

A GROUP PAYMENT SYSTEM AND PROCESS

TECHNICAL FIELD

[001] The present invention relates to financial payments between individuals, and in particular to a group payment system and process.

BACKGROUND

[002] The rise of social media over the past decade has promoted both the use of smartphones and other portable electronic devices, and the participation of individuals in group social activities. Additionally, financial transactions are increasingly relying on portable electronic devices to facilitate such transactions, even between individuals.

[003] There is a particular difficulty that arises when a group of individuals participates in a group activity, as the costs incurred in connection with that activity, and to be shared by the individual participants, are not paid by all of the individuals at the time of the activity, but only by subset of those individuals (typically, a single individual). This requires at least one of the individuals to keep track of the expenses and any payments that may have been made, leading to at least substantial inconvenience, and often causing at least some of the individuals to make incorrect payments, or perhaps to no payments at all.

[004] Recognising that the taking and sharing of photographic images, in particular photographs of the individual participants in a group activity (typically, a group 'selfie' showing all of the individuals of the group), has become ubiquitous, particularly for users of social media, the inventors have devised a system and process that facilitates the tracking of expenses of a group of individuals, and the making of payments by those individuals, by allowing a user to quickly and easily select and identify (or 'tag') individuals of the group from photographic images of those individuals, and to associate payment amounts with those selected individuals. Ideally, this can be done on a smartphone or other portable computing device at the time of the group activity giving rise to those expenses so that there is no need for any of the individuals of the group to remember or otherwise record

the expenses and any amounts that might already have been paid by one or more of the individuals.

[005] It is desired to provide a group payment system and process that alleviate one or more difficulties of the prior art, or that at least provide a useful alternative.

SUMMARY

[006] In a first aspect, there is provided a system for carrying out a group payment process, the system including at least one digital data processor configured to:

- display, at a first computing device, one or more images showing a group of individuals;

- receive, at the first computing device, individual selection data representing selections of respective portions of the one or more images corresponding to respective images of the individuals of the group;

- process the individual selection data to determine, based on the selected image portions, respective identifiers of the selected individuals shown in the displayed images;

- process user transaction amount data representing one or more financial transactions to be effected between the user and the selected individuals;

- generate request data representing requests for the selected individuals to effect the financial transactions; and

- send, from the first computing device, the request data to cause corresponding requests for the selected individuals to effect the financial transactions to be received by second computing devices of the selected individuals via a communications network to enable each of the second computing devices to generate and display a graphical user interface.

[007] In a second aspect, there is provided a computer-implemented group payment process, the process being executed by at least one processor of a computing device, and including:

- displaying, at a first computing device, one or more images showing a group of individuals;

- receiving, at the first computing device, individual selection data representing selections by the user of respective portions of the one or more images corresponding to respective ones of the individuals of the group;

processing the individual selection data to determine, based on the selected image portions, respective identifiers of the selected individuals shown in the displayed images;

processing user transaction amount data representing one or more amounts of financial transactions to be effected between the user and the selected individuals;

generating request data representing requests for the selected individuals to effect the financial transactions; and

sending, from the first computing device, the request data to cause corresponding requests for the selected individuals to effect the financial transactions to be received by second computing devices of the selected individuals via a communications network to enable each of the second computing devices to generate and display a graphical user interface.

[008] In a final aspect, there is provided a non-transitory computer readable storage medium embodying thereon a program of computer readable instructions which, when executed by one or more processors of a first computing device in communication with a plurality of other user apparatus, cause the first user apparatus to perform a method for carrying out a group payment process, the method embodying the steps of:

displaying, one or more images showing a group of individuals;

receiving, individual selection data representing selections of respective portions of the one or more images corresponding to respective images of the individuals of the group;

processing the individual selection data to determine, based on the selected image portions, respective identifiers of the selected individuals shown in the displayed images;

processing user transaction amount data representing one or more financial transactions to be effected between the user and the selected individuals;

generating request data representing requests for the selected individuals to effect the financial transactions; and

sending, the request data to cause corresponding requests for the selected individuals to effect the financial transactions to be received by second computing devices of the selected individuals via a communications network to enable each of the second computing devices to generate and display a graphical user interface,

the graphical user interface comprising appropriate controls for the selected individual.

BRIEF DESCRIPTION OF THE DRAWINGS

[009] Some embodiments of the present invention are hereinafter described, by way of example only, with reference to the accompanying drawings, wherein:

[010] Figure 1 is a schematic diagram showing components of a group payment system in accordance with some embodiments of the present invention;

[011] Figure 2 is a block diagram showing components of portable computing devices of the group payment system;

[012] Figures 3 to 11 are schematic illustrations of user interfaces generated by the group payment system;

[013] Figure 12 is a schematic diagram showing components of a group payment system in accordance with some aspects of the present invention;

[014] Figure 13 is a flow diagram of a group payment process in accordance with some embodiments of the present invention; and

[015] Figure 14 is a schematic diagram showing components of an example payment system of the various systems shown.

DETAILED DESCRIPTION

[016] Embodiments of the present invention will now be described as a group payment system and process, and in the context of payments made using a card-based payment system involving an issuer of payment cards, an acquirer of card-based payments, and a payment card organisation (such as MasterCard™); however, it will be apparent to those skilled in the art that other types and configurations of financial payment systems and processes may be used in other embodiments not described herein.

[017] Broadly, the present invention provides for a group of individuals who each have a mobile device to be able to use their respective mobile devices to apportion appropriate costs to each individual. To do so, an image of the group of individuals is captured, and the appropriate costs for each individual are defined based on, for

example, which individuals are in the image, sharing proportion per individual, and so forth. Each individual will have to install a payment software on their respective mobile device, such that account details for each individual are available and the requisite payment can be carried out.

[018] As shown in Figure 1, a group 102 of individuals participates in a group activity that gives rise to expenses that are to be shared (typically, but not necessarily, equally) between the individuals of the group. For example, the group activity might be an outing to an activity such as paintball, laser tag or bowling, a restaurant dinner, a nightclub outing, or a movie.

[019] At least one of the individuals (and typically all of them) has a smartphone or other portable computing and communication device 200, as shown in Figure 2, which includes at least one processor 202, random access memory 204, non-volatile storage memory 206, an integrated imaging device or 'camera' 208, a touchscreen display 210, and network interfaces 212, 214, all interconnected by a system bus 216. Stored in the non-volatile storage memory 206 are a number of software components and associated data files, including an operating system such as Apple Inc.'s IOS or Android 218, a digital wallet application 220. Also stored in the non-volatile storage memory 206 are at least one of: (i) a payment application 222 and (ii) a payment plug-in 224 for a social media application 226 such as a Facebook™ application. Associated data files include a contact list 228 and an image gallery 230.

[020] As is common in today's society, at least one of the individuals in the group uses the integrated imaging sensor or 'camera' 208 of their smartphone 200 to take a 'group selfie', being a photographic image showing all of the individuals of the group, including the individual taking the photographic image. However, it is also possible that one or more of the individuals of the group might not be shown in the photographic image, but are visible in another image, either taken in connection with the same group activity, or possibly at another time. As is also common, the photographic image is uploaded to a social media and/or messaging platform such as Facebook™, Whatsapp™, Viber™ and the like (typically, but not necessarily, by way of the corresponding social media and/or messaging (e.g., Facebook™, Whatsapp™, Viber™ and the like) application 226 executing on their smartphone 200), where it is visible to selected users of the social media platform

(e.g., 'Facebook friends' of the uploading individual, designated members of a "chat group", and so forth).

[021] In the described example and for the sake of simplicity, it is agreed that one of the individuals will pay all of the expenses in connection with the group activity, with the understanding that the other individuals of the group will reimburse the paying individual after the group activity (and typically at a later date). However, it should be understood that multiple and more complex payments might occur in some cases; for example, one or more of the individuals might pay for all or part of their own expenses during the group activity.

[022] For simplicity and convenience of description, the individual who paid all of the expenses is the same individual who took the photographic image, and is referred to hereinafter as "the user", and the other (non-paying) individuals of the group are simply referred to hereinafter as "the individuals" (notwithstanding that the user is also a participant in the group activity or event).

[023] In accordance with the described embodiments of the present invention, the user's smart phone 200 executes a group payment process, as shown in Figure 13, that facilitates the record of all of the correct reimbursement amounts, and the making of those reimbursements by the appropriate individuals of the group.

[024] After paying expenses on behalf of individuals of the group, at step 1302 of the group payment process, the user views and/or shares the photographic image of the individuals on his or her smartphone 200 via the payment application 222 (or payment plug-in 224, if the social media application 226 is used), and selects those individuals in the photographic image who need to reimburse the user for their expenses that have been paid by the user on their behalf.

[025] The selection of each such individual can be achieved by the user touching a region of the touchscreen of the smartphone 200 where a part of that individual (typically, the face of the individual) is displayed. In the described example where the photographic image has been uploaded to a social media platform such as Facebook, this selection is done via the payment plug-in 224 of the social media application 226. Alternatively, the selection may be done via the payment application 222 executing on the user's smartphone 200, as described below. In either case, at step 1304 the appropriate payment application 222 or plug-in 224

receives individual selection data representing those regions of the touchscreen that have been touched by the user in order to individuals of the group.

[026] In either case, it is now a standard feature of applications handling photographic images (including imaging applications and social media applications and platforms) to automatically perform facial recognition to determine those portions of an image displaying human faces, and also to identify those faces as being of previously identified individuals. Consequently, where an individual is already known to the user's social media platform, that individual will already have been "tagged" by the social media platform (or, where applicable, the payment application) and the individual's name will be included in the photographic image as displayed. Accordingly, the user need to only tap the smartphone 200 touchscreen on that individual's name in order to select that individual. Alternatively, if an individual is not recognised or known, the user can tap that individual's face in the photographic image to cause a dialogue box to be generated and displayed on the user's smartphone 200, allowing the user to enter at least the individual's name. In any of these cases, the appropriate payment application 222 or plug-in 224 determines identifiers of the selected individuals, based on the selections made by the user.

[027] In some embodiments, portions of the photographic image containing the faces of the individuals are extracted to generate respective separate images, and the resulting images of the individuals' faces are displayed on the smart phone touchscreen 210 as separate images, as shown in Figure 3, with selected individuals visually distinguished from those individuals who have not been selected. In the example of Figure 3, a thick square is drawn around the face of each selected individual in the corresponding image. In some instances, Figure 4 would then appear as an enlarged (zoomed-in) image of the face indicated within the thick square. Figure 4 can be used as a confirmation that a desired individual is appropriately selected. However, it will be apparent to those skilled in the art that selected users can be indicated in any of a wide variety of different ways.

[028] In any case, the user continues to select other individuals from the photographic image until all of the individuals who need to reimburse the user for expenses have been selected. As described above, in some circumstances it may occur that the photographic image does not show all of the individuals of the

group, in which case one or more other photographic images showing the missing individuals need to be displayed so that the missing individuals can be selected in the same manner as described above.

[029] Once all of the individuals have been selected, a control (not shown) displayed on the smartphone 200 touchscreen is selected to allow the user to specify how the amount to be reimbursed is to be split between the selected individuals; for example, whether the expenses are to be split equally between the individuals, or to specify that one of the individuals (rather than the user) has paid the amount owing, and the remainder is to be split between the other individuals. Many other possibilities for splitting the reimbursed amount or amounts will be apparent to those skilled in the art. For example, in a restaurant setting, it commonly occurs that only some of the individuals might order an additional course or drinks, so that one part of the total amount is to be shared between a subset of the individuals, with the remaining part of the total amount being shared between all individuals. In some cases, the allocation of amounts owing may be so complex that the user simply enters different amounts for each individual.

[030] Once the method for allocating amounts owing to the selected individuals has itself been selected by the user, then the user can enter at least one amount owing, again using the touchscreen interface of their smartphone 200. Where a single amount is to be split between all of the selected individuals, only a single amount needs to be entered. At the opposite extreme, where a different amount is to be entered for each selected individual, then the user is sequentially prompted to enter an amount for each selected individual, by sequentially displaying each selected individual from the photographic image and their name so that the user can enter the appropriate amount for each selected individual. In any case, the appropriate payment application 222 or plug-in 224 receives transaction amount data representing these amounts of the financial transactions that are to be affected between the user and the selected individuals in order for those individuals to reimburse the user.

[031] Multiple amounts can be entered for each individual, either for the same group activity, or for different activities. For example, Figure 5 shows a graphical user interface displayed on the smartphone touchscreen where an individual with the

handle "Elissa" owes \$50 for a "Team lunch" activity, and an additional \$100 for "Outing expenses".

[032] Once the amount or amounts owing has or have been entered by the user, the user selects a "send" control displayed on their smartphone 200 to cause corresponding messages to be sent to the selected individuals (at steps 1310, 1312), prompting them to make payment. As shown in Figure 6, the messages can be sent by messaging services such as SMS or WhatsApp™, social media messaging such as Facebook messenger™, or a payment service messaging service such as Masterpass™. Once the "send" control has been selected by the user, it becomes deactivated, and a "reminder" control is added to the user interface, as shown in Figure 7, allowing the user to send a reminder message to the corresponding individual.

[033] At step 1314, when the selected individuals trigger a first appropriate control, a financial transaction to make the payment is initiated.

[034] Alternatively, at step 1316, for example, during instances when the selected individual already knows the requesting user's account details (high level of trust and/or familiarity between the selected individual and the user) or regularly transfers funds to the user, the selected individual can transfer funds to the requesting user before triggering a second appropriate control. Funds are transferred before providing payment details like for example, transaction number, transaction date, transaction amount and so forth to the user, for example, using a text message. This causes a message or notification to be depicted to the user by the payment application 222 (or payment plug-in 224, if the social media application 226 is used), and also causes a message or notification to be depicted to provide an update of fund transfer status to the selected individual by the payment application 222 (or payment plug-in 224, if the social media application 226 is used).

[035] As shown in Figure 12, the messages initiated from the smartphone 200 of the user 1202 are sent to the smartphones 1204, 1206 of selected individuals 1208, 1210 via at least one communications network 1212, which may include a telecommunications network and the Internet. Each of the selected individuals thus receives a message such as that shown in Figure 8, indicating that the user 1202 has requested payment of the corresponding specified amount (e.g., \$50)

from the individual, and providing a link or control 802 that, when selected, allows the receiving individual to initiate a financial transaction in order to pay the requested amount to the user 1202. Figure 9 shows an alternative example of a graphical user interface displayed on the receiving individual's smartphone, showing the other individuals of the group, and the amount owed by the receiving individual, together with a control or link 902 allowing them to initiate payment. The link 802/902 can be transmitted via the at least one communications network 1212 and is received within the graphical user interface of the social media application 226. The link 802/902 can be a trigger to initiate a transmission of funds to an account of the user 1202, as per the user's 1202 request for payment.

[036] Once the receiving individual has effected payment of the requested amount, then the user 1202 receives a message confirming that payment has been received from that individual, and the graphical user interface of the payment application 222 is updated with a payment received indicator 1002 confirming that the payment has been received, and a new control 1004 is added that, when selected, allows the user 1202 to retag that individual to request a new reimbursement payment. Simultaneously, the receiving individual also receives a message in the graphical user interface of the payment application 222 confirming that payment has been successfully transmitted to the user 1202 as depicted in Figure 10. Further details regarding how the payment is effected will be provided in subsequent paragraphs.

[037] Details of the individuals payments to the user can be displayed via a payment details interface, as shown in Figure 11, which lists, for each payment request made to that individual, the date that the payment request was made, the dates that the payment was initiated by the individual, and the date that the payment was received by the user from that individual, together with any remaining payments pending. In some instances, the payment details interface is generated as a confirmation notification of the carrying out the payment.

[038] In some embodiments, as shown in Figures 1 and 12, the group payment process is implemented via a digital wallet application 220 executing on the user's smartphone 200, and the selection of the individuals and the specification of the reimbursement amount or amounts can be made after the user has made a payment of the expenses using the wallet application 220, which also involves

authentication of the user using biometric information specific to the user (e.g., a fingerprint scanner of the user's smartphone 200, a voice print, or a live image of the user) or a secret password or personal identification number (PIN) entered into the user's smartphone 200.

[039] Similarly, payments made by each of the selected individuals can be effected via a corresponding digital wallet application executing on that individual's smartphone, which allows the selected individual to authorise payment of the requested amount from the selected individual's bank account (e.g., the issuer 106 in Figure 1) to the requesting user's bank account (e.g., the acquirer 108 in Figure 1) via a payment card organisation 104 such as MasterCard™. For example, selecting the link 802/902 enables the selected individual to be able to transmit the requested amount to the requesting user's bank account without the selected individual having to know the requesting user's bank account information. Thus, selecting the link 802/902 leads to execution of instructions on the digital wallet application of the selected user's smartphone to transmit the requisite payment from the selected individual's bank account to the requesting user's bank account. It should be appreciated that details of the selected individual's bank account and the requesting user's bank account can be entered during respective set-up processes for the payment application 222 (or payment plug-in 224, if the social media application 226 is used).

[040] For the sake of illustration, selecting the link 802/902 would enable access to information of the requesting user's bank account such that the requested amount can be transmitted to the requesting user's bank account. As illustrated earlier, the link 802/902 can be found in the graphical user interface of the payment application 222 (or payment plug-in 224, if the social media application 226 is used). This is a convenient feature for both the selected individual and the requesting user.

[041] During instances when the selected individual already knows the requesting user's account details (high level of trust and/or familiarity between the selected individual and the requesting user) or regularly transfers funds to the requesting user, the selected individual can transfer funds to the requesting user without using the link 802/902. In such an embodiment, the selected individual can trigger an option of "Alternate Pay" 904 in Figure 9. Funds are transferred without using

the link 802/902, payment details like for example, transaction number, transaction date, transaction amount and so forth need to be provided, for example, using a text message. This option causes a message or notification to be depicted to the requesting user by the payment application 222 (or payment plug-in 224, if the social media application 226 is used), and also causes a message or notification to be depicted to provide an update of fund transfer status to the selected individual by the payment application 222 (or payment plug-in 224, if the social media application 226 is used).

[042] In another embodiment, the requesting user's payment application 222 (or payment plug-in 224, if the social media application 226 is used) seeks access to the requesting user's SMS or any messaging application, for example, at time of registration. Upon obtaining access, all SMS or data messages are then reviewed to locate a message of "money credited" sent by requesting user's bank. Once such a message is found then the status in the application 222 can be updated to "received payment confirmation from bank without using the link". Otherwise, the status is simply updated to "received payment without using the link" when no credit message from bank is detected and only a message is received from the selected individual, the message indicating that funds have been transferred. It should be appreciated that this embodiment is possible when the payment application 222 (or payment plug-in 224, if the social media application 226 is used) includes text recognition/understanding capabilities. In this regard, the application 222 is able to determine, for example, a transaction number, an indication of fund transfer, an amount of the fund transfer, a date of the fund transfer and so forth.

[043] A suitable payment system 240 for use in the system described in any one of the above examples is shown in Figure 14.

[044] In this example, the payment system 540 is a server that includes at least one microprocessor 500, a memory 501, an optional input/output device 502, such as a display, keyboard, touchscreen and the like, and an external interface 503, interconnected via a bus 504 as shown. In this example the external interface 503 can be utilised for connecting the payment system 540 to peripheral devices, such as user smartphones 200, the communication networks 114, 1212, databases 541, other storage devices, or the like. Although a single external interface 503 is

shown, this is for the purpose of example only, and in practice multiple interfaces using various methods (e.g. Ethernet, serial, USB, wireless or the like) may be provided.

[045] In use, the microprocessor 500 executes instructions in the form of applications software stored in the memory 501 to allow communication with the user smartphones 200, for example to provide provisioning data. The applications software may include one or more software modules, and may be executed in a suitable execution environment, such as an operating system environment, or the like.

[046] Accordingly, it will be appreciated that the payment system 540 may be formed from any suitable processing system, such as any electronic processing device, including a microprocessor, microchip processor, logic gate configuration, firmware optionally associated with implementing logic such as an FPGA (Field Programmable Gate Array), or any other electronic device, system or arrangement. However, the payment system 540 may also be formed from a suitably programmed PC, Internet terminal, lap-top, or hand-held PC, a tablet, or smart phone, or the like. Thus, in one example, the payment system 540 is a standard processing system such as an Intel Architecture based processing system, which executes software applications stored on non-volatile (e.g., hard disk) storage, although this is not essential.

[047] In other examples, such as described above, the payment system is formed of multiple computer systems interacting, for example, via a distributed network arrangement. As distributed networking is known in the art, it will not be described further in more detail.

[048] In particular, the payment system 540 may include or be in communication with a number of processing systems associated with each of an issuer, acquirer, card network and payment gateway, or alternatively, the payment system may be any one or more of these entities.

[049] In one example as will be well understood in the art, the payment system 540 sends the user account information and payment information to the second user's acquirer. The acquirer then requests that the card network get an authorization from the second user's issuing bank. The card network submits the transaction to

the issuer for authorization and the issuing bank then authorizes the transaction if the account has sufficient funds to transfer the amount payable. The issuer then routes payment to the acquirer who then deposits the payment into the first user's account.

[050] Many modifications will be apparent to those skilled in the art without departing from the scope of the present invention.

CLAIMS:

1. An system for carrying out a group payment process, the system including at least one digital data processor configured to:

display, at a first computing device, one or more images showing a group of individuals;

receive, at the first computing device, individual selection data representing selections of respective portions of the one or more images corresponding to respective images of the individuals of the group;

process the individual selection data to determine, based on the selected image portions, respective identifiers of the selected individuals shown in the displayed images;

process user transaction amount data representing one or more financial transactions to be effected between the user and the selected individuals;

generate request data representing requests for the selected individuals to effect the financial transactions; and

send, from the first computing device, the request data to cause corresponding requests for the selected individuals to effect the financial transactions to be received by second computing devices of the selected individuals via a communications network to enable each of the second computing devices to generate and display a graphical user interface.

2. The group payment system of claim 1, wherein triggering of a first appropriate control of the graphical user interface causes the second computing device to initiate the financial transaction between the selected individual and a user of the first computing device.

3. The group payment system of claim 1, wherein, upon completion of the financial transaction initiated by the selected individual, triggering of a second appropriate control of the graphical user interface causes the first computing device to depict a message denoting completion of the financial transaction.

4. The group payment system of claim 3, wherein the message is generated when the first computing device detects a message from either a bank of the user of the first computing device or the selected individual, the message confirming the completion of the financial transaction.

5. The group payment system of claim 4, wherein contents of the message are determined by the first computing device, the contents comprising: a transaction number, an indication of fund transfer, an amount of the fund transfer and a date of the fund transfer.

6. The group payment system of any one of claims 1 to 5, wherein the respective identifiers are either generated using facial recognition, or manually input.

7. The group payment system of any one of claims 1 to 6, wherein the user transaction amount data is either generated using a predefined formula, or manually input for each of the selected individuals.

8. A computer-implemented group payment process, the process being executed by at least one processor of a computing device, and including:

- displaying, at a first computing device, one or more images showing a group of individuals;

- receiving, at the first computing device, individual selection data representing selections by the user of respective portions of the one or more images corresponding to respective ones of the individuals of the group;

- processing the individual selection data to determine, based on the selected image portions, respective identifiers of the selected individuals shown in the displayed images;

- processing user transaction amount data representing one or more amounts of

financial transactions to be effected between the user and the selected individuals;

generating request data representing requests for the selected individuals to effect the financial transactions; and

sending, from the first computing device, the request data to cause corresponding requests for the selected individuals to effect the financial transactions to be received by second computing devices of the selected individuals via a communications network to enable each of the second computing devices to generate and display a graphical user interface.

9. The group payment process of claim 8, wherein triggering of a first appropriate control of the graphical user interface causes the second computing device to initiate the financial transaction between the selected individual and a user of the first computing device.

10. The group payment process of claim 8, wherein, upon completion of the financial transaction initiated by the selected individual, triggering of a second appropriate control of the graphical user interface causes the first computing device to depict a message denoting completion of the financial transaction.

11. The group payment process of claim 10, wherein the message is generated when the first computing device detects a message from either a bank of the user of the first computing device or the selected individual, the message confirming the completion of the financial transaction.

12. The group payment process of claim 11, wherein contents of the message are determined by the first computing device, the contents comprising: a transaction number, an indication of fund transfer, an amount of the fund transfer and a date of the fund transfer.

13. The group payment process of any one of claims 8 to 12, wherein the respective identifiers are either generated using facial recognition, or manually input.

14. The group payment process of any one of claims 8 to 13, wherein the user transaction amount data is either generated using a predefined formula, or manually input for each of the selected individuals.

15. A non-transitory computer readable storage medium embodying thereon a program of computer readable instructions which, when executed by one or more processors of a first computing device in communication with a plurality of other user apparatus, cause the first user apparatus to perform a method for carrying out a group payment process, the method embodying the steps of:

- displaying, one or more images showing a group of individuals;

- receiving, individual selection data representing selections of respective portions of the one or more images corresponding to respective images of the individuals of the group;

- processing the individual selection data to determine, based on the selected image portions, respective identifiers of the selected individuals shown in the displayed images;

- processing user transaction amount data representing one or more financial transactions to be effected between the user and the selected individuals;

- generating request data representing requests for the selected individuals to effect the financial transactions; and

- sending, the request data to cause corresponding requests for the selected individuals to effect the financial transactions to be received by second computing devices of the selected individuals via a communications network to enable each of the second computing devices to generate and display a graphical user interface, the graphical user interface comprising appropriate controls for the selected individual.

16. The storage medium of claim 15, wherein triggering of a first appropriate control of the graphical user interface causes the second computing device to initiate

the financial transaction between the selected individual and a user of the first computing device.

17. The storage medium of claim 15, wherein, upon completion of the financial transaction initiated by the selected individual, triggering of a second appropriate control of the graphical user interface causes the first computing device to depict a message denoting completion of the financial transaction.

18. The storage medium of claim 17, wherein the message is generated when the first computing device detects a message from either a bank of the user of the first computing device or the selected individual, the message confirming the completion of the financial transaction.

19. The storage medium of claim 18, wherein contents of the message are determined by the first computing device, the contents comprising: a transaction number, an indication of fund transfer, an amount of the fund transfer and a date of the fund transfer.

20. The storage medium of any one of claims 15 to 19, wherein the respective identifiers are either generated using facial recognition, or manually input.

21. The storage medium of any of claims 15 to 20, wherein the user transaction amount data is either generated using a predefined formula, or manually input for each of the selected individuals.