that "instructions" transform the claims into "programming logic"

Dr. Cockburn Declaration

55. Dr. Mahon suggests my view "contradicts the basic principles of programming logic and, as a result, is inconsistent with the claim language, which recites 'one or more programs including instructions to' cause the device to perform a specified action 'when' it determines that the relevant preconditions are satisfied," EX2008, ¶47. However, the '581 patent's claims are not transformed into "programming logic" merely because they recite the generic phrase "instructions to"; they are still just patent claims. And these patent claims broadly recite an

Claim 1

one or more processors;
memory; and
one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the one or more programs including instructions to:

Cockburn Dec (Ex. 1058) at ¶55 (cited in Sur-reply at 2)

Petitioner's Reply does not address "based on" in Claim 42

42. A method, comprising:

at an electronic device including a display, a touch-sensitive interaction surface, an actuator, one or more processors, and memory:

displaying, on the display and via a user interface of a network browser application, a first web page including a hyperlink that identifies a second web page;

detecting a first contact starting at a first contact point at a first contact time on the touch-sensitive interaction surface;

detecting an end of the first contact at a second contact time;

determining a duration of the first contact as a difference between the first contact time and the second contact time;

determining whether there is a contact movement of the first contact between the first contact point and a second contact point;

determining whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;

based on detected usage where: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoiding display, on the first web page, a result of any operation based on the first contact;

based on detected usage where: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replacing the display of the first web page with the second web page via the user interface of the network browser application; and

based on detected usage where: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: outputting, utilizing the actuator, a first feedback that is perceptible by touch and displaying a context menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further displaying at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

Claim 42; POR at 11, 19; Sur-reply at 2

Petitioner's other arguments do not overcome causal relationship

Patent Owner Sur-Reply

First, Petitioner contends "[t]he words 'when' and 'in response to' are not synonymous ***in common parlance***." Reply, 12. Petitioner's reference to "common parlance" and reliance on general purpose dictionaries is not relevant to ascertaining the "meaning in a field of art," which Dr. Mahon's undisputed testimony confirms is causal. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). And even if Petitioner's assertion that "when" and "in response to" are not synonymous is accepted, that does not negate that "when" ***also*** refers to causal relationships, as the cited dictionaries confirm. *See* EX0155, p.3 (defining "when" by using examples in

Reply at 12 (citing Ex. 1055 at 3); Sur-reply at 3-4

Patent Owner Sur-Reply

²when *conj* [ME, fr. OE *hwanne, hwenne,* fr. *hwanne, hwenne,* adv.] (bef. 12c) **1 a** : at or during the time that : WHILE ⟨went fishing ~ he was a boy⟩ **b** : just at the moment that ⟨stop writing ~ the bell rings⟩ **c** : at any or every time that ⟨~ he listens to music, he falls asleep⟩ **2** : in the event that : IF ⟨a contestant is disqualified ~ he disobeys the rules⟩ **3 a** : considering that ⟨why use water at all ~ you can drown in it —Stuart Chase⟩ **b** : in spite of the fact that : ALTHOUGH ⟨quit politics ~ I might have had a great career in it⟩ **4** : the time or occasion at or in which ⟨tomorrow is ~ we must decide⟩ ⟨humor is ~ you laugh —Earl Rovit⟩

Ex. 1055 at 3

Petitioner's other arguments do not overcome causal relationship

Patent Owner Sur-Reply

Second, Petitioner argues there is a reasonable inference that "when" and "in response to" have different meanings because they are used separately in the same claims. Reply, 12. But again, this improperly assumes that even if the terms do not have the same meaning "when" is not causal, which is a false premise. The context of "when" in Claim 1 and "based on" in Claim 42 recite a causal limitation, which is not changed by use of "in response to" elsewhere in the claim in a different grammatical posture.

Reply at 12-13; Sur-reply at 4

Petitioner's other arguments do not overcome causal relationship

Patent Owner Sur-Reply

Third, Petitioner erroneously contends dependent Claims 41 and 3 are inconsistent with Patent Owner's ("PO's") proposed construction. Reply, 13. Claim 41's additional limitation that "when includes while" does not negate a causal connection—it merely recites with further specificity the type of causal connection required. Further, Claim 3's additional limitations relate to the timing of the recited actions [1.o.vi-viii] relative to each other (i.e., "first feedback" is output "prior to display of the menu."), NOT relative to the recited preconditions being met. POR, 15, n. 4. Petitioner similarly points to a portion of the specification describing the

Reply at 13-14; POR at 15, n.4 Sur-reply at 4-5

Petitioner's other arguments do not overcome causal relationship

Patent Owner Sur-Reply

15, n. 4. Petitioner similarly points to a portion of the specification describing the timing of the recited actions relative to each other (i.e., "display a menu . . . and further subsequently display at least a portion of the second web page") and argues that because Claim 1 does not include this "temporal limitation", it does not require a causal connection between recited actions and preconditions. But the fact that Claim 3 and the specification describe a narrower embodiment in which the recited actions are performed in a specific order relative to one another has no bearing on the separately claimed requirement that the recited actions are performed in response to the preconditions being met.

Reply at 14-15; Sur-reply at 5-6

Petitioner's other arguments do not overcome causal relationship

Patent Owner Sur-Reply

Fourth, Petitioner invokes the prosecution history of U.S. Application No. 16/377,142 ("'142 application"), arguing that it weighs against PO's proposed construction. Specifically, Petitioner cites applicant's addition of "dependent claims using the narrower phrase 'only when' to constrain the broader term 'when' in the independent claims." Reply, 14. But the distinction between "when" and "only when" is not the presence or absence of a causal relationship, as both require a causal relationship. Instead, the distinction is that "only when" requires an exclusive causal relationship, while "when" does not. POR, 17 ("when" does not preclude performance of recited actions in response to other, unclaimed logic operations).

Reply at 14-15; Sur-reply at 5-6

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  - Bhumkar-based motivations are insufficient
- Dependent claims

Antecedent basis for "first contact" precludes mapping a different contact in later elements

Petitioner's Reply

Like the Challenged Claims, Blumenberg's design solution involves multiple scenarios regarding a user's touch contact that corresponds to a hyperlink and associates each of those scenarios with a particular functionality. EX1003, ¶¶59-64.

A first scenario relates to detection of a contact that is characterized as an "inadvertent" contact—e.g., when the user contacts the touch screen for a duration of less than a threshold of "0.2 seconds"—which registers no selection and triggers no change on the display. EX1004, [0034], [0049]. For ease of discussion, this Petition references the touch duration threshold in Blumenberg's first scenario as the selection threshold.

Petitioner's Reply

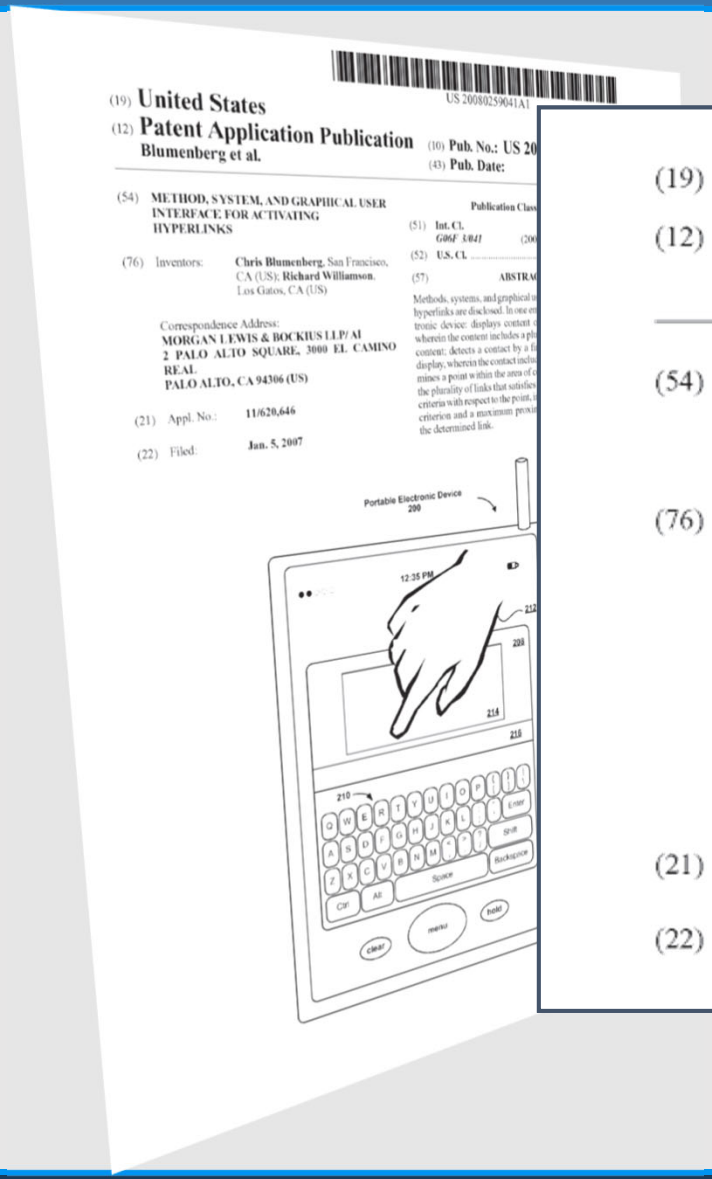
A second scenario relates to detection of a contact at a hyperlink that extends beyond the selection threshold, which results in selecting the hyperlink and displaying "link information" previewing "a snippet of the content from the [targeted] page." EX1004, [0040], [0048-0049], Figures 5B-5C. If the user breaks contact following the selection threshold but before a "predetermined amount of time"—which this Petition refers to as the activation threshold—the selected link is activated and the browser navigates to the targeted webpage. *Id.*, [0051] ("the activation of the link may be triggered by…a quick tap"), Figures 5C-5D.

Reply at 9, 27-29; Sur-reply at 7-8

Overview

- ’581 Patent
  - Pattern-based gestures using a decision tree logic
  - Claims require that “when” / “based on” preconditions are satisfied - perform specified action
- Claim Construction
  - “when” / “based on” claim construction
  - “the first contact” claim construction
- **Prior Art**
  - **Blumenberg / Bhumkar / Griffin**
- Blumenberg-Bhumkar-Griffin
  - Combinations fail to render any challenged claims unpatentable
  - No disclosure of avoiding display of a result of “*any operation*” based on the first contact
  - No disclosure of comparing “duration of the first contact” to a predefined duration
  - No disclosure of causal-connection for display of webpage preview
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

Blumenberg | Overview


(19) United States
(12) Patent Application Publication
Blumenberg et al.
(10) Pub. No.: US 20
(43) Pub. Date:
(54) METHOD, SYSTEM, AND GRAPHICAL USER INTERFACE FOR ACTIVATING HYPERLINKS
(76) Inventors: Chris Blumenberg, San Francisco, CA (US); Richard Williamson, Los Gatos, CA (US)
Correspondence Address:
MORGAN LEWIS & BOCKIUS LLP/ AI
2 PALO ALTO SQUARE, 3000 EL CAMINO REAL
PALO ALTO, CA 94306 (US)
(21) Appl. No.: 11/620,646
(22) Filed: Jan. 5, 2007
Portable Electronic Device 200

(19) **United States**

(12) **Patent Application Publication**
Blumenberg et al.

(10) **Pub. No.: US 2008/0259041 A1**
(43) **Pub. Date: Oct. 23, 2008**

(54) **METHOD, SYSTEM, AND GRAPHICAL USER INTERFACE FOR ACTIVATING HYPERLINKS**

(76) Inventors: **Chris Blumenberg**, San Francisco, CA (US); **Richard Williamson**, Los Gatos, CA (US)

Correspondence Address:
MORGAN LEWIS & BOCKIUS LLP/ AI
2 PALO ALTO SQUARE, 3000 EL CAMINO REAL
PALO ALTO, CA 94306 (US)

(21) Appl. No.: **11/620,646**

(22) Filed: **Jan. 5, 2007**

Publication Classification

(51) **Int. Cl.**
G06F 3/041 (2006.01)

(52) **U.S. Cl.** **345/173**

(57) **ABSTRACT**

Methods, systems, and graphical user interfaces for activating hyperlinks are disclosed. In one embodiment, a portable electronic device: displays content on a touch screen display, wherein the content includes a plurality of links to additional content; detects a contact by a finger with the touch screen display, wherein the contact includes an area of contact; determines a point within the area of contact; determines a link in the plurality of links that satisfies two or more predetermined criteria with respect to the point, including a closest proximity criterion and a maximum proximity criterion; and activates the determined link.

POR at 21-26

Blumenberg teaches displaying legible hyperlink previews to provide "easy reading" on small screens.

Blumenberg

[0004] A drawback of portable devices, however, is the small screen size. The small screen size limits the amount of information and/or the size of the information that can be shown on the screen. This limitation can pose problems for web browsing on such devices because links in webpages displayed on a small screen may not be perceived easily by users. As a result, getting information about the hyperlinks and navigating to other webpages via the hyperlinks takes on a hit-or-miss character, which can frustrate users and make the web browsing experience on portable devices cumbersome.

[0005] Accordingly, there is a need for a more efficient ways to convey hyperlink information and select hyperlinks in portable devices.

Blumenberg at ¶[0004]

Blumenberg

[0053] Information associated with links may be displayed whether the document is at normal size, zoomed in, or zoomed out. Even if the document is zoomed out such that the effective font size of the text in the document is relatively small, such as 10 point or smaller, the information **510** associated with a respective link is displayed at a legible size, such as 14 point or larger (e.g., the URL may be displayed using 14 point text and the title or the webpage pointed to by the URL may be displayed using 18 point text), which enables easy reading of the link information **510** by ordinary users. Furthermore, the font size used for displaying the link information **510** is independent of the font size, zoom factor or scale factor of the document or other content displayed by the device **200**.

Blumenberg at ¶[0053]

POR at 22; Mahon Dec (Ex. 2008) at ¶¶ 35-36

Blumenberg's two operational scenarios for hyperlink "activation"

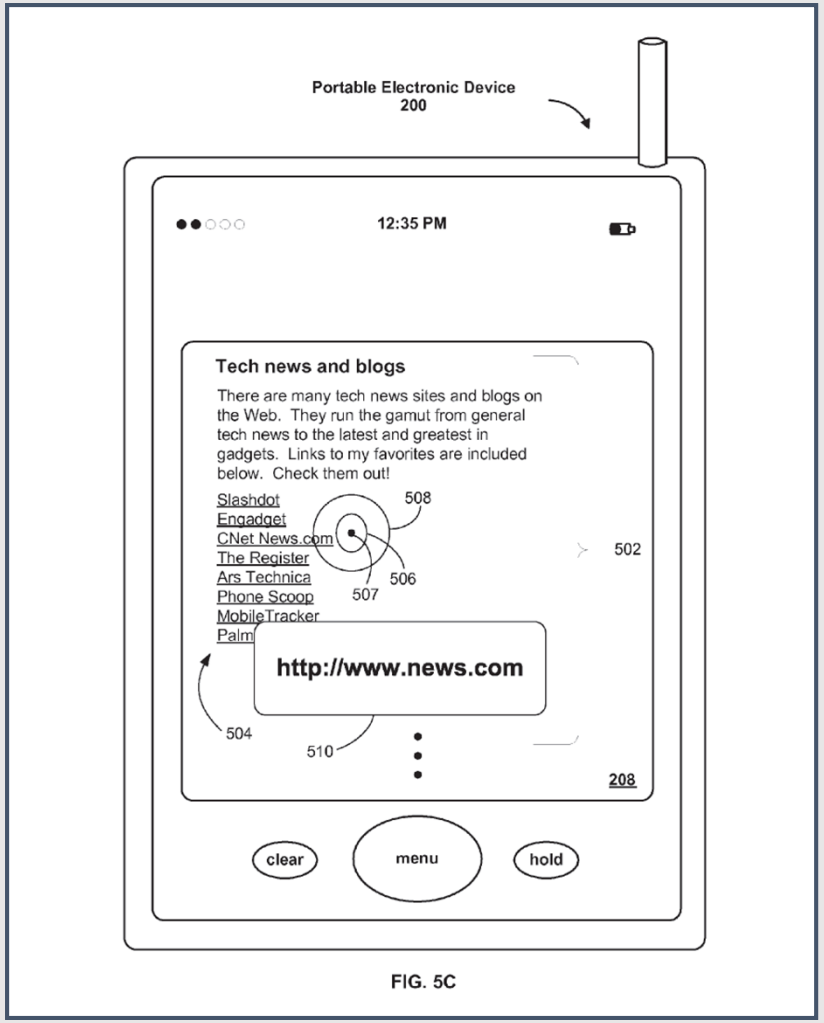


FIG. 5C

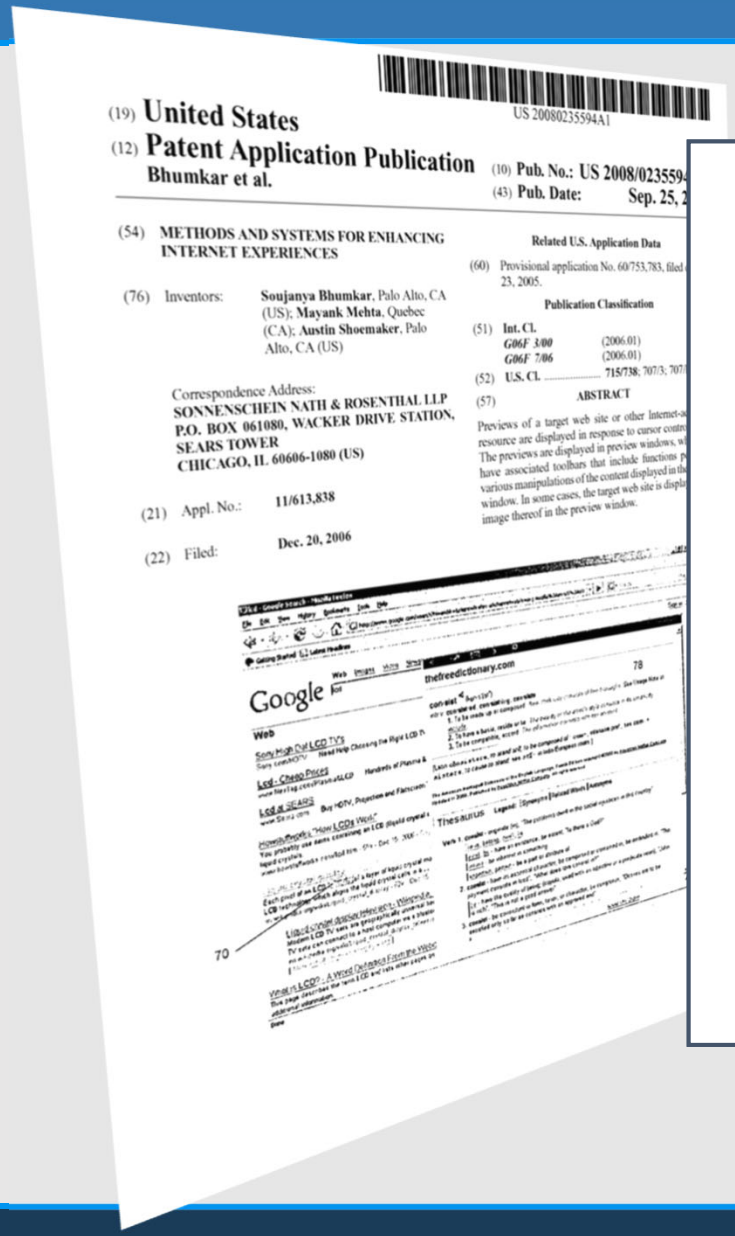
Blumenberg at FIG. 5C

Blumenberg

[0051] The activation of the link may be triggered in a variety of ways. In some embodiments, the activation is triggered by breaking the contact. For particular embodiments, the activation may be triggered after the breaking of contact before or after a first predetermined amount of time has elapsed. In some other embodiments, the activation of the link may be triggered by a gesture, such as a quick tap on the touch screen **208** after breaking contact. Furthermore, in some embodiments, if the contact is held for longer than a second predetermined amount of time, whatever link information that is displayed is removed from display and the link is not activated. In some embodiments, a combination of such activation criteria are used: the selected link is activated by a contact break if the link information was displayed less than the first predetermined amount of time, and if the link information was displayed for more than that amount of time, then the user must break contact and tap the link information (which is continued to be displayed after the contact break) to activate the selected link.

POR at 22; Mahon Dec (Ex. 2008) at ¶¶ 35-36

Bhumkar | Overview



US 20080235594A1

(19) **United States**

(12) **Patent Application Publication**

Bhumkar et al.

(10) **Pub. No.: US 2008/0235594 A1**

(43) **Pub. Date: Sep. 25, 2008**

(54) **METHODS AND SYSTEMS FOR ENHANCING INTERNET EXPERIENCES**

(76) Inventors: **Soujanya Bhumkar**, Palo Alto, CA (US); **Mayank Mehta**, Quebec (CA); **Austin Shoemaker**, Palo Alto, CA (US)

Correspondence Address:
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P.O. BOX 061080, WACKER DRIVE STATION, SEARS TOWER
CHICAGO, IL 60606-1080 (US)

(21) Appl. No.: **11/613,838**

(22) Filed: **Dec. 20, 2006**

Related U.S. Application Data

(60) Provisional application No. 60/753,783, filed on Dec. 23, 2005.

Publication Classification

(51) **Int. Cl.**
G06F 3/00 (2006.01)
G06F 7/06 (2006.01)

(52) **U.S. Cl.** **715/738**; 707/3; 707/E17.014

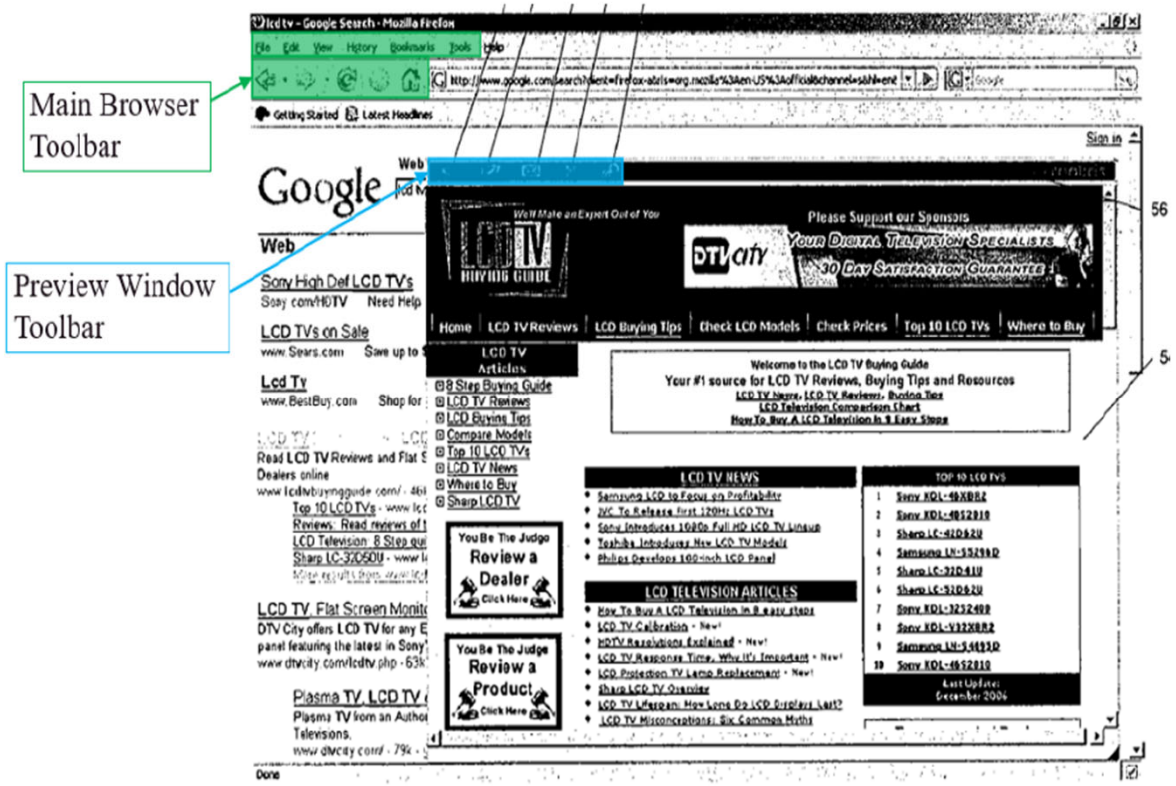
(57) **ABSTRACT**

Previews of a target web site or other Internet-accessible resource are displayed in response to cursor control events. The previews are displayed in preview windows, which may have associated toolbars that include functions permitting various manipulations of the content displayed in the preview window. In some cases, the target web site is displayed as an image thereof in the preview window.

POR at 27-29

Bhumkar teaches a "preview window" with a "fully functioning web page"

Bhumkar



Bhumkar at Figure 5

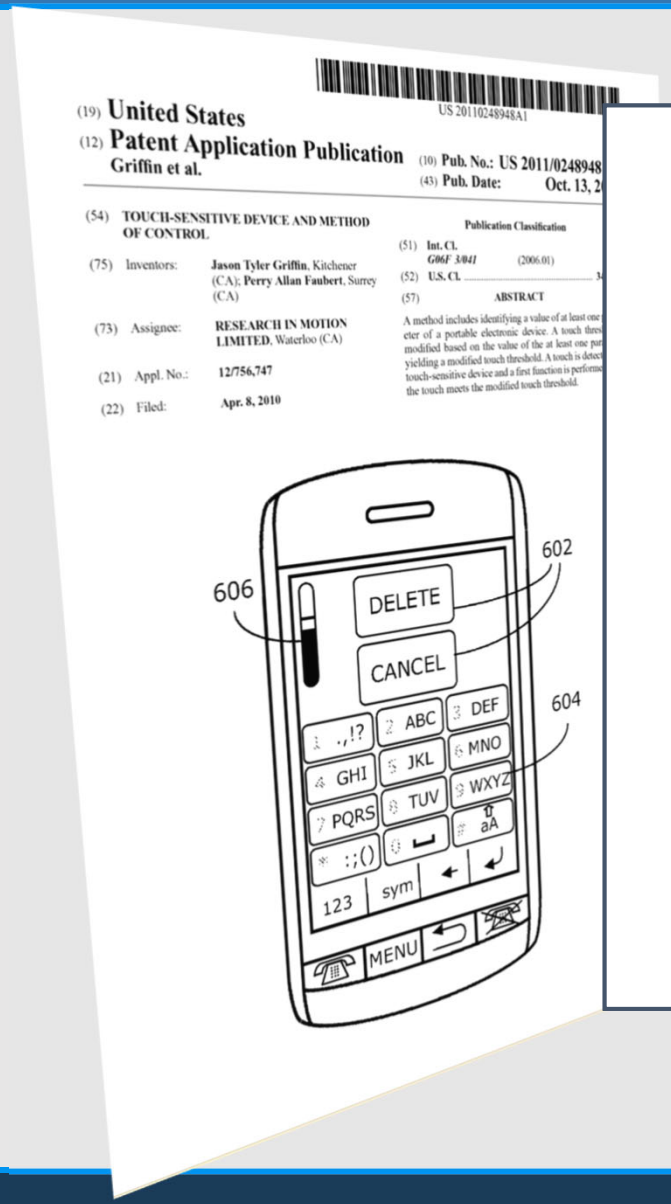
Bhumkar

[0071] Turning now to FIG. **5**, a preview window **54** displayed in response to a mouseover or other event is illustrated super positioned over a search result page which includes several links (e.g., returned in response to a search query). This preview window **54** includes a toolbar **56**. Toolbar **56** includes a number of icons **58-66**, each of which is associated with functionality described above. Moreover, in this instance the preview window is a fully functioning web page, not merely an image of such a page. Hence, all of the links are active and a user can navigate within the preview window **54** just as he/she would in a regular window displayed in a browser.

Bhumkar at ¶[0071]

POR at 27-29

Griffin | Overview



US 20110248948A1

(19) **United States**

(12) **Patent Application Publication**

Griffin et al.

(10) **Pub. No.: US 2011/0248948 A1**

(43) **Pub. Date: Oct. 13, 2011**

(54) **TOUCH-SENSITIVE DEVICE AND METHOD OF CONTROL**

(75) Inventors: **Jason Tyler Griffin**, Kitchener (CA); **Perry Allan Faubert**, Surrey (CA)

(73) Assignee: **RESEARCH IN MOTION LIMITED**, Waterloo (CA)

(21) Appl. No.: **12/756,747**

(22) Filed: **Apr. 8, 2010**

Publication Classification

(51) **Int. Cl.**
G06F 3/041 (2006.01)

(52) **U.S. Cl.** **345/174**

(57) **ABSTRACT**

A method includes identifying a value of at least one parameter of a portable electronic device. A touch threshold is modified based on the value of the at least one parameter, yielding a modified touch threshold. A touch is detected on a touch-sensitive device and a first function is performed when the touch meets the modified touch threshold.

POR at 29-31

Griffin teaches a process that determines if a parameter *exceeds* a threshold

Griffin

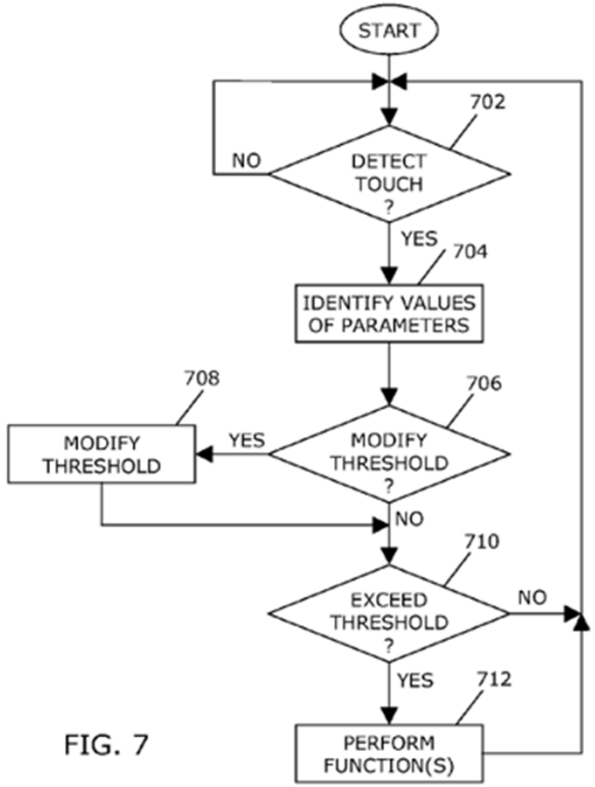


FIG. 7

Griffin at Figure 7

Griffin

[0053] One or more values of one or more parameters or characteristics of the touch are compared to the touch threshold at **710**, e.g., a force value or contact area. The detected touch may be compared to more than one threshold at **710**. When the one or more values related to the touch do not meet any touch threshold, the process continues at **702**. When the one or more values meet or exceed one or more touch thresholds, one or more functions, such as those described above, are performed **712**, and the process continues at **702**. The

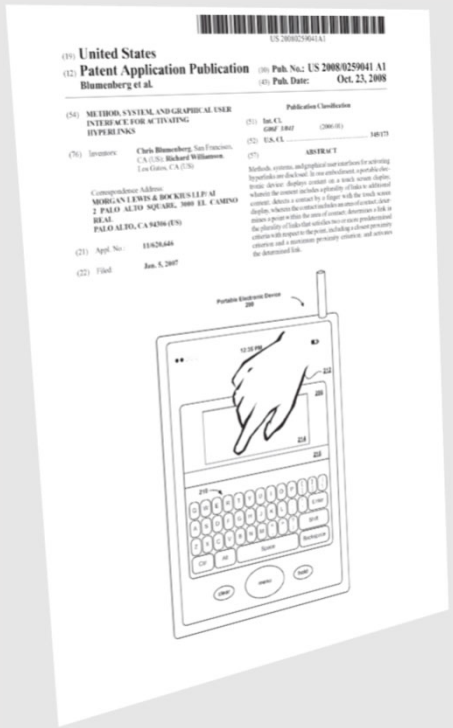
Griffin at ¶[0053]

POR at 29-31

Overview

- ’581 Patent
  - Pattern-based gestures using a decision tree logic
  - Claims require that “when” / “based on” preconditions are satisfied - perform specified action
- Claim Construction
  - “when” / “based on” claim construction
  - “the first contact” claim construction
- Prior Art
  - Blumenberg / Bhumkar / Griffin
- **Blumenberg-Bhumkar-Griffin**
  - **Combinations fail to render any challenged claims unpatentable**
  - No disclosure of avoiding display a result of “*any operation*” based on the first contact
  - No disclosure of comparing “duration of the first contact” to a predefined duration
  - No disclosure of causal-connection for display of webpage preview
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

Combinations fail to render obvious any challenged claims



- No disclosure of avoiding display of a result of "***any operation***" based on the first contact
  - Blumenberg teaches display of information, ***not*** avoiding display of any operation
  - Griffin teaches display of other operations
- No disclosure of comparing "***duration of the first contact***" to a predefined duration
  - Petitioner maps examples of display durations being compared to an amount of time.
  - Petitioner maps different contacts – not the claimed first contact
- No disclosure of "***display[ing] at least a portion of the second web page***" that is caused by the claimed preconditions

POR at 32-46; Sur-Reply at 8-18

Overview

- ’581 Patent
  - Pattern-based gestures using a decision tree logic
  - Claims require that “when” / “based on” preconditions are satisfied - perform specified action
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  - **No disclosure of avoiding display of a result of “*any operation*” based on the first contact**
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  - No disclosure of causal-connection for display of webpage preview
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

No disclosure of avoiding display of result of "*any operation*" based on the first contact

[1.m]

determine a duration of the first contact as a difference between the first contact time and the second contact time;

determine whether there is a contact movement of the first contact between the first contact point and a second contact point;

determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoid display, on the first web page, a result of any operation based on the first contact;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replace the display of the first web page with the second web page via the user interface of the network browser application; and

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: output, utilizing the actuator, a first feedback that is perceptible by touch and display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

'581 Patent at Claim 1; POR at 10-11

Petitioner's mapping of [1.m] relies on unsupported assumptions

Petition

¶117. Moreover, Blumenberg teaches that information associated with the link will not be displayed until and unless "the contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds)." EX1004, [0049]. In effect, Blumenberg's technique disregards inadvertent contact, such as contact maintained for—i.e., initiated and ended within—an exceedingly short duration. EX1004, [0034] ("inadvertent contact with an icon may not select a corresponding symbol"); EX1003, ¶¶118-119. As

Pet. at 34, (citing Blumenberg at ¶¶[0049], [0034])

Blumenberg teaches displaying – NOT avoiding display of any operation.

Blumenberg

[0049] In some embodiments, the information is displayed after the contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds) for displaying the link information. In some embodiments, the information is removed from display if the contact area **506** is not moved for longer than a predefined amount of time. For example, returning to FIG. **5**C, the information **510** may be removed after a predetermined amount of time (e.g., three to five seconds) if the contact area **506** is maintained in the position as illustrated.

Blumenberg at ¶[0049]

Blumenberg

one or more icons. In some embodiments, the contact may include a gesture, such as one or more taps, one or more swipes (e.g., from left to right, right to left, upward and/or downward) and/or a rolling of a finger (e.g., from right to left, left to right, upward and/or downward) that has made contact with the device **200**. In some embodiments, inadvertent contact with an icon may not select a corresponding symbol. For example, a swipe gesture that sweeps over an icon may not select a corresponding symbol if the gesture corresponding to selection is a tap gesture.

Blumenberg at ¶[0034]

POR at 8-9, 33-35; Sur-reply at 8-9; Mahon Dec (Ex. 2008) at ¶¶ 83-87

Blumenberg's silence is not disclosure

"[T]here must be something more to suggest that the silence is significant, or other reasons that establish")

In re Strongbridge Dublin Ltd., Nos. 2023-2302, 2023-2303, 2025 WL 751116, at *4 (Fed. Cir. Mar. 10, 2025)

For negative limitations, "the disclosure must be read from the perspective of a person of skill in the art."

Novartis Pharms. Corp. v. Accord Healthcare, Inc., 21 F.4th 1362, 1373 (Fed. Cir. 2022)

Sur-reply at 9-10

No disclosure of avoiding display of result of "*any operation*" based on the first contact

Blumenberg includes broader teachings of modifying displayed information.

A POSITA would understand that modifying displayed information may include highlighting.

Sur-reply at 10-11

Blumenberg

[0022] The various applications that may be executed on the device may use at least one common physical user-interface device, such as the touch screen. In embodiments that include a touch screen, one or more functions of the touch screen as well as corresponding information displayed on the device may be adjusted and/or varied from one application to the next and/or within a respective application. In this way, a common physical architecture (such as the touch screen) of the device may support the variety of applications with user interfaces that are intuitive and transparent to a user.

Blumenberg at [0022]

Griffin

"delete," or "unlock"; function buttons, such as play or stop on a music player; and so forth. For example, a touch that does not meet a touch threshold may cause a selection option to be highlighted, such as a displayed button **602** or key **604**, whereas a touch that meets the touch threshold may result in selection or input of that selection option.

Griffin at [0034]

Griffin confirms that other display operations occur before a first threshold.

Griffin

[0034] A front view of a portable electronic device **100** having a touch-sensitive display **118** is shown in FIG. **6**. A touch detected on the touch-sensitive display **118** may initiate or trigger one or more functions. The function performed may be, for example, selection or input of information or a function, such as information or a function associated with a location of a touch, tactile feedback provided by the actuators **120**, and so forth. Selection options may include, for example, displayed or virtual keys of a keyboard **602** for entry of characters; selection boxes or windows **602**, e.g., "cancel," "delete," or "unlock"; function buttons, such as play or stop on a music player; and so forth. For example, a touch that does not meet a touch threshold may cause a selection option to be highlighted, such as a displayed button **602** or key **604**, whereas a touch that meets the touch threshold may result in selection or input of that selection option.

Griffin at [0034]

Sur-reply at 11-12

Overview

- ’581 Patent
  - Pattern-based gestures using a decision tree logic
  - Claims require that “when” / “based on” preconditions are satisfied - perform specified action
- Claim Construction
  - “when” / “based on” claim construction
  - “the first contact” claim construction
- Prior Art
  - Blumenberg / Bhumkar / Griffin
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  - **No disclosure of comparing “duration of the first contact” to a predefined duration**
  - No disclosure of causal-connection for display of webpage preview
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

No comparing "duration of the first contact" to a predefined duration

determine a duration of the first contact as a difference between the first contact time and the second contact time;

determine whether there is a contact movement of the first contact between the first contact point and a second contact point;

determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoid display, on the first web page, a result of any operation based on the first contact;

[1.n]

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replace the display of the first web page with the second web page via the user interface of the network browser application; and

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: output, utilizing the actuator, a first feedback that is perceptible by touch and display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

'581 Patent at Claim 1; POR at 10-11

Blumenberg compares display duration – not contact duration

Blumenberg

[0051] The activation of the link may be triggered in a variety of ways. In some embodiments, the activation is triggered by breaking the contact. For particular embodiments, the activation may be triggered after the breaking of contact before or after a first predetermined amount of time has elapsed. In some other embodiments, the activation of the link may be triggered by a gesture, such as a quick tap on the touch screen **208** after breaking contact. Furthermore, in some embodiments, if the contact is held for longer than a second predetermined amount of time, whatever link information that is displayed is removed from display and the link is not activated. In some embodiments, a combination of such activation criteria are used: the selected link is activated by a contact break if the link information was displayed less than the first predetermined amount of time, and if the link information was displayed for more than that amount of time, then the user must break contact and tap the link information (which is continued to be displayed after the contact break) to activate the selected link.

Blumenberg at ¶[0052]

POR at 40-42; Sur-reply at 12-14

Blumenberg's "Quick Tap" alternative is not based on "first contact"

Blumenberg

[0051] The activation of the link may be triggered in a variety of ways. In some embodiments, the activation is triggered by breaking the contact. For particular embodiments, the activation may be triggered after the breaking of contact before or after a first predetermined amount of time has elapsed. In some other embodiments, the activation of the link may be triggered by a gesture, such as a quick tap on the touch screen **208** after breaking contact. Furthermore, in some embodiments, if the contact is held for longer than a second predetermined amount of time, whatever link information that is displayed is removed from display and the link is not activated. In some embodiments, a combination of such activation criteria are used: the selected link is activated by a contact break if the link information was displayed less than the first predetermined amount of time, and if the link information was displayed for more than that amount of time, then the user must break contact and tap the link information (which is continued to be displayed after the contact break) to activate the selected link.

Blumenberg at ¶[0051]

POR at 38-40; Sur-reply at 16-17

Petitioner relied on Blumenberg alone for comparison of contact duration to the claimed thresholds

Petition

To summarize, Blumenberg's teachings in the Combination provide that a link is activated when the user ends the contact with the link at a ***duration*** that is ***greater than*** the selection threshold (***first predefined duration***) and ***less than*** the activation threshold (***second predefined duration***). EX1003, ¶128.

* * * *

Finally, as noted at Elements [1.m.ii]-[1.m.iii], Griffin's supplemental teaching that ***duration*** thresholds are ***user-configurable*** applies here at Element [1.n.ii] to the activation threshold (***second predefined duration***). EX1003, ¶129.

Pet. at 38-39

Petitioner is not permitted to change its mapping

"Unlike district court litigation—where parties have greater freedom to revise and develop their arguments over time and in response to newly discovered material—the expedited nature of IPRs bring with it an obligation for petitioners to make their case in their petition to institute. While the Board's requirements are strict ones, they are requirements of which petitioners are aware when they seek to institute an IPR."

Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd., 821 F.3d 1359, 1369 (Fed. Cir. 2016)

"Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability."

Consolidated Trial Practice Guide at 73

Griffin teaches a process that determines if a parameter *exceeds* a threshold

Griffin

[0053] One or more values of one or more parameters or characteristics of the touch are compared to the touch threshold at **710**, e.g., a force value or contact area. The detected touch may be compared to more than one threshold at **710**. When the one or more values related to the touch do not meet any touch threshold, the process continues at **702**. When the one or more values meet or exceed one or more touch thresholds, one or more functions, such as those described above, are performed **712**, and the process continues at **702**. The

Griffin at ¶53

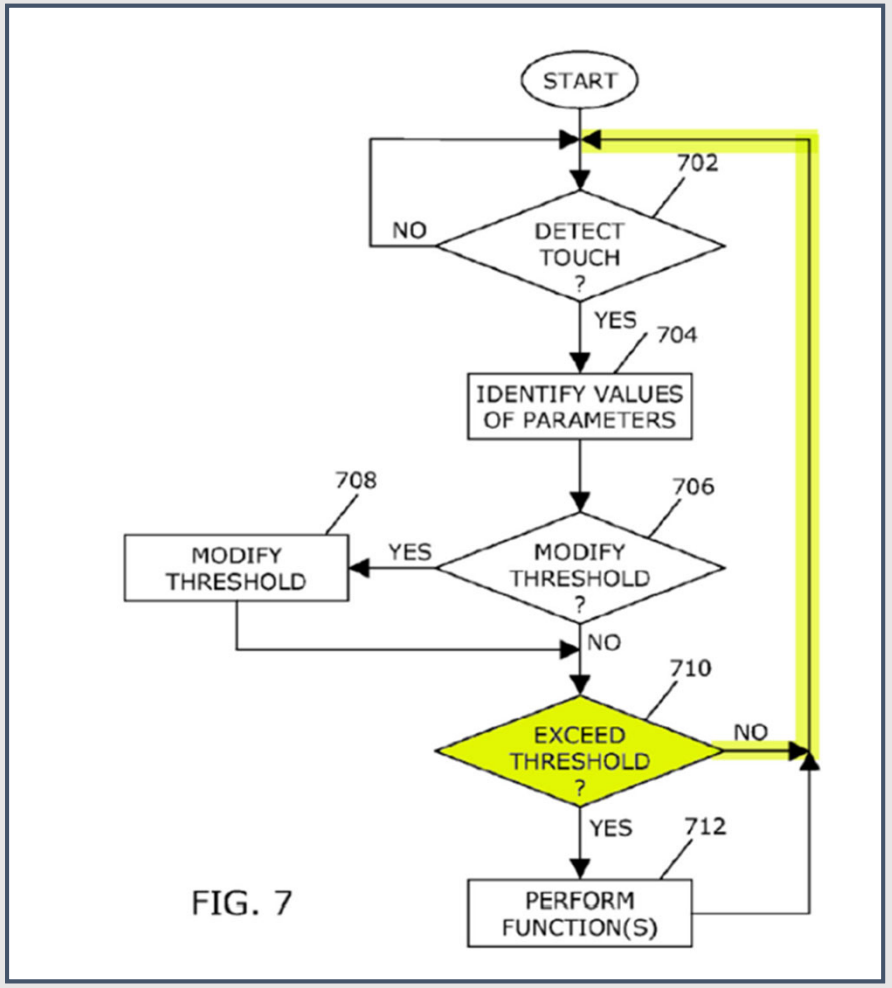


FIG. 7

Griffin at Fig. 7

POR at 41-42; Sur-reply at 14-16

Overview

- ’581 Patent
  - Pattern-based gestures using a decision tree logic
  - Claims require that “when” / “based on” preconditions are satisfied - perform specified action
- Claim Construction
  - “when” / “based on” claim construction
  - “the first contact” claim construction
- Prior Art
  - Blumenberg / Bhumkar / Griffin
- **Blumenberg-Bhumkar-Griffin**
  - Combinations fail to render any challenged claims unpatentable
  - No disclosure of avoiding display of a result of “*any operation*” based on the first contact
  - No disclosure of comparing “duration of the first contact” to a predefined duration
  - **No disclosure of causal-connection for display of webpage preview**
- Modifications-Motivations
  - Bhumkar-based modifications are not justified
  - Bhumkar-based motivations are insufficient
- Dependent claims

No causal connection for display of webpage preview

determine a duration of the first contact as a difference between the first contact time and the second contact time;

determine whether there is a contact movement of the first contact between the first contact point and a second contact point;

determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: avoid display, on the first web page, a result of any operation based on the first contact;

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is detected: replace the display of the first web page with the second web page via the user interface of the network browser application; and

[1.o]

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: output, utilizing the actuator, a first feedback that is perceptible by touch and display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

’581 Patent at Claim 1; POR at 10-11

Petitioner does not dispute that Blumenberg's "link information is displayed after the contact is maintained for at least a predetermined time (e.g., 0.2 seconds)

Petition

A first scenario relates to detection of a contact that is characterized as an "inadvertent" contact—e.g., when the user contacts the touch screen for a duration of less than a threshold of "0.2 seconds"—which registers no selection and triggers no change on the display. EX1004, [0034], [0049]. For ease of discussion, this Petition references the touch duration threshold in Blumenberg's first scenario as the selection threshold.

A second scenario relates to detection of a contact at a hyperlink that extends beyond the selection threshold, which results in selecting the hyperlink and displaying "link information" previewing "a snippet of the content from the [targeted] page." EX1004, [0040], [0048-0049], Figures 5B-5C. If the user breaks

Pet. at 34, (citing Blumenberg at ¶[0049])

Blumenberg

[0049] In some embodiments, the information is displayed after the contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds) for displaying the link information. In some embodiments, the information is removed from display if the contact area **506** is not moved for longer than a predefined amount of time. For example, returning to FIG. **5**C, the information **510** may be removed after a predetermined amount of time (e.g., three to five seconds) if the contact area **506** is maintained in the position as illustrated.

Blumenberg at ¶[0049]

Sur-reply at 17

Blumenberg's condition causing the display preview (contact exceeding the first duration "selection threshold") is not a precondition for Limitations [1.o] and [42.j].

Blumenberg

[0049] In some embodiments, the information is displayed after the contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds) for displaying the link information. In some embodiments, the information is removed from display if the contact area **506** is not moved for longer than a predefined amount of time. For example, returning to FIG. **5**C, the information **510** may be removed after a predetermined amount of time (e.g., three to five seconds) if the contact area **506** is maintained in the position as illustrated.

Blumenberg at ¶[0049]

[1.o]

when: the first web page is displayed via the user interface of the network browser application, the duration of the first contact is determined to be greater than the second user-configurable predefined duration, the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and the end of the first contact is not detected: output, utilizing the actuator, a first feedback that is perceptible by touch and display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

Sur-reply at 17

No causal-connection for display of webpage preview

Petitioner's Reply

The Blumenberg-Bhumkar-Griffin Combination provides the very kind of causal connection in the third claimed scenario that Patent Owner (erroneously) says is required. As the Petition explains, the Combination envisions a system configured such that "when the user maintains the contact for a ***duration greater than*** the activation threshold (***second user-configurable predefined duration***), the web browser remains on the current page while also previewing the target webpage." Pet., 42 (citing EX1004, [0049], [0051]; EX1003, ¶136); *see also* 9–10, 49 ("continues displaying"). This arrangement "plainly satisfies…even a causal conditional relationship"—i.e., the system's continued display of the link information previewing the webpage (***portion of the second web page***) is caused or triggered by a set of conditions that includes the contact being maintained beyond the activation threshold (***second duration***). *See* EX1003, ¶157; EX1058, ¶65.

Reply at 17-18

Sur-reply at 17-18

No causal-connection for other claimed actions

Petitioner's Reply

As an alternative and independent basis, the Blumenberg-Bhumkar-Griffin Combination would likewise still render the third claimed scenario obvious because "the POSITA would have been motivated to incorporate the supplemental teachings of Griffin and Bhumkar such that the output of ***feedback perceptible by touch*** (as taught by Griffin) and the display of a ***menu*** (as taught by Bhumkar) occur in response to the user's contact ***duration*** exceeding the activation threshold." Pet. 52 (citing EX1003, ¶158). As a result, the full set of three functions—the link information (***second webpage portion***), tactile ***feedback***, and ***menu***—would occur "only after and as a consequence of the activation threshold." *Id.*; EX1058, ¶66. Patent Owner's three attacks on this mapping analysis fail.

Reply at 18

Sur-reply at 18

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  - Bhumkar-based motivations are unsupported
- Dependent claims

Blumenberg and Bhumkar Address Fundamentally Different User-Interface Paradigms

Blumenberg

[0004] A drawback of portable devices, however, is the small screen size. The small screen size limits the amount of information and/or the size of the information that can be shown on the screen. This limitation can pose problems for web browsing on such devices because links in webpages displayed on a small screen may not be perceived easily by users. As a result, getting information about the hyperlinks and navigating to other webpages via the hyperlinks takes on a hit-or-miss character, which can frustrate users and make the web browsing experience on portable devices cumbersome.

[0005] Accordingly, there is a need for a more efficient ways to convey hyperlink information and select hyperlinks in portable devices.

Blumenberg at ¶[0004]

Bhumkar

[0071] Turning now to FIG. **5**, a preview window **54** displayed in response to a mouseover or other event is illustrated super positioned over a search result page which includes several links (e.g., returned in response to a search query). This preview window **54** includes a toolbar **56**. Toolbar **56** includes a number of icons **58-66**, each of which is associated with functionality described above. Moreover, in this instance the preview window is a fully functioning web page, not merely an image of such a page. Hence, all of the links are active and a user can navigate within the preview window **54** just as he/she would in a regular window displayed in a browser.

Bhumkar at ¶[0071]

Sur-reply at 19

Bhumkar's toolbar is limited to a fully functioning webpage – NOT merely an image

Bhumkar

[0071] Turning now to FIG. **5**, a preview window **54** displayed in response to a mouseover or other event is illustrated super positioned over a search result page which includes several links (e.g., returned in response to a search query). This preview window **54** includes a toolbar **56**. Toolbar **56** includes a number of icons **58-66**, each of which is associated with functionality described above. Moreover, in this instance the preview window is a fully functioning web page, not merely an image of such a page. Hence, all of the links are active and a user can navigate within the preview window **54** just as he/she would in a regular window displayed in a browser.

Bhumkar at ¶[0071]

Bhumkar

[0072] Icon **58** is an arrow associated with the Back function discussed above. Back allows a user to trace his/her click history within a current preview session. That is, because full navigation is now permitted within preview window **54**, a user may advance to further web pages by selecting links in a currently displayed page in the preview window. To return to the original (or immediately preceding page) in the preview window, the Back arrow **58** may be used. Similar functionality has been provided in browsers in the past and so need not be discussed further herein.

Bhumkar at ¶[0072]

Sur-reply at 20

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  - Bhumkar-based modifications are not justified
  - **Bhumkar-based motivations are insufficient**
- Dependent claims

Petitioner's alleged motivations are insufficient

- ***First***, Petitioner's "well-known solution" argument overlooks the core incompatibility between Bhumkar's toolbar and Blumenberg's preview (Reply, 21-22)
- ***Second***, Petitioner's "predictable improvement" claim ignores Bhumkar's teachings—Bhumkar's toolbar isn't preview-agnostic; it requires full functionality. (Reply, 22-24)
- ***Third***, Bhumkar's "full-screen" isn't a valid workaround—Blumenberg's preview isn't meant to replace webpage viewing. (Reply, 24-25)
- ***Fourth***, Petitioner's theory that a prolonged contact beyond Blumenberg's activation threshold signals "competing interests" and thus justifies a menu is speculative and untethered to Blumenberg's actual disclosure. (Reply, 25-26)

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  - Bhumkar-based motivations are insufficient
- **Dependent claims**

Claims 2 and 43

Blumenberg is configured for performing the operation (updating selected link)

2. The electronic device of claim 1, wherein the electronic device is configured such that:

the user interface of the network browser is configured for performing an operation in response to it being determined that there is the contact movement of the first contact between the first contact point and the second contact point; and

the at least portion of the second web page is displayed in a view that is not configured for performing the operation in response to it being determined that there is the contact movement of the first contact between the first contact point and the second contact point.

’581 Patent at Claim 2; POR at 69, Sur-reply at 26

43. The method of claim 42, wherein:

the user interface of the network browser is configured for performing an operation in response to it being determined that there is the contact movement of the first contact between the first contact point and the second contact point; and

the at least portion of the second web page is displayed in a view that is not configured for performing the operation in response to it being determined that there is the contact movement of the first contact between the first contact point and the second contact point.

’581 Patent at Claim 43; POR at 69, Sur-reply at 26

Blumenberg

as its URL, is displayed. As the contact area **506** moves even further down, as shown in FIG. **5**F, other links, such as the link “Palm Infocenter,” becomes the link that satisfies the closest point criterion with respect to the point **507**. The information associated with the previous determined link is no longer displayed and information associated with the link “Palm

Blumenberg at ¶[0004]; POR at 69, Sur-reply at 26

Claims 21 and 54

21. The electronic device of claim **1**, wherein the electronic device is configured such that:

the user interface of the network browser is configured for displaying: scrolling of the second web page via the user interface of the network browser application in response to detection of longitudinal contact movement, opening of one or more hyperlinks of the second web page in response to detection of a selection thereof, and opening of one or more manually entered web addresses in response to detection of a manual entry thereof; and

the at least portion of the second web page is displayed in a view that is different from the user interface of the network browser application in that the view is configured for not displaying: the scrolling of the second web page via the user interface of the network browser application in response to detection of the longitudinal contact movement, the opening of the one or more hyperlinks of the second web page in response to detection of the selection thereof, and the opening of the one or more manually entered hyperlinks in response to detection of the manual entry thereof.

'581 Patent at Claim 21; POR at 70-71, Sur-reply at 26

54. The method of claim **42**, wherein:

the user interface of the network browser is configured for displaying: scrolling of the second web page via the user interface of the network browser application in response to detection of longitudinal contact movement, opening of one or more hyperlinks of the second web page in response to detection of a selection thereof, and opening of one or more manually entered web addresses in response to detection of a manual entry thereof; and

the at least portion of the second web page is displayed in a view that is different from the user interface of the network browser application in that the view is configured for not displaying: the scrolling of the second web page via the user interface of the network browser application in response to detection of the longitudinal contact movement, the opening of the one or more hyperlinks of the second web page in response to detection of the selection thereof, and the opening of the one or more manually entered hyperlinks in response to detection of the manual entry thereof.

'581 Patent at Claim 54; POR at 70-71, Sur-reply at 26

Claims 21 and 54

Blumenberg is configured for displaying the opening of one or more hyperlinks

Blumenberg

[0051] The activation of the link may be triggered in a variety of ways. In some embodiments, the activation is triggered by breaking the contact. For particular embodiments, the activation may be triggered after the breaking of contact before or after a first predetermined amount of time has elapsed. In some other embodiments, the activation of the link may be triggered by a gesture, such as a quick tap on the touch screen **208** after breaking contact. Furthermore, in some embodiments, if the contact is held for longer than a second predetermined amount of time, whatever link information that is displayed is removed from display and the link is not activated. In some embodiments, a combination of such activation criteria are used: the selected link is activated by a contact break if the link information was displayed less than the first predetermined amount of time, and if the link information was displayed for more than that amount of time, then the user must break contact and tap the link information (which is continued to be displayed after the contact break) to activate the selected link.

Blumenberg at ¶[0051]; POR at 70-71, Sur-reply at 26

Claims 29-30 and 62-63

29. The electronic device of claim **1**, wherein the electronic device is configured such that the at least portion of the second web page is displayed in the at least one first virtual display layer where, in response to detection of a selection of the at least portion of the second web page, the second web page is enlarged.

30. The electronic device of claim **1**, wherein the electronic device is configured such that the at least portion of the second web page is displayed in the at least one first virtual display layer where, in response to detection of a selection of the at least portion of the second web page, the at least one first virtual display layer is enlarged.

'581 Patent at Claims 29-30; POR at 71-72, Sur-reply at 27

62. The method of claim **42**, wherein the at least portion of the second web page is displayed in the at least one first virtual display layer where, in response to detection of a selection of the at least portion of the second web page, the second web page is enlarged.

63. The method of claim **42**, wherein the at least portion of the second web page is displayed in the at least one first virtual display layer where, in response to detection of a selection of the at least portion of the second web page, the at least one first virtual display layer is enlarged.

'581 Patent at Claims 62-63; POR at 71-72, Sur-reply at 27

Claims 29-30 and 62-63

Bhumkar's "full-screen" mode provides no benefit to Blumenberg's preview

Blumenberg

[0053] Information associated with links may be displayed whether the document is at normal size, zoomed in, or zoomed out. Even if the document is zoomed out such that the effective font size of the text in the document is relatively small, such as 10 point or smaller, the information **510** associated with a respective link is displayed at a legible size, such as 14 point or larger (e.g., the URL may be displayed using 14 point text and the title or the webpage pointed to by the URL may be displayed using 18 point text), which enables easy reading of the link information **510** by ordinary users. Furthermore, the font size used for displaying the link information **510** is independent of the font size, zoom factor or scale factor of the document or other content displayed by the device **200**.

Blumenberg at ¶[0053]

Sur-reply at 27

Additional Slides

'581 Patent | "when" / "based on" claim construction

- Claim 41's additional limitation that "when includes while" does not negate a causal connection—it merely recites with further specificity the type of causal connection required.

Reply at 13; Sur-reply at 3-4

- Claim 3's additional limitations relate to the timing of the recited actions [1.o.vi-viii] relative to each other (*i.e.,* "first feedback" is output "prior to display of the menu."), NOT relative to the recited preconditions.

Reply at 13-14; Sur-reply at 3-4

- As with Claim 3's limitations, the specification's description of the timing of the recited actions relative to each other (*i.e.,* "display a menu . . . and further subsequently display at least a portion of the second web page") has no bearing on the separately recited preconditions.

Reply at 14-15; POR, 15, n.4, Sur-reply at 3-4

Blumenberg | Overview

Neither the Preliminary Response nor Dr. Davis's withdrawn testimony conceded that Blumenberg uses contact-duration to trigger hyperlink activation.

> In addition to activating the target link based on the contact (*id.*, ¶¶[0042]-[0044]), Blumenberg discloses other scenarios in which the user can maintain their contact to perform other functions, such as displaying link information 510 (e.g., the URL name associated with the target link) in a hyperlink preview window. EX1004, ¶[0049]; EX2001, ¶41. For example, this link information 510 "is displayed after the contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds)." *Id.* And, if the contact continues to be maintained (e.g., three to five seconds), "the information 510 may be removed."

POPR at 15; Sur-reply at 13-14