Title: METHOD AND APPARATUS FOR PROCESSING INFORMATION

Abstract: According to an embodiments, the server provides a webpage containing an information entry area and a contact information entry area to a first terminal with a hardware keyboard of a transmitting-side user, wherein the server stores a relationship between identification information of the first terminal and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user. The server receives the first terminal information to be sent to the receiving-side user and contact information of the receiving-side user. The server transmits the information and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to the receiving-side user according to the contact information.
METHOD AND APPARATUS FOR PROCESSING INFORMATION

PRIORITY STATEMENT
[0001] This application claims the benefit of Chinese Patent Application No. 201310300473.9, filed on July 17, 2013, the disclosure of which is incorporated herein in its entirety by reference.

FIELD
[0002] The present disclosure relates to information processing techniques, and more particularly, to a method and an apparatus for processing information.

BACKGROUND
[0003] With the development of network techniques and information techniques, people may send messages (such as short messages, emails, instant messages, etc.) to others via push-button telephones, smartphones, tablet computers, and many other types of handheld, palmtop or wearable devices anytime and anywhere.
[0004] Usually, push-button telephones are equipped with push-buttons or keys for dialing a telephone number to place a call or sending a message to another telephone subscriber. The smartphones or tablet computers are equipped with touchscreens that users can input messages with one or more fingers. These handheld and palmtop devices have no hardware keyboard.
[0005] With the help of wireless keyboards, users may input information more conveniently. Based on technologies such as infrared technology, blue-tooth technology and radio frequency technology, wireless signals may be transmitted between the wireless keyboard and their parent devices, i.e., the above described handheld and palmtop devices of the users.

SUMMARY
[0006] According to an embodiment of the present disclosure, a method
for processing information is provided. The method includes:

providing, by a server, a webpage containing an information entry area and a contact information entry area to a first terminal with a hardware keyboard of a transmitting-side user, wherein the server stores a relationship between identification information of the first terminal and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user; the information entry area allows the transmitting-side user to input information to be sent to a receiving-side user, and the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user;

receiving, by the server from the first terminal, information to be sent to the receiving-side user and contact information of the receiving-side user; and

transmitting, by the server, the information and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to the receiving-side user according to the contact information.

[0007] According to another embodiment of the present disclosure, a method for processing information is provided. The method includes:

scanning, by a second terminal of a transmitting-side user, a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, to obtain the identification information of the first terminal;

transmitting, an association request carrying the identification information of the first terminal and an account of the transmitting-side user for logging in an application in the second terminal to a server, such that the server stores a relationship between the identification of the first terminal and the account of the transmitting-side user;

receiving, information to be sent to a receiving-side user and contact information of the receiving-side user from the server; wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship; and

transmitting, by the second terminal, the information to the receiving-side user according to the contact information.
According to still another embodiment of the present disclosure, a server is provided. The server includes:

one or more processors;
memory; and

one or more program modules stored in the memory and to be executed by the one or more processors, the one or more program modules including:

a storage module, to store a relationship which associates identification information of a first terminal with a hardware keyboard of a transmitting-side user and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user;

a processing module, to provide a webpage containing an information entry area and a contact information entry area to the first terminal, wherein the information entry area in the webpage allows a transmitting-side to input information to be sent to a receiving-side user; the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user;

a receiving module, to receive from the first terminal, the information to be sent to the receiving-side user and the contact information of the receiving-side user; and

a transmitting module, to transmit the information to be sent and the contact information to the second terminal according to the relationship stored in the storage module, such that the second terminal transmits the information to the receiving-side user according to the contact information.

According to still another embodiment of the present disclosure, a second terminal is provided. The second terminal includes:

one or more processors;
memory; and

one or more program modules stored in the memory and to be executed by the one or more processors, the one or more program modules including:

a scanning module, to scan a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, to obtain the identification information of the first terminal;

a generating module, to generate an association request carrying the
identification information of the first terminal and an account of the transmitting-side user for logging in an application in the second terminal and transmit the association request to a server, such that the server stores a relationship which associates the identification information of the first terminal with the account of the transmitting-side user; and

a processing module, to receive information to be sent to a receiving-side user and contact information of the receiving-side user from the server and transmit the information to the receiving-side user according to the contact information;

wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship.

[0010] According to still another embodiment of the present disclosure, a non-transitory computer-readable storage medium comprising a set of instructions for processing information is provided, the set of instructions to direct at least one processor to perform acts of:

providing, by a server, a webpage containing an information entry area and a contact information entry area to a first terminal with a hardware keyboard of a transmitting-side user, wherein the server stores a relationship between identification information of the first terminal and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user; the information entry area allows the transmitting-side user to input information to be sent to a receiving-side user, and the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user;

receiving, by the server from the first terminal, information to be sent to the receiving-side user and contact information of the receiving-side user; and

transmitting, by the server, the information and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to the receiving-side user according to the contact information.

[0011] According to still another embodiment of the present disclosure, a non-transitory computer-readable storage medium comprising a set of instructions for processing information is provided, the set of instructions to
direct at least one processor to perform acts of:

scanning, by a second terminal of a transmitting-side user, a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, to obtain the identification information of the first terminal;

transmitting, an association request carrying the identification information of the first terminal and an account of the transmitting-side user for logging in an application in the second terminal to a server, such that the server stores a relationship between the identification of the first terminal and the account of the transmitting-side user;

receiving, information to be sent to a receiving-side user and contact information of the receiving-side user from the server; wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship; and

transmitting, by the second terminal, the information to the receiving-side user according to the contact information.

[0012] Other aspects or embodiments of the present disclosure can be understood by those skilled in the art in light of the description, the claims, and the drawings of the present disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Features of the present disclosure are illustrated by way of embodiment and not limited in the following figures, in which like numerals indicate like elements, in which:

FIG. 1 shows an embodiment of a network system for processing information according to the present disclosure;

FIG. 2 shows an embodiment of a method for processing information in the network system as shown in FIG. 1 according to the present disclosure.

FIG. 3 shows an embodiment of a method for processing information according to the present disclosure;

FIG. 4 shows another embodiment of a method for processing
information according to the present disclosure;

FIG. 5 shows still another embodiment of a method for processing information according to the present disclosure;

FIG. 6 shows an embodiment of a server for processing information according to the present disclosure; and

FIG. 7 shows an embodiment of a second terminal for processing information according to the present disclosure.

DETAILED DESCRIPTION

[0014] The present disclosure will be described in further detail hereinafter with reference to accompanying drawings and embodiments to make the technical solution and merits therein clearer.

[0015] For simplicity and illustrative purposes, the present disclosure is described by referring to embodiments. In the following description, numerous specific details are set forth in order to provide a thorough understanding of the present disclosure. It will be readily apparent however, that the present disclosure may be practiced without limitation to these specific details. In other instances, some methods and structures have not been described in detail so as not to unnecessarily obscure the present disclosure. As used herein, the term "includes" means includes but not limited to, the term "including" means including but not limited to. The term "based on" means based at least in part on. In addition, the terms "a" and "an" are intended to denote at least one of a particular element.

[0016] Current handheld and palmtop devices such as smartphones and tablet computers are usually equipped with touchscreens that users can input messages with one or more fingers. If the user wants to input a large amount of information, it may be inconvenient and inefficient to use a virtual keyboard displayed on the touchscreen. At this time, a hardware keyboard may be of big help. However, the handheld and palmtop devices are usually not equipped with hardware keyboard. Although the user may use a wireless keyboard which is coupled to the handheld or palmtop device based on technologies such as blue-tooth, infrared and radio frequency, the additional wireless keyboard increases the cost of the user.
[0017] Devices such as desktop computers and laptop computers are equipped with hardware keyboard. In various embodiments of the present disclosure, this hardware keyboard is utilized to input the information to be sent.

[0018] FIG. 1 shows an embodiment of a network system for processing information according to the present disclosure. As shown in FIG. 1, the network system 100 includes a communication network 110, a transmitting-side 120 of a transmitting-side user, a server 130 and a receiving-side terminal 140 of a receiving-side user.

[0019] The transmitting-side 120 includes a first terminal 120-a and a second terminal 120-b.

[0020] The first terminal 120-a is a device with a hardware keyboard 124, such as a personal desktop computer, a laptop computer, etc. In embodiments of the present disclosure, the hardware keyboard 124 refers to a physical keyboard, e.g., a physical keyboard with a full QWERTY layout. The transmitting-side user may input information to be sent to the receiving-side user using the keyboard 124 of the first terminal 120-a.

[0021] The first terminal 120-a includes communication software to enable the transmitting-side user to access the server 130 through an application installed in the first terminal 120-a, e.g., open at least one webpage provided by the server 130 through a browser installed in the first terminal 120-a.

[0022] The second terminal 120-b is a handheld or palmtop or wearable device. It may, for example, be a smartphone, a push-button telephone, a tablet computer, etc. The second terminal 120-b may have a virtual keyboard provided by an operating system or an application program installed in the second terminal 120-b.

[0023] The second terminal 120-b includes communication software to enable the transmitting-side user to access the server 130 through an application software installed in the second terminal 120-b, such as a contact application which provides functions for backing up contacts, messages, and so on to the server 130. In one embodiment, the contact application may further provide a scan function to scan a barcode in the at least one webpage opened by the browser of the first terminal 120-a. The transmitting-side user may log in the application installed in the second terminal 120-b using an account. For example, the account may be an instant messaging (IM) account.
The receiving-side terminal 140 may, for example, be a device such as a smart phone, a push-button telephone, a personal desktop computer, a laptop computer, a tablet computer, etc. The receiving-side terminal 140 receives the information transmitted by the second terminal 120-b via the communication network 110.

The server 130 in FIG. 1 represents a computer system that is made available to the transmitting-side 120 via the communication network 110. Various hardware components (not shown in FIG. 1) such as external monitors, keyboards, mice, hard disk drives, magnetic tapes, and other devices may be used in conjunction with server 130.

The server 130 may include a user profile server (not shown) connected to a database (not shown) for storing large amounts of user profile data. The user profile server may be used to enter, retrieve, edit, manipulate or otherwise process user profile data. In one embodiment, a user's profile data includes, for example, user name, contact list, messages, etc. The transmitting-side user may enter, edit and/or delete profile data through a platform (such as a webpage) provided by the server 130. The database may further store a relationship which associates the first terminal 120-a with the second terminal 120-b.

FIG. 2 shows an embodiment of a method for processing information in the network system 100 according to the present disclosure.

At 210, the first terminal 120-a transmits an access request to the server 130.

The transmitting-side user may enter a universal resource locator (URL) in the browser of the first terminal 120-a, to trigger the first terminal 120-a to transmit the access request to the server 130.

At 220, the server 130 obtains identification information such as an IP address or a MAC address of the first terminal 120-a, generates a barcode according to the identification information of the first terminal 120-a and provides a webpage containing the barcode to the first terminal 120-a.

In one embodiment, before block 220, the method may further includes blocks 212 ~ 213.

At 212, the server 130 provides a webpage containing a button for obtaining the barcode to the first terminal 120-a.
At 213, the transmitting-side user clicks the button to request the server 130 to generate the barcode.

In embodiments of the present disclosure, the barcode may be a linear barcode or a two-dimensional barcode or any other types of barcodes which is a machine-readable representation of identification information of the first terminal 120-a. The identification information of the first terminal 120-a may be an IP address or a MAC address of the first terminal 120-a.

At 230, the second terminal 120-b scans the barcode in the webpage displayed on the first terminal 120-a to obtain the identification information of the first terminal 120-a.

At 240, the second terminal 120-b sends the identification information of the first terminal 120-a and an account of the transmitting-side user for logging in an application in the second terminal 120-b to the server 130.

At 250, after receiving the identification information of the first terminal 120-a and the account of the transmitting-side user for logging in the application in the second terminal 120-b, the server 130 stores a relationship between the identification information of the first terminal 120-a and the account of the transmitting-side user.

Thereafter, the transmitting-side user may input information using the keyboard 124 of the first terminal 120-a as if the keyboard 124 is a wireless keyboard of the second terminal 120-b. The server 130 receives the information inputted by the transmitting-side user using the first terminal 120-a, and instructs the second terminal 120-b to transmit the information to the receiving-side terminal 140.

In one embodiment of the present disclosure, after the server 130 stores the relationship, the method may further include a block 252 in which the server 130 returns a response to the second terminal 120-b, indicating that the relationship has been established.

At 260, the server 130 provides a webpage containing an information entry area and a contact information entry area to the first terminal 120-a, wherein the information entry area allows the transmitting-side user to input information to be sent to the receiving-side user, and the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user.
At 270, the first terminal 120-a obtains information to be sent to the receiving-side user and contact information of the receiving-side user entered by the transmitting-side user.

In one embodiment, the transmitting-side user may input the information to be sent to the receiving-side user in the information entry area in the webpage provided by the server 130 using the keyboard 124 of the first terminal 120-a. The information to be sent to the receiving-side user may be a short message service (SMS) message, a multimedia messaging service (MMS) message, an instant messaging (IM) message, an email, and so on. Contents of the information to be sent to the receiving-side user may include, for example, text, image, audio, video, etc.

The transmitting-side user may enter the contact information of the receiving-side user in the contact information entry area in the webpage provided by the server 130. The contact information may be a telephone number, an email address or an instant messaging account of the receiving-side user.

In one embodiment, the contact information entry area may be a text entry area. At this time, the transmitting-side user may input the contact information of the receiving-side user using the keyboard 124 of the first terminal 120-a.

In another embodiment, the contact information entry area may be a list such as a dropdown list which includes contact information of a plurality of contacts of the transmitting-side user. At this time, the transmitting-side user may select the contact information of the receiving-side user from the list.

At 280, the first terminal 120-a submits the information and contact information of the receiving-side user to the server 130.

At 290, the server 130 transmits the information and the contact information of the receiving-side user to the second terminal 120-b.

At 300, the second terminal 120-b transmits the information to the receiving-side user according to the contact information.

Based on the barcode, the identification information of the first terminal 120-a is associated with the account of the transmitting-side user for logging in the application in the second terminal 120-b by the server 130. Thus, when desiring to send information to the receiving-side user, the
transmitting-side user may input information using the hardware keyboard 124 of the first terminal 120-a. The server 130 forwards the information inputted by the transmitting-side user to the second terminal 120-b according to the relationship, and then the second terminal 120-b sends the information to the receiving-side user.

[0050] Thus, the transmitting-side user may input information more conveniently and rapidly. In addition, the user does not have to use additional wireless keyboard, which reduces the cost of the user.

[0051] FIG. 3 shows an embodiment of a method for processing information according to the present disclosure. FIG. 3 is a simplified diagram according to one embodiment of the present invention. This diagram is merely an embodiment, which should not unduly limit the scope of the claims. One of ordinary skill in the art would recognize many variations, alternatives, and modifications.

[0052] As shown in FIG. 3, the method includes the following processes.

[0053] At block S301, a server generates a barcode representing identification information of a first terminal and provides the barcode to the first terminal via a webpage.

[0054] In this embodiment, the first terminal is a device with a hardware keyboard of a transmitting-side user. The barcode may be a linear barcode or a two-dimensional barcode or any other types of barcodes which is a machine-readable representation of identification information of the first terminal.

[0055] The identification information may be an IP address or a MAC address of the first terminal.

[0056] The transmitting-side user may input a universal resource locator (URL) in a browser of the first terminal, to trigger the first terminal to transmit an access request to the server.

[0057] In one embodiment, after receiving the access request, the server generates the barcode according to the identification information of the first terminal and provides the webpage containing the barcode to the first terminal.

[0058] In another embodiment, after receiving the access request, the server provides a webpage containing a button for obtaining the barcode to the first terminal. The transmitting-side user may click the button to transmit a
request to the server. After receiving the request, the server generates the barcode for the first terminal and provides a webpage containing the barcode to the first terminal.

[0059] At block S302, the server receives an association request carrying identification information of the first terminal and an account of the transmitting-side for logging in an application in a second terminal from the second terminal, and stores a relationship which associates the identification information of the first terminal and the account of the transmitting-side user, wherein the association request is generated by the second terminal through scanning the barcode of the first terminal.

[0060] After receiving webpage containing the barcode, the first terminal displays webpage containing the barcode to the transmitting-side user. The transmitting-side user may scan the barcode of the first terminal using the application installed in the second terminal to obtain the identification information of the first terminal. Then, the second terminal transmits the identification information of the first terminal and the account of the transmitting-side user to the server via the association request.

[0061] After receiving the association request, the server stores the relationship which associates the identification information of the first terminal and the account of the transmitting-side user.

[0062] At block S303, the server provides another webpage to the first terminal, wherein the webpage contains an information entry area and a contact information entry area.

[0063] The information entry area allows the transmitting-side user to input the information to be sent to the receiving-side user. The contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user.

[0064] At block S304, the server receives from the first terminal information to be sent to the receiving-side user and contact information of the receiving-side user, and transmits the information to be sent and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to be sent to the receiving-side user according to the contact information.

[0065] After receiving the association request and storing the relationship
between the identification information of the first terminal and the account of the transmitting-side user, the server provides a webpage to the first terminal, wherein the webpage contains an information entry area which allows the transmitting-side user to input the information to be sent to the receiving-side user. The webpage further includes a contact information entry area. The transmitting-side user may input the contact information of the receiving-side user in the contact information entry area.

[0066] After finishing the input of the information to be sent and the contact information of the receiving-side user, the transmitting-side user clicks a "transmit" button on the webpage to trigger the first terminal to transmit the information to be sent and the contact information of the receiving-side user to the server.

[0067] After receiving the information to be sent and the contact information of the receiving-side user from the first terminal, the server and transmits the information to be sent and the contact information of the receiving-side user to the second terminal according to the relationship, such that the second terminal transmits the information to be sent to the receiving-side user.

[0068] In one embodiment, block S304 may specifically include the following.

[0069] At block S3042, the server receives the information to be sent inputted by the transmitting-side user.

[0070] At block S3044, the server determines the contact information of the receiving-side user.

[0071] In this embodiment, the contact information of the receiving-side user may be a telephone number, an email address or an instant messaging account inputted by the transmitting-side user in the webpage. Or, the contact information of the receiving-side user may be selected by the transmitting-side user from a list in the webpage.

[0072] In this embodiment, the server may provide contact information of contacts associated with the first terminal on the webpage. The transmitting-side user may select the contact information of the receiving-side user from the contact information displayed in the webpage.

[0073] It should be noted that, blocks S2042 and S2044 may be executed
by any order.

[0074] At block S3046, after receiving the information to be sent from the first terminal, the server transmits the information to be sent to the second terminal according to the relationship.

[0075] At block S3048, the server transmits the contact information of the receiving-side user to the second terminal, such that the second terminal transmits the information to be sent to the receiving-side user according to the contact information.

[0076] It should be noted that, blocks S3046 and S3048 may also be executed by any order. In addition, the contact information of the receiving-side user and the information to be sent may be transmitted to the second terminal together or independently.

[0077] After receiving the information to be sent and the contact information, the second terminal transmits the information to the receiving-side terminal according to the contact information received, so as to finish the transmission of the information.

[0078] Through the above block 302, the server has stored the relationship between the first terminal and the second terminal. Therefore, when the transmitting-side user inputs information next time using the keyboard of the first terminal, there is no need to associate the first terminal and the second terminal again. At this time, the server may directly provide a webpage containing the information entry area and the contact information entry area to the first terminal.

[0079] FIG. 4 shows an embodiment of a method for processing information according to the present disclosure. As shown in FIG. 4, the method includes the following.

[0080] At block S401, a server provides a webpage containing an information entry area and a contact information entry area to the first terminal, wherein the server stores a relationship between identification information of the first terminal and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user.

[0081] The transmitting-side user may enter a URL in a browser of the first terminal, requesting the server to provide the webpage to the first terminal.

[0082] In this embodiment, the server determines that there is a
relationship stored in the server which associates the identification information of first terminal with an account of the transmitting-side user for logging in an application in the second terminal. Therefore, it is not required to establish the relationship again. In response to the determination, the server provides the webpage containing the information entry area and the contact information entry area to the first terminal.

[0083] At block S402, the server receives from the first terminal information to be sent to a receiving-side user and contact information of the receiving-side user.

[0084] The transmitting-side user may input the information to be sent to a receiving-side user in the information entry area and enter contact information of the receiving-side user in the contact information entry area.

[0085] Transmitting-side user may click a "transmit" button in the webpage to trigger the first terminal to transmit the information to be sent and the contact information to the server.

[0086] At block S403, the server transmits the information to be sent and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to the receiving-side user according to the contact information.

[0087] After receiving the information to be sent, the second terminal transmits the information to the receiving-side user according to the contact information received, so as to finish the transmission of the information.

[0088] The blocks S402-S403 are similar to blocks S3042 ~ S3048 and are therefore not repeated herein.

[0089] In one embodiment, after the second terminal transmits the information to the receiving-side user, the method may further includes the following.

[0090] At block S404, the server receives from the second terminal response information returned by the receiving-side user.

[0091] The response information may be a short message, an email or an instant message returned by the receiving-side user in response to the information transmitted by the second terminal.

[0092] At block S405, the server provides the response information to the first terminal.
[0093] In one embodiment, the response information may be displayed in association with the information transmitted to the receiving-side user.

[0094] Through the above blocks S404 and S405, the transmitting-side user may see the response information returned by the receiving-side user conveniently.

[0095] FIG. 5 shows an embodiment of a method for processing information according to the present disclosure. As shown in FIG. 5, the method includes the following.

[0096] At block S501, a second terminal of a transmitting-side user scans a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, so as to obtain the identification information of the first terminal.

[0097] In one embodiment, the second terminal may scan the barcode using application software installed in the second terminal, e.g., a contact application, an email application, and so on. The transmitting-side user may log in the application using an account. When using the application software, the user enables a scanning function of the application software to scan the barcode displayed on the first terminal.

[0098] At block S502, the second terminal transmits an association request carrying the identification information of the first terminal and the account of the transmitting-side for logging in the application in the second terminal to the server, such that the server stores a relationship which associates the identification information of the first terminal with the account of the transmitting-side user.

[0099] At block S503, the second terminal receives information to be sent to a receiving-side user and contact information of the receiving-side user from the server, and transmits the information to the receiving-side user according to the contact information.

[0100] In this block, the information to be sent to the receiving-side user and the contact information of the receiving-side user are entered by the transmitting-side user on the first terminal.

[0101] In one embodiment, after the above block S503, the method may further include the following.

[0102] At block S504, the second terminal receives response information
returned by the receiving-side user and transmits the response information to
the server.

[0103] The server may provide the response information to the first
terminal. Thus, the transmitting-side user may see response information
returned by the receiving-side user conveniently.

[0104] The response information may be a short message, an email or an
instant message returned by the receiving-side user in response to the
information transmitted by the second terminal. The response information may
be displayed in association with the information transmitted to the
receiving-side user.

[0105] Based on the barcode, the identification information of the first
terminal is associated with the account of the transmitting-side user for logging
in the application in the second terminal by the server. Thus, when desiring to
send information to the receiving-side user, the transmitting-side user may input
information using the hardware keyboard of the first terminal. The server
forwards the information inputted by the transmitting-side user to the second
terminal according to the relationship, and then the second terminal sends the
information to the receiving-side user.

[0106] Thus, the transmitting-side user may input information more
conveniently and rapidly. The user does not have to use additional wireless
keyboard, which reduces the cost of the user.

[0107] FIG. 6 shows an embodiment of a server for processing information
according to the present disclosure. As shown in FIG. 6, the server 600
includes: a processor 610, a memory 620 and a communication module 630.
The communication module 630 includes a port to connect to a communication
network. The memory 620 stores one or more program modules to be
executed by the processor 610. The one or more program modules include:

- a storage module 601, to store a relationship which associates
identification information of a first terminal with a hardware keyboard of a
transmitting-side user and an account of the transmitting-side user for logging
in an application in a second terminal of the transmitting-side user;

- a processing module 602, to provide a webpage containing an information
entry area and a contact information entry area to the first terminal, wherein the
information entry area in the webpage allows a transmitting-side to input using

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the hardware keyboard of the first terminal information to be sent to a
receiving-side user; the contact information entry area allows the
transmitting-side user to enter contact information of the receiving-side user;

a receiving module 603, to receive from the first terminal, the information to
be sent to the receiving-side user and the contact information of the
receiving-side user; and

a transmitting module 604, to transmit the information to be sent and the
contact information of the receiving-side user to the second terminal according
to the relationship stored in the storage module 601, such that the second
terminal transmits the information to the receiving-side user according to the
contact information.

[0108] In one embodiment, the processing module 602 is further to
generate a barcode representing the identification information of the first
terminal based on the identification information of the first terminal, and provide
the barcode to the first terminal.

[0109] The receiving module 603 is further to receive an association
request carrying the identification information of the first terminal and the
account of the transmitting-side user. The association request is transmitted by
the second terminal in response to scanning the barcode representing the
identification information of the first terminal.

[0110] In one embodiment, the receiving module 603 is further to receive
from the second terminal response information returned by the receiving-side
user. The transmitting module 604 is further to provide the response
information to the first terminal. Thus, the transmitting-side user may see
response information returned by the receiving-side user conveniently.

[0111] The response information may be a short message, an email or an
instant message returned by the receiving-side user in response to the
information transmitted by the second terminal. The response information may
be displayed in association with the information transmitted to the
receiving-side user.

[0112] The server 600 may further include other components such as
display, keyboard, mass storage device, etc. For simplicity, these components
are not shown in FIG. 6.

[0113] FIG. 7 shows an embodiment of a second terminal for processing
information according to the present disclosure. As shown in FIG. 7, the second terminal 700 includes: a processor 710, a memory 720, and a communication module 730. The communication module 730 is to connect the second terminal 700 to a communication network. The memory 720 stores one or more program modules to be executed by the processor 710. The one or more program modules include:

- a scanning module 701, to scan a barcode representing identification information of a first terminal with a hardware keyboard of a transmitting-side user displayed on the first terminal, so as to obtain the identification information of the first terminal;

- a generating module 702, to generate an association request carrying the identification information of the first terminal and an account of the transmitting-side user for logging in an application in the second terminal and transmit the association request to a server, such that the server stores a relationship which associates the identification information of the first terminal with the account of the transmitting-side user; and

- a processing module 703, to receive information to be sent to a receiving-side user and contact information of the receiving-side user from the server and transmit the information to the receiving-side user according to the contact information;

wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship.

[0114] In one embodiment, the processing module 703 is further to receive response information returned by the receiving-side user, and transmit the response information to the server. Thus, the server may provide the response information to the first terminal. The transmitting-side user may see response information returned by the receiving-side user conveniently.

[0115] The response information may be a short message, an email or an instant message returned by the receiving-side user in response to the information transmitted by the second terminal. The response information may be displayed in association with the information transmitted to the receiving-side user.

[0116] As shown in FIG. 7, the second terminal 700 may further include a
display controller 740 and a touchscreen 750. It should be noted that, the second terminal 700 may further includes other components such as battery, camera, speaker which are not shown in FIG. 7.

[0117] The memory in the embodiments of the present disclosure is non-transitory processor-readable storage media which may be, for example, a RAM memory, flash memory, ROM memory, EPROM memory, EEPROM memory, registers, hard disk, a removable disk, a CD-ROM, or any other form of non-transitory storage medium known in the art.

[0118] What has been described and illustrated herein is an embodiment of the disclosure along with some of its variations. The terms, descriptions and figures used herein are set forth by way of illustration only and are not meant as limitations. Many variations are possible within the spirit and scope of the disclosure, which is intended to be defined by the following claims -- and their equivalents -- in which all terms are meant in their broadest reasonable sense unless otherwise indicated.
What is claimed is:

1. A method for processing information, comprising:
   providing, by a server, a webpage containing an information entry area and a contact information entry area to a first terminal with a hardware keyboard of a transmitting-side user, wherein the server stores a relationship between identification information of the first terminal and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user; the information entry area allows the transmitting-side user to input information to be sent to a receiving-side user, and the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user;
   receiving, by the server from the first terminal, information to be sent to the receiving-side user and contact information of the receiving-side user; and
   transmitting, by the server, the information and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to the receiving-side user according to the contact information.

2. The method of claim 1, further comprising:
   before providing the webpage to the first terminal, generating, by the server, a barcode representing identification information of the first terminal;
   providing, by the server, the barcode to the first terminal;
   receiving, by the server from the second terminal, an association request carrying the identification information of the first terminal and the account of the transmitting-side user, wherein the association request is generated by the second terminal through scanning the barcode of the first terminal; and
   storing, by the server, the relationship between the identification information of the first terminal and the account of the transmitting-side user.

3. The method of claim 1 or 2, further comprising:
   receiving, by the server from the second terminal, response information
4. The method of claim 1, wherein the identification information of the first terminal comprises an IP address or a media control access (MAC) address of the first terminal; and

the account of the transmitting-side user for logging in the application in the second terminal comprises an instant messaging (IM) account of the transmitting-side user.

5. The method of claim 1, wherein the contact information of the receiving-side user comprises any one of a telephone number, an IM account and an email box of the receiving-side user.

6. A method for processing information, comprising:

scanning, by a second terminal of a transmitting-side user, a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, to obtain the identification information of the first terminal;

transmitting, an association request carrying the identification information of the first terminal and an account of the transmitting-side user for logging into an application in the second terminal to a server, such that the server stores a relationship between the identification of the first terminal and the account of the transmitting-side user;

receiving, information to be sent to a receiving-side user and contact information of the receiving-side user from the server; wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship; and

transmitting, by the second terminal, the information to the receiving-side user according to the contact information.

7. The method of claim 6, further comprising:
receiving, by the second terminal, response information returned by the receiving-side user in response to the information sent to the receiving-side user; and

transmitting, by the second terminal, the response information to the server, such that the server provides the response information to the first terminal.

8. The method of claim 6, wherein the identification information of the first terminal comprises an IP address or a media control access (MAC) address of the first terminal; and

the account of the transmitting-side user for logging in the application in the second terminal comprises an instant messaging (IM) account of the transmitting-side user.

9. The method of claim 6, wherein the contact information of the receiving-side user comprises any one of a telephone number, an IM account and an email box of the receiving-side user.

10. A server for processing information, comprising:

one or more processors;

memory; and

one or more program modules stored in the memory and to be executed by the one or more processors, the one or more program modules comprising:

a storage module, to store a relationship which associates identification information of a first terminal with a hardware keyboard of a transmitting-side user and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user;

a processing module, to provide a webpage containing an information entry area and a contact information entry area to the first terminal, wherein the information entry area in the webpage allows a transmitting-side to input information to be sent to a receiving-side user; the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user;

a receiving module, to receive from the first terminal, the information to be
sent to the receiving-side user and the contact information of the receiving-side user; and

a transmitting module, to transmit the information to be sent and the contact information to the second terminal according to the relationship stored in the storage module, such that the second terminal transmits the information to the receiving-side user according to the contact information.

11. The server of claim 10, wherein the processing module is further to generate a barcode representing the identification information of the first terminal and provide the barcode to the first terminal; and

the receiving module is further to receive from the second terminal an association request carrying the identification information of the first terminal and the account of the transmitting-side user; the association request is generated by the second terminal in response to scanning the barcode representing the identification information of the first terminal.

12. The server of claim 10 or 11, wherein the receiving module is further to receive, from the second terminal, response information returned by the receiving-side user in response to the information transmitted to the receiving-side user by the second terminal; and the transmitting module is further to provide the response information to the first terminal.

13. The server of claim 10, wherein the identification information of the first terminal comprises an IP address or a media control access (MAC) address of the first terminal; and

the account of the transmitting-side user for logging in the application in the second terminal comprises an instant messaging (IM) account of the transmitting-side user.

14. The server of claim 10, wherein the contact information of the receiving-side user comprises any one of a telephone number, an IM account and an email box of the receiving-side user.

15. A second terminal of a transmitting-side user for processing
information, comprising:
  one or more processors;
  memory; and
  one or more program modules stored in the memory and to be executed by the one or more processors, the one or more program modules including:
  a scanning module, to scan a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, to obtain the identification information of the first terminal;
  a generating module, to generate an association request carrying the identification information of the first terminal and an account of the transmitting-side user for logging in an application in the second terminal and transmit the association request to a server, such that the server stores a relationship which associates the identification information of the first terminal with the account of the transmitting-side user; and
  a processing module, to receive information to be sent to a receiving-side user and contact information of the receiving-side user from the server and transmit the information to the receiving-side user according to the contact information;

  wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship.

16. The second terminal of claim 15, wherein the processing module is further to
  receive response information returned by the receiving-side user in response to the information sent to the receiving-side user; and
  transmit the response information to the server, such that the server provides the response information to the first terminal.

17. The second terminal of claim 15, wherein the identification information of the first terminal comprises an IP address or a media control access (MAC) address of the first terminal; and
  the account of the transmitting-side user for logging in the application in
the second terminal comprises an instant messaging (IM) account of the transmitting-side user.

18. The second terminal of claim 15, wherein the contact information of the receiving-side user comprises any one of a telephone number, an IM account and an email box of the receiving-side user.

19. A non-transitory computer-readable storage medium comprising a set of instructions for processing information, the set of instructions to direct at least one processor to perform acts of:

providing, by a server, a webpage containing an information entry area and a contact information entry area to a first terminal with a hardware keyboard of a transmitting-side user, wherein the server stores a relationship between identification information of the first terminal and an account of the transmitting-side user for logging in an application in a second terminal of the transmitting-side user; the information entry area allows the transmitting-side user to input information to be sent to a receiving-side user, and the contact information entry area allows the transmitting-side user to enter contact information of the receiving-side user;

receiving, by the server from the first terminal, information to be sent to the receiving-side user and contact information of the receiving-side user; and

transmitting, by the server, the information and the contact information to the second terminal according to the relationship, such that the second terminal transmits the information to the receiving-side user according to the contact information.

20. A non-transitory computer-readable storage medium comprising a set of instructions for processing information, the set of instructions to direct at least one processor to perform acts of:

scanning, by a second terminal of a transmitting-side user, a barcode representing identification information of a first terminal with a hardware keyboard of the transmitting-side user displayed on the first terminal, to obtain the identification information of the first terminal;

transmitting, an association request carrying the identification information
of the first terminal and an account of the transmitting-side user for logging in an application in the second terminal to a server, such that the server stores a relationship between the identification of the first terminal and the account of the transmitting-side user;

receiving, information to be sent to a receiving-side user and contact information of the receiving-side user from the server; wherein the server receives the information to be sent and the contact information from the first terminal and transmits them to the second terminal according to the relationship; and

transmitting, by the second terminal, the information to the receiving-side user according to the contact information.
FIG. 2
a server generates a barcode representing identification information of a first terminal and provides the barcode to the first terminal

the server receives an association request carrying identification information of the first terminal and an account of the transmitting-side for logging in an application in a second terminal from the second terminal

the server provides another webpage to the first terminal, wherein the webpage contains an information entry area and a contact information entry area

S304, the server receives the information to be sent inputted by the transmitting-side user

S3044, the server determines the contact information of the receiving-side user

S3046, the server transmits the information to be sent to the second terminal according to the relationship

S3048, the server transmits the contact information of the receiving-side user to the second terminal

FIG. 3
a server provides a webpage containing an information entry area and a contact information entry area to the first terminal

the server receives from the first terminal information to be sent to a receiving-side user and contact information of the receiving-side user

the server transmits the information to be sent and the contact information to the second terminal according to the relationship

the server receives from the second terminal response information returned by the receiving-side user

the server provides the response information to the first terminal

FIG. 4

a second terminal scans a barcode representing identification information of a first terminal displayed on the first terminal

the second terminal transmits an association request carrying the identification information of the first terminal and the account of the transmitting-side for logging in the application in the second terminal to the server

the second terminal receives information to be sent and contact information of a receiving-side user from the server, and transmits the information to the receiving-side user according to the contact information

the second terminal receives response information returned by the receiving-side user and transmits the response information to the server

FIG. 5
INTERNATIONAL SEARCH REPORT

International application No. PCT/CN2014/081529

A. CLASSIFICATION OF SUBJECT MATTER

H04L 12/58(2006.01)j

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNPAT, CNKI, EPODOC, WPI, TERMINAL, MOBILE, RELATION, DISTINGUISH, IDENTIFY, INFORMATION, COMMUNICATION

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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<td>CN 102857579 A (TENCENT TECHNOLOGY SHENZHEN CO., LTD.) 02 January 2013 (2013-01-02) description, paragraphs [0063]-[0064], [0093]-[0124]</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

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Date of the actual completion of the international search | 19 September 2014
Date of mailing of the international search report | 10 October 2014

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### International Search Report

**Information on patent family members**

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