CLAIMS

1. An interactive recommendation method comprising:

displaying information of recommended products in a first area having an original size on a page;

in response to a user's triggering action on a current product in the first area, recording the user's behavior into feature information, wherein the feature information includes user characteristics and product characteristics;

sending information of the current product and the feature information to a server;

receiving information of similar products from the server, wherein the similar products are selected by the server from a product database, and are resulted from sorting and filtering based on the feature information;

inserting a second area having the original size on the page;

displaying the information of the similar products in the second area;

monitoring for a user’s scrolling action along a browsing direction within the second area;

determining whether a number of similar products viewed through the scrolling action exceeds a first threshold; and

dynamically altering a display area of the page by enlarging the size of the second area from the original size to an enlarged size in response to determining the first threshold is exceeded, thereby adapting the display area of the page based on real-time scrolling behavior.

2. The method of claim 1, wherein:

the page's browsing orientation is vertical, with multiple columns arranged horizontally on the page, the width of the original size corresponds to the column width, and the height of the original size corresponds to the height of a product information display area; or,

the page's browsing orientation is horizontal, with multiple rows arranged vertically on the page, the width of the original size corresponds to the width of the product information display area, and the height corresponds to a row height.

3. The method of claim 1, further comprising:

after displaying the information of the similar products in the second area, in response to the user's scrolling action along a browsing direction within the first area, determining whether the number of the recommended products viewed through the scrolling action exceeds a threshold, and if the number of the recommended products viewed through the scrolling action exceeds the threshold, reducing the size of the second area from the original size to a reduced size for display,

while maintaining the display of similar products in the second area as currently viewed similar products, wherein the area of the reduced size is smaller than the area of the original size.

4. The method of claim 3, further comprising:

after reducing the size of the second area from the original size to the reduced size for display, in response to the user's scrolling action along the browsing direction within the second area, determining whether the number of the similar products viewed through the scrolling action exceeds a third threshold, and

if the number of the similar products viewed through the scrolling action exceeds the third threshold, restoring the size of the second area from the reduced size to the original size for display.

5. The method of claim 3, further comprising:

after reducing the size of the second area from the original size to the reduced size for display, in response to the user's rollback operation within the first area, maintaining the size of the second area as the reduced size for continued display, wherein the rollback operation includes a scrolling action directed towards previously browsed recommended products.

6. The method of claim 3, further comprising:

after reducing the size of the second area from the original size to the reduced size for display:

obtaining categories of products that have been exposed in the second area;

sending information of the exposed products to the server;

receiving information of diverse products returned by the server, wherein the diverse products are selected by the server from a product database according to a diversity strategy and sorted and filtered based on the feature information, and in the diversity strategy, the categories of the exposed products are treated with a down-weighting operation; and

displaying the information of the diverse products in the second area.

7. The method of claim 1, further comprising:

after displaying the information of similar products in the second area, in the recommended products within the first area, performing a down-weighting operation on products that belong to the same category as the current product, wherein the down-weighting operation includes lowering a sorting priority or removing from display.

8. The method of claim 1, wherein:

the triggering action is either a click operation on the current product or staying within the display area of the current product for a duration exceeding a specified length,

the user's behavior includes at least one of the following: clicking, adding to cart, bookmarking, or sharing, and

the product features include both static and dynamic features, wherein the dynamic features include product statistical information.

9. A non-transitory computer-readable storage medium configured with instructions executable by one or more processors to cause the one or more processors to perform operations comprising:

displaying information of recommended products in a first area having an original size on a page;

in response to a user's triggering action on a current product in the first area, recording the user's behavior into feature information, wherein the feature information includes user characteristics and product characteristics;

sending information of the current product and the feature information to a server;

receiving information of similar products from the server, wherein the similar products are selected by the server from a product database, and are resulted from sorting and filtering based on the feature information;

inserting a second area having the original size on the page;

displaying the information of the similar products in the second area;

monitoring for a user’s scrolling action along a browsing direction within the second area;

determining whether a number of similar products viewed through the scrolling action exceeds a first threshold; and

dynamically altering a display area of the page by enlarging the size of the second area from the original size to an enlarged size in response to determining the first threshold is exceeded, thereby adapting the display area of the page based on real-time scrolling behavior.

10. The non-transitory computer-readable storage medium of claim 9, wherein:

the page's browsing orientation is vertical, with multiple columns arranged horizontally on the page, the width of the original size corresponds to the column width, and the height of the original size corresponds to the height of a product information display area; or,

the page's browsing orientation is horizontal, with multiple rows arranged vertically on the page, the width of the original size corresponds to the width of the product information display area, and the height corresponds to a row height.

11. The non-transitory computer-readable storage medium of claim 9, wherein the operations further comprise:

after displaying the information of the similar products in the second area, in response to the user's scrolling action along a browsing direction within the first area, determining whether the number of the recommended products viewed through the scrolling action exceeds a second threshold, and

if the number of the recommended products viewed through the scrolling action exceeds the second threshold, reducing the size of the second area from the original size to a reduced size for display, while maintaining the display of similar products in the second area as currently viewed similar products, wherein the area of the reduced size is smaller than the area of the original size.

12. The non-transitory computer-readable storage medium of claim 11, wherein the operations further comprise:

after reducing the size of the second area from the original size to the reduced size for display, in response to the user's scrolling action along the browsing direction within the second area, determining whether the number of similar products viewed through the scrolling action exceeds a third threshold, and

if the number of similar products viewed through the scrolling action exceeds the third threshold, restoring the size of the second area from the reduced size to the original size for display.

13. The non-transitory computer-readable storage medium of claim 11, wherein the operations further comprise:

after reducing the size of the second area from the original size to the reduced size for display, in response to the user's rollback operation within the first area, maintaining the size of the second area as the reduced size for continued display, wherein the rollback operation includes a scrolling action directed towards previously browsed recommended products.

14. The non-transitory computer-readable storage medium of claim 11, wherein the operations further comprise:

after reducing the size of the second area from the original size to the reduced size for display:

obtaining categories of products that have been exposed in the second area;

sending information of the exposed products to the server;

receiving information of diverse products returned by the server, wherein the diverse products are selected by the server from a product database according to a diversity strategy and sorted and filtered based on the feature information, and in the diversity strategy, the categories of the exposed

products are treated with a down-weighting operation; and

displaying the information of the diverse products in the second area.

15. The non-transitory computer-readable storage medium of claim 9, wherein the operations further comprise:

after displaying the information of similar products in the second area, in the recommended products within the first area, performing a down-weighting operation on products that belong to the same category as the current product, wherein the down-weighting operation includes lowering a sorting priority or removing from display.