

Method and Apparatus for Associating User with Friend in Network Community

Field of the Invention

The present invention relates to computer and communication technologies, and more particularly to a method and apparatus for associating a user with a friend in a network community.

Background of the Invention

With the development of Internet, a network community is widely used by users. In the network community, a user may create an own profile which includes pictures and interests, etc., leave word publicly or privately to another user, and participate in a group of other buddies. In order to enhance the relation between users, the network community may recommend a friend to the user. In the present invention, the “user” and “friend” are relative, and for a certain user in the network community, other users may be potential buddies of the user and become objects to be recommended.

In a first conventional technical solution, the network community recommends a friend to the user by using a random recommending mode. In some network communities, the random recommending mode is usually applied to VIP users. Since in the random recommending mode a friend is recommended randomly to the user, the user has no relation with the friend, does not know the friend, and can not understand why the friend is recommended, thus the user lacks motivity of long-term attending to the friend.

In a second conventional technical solution, the network community recommends a friend to the user through a relation chain, which specifically includes: (1) obtaining a friend list of the user; (2) searching a friend list of the user’s friend to search out buddies who do not appear in the friend list of the user; (3) recommending these buddies to the user randomly. The second technical solution is improved compared with the first technical solution, but in practical applications, the friend relation chain of the user and the friend relation chain of the friend may be very different, and thus it is difficult to determine the relation between the user and the friend to be recommended by using the second technical solution, the user may even not know the friend’s friend. In this way, the

friend to be recommended may not be attended to by the user.

Thus, it is needed to provide a new method for associating a user with a friend in a network community, so as to enhance the relation between the user and the friend to be recommended, and further improve the communication between the user and the friend in the network community.

Summary of the Invention

Examples of the present invention provide a method and apparatus for associating a user with a friend in a network community, to enhance the relation between the user and the friend to be recommended.

In order to achieve the above object, the technical solutions provided by the examples of the present invention are implemented as follows.

An apparatus for associating a user and a friend in a network community includes:
an extracting unit, configured to extract a property element from user personal information;

a searching unit, configured to search for resources related to the property element in a network community; and

an associating unit, configured to determine a friend to be recommended according to the resources found by the searching unit, and associate the friend with the user.

A method for associating a user and a friend in a network community includes:

A) extracting a property element from user personal information;

B) searching for resources related to the property element in a network community;
and

C) determining a friend to be recommended according to the resources found, and associating the friend with the user.

It can be seen that the examples of the present invention include: extracting a property element from user personal information, searching for resources related to the property element in the network community, determining a friend to be recommended according to the found resources, and associating the friend with the user. As can be seen, in the examples of the present invention, the user is associated with the friend to be

recommended through the property element, that is to say, the user and the friend to be recommended have a certain relation, so as to enhance the relation between the user and the friend to be recommended, and further improve the communication between the user and the friend in the network community.

5 **Brief Description of the Drawings**

Figure 1 is a schematic diagram illustrating the structure of an apparatus for associating a user with a friend in a network community according to an example of the present invention.

10 Figure 2 is a schematic diagram illustrating the structure of an apparatus for associating a user with a friend in a network community according to another example of the present invention.

Figure 3 is a flowchart illustrating a method for associating a user with a friend in a network community according to an example of the present invention.

15 Figure 4 is a flowchart illustrating a method for associating a user with a friend in a network community according to another example of the present invention.

Detailed Description of the Invention

In order to make the object, technical solutions and merits clearer, the present invention will be illustrated hereinafter in detail with reference to the accompanying drawings and examples.

20 The examples of the present invention include: extracting a property element from user personal information, searching for resources related to the property element in the network community, determining a friend to be recommended according to the found resources, and associating the friend with the user. As can be seen, the examples of the present invention improve the conventional random recommending mode into a
25 directional recommending mode to some degree, so as to enhance the relation between the user and the friend to be recommended, and make the user have a stronger and longer interest in the friend to be recommended.

Figure 1 is a schematic diagram illustrating the structure of an apparatus for associating a user with a friend in a network community according to an example of the present invention. The apparatus includes an extracting unit 10, a searching unit 20 and an associating unit 30.

5 (1) The extracting unit 10 is configured to extract a property element from user personal information.

(2) The searching unit 20 is connected with the extracting unit 10 and is configured to search for resources related to the property element in a network community.

10 (3) The associating unit 30 is connected with the searching unit 20 and is configured to determine a friend to be recommended according to the found resources, and associate the friend with the user.

In an example, the extracting unit 10 determines and extracts the property element in the user personal information, and sends the property element to the searching unit 20.

15 The user personal information includes all information related to the user, e.g. information configured by the user. In an example, the user personal information may include a user personal profile recorded by the user, or contents published by the user, e.g. logs, albums, and emotion words of the user.

20 The property element refers to contents related to an object to be associated with the user in the user personal information, e.g. contents in which other users may be interested. In an example, if the user personal information refers to the user personal profile recorded by the user, the property element may be an interest item in the user personal profile. Of course, the property element may be other contents, as long as the contents relate to the user and may be attended to by other users, which are not limited in the present invention.

25 In an example, the searching unit 20 searches for the resources related to the property element in the network community. The searching unit 20 may be a searching engine in general, and can adopt multiple searching modes. In an example, the searching mode includes taking the property element as a key word, and searching for resources containing the key word in the network community.

The resources in the present invention include all data in the network community. In an example, the resources refer to network logs. Of course, the resources may be albums, the emotion words of the user and so on, which are not used to limit the protection scope of the present invention.

5 In an example, the searching unit 20 searches for the resources according to the property element, returns all network logs with relativity recorded within a predefined period, e.g. 3 days. The relativity, in the simplest case, refers to that the property element appears at least one time in the network log.

10 In an example, the associating unit 30 determines a friend to be recommended according to the found resources, and recommends the friend to the user. In the present invention, the friend to be recommended may be determined through multiple modes, and may also be recommended to the user through multiple modes.

15 In an example, the mode of determining the friend to be recommended by the associating unit 30 includes: performing text relativity analysis for the found resources, selecting a friend with a relativity reaching a threshold, and determining the friend as a friend to be recommended. The relativity may be calculated by using multiple modes. For example, the times that the property element appears in the resources is counted, the threshold of the relativity is defined as K; if the times that the property element appears in the resources reaches K, a friend corresponding to the resources is determined as the friend to be recommended. In an example of the present invention, the relativity may be represented through multiple modes. For example, the relativity may be presented to the user through a value, e.g. a percent value, so as to make the user determine the friend to be accepted according to the value. Of course, the above mode is not used to limit the protection scope of the present invention.

25 In an example, the mode of recommending the friend to the user by the associating unit 30 includes: listing the friend in a recommendation list, and displaying the recommendation list on a user interface. Of course, the mode is not used to limit the protection scope of the present invention.

30 Figure 2 is a schematic diagram illustrating the structure of an apparatus for associating a user with a friend in a network community according to another example of

the present invention. The apparatus includes an extracting unit 10, a searching unit 20, an associating unit 30 and a defining unit 40.

The defining unit 40 is connected with the extracting unit 10 and the searching unit 30, and is configured to automatically append a definitive to the extracted property
5 element, and send the property element with the definitive to the searching unit 30. In an example, the user records in the user personal profile that “a teleplay watched currently” is “our marriage”; if the property element extracted by the extracting unit 10 is “our marriage”, in order to control the relativity, the defining unit 40 automatically appends a definitive to the property element according to preset functions, e.g. appends “teleplay” to
10 “our marriage”, and then searches for the resources according to the combination of “teleplay” and “our marriage”.

The foregoing describes the apparatus provided by the examples of the present invention, and the method is described hereinafter with reference to specific examples of the present invention.

15 Figure 3 is a flowchart illustrating a method for associating a user with a friend in a network community according to an example of the present invention. The method includes the following steps.

In step S301, a property element is extracted from user personal information;

20 In step S302, resources related to the property element is searched for in a network community; and

In step S303, a friend to be recommended is determined according to the found resources, and the friend is associated with the user.

In step S301, the user personal information includes all information related to the user, e.g. information configured by the user. In an example, the user personal
25 information may include a user personal profile recorded by the user, or contents published by the user, e.g. logs, albums, and emotion words of the user.

The property element refers to contents in which other users may be interested. In an example, if the user personal information refers to the user personal profile recorded by

the user, the property element may be an interest item in the user personal profile. Of cause, the property element may be other contents, as long as the contents relate to the user and may be attended to by other users, which are not limited in the present invention.

In step S302, there are multiple searching modes. In an example, the searching mode
5 includes taking the property element as a key word, and searching for resources containing the key word in the network community.

The resources in the present invention include all data in the network community. In an example, the resources refer to network logs. Of cause, the resources may be albums, the emotion words of the user and so on, which are not used to limit the protection scope
10 of the present invention.

In an example, the searching in step S302 may be performed according to the property element, return all network logs with relativity recorded within a predefined period, e.g. 3 days. The relativity, in the simplest case, refers to that the property element appears at least one time in each network log.

15 In step S303, the friend to be recommended may be determined through multiple modes, and may also be recommended to the user through multiple modes.

In an example, the mode of determining the friend to be recommended includes: performing text relativity analysis for the found resources, selecting a friend with a relativity reaching a threshold, and determining the friend as a friend to be recommended.
20 The relativity may be calculated by using multiple modes. For example, the times that the property element appears in the resources is counted, the threshold of the relativity is defined as K; if the times that the property element appears in the resources reaches K, a friend corresponding to the resources is determined as the friend to be recommended. In an example of the present invention, the relativity may be represented through multiple
25 modes. For example, the relativity may be presented to the user through a value, e.g. a percent value, so as to make the user determine the friend to be accepted according to the value. Of cause, the above mode is not used to limit the protection scope of the present invention.

In an example, the mode of recommending the friend to the user in step S303

includes: listing the friend in a recommendation list, and displaying the recommendation list on a user interface. Of course, the mode is not used to limit the protection scope of the present invention.

Figure 4 is a flowchart illustrating a method for associating a user with a friend in a network community according to another example of the present invention. The method includes the following steps.

In step S401, priorities are allocated to contents recorded in the interest item of the user personal profile. In this step, the objective of allocating the priorities is to find an element making strangers become friends more easily. In an example, the priorities are defined according to the recording amount and update frequency of the user, and potential commercial merits; e.g. the priorities include multiple levels, and a mapping relation is established between different interest items and the levels.

In step S402, an interest item with the highest priority is extracted and is taken as a property element. In an example, the priority of the most expectant film, the currently played game and the fondest perfume brand is higher than the priority of the most adept sport.

In step S403, a definitive is appended to the interest item, and the interest item with the definitive is taken as a key word.

In an example, the user records in the user personal profile that “a teleplay watched currently” is “our marriage”; if the property element extracted in step S402 is “our marriage”, in order to control the relativity, in step S402 a definitive is automatically appended to the property element, e.g. “teleplay” is appended to “our marriage”, and then the resources is searched for according to the combination of “teleplay” and “our marriage”.

In step S404, resources related to the key word are searched for in the network community. The searching mode is similar to the conventional searching mode.

In step S405, text relativity analysis is performed for the found resources, and a friend with the highest relativity is determined as a friend to be recommended.

In step S406, the friend is listed in a recommendation list, and the recommendation list is displayed on a user interface. It should be noted that other recommending modes can be used except the above mode.

5 The foregoing is only preferred embodiments of the present invention and is not for use in limiting the protection scope of the present invention. Any modification, equivalent replacement and improvement made within the scope of the present invention should be covered under the protection scope of the present invention.

Claims

What is claimed is:

1. An apparatus for associating a user with a friend in a network community, comprising:

5 an extracting unit, configured to extract a property element from user personal information;

 a searching unit, configured to search for resources related to the property element in a network community; and

 an associating unit, configured to determine a friend to be recommended according
10 to the resources found by the searching unit, and associate the friend with the user.

2. The apparatus of claim 1, wherein the user personal information comprises at least one of a user personal profile and contents published by the user.

15 3. The apparatus of claims 1 or 2, wherein the user personal information comprises an interest item of the user, and the interest item records information contents in which the user is interested; and

 the extracting unit is configured to allocate priorities to the information contents recorded in the interest item in the user personal information, and determine information
20 contents with the highest priority as the property element to be extracted currently.

4. The apparatus of claim 3, further comprising:

 a defining unit, configured to automatically append a definitive to the property element extracted by the extracting unit, and send the property element with the definitive
25 to the searching unit;

 the searching unit is configured to take the received property element with the definitive as a key word, search for resources containing the key word in the network community or search for resources which contains the key word and is published within a predefined period in the network community.

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5. The apparatus of claims 1 or 4, wherein the resources comprise a network log.

6. The apparatus of claim 1, wherein a relativity threshold is configured in the associating unit;

the associating unit is configured to perform text relativity analysis for the resources
5 found by the searching unit, and determine a friend with the relativity reaching the relativity threshold as the friend to be recommended.

7. The apparatus of claims 1 or 6, wherein the associating unit is configured to list the friend to be recommended in a recommendation list, and display the recommendation
10 list on a user interface.

8. A method for associating a user with a friend in a network community, comprising:

A) extracting a property element from user personal information;
15 B) searching for resources related to the property element in a network community;
and
C) determining a friend to be recommended according to the resources found, and associating the friend with the user.

20 9. The method of claim 8, wherein the user personal information in the step A) comprises at least one of a user personal profile and contents published by the user.

10. The method of claims 8 or 9, wherein the user personal information comprises an interest item of the user, and the interest item records information contents in which the
25 user is interested; the step A) comprises:

A1) allocating priorities to the information contents recorded in the user interest item in the user personal information;

A2) determining information contents with the highest priority as the property element to be extracted currently.

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11. The method of claim 8, further comprising between the step A) and the step B):
automatically appending a definitive to the extracted property element; and
the step B) comprises:

taking the property element with the definitive as a key word, and searching for resources containing the key word in the network community; or

5 taking the property element with the definitive as a key word, and searching for resources which contains the key word and is published within a predefined period in the network community.

12. The method of claims 8 or 11, wherein the resources comprise a network log.

10 13. The method of claim 8, further comprising before the step C): configuring a relativity threshold;

the determining the friend to be recommended in the step C) comprises: performing text relativity analysis for the resources found, and determining a friend with the relativity reaching the relativity threshold as the friend to be recommended.

15 14. The method of claims 8 or 13, wherein associating the friend to the user in the step C) comprises: listing the friend to be recommended in a recommendation list, and displaying the recommendation list on a user interface.