

CLAIMS

What is claimed is:

- 5 1. A method of adjusting layout size of a hyperlink, comprising:
- displaying at least one hyperlink in a user interface;
- detecting a touch operation for the at least one hyperlink, and extracting position coordinates of a touch point formed by the touch operation on the user interface;
- 10 determining a target hyperlink from the at least one hyperlink, and determining the precision of the touch operation with respect to the target hyperlink based on the position coordinates of the touch point; and
- adjusting the layout size of the target hyperlink based on the determined precision.
- 15 2. The method according to claim 1, further comprising: determining an average precision of the multiple touch operations with respect to the target hyperlink based on position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period.
- 20 3. The method according to claim 2, further comprising: comparing the average precision P with a reference value N , and when $P < N$, generating adjustment parameters for adjusting the layout size of the target hyperlink, and increasing the layout size of the target hyperlink by an adjustment value in a predetermined step
- 25 based on the adjustment parameters.
4. The method according to claim 3, further comprising: comparing the average precision P with a second reference value M , and when $P \geq M$, decreasing the layout

size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters, where $M \geq N$.

5 5. The method according to claim 3 or 4, wherein the larger the difference between the average precision P and the reference value N is, or the larger the difference between the average precision P and the second reference value M is, the larger the predetermined step is.

10 6. The method according to claim 3, further comprising: storing the adjustment parameters in a database and/or a configuration file, and adjusting the layout size of at least one hyperlink subsequently displayed in the user interface based on the stored adjustment parameters.

15 7. The method according to claim 3, wherein the adjustment parameters are applied to at least one of the followings: all web pages of an entire website, a specific web page, and a specific area in a web page.

20 8. The method according to claim 3, further comprising: determining a hyperlink as the target hyperlink if the distance from the touch point position to the center position of the hyperlink is smaller a predetermined threshold value.

9. The method according to claim 1, wherein the at least one hyperlink comprises two adjacent hyperlinks, the method further comprising:

25 if the distance from the touch point position to the center position of one of the two hyperlinks is smaller than a half of the distance between the respective center positions of the two hyperlinks, determining one hyperlink of the two hyperlinks which is nearer to the touch point position as the target hyperlink.

30 10. The method according to claim 1, further comprising: calculating the average distance Y_t from multiple touch points to the center position of the target hyperlink

based on the position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period, and configuring a monotone decreasing function of the average distance Y_t as the average precision of the multiple touch operations with respect to the target hyperlink.

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11. The method according to claim 10, wherein the distance between the edge line of the hyperlink and its center position is represented by Y_b , the method further comprising:

comparing the average distance Y_t with the threshold value Y_{a1} , and when
10 $Y_{a1} < Y_t$, generating adjustment parameters for adjusting the layout size of the target hyperlink, and increasing the layout size of the target hyperlink by an adjustment value in a predetermined step, where $Y_{a1} \leq Y_b$.

12. The method according to claim 11, further comprising: when $Y_b < Y_t$, increasing
15 the layout size of the hyperlink by an adjustment value $\Delta A1$ in a first predetermined step, and when $Y_{a1} < Y_t \leq Y_b$, increasing the layout size of the hyperlink by an adjustment value $\Delta A2$ in a second predetermined step, where $\Delta A2 < \Delta A1$.

13. An apparatus for adjusting layout size of a hyperlink, comprising:
20 a display unit configured to display at least one hyperlink in a user interface;
a detection unit configured to detect a touch operation for the at least one hyperlink, and extract position coordinates of a touch point formed by the touch operation on the user interface;
a computing unit configured to determine a target hyperlink from the at least
25 one hyperlink, and determine the precision of the touch operation with respect to the target hyperlink based on the position coordinates of the touch point;
an adjusting unit configured to adjust the layout size of the target hyperlink based on the determined precision.

14. The apparatus according to claim 13, wherein the computing unit is further configured to determine an average precision of the multiple touch operations with respect to the target hyperlink based on position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period.

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15. The apparatus according to claim 14, wherein the adjusting unit is further configured to compare the average precision P with a reference value N , and when $P < N$, generate adjustment parameters for adjusting the layout size of the target hyperlink, and increase the layout size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters.

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16. The apparatus according to claim 15, wherein the adjusting unit is further configured to compare the average precision P with a second reference value M , and when $P \geq M$, decrease the layout size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters, where $M \geq N$.

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17. The apparatus according to claim 16, wherein the larger the difference between the average precision P and the reference value N is, or the larger the difference between the average precision P and the second reference value M is, the larger the predetermined step is.

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18. The apparatus according to claim 15, wherein the adjusting unit adjusts the layout size of at least one hyperlink subsequently displayed in the user interface based on adjustment parameters stored in a database and/or a configuration file.

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19. The apparatus according to claim 15, wherein the adjustment parameters are applied to at least one of the followings: all web pages of an entire website, a specific web page, and a specific area in a web page.

20. The apparatus according to claim 13, wherein if the distance from the touch point position to the center position of a hyperlink is smaller a predetermined threshold value, the hyperlink is determined as the target hyperlink.

5 21. The apparatus according to claim 13, wherein the at least one hyperlink comprises two adjacent hyperlinks, and if the distance from the touch point position to the center position of one of the two hyperlinks is smaller than a half of the distance between the respective center positions of the two hyperlinks, one hyperlink of the two hyperlinks which is nearer to the touch point position is determined as the target
10 hyperlink.

22. The apparatus according to claim 13, wherein the computing unit is further configured to calculate the average distance Y_t from the multiple touch points to the center position of the target hyperlink based on the position coordinates of multiple
15 touch points formed by multiple continuous touch operations during a latest time period, and configure a monotone decreasing function of the average distance Y_t as the average precision of the multiple touch operations with respect to the target hyperlink.

20 23. The apparatus according to claim 22, wherein the distance between the edge line of the hyperlink and its center position is represented by Y_b , and the adjusting unit compares the average distance Y_t with the threshold value Y_{a1} , and when $Y_{a1} < Y_t$, increases the layout size of the target hyperlink by an adjustment value in a predetermined step, where $Y_{a1} \leq Y_b$.

25 24. The apparatus according to claim 13, wherein when $Y_b < Y_t$, the adjusting unit is further configured to increase the layout size of the hyperlink by an adjustment value ΔA_1 in a first predetermined step, and when $Y_{a1} < Y_t \leq Y_b$, the adjusting unit increases the layout size of the hyperlink by an adjustment value ΔA_2 in a second
30 predetermined step, where $\Delta A_2 < \Delta A_1$.

25. A computer program comprising program code adapted to perform the method steps of any of claims 1 to 12 when said program is run on a computer.

CLAIMS

1. A method of adjusting layout size of a hyperlink, comprising:
 - displaying at least one hyperlink in a user interface;
 - detecting a touch operation for the at least one hyperlink, and extracting position coordinates of a touch point formed by the touch operation on the user interface;
 - determining a target hyperlink from the at least one hyperlink, and determining the precision of the touch operation with respect to a center position of the target hyperlink based on the position coordinates of the touch point; and
 - adjusting the layout size of the target hyperlink based on the determined precision.
2. The method according to claim 1, further comprising: determining an average precision of multiple touch operations with respect to the center position of the target hyperlink based on position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period.
3. The method according to claim 2, further comprising: comparing the average precision P with a reference value N , and when $P < N$, generating adjustment parameters for adjusting the layout size of the target hyperlink, and increasing the layout size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters.
4. The method according to claim 3, further comprising: comparing the average precision P with a second reference value M , and when $P \geq M$, decreasing the layout size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters, where $M \geq N$.
5. The method according to claim 3 or 4, wherein the larger the difference between the average precision P and the reference value N is, or the larger the difference between the average precision P and the second reference value M is, the larger the predetermined step is.
6. The method according to claim 3, further comprising: determining a hyperlink as the target hyperlink if the distance from the touch point position to the center position of the hyperlink is smaller than a predetermined threshold value.

7. The method according to claim 1, wherein the at least one hyperlink comprises two adjacent hyperlinks, the method further comprising:

if the distance from the touch point position to the center position of one of the two hyperlinks is smaller than a half of the distance between the respective center positions of the two hyperlinks, determining one hyperlink of the two hyperlinks which is nearer to the touch point position as the target hyperlink.

8. The method according to claim 1, further comprising: calculating the average distance Y_t from multiple touch points to the center position of the target hyperlink based on the position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period, and configuring a monotone decreasing function of the average distance Y_t as the average precision of the multiple touch operations with respect to the target hyperlink.

9. The method according to claim 8, wherein the distance between the edge line of the hyperlink and its center position is represented by Y_b , the method further comprising:

comparing the average distance Y_t with the threshold value Y_{a1} , and when $Y_{a1} < Y_t$, generating adjustment parameters for adjusting the layout size of the target hyperlink, and increasing the layout size of the target hyperlink by an adjustment value in a predetermined step, where $Y_{a1} \leq Y_b$.

10. The method according to claim 9, further comprising: when $Y_b < Y_t$, increasing the layout size of the hyperlink by an adjustment value $\Delta A1$ in a first predetermined step, and when $Y_{a1} < Y_t \leq Y_b$, increasing the layout size of the hyperlink by an adjustment value $\Delta A2$ in a second predetermined step, where $\Delta A2 < \Delta A1$.

11. An apparatus for adjusting layout size of a hyperlink, comprising:

a display unit configured to display at least one hyperlink in a user interface;
 a detection unit configured to detect a touch operation for the at least one hyperlink, and extract position coordinates of a touch point formed by the touch operation on the user interface;
 a computing unit configured to determine a target hyperlink from the at least one hyperlink, and determine the precision of the touch operation with respect to a center position of the target hyperlink based on the position coordinates of the touch point; and
 an adjusting unit configured to adjust the layout size of the target hyperlink based on the determined precision.

12. The apparatus according to claim 11, wherein the computing unit is further configured to determine an average precision of multiple touch operations with respect to the center position of the target hyperlink based on position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period.

13. The apparatus according to claim 12, wherein the adjusting unit is further configured to compare the average precision P with a reference value N , and when $P < N$, generate adjustment parameters for adjusting the layout size of the target hyperlink, and increase the layout size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters.

14. The apparatus according to claim 13, wherein the adjusting unit is further configured to compare the average precision P with a second reference value M , and when $P \geq M$, decrease the layout size of the target hyperlink by an adjustment value in a predetermined step based on the adjustment parameters, where $M \geq N$.

15. The apparatus according to claim 14, wherein the larger the difference between the average precision P and the reference value N is, or the larger the difference between the average precision P and the second reference value M is, the larger the predetermined step is.

16. The apparatus according to claim 11, wherein if the distance from the touch point position to the center position of a hyperlink is smaller than a predetermined threshold value, the hyperlink is determined as the target hyperlink.

17. The apparatus according to claim 11, wherein the at least one hyperlink comprises two adjacent hyperlinks, and if the distance from the touch point position to the center position of one of the two hyperlinks is smaller than a half of the distance between the respective center positions of the two hyperlinks, one hyperlink of the two hyperlinks which is nearer to the touch point position is determined as the target hyperlink.

18. The apparatus according to claim 11, wherein the computing unit is further configured to calculate the average distance Y_t from multiple touch points to the center position of the target hyperlink based on the position coordinates of multiple touch points formed by multiple continuous touch operations during a latest time period, and configure a monotone decreasing

function of the average distance Y_t as the average precision of the multiple touch operations with respect to the target hyperlink.

19. The apparatus according to claim 18, wherein the distance between the edge line of the hyperlink and its center position is represented by Y_b , and the adjusting unit compares the average distance Y_t with the threshold value Y_{a1} , and when $Y_{a1} < Y_t$, increases the layout size of the target hyperlink by an adjustment value in a predetermined step, where $Y_{a1} \leq Y_b$.

20. The apparatus according to claim 23, wherein when $Y_b < Y_t$, the adjusting unit is further configured to increase the layout size of the hyperlink by an adjustment value $\Delta A1$ in a first predetermined step, and when $Y_{a1} < Y_t \leq Y_b$, the adjusting unit increases the layout size of the hyperlink by an adjustment value $\Delta A2$ in a second predetermined step, where $\Delta A2 < \Delta A1$.

21. A computer program comprising program code adapted to perform the method steps of any one of claims 1 to 10 when said program is run on a computer.