

Servers and methods for facilitating anonymous communication

FIELD OF INVENTION

5 **[0001]** The following discloses servers and methods for facilitating anonymous communication.

BACKGROUND

10 **[0002]** Companies have been trying to find better ways to manage human resources, to create a better healthier environment that helps to retain and attract talent. To do so, various ways of collecting performance feedback and evaluating employee performance have been devised. However, these various systems and practices are cumbersome to administer, and take up a lot of administrative time at
15 all levels. Despite all the effort put in, the performance feedback captured in the existing systems and practices is still not holistic and insightful.

[0003] One common observation in medium to large companies is that employees are unwilling to go out of their way to help colleagues from other departments due to
20 their differing KPIs. Essentially, little of the help that one employee lends to another employee of a different department in a company is evaluated in the yearly performance review. In fact, an employee usually gets penalized for spending too much time helping others and not contributing aggressively to their own KPIs.

25 **[0004]** Besides, common human recourse methods to review performance feedback on an employee, e.g. yearly performance appraisals and goal setting exercises, are time consuming and ineffective. Ultimately, upper management still relies largely on the feedback on the staff's performance by a manager who may or may not be biased. Upper management does not have visibility of what is actually happening on
30 the ground and the actual company culture.

[0005] Public noticeboards have been used as an avenue for employees to give public praise or recognition to other employees. However, the public noticeboards are unable to provide observation of the true day to day interactions between
35 employees, as one would not award public praises for a normal job well done. Such

praises are usually reserved for special projects, circumstances or events. Also, the public noticeboards do not allow negative experiences to be captured. In addition, the public noticeboards are meant for internal praises or recognitions within a company or an organisation. Thus, a considerable number of valuable external inputs from clients or customers would be lost due to the internal nature of public noticeboards.

[0006] Another existing system, 360 degree feedback, attempts to allow multiple raters such as supervisors, peers, direct reporters, subordinates and external raters (clients or vendors) to leave feedback on an employee, such that both internal and external inputs can be captured. While implemented with good intentions, this feedback system has a low adoption rate due to its inability to be truly anonymous: once a user enters a feedback, it becomes very apparent whom the feedback is from even without revealing the identity. This is because the identity of the user can be easily inferred from the context and the certain time stamp of the feedback. As a consequence, without true anonymisation, people, whether supervisors, peers, direct reporters, subordinates or external raters (clients or vendors) as mentioned above, refrain from leaving feedback on their co-workers.

[0007] With respect to external raters, it is usually a formal exercise to collect feedback from clients. The formal collection is usually carried out at the end of the engagement of a project. Unless the project was a complete disaster, clients usually would not give a true reflection of their experience with staff involved in the engagement.

[0008] Further, one of the challenges currently faced by human resources personnel when hiring key sales personnel or upper management employees is that the only avenue currently available is to have a view of a candidate's professional network on LinkedIn. However, the connections on LinkedIn are not a true reflection of real life connections, as the parties of a LinkedIn connection may not know each other in person. As such, it is currently impossible to know how many connections of an individual/a candidate are actually strong enough to be utilized for leads.

[0009] Thus, what is needed is a server, method and system that is holistically able to facilitate anonymous communication of professional feedbacks and seeks to address at least some of the above problems. The server, system and method can be configured to capture both internal and external feedback such that an insightful and genuine review of performance or connections can be obtained.

SUMMARY

[0010] According to a first aspect of the present disclosure, there is provided a server for facilitating anonymous communication. The server comprises a receiver module configured to receive a request from a user for sending data and a user-selected number of tokens to a recipient. The server also comprises a processor module configured to generate a random number of data packages in response to a negative indication associated with the request. Each of the random number of data packages includes an anonymous message corresponding to the data and a randomly selected subset of the user-selected number of tokens. The server further comprises an output module configured to send the random number of data packages to the recipient.

[0011] According to a second aspect of the present disclosure, there is provided a method for facilitating anonymous communication. The method comprises receiving a request from a user for sending data and a user-selected number of tokens to a recipient. The method also comprises generating a random number of data packages, in response to a negative indication associated with the request. Each of the random number of data packages includes an anonymous message corresponding to the data and a randomly selected subset of the user-selected number of tokens. The method further comprises sending the random number of data packages to the recipient.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Embodiments of the invention will be better understood and readily apparent to one of ordinary skill in the art from the following written description, by way of example only, and in conjunction with the drawings, in which:

[0013] Figure 1 shows a block diagram of a system for facilitating anonymous communication according to an example embodiment.

5 [0014] Figure 2 shows a flow chart of a method at the server illustrated in Figure 1 for facilitating anonymous communication according to the example embodiment.

[0015] Figure 3 shows a flow chart of data flow of detailed exemplary steps for generating a request at a user's device, from the user for sending data and a user
10 selected number of tokens to a recipient, to be processed at a server in accordance with the method at the server illustrated in Figure 2.

[0016] Figure 4 shows a flow chart of data flow of detailed exemplary steps for processing the request as generated according to the data flow diagram of Figure 3,
15 so as to implement the method according to the example embodiments of Figure 1 and Figure 2.

[0017] Figure 5 shows a graphic model illustrating an example visualization of information captured according to the example embodiments of Figure 1 and Figure
20 2.

[0018] Figure 6 shows a block diagram of a wireless device suitable for use in the example embodiment of Figure 1.

25 [0019] Figure 7 shows a block diagram of a computer system suitable for use as the server in the example embodiment of Figure 1.

DETAILED DESCRIPTION

30 [0020] Embodiments of the present invention will be described, by way of example only, with reference to the drawings. Like reference numerals and characters in the drawings refer to like elements or equivalents.

[0021] Some portions of the description which follows are explicitly or implicitly
35 presented in terms of algorithms and functional or symbolic representations of

operations on data within a computer memory. These algorithmic descriptions and functional or symbolic representations are the means used by those skilled in the data processing arts to convey most effectively the substance of their work to others skilled in the art. An algorithm is here, and generally, conceived to be a self-consistent sequence of steps leading to a desired result. The steps are those requiring physical manipulations of physical quantities, such as electrical, magnetic or optical signals capable of being stored, transferred, combined, compared, and otherwise manipulated.

10 **[0022]** Unless specifically stated otherwise, and as apparent from the following, it will be appreciated that throughout the present specification, discussions utilizing terms such as “scanning”, “calculating”, “determining”, “replacing”, “generating”, “initializing”, “outputting”, or the like, refer to the action and processes of a computer system, or similar electronic device, that manipulates and transforms data
15 represented as physical quantities within the computer system into other data similarly represented as physical quantities within the computer system or other information storage, transmission or display devices.

[0023] The present specification also discloses apparatus for performing the
20 operations of the methods. Such apparatus may be specially constructed for the required purposes, or may comprise a computer or other computing device selectively activated or reconfigured by a computer program stored therein. The algorithms and displays presented herein are not inherently related to any particular computer or other apparatus. Various machines may be used with programs in
25 accordance with the teachings herein. Alternatively, the construction of more specialized apparatus to perform the required method steps may be appropriate. The structure of a computer will appear from the description below.

[0024] In addition, the present specification also implicitly discloses a computer
30 program, in that it would be apparent to the person skilled in the art that the individual steps of the method described herein may be put into effect by computer code. The computer program is not intended to be limited to any particular programming language and implementation thereof. It will be appreciated that a variety of programming languages and coding thereof may be used to implement the

teachings of the disclosure contained herein. Moreover, the computer program is not intended to be limited to any particular control flow. There are many other variants of the computer program, which can use different control flows without departing from the spirit or scope of the invention.

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[0025] Furthermore, one or more of the steps of the computer program may be performed in parallel rather than sequentially. Such a computer program may be stored on any computer readable medium. The computer readable medium may include storage devices such as magnetic or optical disks, memory chips, or other
10 storage devices suitable for interfacing with a computer. The computer readable medium may also include a hard-wired medium such as exemplified in the Internet system, or wireless medium such as exemplified in the GSM mobile telephone system. The computer program when loaded and executed on such a general-purpose computer effectively results in an apparatus that implements the steps of
15 the preferred method.

[0026] As illustrated in Figure 1, the present system 100 comprises a sender device 101, a recipient device 105, and a server 103 for facilitating anonymous communication. In the present application, the anonymous communication in the
20 present application is used for collecting and sending professional feedback between users of the present system 100. It can be appreciated by the skilled person that the anonymous communication in the present application can be used for other types of communication where anonymisation is needed.

[0027] In the present system 100, a sender using the sender device 101 may be an employee of an organisation and wishes to send a feedback to a recipient via the recipient device 105. The recipient may be another employee from a same or different department of the organisation. The recipient may also be a service provider or a client of the sender. The recipient may have co-worked with the sender
30 for a project or may have offered professional inputs to the sender upon which the sender wishes to provide feedback.

[0028] In the present system 100, the sender may generate a request 115/115' on the sender device 101 to initiate a communication of feedback to the recipient
35 device 105. Details of the generation of the request 115/115' are illustrated in Figure

3 and will be described in the following paragraphs. The request 115/115' comprises data of the feedback. The data of the feedback includes context of the recipient's performance. The context may include work, meeting, social relation or business relation, in which the feedback is formed and is associated with the request
5 115/115'.

[0029] The request 115/115' may also comprise an orientation indication of the feedback. The orientation indication may be a positive indication or a negative indication. It can be appreciated to the skilled person that a positive indication
10 reflects the sender's appreciation and/or recognition of the recipient, whereas a negative indication reflects the sender's disappointment with the recipient. As shown in Figure 1, when there is a positive indication associated with the request, the request is referenced as 115'; whereas when there is a negative indication associated with the request, the request is referenced as 115.

[0030] In the present system 100, the server 103 may comprise a database 113. The database 113 comprises token accounts of its users, including for example, the sender's account 139 and the recipient's account 141. The users of the system 100, including the sender and the recipient, can transfer a number of tokens to any other
20 users of the system 100. In the present embodiment 100, on top of the data of the feedback, the sender can also send a self-selected number of tokens to the recipient to reflect his/her appreciation/recognition or disappointment of the recipient's performance. The sender can determine the number of tokens to be given to the recipient to quantify the degree of the appreciation/recognition or disappointment of
25 the recipient. As shown in Figure 1, the sender may select on the sender device 101 K tokens to be given to the recipient. Therefore, a request 115/115' is generated by the sender device 101 for sending the data and K tokens to the recipient device 105.

[0031] As shown in Figure 1, the request 115/115' is sent 117 by the sender device
30 101 to the server 103. In addition to the database 113 mentioned above, the server 103 may also include a receiver module 107, a processor module 109, a delay sub-module 107 and an output module 111.

[0032] The receiver module 107 in the server 103 is configured to receive the
35 request 115/115'. The data of the feedback in the request 115/115', the orientation

indication and the number of tokens that the sender wishes to give to the recipient is then be stored into the database 113. The database 113 can then deduct 143 tokens from a token balance of the sender's account 139. In the present embodiment, the database 113 deducts 143 K tokens from the token balance of the sender's account 139.

[0033] The receiver module 107 also recognises which orientation indication of the feedback is associated with the request 115/115'. If the receiver module 107 recognises a positive indication in the request 115', it can be appreciated by the skilled person that the sender may not need to hide his/her identity from the recipient, thus, the data of the feedback and the K tokens can be directly forwarded 123 to the output module 111 for further relay 137 to the recipient 105. In consequence, K tokens will be credited 145 to the recipient's account 141, the recipient's token balance in the recipient's account 141 thereby being increased.

[0034] If the receiver module 107 recognises a negative indication in the request 115, the data of the feedback and the K tokens is sent 121 to the processor module 109 for anonymous communication. As shown in the present embodiment 100, in response to the negative indication, the processor module 109 is configured to generate 125 a random number, e.g. n, of data packages. Each of the n data packages includes an anonymous message (115a, 115b ... or 115n) that corresponds to the data of the feedback comprised in the request 115, but with the sender's identity removed. With the generation 125 of n data packages, the processor module 109 selects 129 a random subset of the K tokens (K1, K2 ... or Kn) for later forwarding to the output module 111. Each of the n data packages and its corresponding randomly selected subset of tokens is then sent 133 to the output module 111 to be relayed 135a...135n to the recipient 105. In the present embodiment, the n data packages may be in the form of notifications to the recipient device 105.

[0035] The sum, i.e. total number, of the number of the randomly selected subset of K tokens K1, K2... Kn may tally with K, i.e. the number of tokens selected by the sender and is deducted 143 from the token balance of the sender's account 139.

[0036] On the other hand, the present embodiment also allows that the sum of the number of the randomly selected subset of K tokens K1, K2... Kn may not tally with K. It can be appreciated to the skilled person that it can better anonymise the sender's identity in such a scenario, i.e. where the sum of the number of the randomly selected subset K1, K2... Kn does not tally with K. Advantageous anonymisation of feedback communication can be thereby be achieved.

[0037] As shown in Figure 1, the processor module 109 may further comprise the delay sub-module 127. After each of the n data packages has been assigned with the randomly selected subset of the sender selected number of tokens (K1, K2... or Kn), the n data packages can be sent 131 to the delay sub-module 127 with the randomly selected subset of tokens for further randomisation.

[0038] In the delay sub-module 127 of the processor module 109, a random duration of time is determined 147 for outputting of each of the random number n of the data packages. The delay sub-module 127 further provides 133 each of the random number n of the data packages to the output module 111 after the corresponding random duration of time has elapsed from a time the receiver module 107 receives the request 115. The output module 111 will then send 135a, 135b, 135c ...or 135n each of the random number n of the data packages 115a, 115b, 115c ... or 115n with its randomly selected subset of tokens K1, K2, K3 ... or Kn to the recipient device 105 at randomly delayed times as provided by the delay sub-module 127.

[0039] As the random number n of data packages are sent with its randomly selected subset of tokens after the corresponding random duration of time, the processor module 109 is further configured to deduct 143 the user-selected number K of tokens from the token balance in the sender's account 139. Consequently, the processor module 109 is further configured to credit 145 the sum, i.e. the total number, of tokens in all of the randomly selected subset K1, K2, K3 ... or Kn of the user-selected number (K) of tokens to the token balance associated with the recipient's account 141.

[0040] By virtue of the above described anonymizing features, it can be seen that requests 115 with negative indications will go through a randomization process in the server 103 prior to reaching (135a...135n) the recipient device 105, such that

the identity of the sender will be impossible to be deciphered. By virtue of the delay sub-module 127 of the processor module 109 in the server 103, the recipient device 105 will only receive (135a...135n) the tokens after a random duration of time, and the number n of data packages, in the form of notifications, received is also randomized. Only the system 100, in particular the server 103, will know the true identity of the sender.

[0041] Further, by virtue of the system 100, individuals are now able to give tokens to individuals within and outside of their organization. The request 115/115' may further comprise a relationship indicator (as shown in Figure 5) to reflect the strength of the relationship between two parties that are not in the same organization. The relationship indicator can be specified by both parties, and will not be revealed to either party when a relationship is created. Details of the relationship indicator will be described in relation to Figure 5.

[0042] Figure 2 shows a flow chart of a method 200 for facilitating anonymous communication according to an example embodiment. The method 200 includes step 202 of receiving, at the receiver module 107, a request 115/115' from a user (e.g., sender device 101) for sending data and a user-selected number K of tokens to a recipient (e.g., recipient device 105). In the present embodiment, the user 101 is the sender. The data in the request 115/115' is data of feedback that the sender intends to provide to the recipient. The data of the feedback comprises context of the recipient's performance. The context may include work, meeting, social relation or business relation, in which the feedback is formed and associated with the request 115/115'.

[0043] The method 200 also includes step 204 of generating 125, at the processor module 109, a random number n of data packages. The generation 125 of the random number n of data packages is in response to a negative indication associated with the request 115. Each of the random number n of data packages includes an anonymous message 115a...115n corresponding to the data and a randomly selected subset of the sender selected number K of tokens. The total number, i.e. the sum of the number of the randomly selected subset of K tokens K1, K2... Kn may tally with K, i.e. the number of tokens selected by the sender and deducted 143 from the token balance of the sender's account 139.

[0044] On the other hand, the sum of the number of the randomly selected subset of K tokens (K1, K2... Kn) may not tally with K. It can be appreciated to the skilled person that this non-tally can advantageously further anonymise the sender's identity as described above.

[0045] The method 200 further includes step 206 of sending 135a...135n, using an output module 111, the random number n of data packages to the recipient 105. Each of the random number n of data packages 115a...115n are sent 135a...135n with its corresponding randomly selected subset of tokens K1...Kn.

[0046] In an implementation, the method 200 further comprises determining 147, at the processor module 109, a random duration of time for each of the random number n of data packages. In an embodiment, the determination 147 of the random duration of time is carried out in the delay sub-module 127 of the processor module 109.

[0047] In another implementation, the method 200 further comprises providing 133, from the processor module 109, each of the random number of data packages to the output module 111 after the corresponding random duration of time has elapsed from a time the request 115 was received from the receiver module 107.

[0048] Figure 3 shows a flow chart 300 with detailed exemplary steps for generating a request 115/115' at a user's device 101, i.e. a sender's device 101, to be sent 117 and processed at a server 103 in accordance with the example embodiments illustrated in Figure 1 and Figure 2.

[0049] In an embodiment of Figure 3, the sender can start creating a request 115/115' for sending data and a self-selected number of tokens by selecting 301 a recipient to whom his/her feedback is to be sent to. With the recipient selected 301, the sender can specify an orientation indication 303 associated with the request 115/115'. In the present embodiment, the sender 101 can specify 303 a positive indication or a negative indication as the orientation indication.

[0050] If the sender specifies a positive indication 305, the sender can be guided 307 to specify whether he/she prefers to hide his/her identity. This preference of whether hiding identity with the positive indication will factor in whether or not the anonymous communication is sought. For example, it can be appreciated by the skilled person that the sender may wish to let the recipient know his/her identity if the feedback is positive. In such a case, the data with the sender self-selected number of tokens will be directly forwarded to the recipient without anonymisation. This can accelerate efficiency of the system 100 and the server 103.

[0051] If on the other hand, the sender wants to hide his/her identity 307 even if the feedback is positive 305, the sender will be guided 309 to specify context of the feedback. For example, the context may comprise work, meeting, social relations and/or business relations.

[0052] Similarly, if the sender specifies a negative indication 305, the sender 101 is guided 309 to specify the context of the feedback.

[0053] With the context specified 309, the sender can be further guided 311 to select/specify a number or quantity of tokens that he/she wishes to give to the recipient. As described above, the quantity of tokens varies according to the degree of appreciation or disappointment of the sender feedback of the recipient. After the above exemplary steps are performed, the sender can proceed 313 to send the request 115/115'.

[0054] Figure 4 shows a flow chart 400 with detailed exemplary steps for processing the request 115/115' at the server 103 in accordance with the example embodiments illustrated in Figure 1 and Figure 2. The processing may involve the anonymisation steps as described in the foregoing.

[0055] The request 115/115' is received 401 at the server 103. The transaction data of the request 115/115', i.e. including the data of the feedback, the sender selected number of tokens and the positive or negative indication, is then be stored 403 in the database 113. It can be appreciated by the skilled person that the data of the feedback may comprise the identity of the sender which can also be saved in the database 113. The sender selected number of tokens, for example, K tokens as

described in Figure 1, is then deducted 405 from an account of the sender that is stored in the database 113.

[0056] The server 113 can then identify 407 whether there is a need to hide the sender's identity. If there is a negative indication or the sender wants to hide his/her identity, the server 113 will responsively generate 409 a random number of data packages. As shown in Figure 1, the server 113 can generate n data packages. Each of the n data packages includes an anonymous message (115a, 115b ... or 115n) that corresponds to the data of the feedback comprised in the request 115, but with the sender's identity removed.

[0057] With the generation 125 of n data packages, the processor module 109 determines 411 a quantity of tokens, i.e. a random subset of the sender selected number of tokens ($K_1, K_2 \dots$ or K_n) for each of the n data packages. The each of the n data packages and its corresponding randomly determined subset of tokens can then be sent 417 to the output module 111 to be relayed 135a...135n to the recipient device 105. In the present embodiment, the n data packages may be in the form of notifications in the system 100.

[0058] In an implementation, the server 103 can determine a random amount of time on top of the randomisation of the data and tokens 413. Each of the n data packages and its corresponding randomly determined subset of tokens can be delayed for the random amount of time before being sent 417 to the recipient device 105. The random amount of time may be, for example, any duration between twelve hours and three days from a time the request 115 is received 401 at the server 103.

[0059] Either with or without the random duration of delay on top of the randomisation of the data and tokens, the total number of the randomly determined subset of tokens of each of the n data packages will be credited 415 to a token balance associated with the recipient. The token balance can be associated with a recipient's account in the database 113.

[0060] It can be appreciated by the skilled person that the request 115/115' in the example embodiments shown in Figures 1 to 4 may comprise mixed orientation indications. That is there may be both positive and negative indications comprised in

one request 115/115. In such a scenario, the request 115/115' may be processed in a plurality of sub-requests (not shown) according to the number of orientation indications.

- 5 **[0061]** Figure 5 shows a graphic model 500 illustrating an example visualization of information captured according to the example embodiments of Figures 1 to 4.

[0062] The graphic model 500 illustrates feedbacks amongst three parties A 501, B 503, and C 505 in the system 100. As shown in the graphic model 500, there are
10 mutual feedbacks provided between parties A 501 and B 503, and between parties A 501 and C 505. The three parties A 501, B 503, and C 505 shown in example graph model 500 are not in the same organization. It can be appreciated to the skilled person that the present embodiments of Figures 1 to 4 also work when three parties A 501, B 503, and C 505 are in the same organization.

15 **[0063]** In the graphic model 500, A 501 provides feedbacks 507, 509 and 513 to B 503. As described above, the request 115/115' may comprise a relationship indicator to reflect the strength of the relationship between two parties that are not in the same organization. The relationship indicator can be specified by both parties,
20 and will not be revealed to the other party when a relationship is created. Amongst A's feedbacks 507, 509 and 513 to B 503, the feedback 509 reflects a relationship indicator of party B 503 in the eye of party A 501. In the present embodiment, B 503 is a service provider of A 501. Referring to feedbacks 507 and 513, it can be seen that A 501 provides both positive indication and negative indication to the party B
25 503. That is, A's feedback to B comprises mixed positive and negative messages or comments. It can be also seen that each positive and negative indication is accompanied with an amount of tokens. The positive feedback 513 comprises 45 tokens while the negative feedback comprises 2 tokens. Therefore, feedbacks 507, 509 and 513 show a situation that A 501 is mostly happy with but simultaneously at
30 certain point has disappointment with B's 503 service.

[0064] Similarly, feedbacks 511 and 515 show a situation that B 503 is totally happy to work with his/her client A 501.

[0065] Referring to the data collected between parties A 501 and C 505, it can be seen from the feedback 519 that A 501 considers C 505 as a friend, and from the 102 tokens sent with the positive feedback 521 that A 501 is satisfied with the relationship with C 505.

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[0066] On the other hand, feedback 517 shows that C 505 merely considers A 501 as one of his/her acquaintances. Unlike A's 501 satisfaction with the relationship, C 505 provides both negative and positive indications to A 501. The positive feedback 523 comprises 78 tokens while the negative feedback 525 comprises 5 tokens.

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[0067] It can be appreciated to the skilled person that the feedbacks carrying negative or positive indications may comprise data of context.

[0068] As exemplified in Figure 5, the data collected in accordance with the preceding example embodiments of Figures 1 to 4 can provide useful insights to management, especially top management in an organisation. This is because the collected data, although not disclosed to the involved parties of a certain feedback, is stored in the server 103 and can be accessible to the top management when necessary. For example, different types of characters, the behavioural patterns of the employees and the corporate culture can be seen from the collected data, such as the employee who loves everyone, the hated, the haters, the loners, the cliques, and the well connected.

[0069] Further, based on the behavioral patterns observed for each individual based on data collected in accordance with the preceding example embodiments of Figures 1 to 4, the data can be used as supporting information during performance appraisal, such as a yearly performance review. Instead of having to go through the paper exercise (which might usually be biased), there is now genuine feedback data collected from everyone, both internal and external, who has worked or interacted with the individual. Even detail like an individual going through a difficult time or rough patch can be observed.

[0070] The system and method in the present application can be applied to the existing known systems to obtain improved system performance. Due to the guaranteed anonymity and fuss free way of giving tokens as described above,

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everyone in an organization can now be evaluated, including the management. Thus, improper leadership that is causing talent to leave an organisation can be quickly identified and addressed.

5 **[0071]** Furthermore, the requirement for individuals from different organizations to specify the strength of a relationship, in the form of a relationship indicator, allows potential future employers to be able to have a real view of the strength of a prospective hire's network. As shown in the graphic model 500, Person A 501 could have specified CEO B 505 as a friend 519, but CEO B 505 may have merely
10 specified Person A 501 as an acquaintance 517.

[0072] To facilitate the above advantages, the data collected and stored 119 in the server 103, or more particularly in the database 113, may include the following information.

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[0073] In the database 113, every user has an account. In every user's account, the following information associated with the user is stored 119: user id, work email, given name, family name, company name, token balance, timestamp of the creation of the account and time stamp of the last modification of the account.

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[0074] The other types of feedback data are collected and related to the relevant user's account. For example, the database 113 comprises a sub-database for data of each feedback transaction. The stored data of each feedback transaction comprises one or more of: a transaction id, an orientation indication of the feedback
25 (i.e. positive or negative indication), a context of the feedback, a sender id and a recipient id. The sender id and the recipient id can be stored in the form of the respectively corresponding user id. The stored data of each feedback transaction comprises one or more of: a quantity of the tokens involved (i.e. deducted from the token balance of the identified sender and credited from the token balance of the
30 identified recipient), and a timestamp of the transaction.

[0075] The database 113 also comprises a sub-database for data of relationships indicated as "Friends". The stored data of each "Friends" relationship comprises one or more of: a relationship id, a source user id, a target user id, a relationship type, a
35 timestamp of the "Friends" relationship, a flag indicating whether the two parties are

from the same organisation. The source user id and the target user id can be stored in the form of the respectively corresponding user id.

5 **[0076]** The database 113 further comprises a sub-database for each notification data. The stored each notification data comprises one or more of: a notification id, a recipient id, a notification type, notification content, a timestamp of the creation of the notification, and a timestamp of the reading of the notification. The recipient id can be stored in the form of the corresponding user id.

10 **[0077]** Furthermore, the database 113 may comprise a sub-database for an account history for every feedback token transaction in each token balance. The account history of every token balance comprises one or more of: a user id associated with the token balance, a line id indicating the direction of the token transaction, a timestamp of the token transaction, an amount of the tokens involved in the token
15 transaction, and a detailed comment that may accompany the token transaction.

[0078] Figure 6 shows a schematic of an exemplary wireless computing device 600 that may be utilized to implement the sender's device 101 or the recipient's device 105 of the system 100.

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[0079] The sender's device 101 or the recipient's device 105 comprises a keypad 602, a touch-screen 604, a microphone 606, a speaker 608 and an antenna 610. The wireless device 600 is capable of being operated by a user to perform a variety of different functions, such as, for example, hosting a telephone call, sending an
25 SMS message, browsing the Internet, sending an email and providing satellite navigation.

[0080] The wireless device 600 comprises hardware to perform communication functions (e.g. telephony, data communication), together with an application
30 processor and corresponding support hardware to enable the wireless device 600 to have other functions, such as, messaging, Internet browsing, email functions and the like. The communication hardware is represented by a radio frequency (RF) processor 612 which provides an RF signal to the antenna 610 for the transmission of data signals, and the receipt therefrom. Additionally provided is a baseband

processor 614, which provides signals to and receives signals from the RF Processor 612. The baseband processor 614 also interacts with a subscriber identity module (SIM) 616, as is well known in the art. The communication subsystem enables the wireless device 600 to communicate via a number of different communication protocols including 3G, 4G, GSM, WiFi, WiFi Direct, RFID, Bluetooth™, Bluetooth™ low energy (BLE) and/or CDMA. The communication subsystem of the wireless device 600 is beyond the scope of the present invention. However, the communication subsystem preferably allows communication with decoder module and memory module used in embodiments of the invention as described above.

[0081] The keypad 602 and the touch-screen 604 are controlled by an application processor 618. A power and audio controller 620 is provided to supply power from a battery 622 to the communication subsystem, the application processor 618, and the other hardware. The power and audio controller 620 also controls input from the microphone 606, and audio output via the speaker 608. Also provided is a global positioning system (GPS) antenna and associated receiver element 624 which is controlled by the application processor 618 and is capable of receiving a GPS signal for use with a satellite navigation functionality of the wireless device 600.

[0082] In order for the application processor 618 to operate, various different types of memory are provided. Firstly, the wireless device 600 includes Random Access Memory (RAM) 626 connected to the application processor 618 into which data and program code can be written and read from at will. Code placed anywhere in RAM 626 can be executed by the application processor 318 from the RAM 626. RAM 626 represents a volatile memory of the wireless device 600.

[0083] Secondly, the wireless device 600 is provided with a long-term storage 628 connected to the application processor 618. The long-term storage 628 comprises three partitions, an operating system (OS) partition 630, a system partition 632 and a user partition 634. The long-term storage 628 represents a non-volatile memory of the wireless device 600.

[0084] In the present example, the OS partition 630 contains the firmware of the wireless device 600 which includes an operating system. Other computer programs may also be stored on the long-term storage 628, such as application programs (also referred to as apps), and the like. In particular, application programs which are mandatory to the wireless device 600, such as, in the case of a smartphone, communications applications and the like are typically stored in the system partition 632. The application programs stored on the system partition 632 could typically be those which are bundled with the wireless device 600 by the device manufacturer when the wireless device 600 is first sold.

[0085] Application programs which are added to the wireless device 600 by the user could usually be stored in the user partition 634.

[0086] As stated, the representation of Figure 6 is schematic. In practice, the various functional components illustrated may be substituted into one and the same component. For example, the long-term storage 628 may comprise NAND flash, NOR flash, a hard disk drive or a combination of these.

[0087] Figure 7 depicts an exemplary computing device 700, hereinafter interchangeably referred to as a computer system 700, where one or more such computing devices 700 may be used to realize at least a part of the sender's device 101, the recipient's device 105, the server 103, receiver module 107, the processor module 109, the delay sub-module 127 and/or other (sub)modules described herein. The following description of the computing device 400 is provided by way of example only and is not intended to be limiting.

[0088] As shown in Figure 7, the example computing device 700 includes a processor 704 for executing software routines. Although a single processor is shown for the sake of clarity, the computing device 700 may also include a multi-processor system. The processor 704 is connected to a communication infrastructure 706 for communication with other components of the computing device 700. The communication infrastructure 706 may include, for example, a communications bus, cross-bar, or network.

[0089] The computing device 700 further includes a main memory 708, such as a random access memory (RAM), and a secondary memory 710. The secondary memory 710 may include, for example, a hard disk drive 712 and/or a removable storage drive 714, which may include a magnetic tape drive, an optical disk drive, or the like. The secondary memory 710 can function as the database 113 used to store the collected data. The removable storage drive 714 reads from and/or writes to a removable storage unit 718 in a well-known manner. The removable storage unit 718 may include a magnetic tape, optical disk, or the like, which is read by and written to by removable storage drive 714. As will be appreciated by persons skilled in the relevant art(s), the removable storage unit 718 includes a computer readable storage medium having stored therein computer executable program code instructions and/or data.

[0090] In an alternative implementation, the secondary memory 710 may additionally or alternatively include other similar means for allowing computer programs or other instructions to be loaded into the computing device 700. Such means can include, for example, a removable storage unit 722 and an interface 750. Examples of a removable storage unit 722 and interface 750 include a program cartridge and cartridge interface (such as that found in video game console devices), a removable memory chip (such as an EPROM or PROM) and associated socket, and other removable storage units 722 and interfaces 750 which allow software and data to be transferred from the removable storage unit 722 to the computer system 700.

[0091] The computing device 700 also includes at least one communication interface 724 (which can function as the output module 111). The communication interface 724 allows software and data to be transferred between computing device 700 and external devices via a communication path 726. In various embodiments of the inventions, the communication interface 724 permits data to be transferred between the computing device 700 and a data communication network, such as a public data or private data communication network. The communication interface 724 may be used to exchange data between different computing devices 700 which such computing devices 700 form part an interconnected computer network. Examples of a communication interface 724 can include a modem, a network

interface (such as an Ethernet card), a communication port, an antenna with associated circuitry and the like. The communication interface 724 may be wired or may be wireless. Software and data transferred via the communication interface 724 are in the form of signals which can be electronic, electromagnetic, optical or other
5 signals capable of being received by communication interface 724. These signals are provided to the communication interface via the communication path 726.

[0092] As shown in Figure 7, the computing device 700 further includes a display interface 702 which performs operations for rendering images to an associated
10 display 730 and an audio interface 732 for performing operations for playing audio content via associated speaker(s) 734.

[0093] As used herein, the term "computer program product" may refer, in part, to removable storage medium 744, removable storage unit 722, a hard disk installed in
15 hard disk drive 712, or a carrier wave carrying software over communication path 726 (wireless link or cable) to communication interface 724. Computer readable storage media refers to any non-transitory tangible storage medium that provides recorded instructions and/or data to the computing device 700 for execution and/or processing. Examples of such storage media include magnetic tape, CD-ROM,
20 DVD, Blu-ray™ Disc, a hard disk drive, a ROM or integrated circuit, USB memory, a magneto-optical disk, or a computer readable card such as a SD card and the like, whether or not such devices are internal or external of the computing device 700. Examples of transitory or non-tangible computer readable transmission media that may also participate in the provision of software, application programs, instructions
25 and/or data to the computing device 700 include radio or infra-red transmission channels as well as a network connection to another computer or networked device, and the Internet or Intranets including e-mail transmissions and information recorded on Websites and the like.

[0094] The computer programs (also called computer program code) are stored in
30 main memory 708 and/or secondary memory 710. Computer programs can also be received via the communication interface 724. Such computer programs, when executed, enable the computing device 700 to perform one or more features of embodiments discussed herein. In various embodiments, the computer programs,

when executed, enable the processor 704 to perform features of the above-described embodiments. Accordingly, such computer programs represent controllers of the computer system 700.

5 **[0095]** Software may be stored in a computer program product and loaded into the computing device 700 using the removable storage drive 714, the hard disk drive 712, or the interface 750. Alternatively, the computer program product may be downloaded to the computer system 700 over the communications path 726. The software, when executed by the processor 704, causes the computing device 700 to
10 perform functions of embodiments described herein.

[0096] It is to be understood that the embodiment of Figure 7 is presented merely by way of example. Therefore, in some embodiments one or more features of the computing device 700 may be omitted. Also, in some embodiments, one or more
15 features of the computing device 700 may be combined together. Additionally, in some embodiments, one or more features of the computing device 700 may be split into one or more component parts.

[0097] It will be appreciated by a person skilled in the art that numerous variations and/or modifications may be made to the present invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly
20 described. The present embodiments are, therefore, to be considered in all respects to be illustrative and not restrictive.

CLAIMS

1. A server for facilitating anonymous communication, the server comprising:
 - 5 a receiver module configured to receive a request from a user for sending data and a user-selected number of tokens to a recipient;
 - a processor module configured to generate a random number of data packages in response to a negative indication associated with the request, each of the random number of data packages including an anonymous message
 - 10 corresponding to the data and a randomly selected subset of the user-selected number of tokens; and
 - an output module configured to send the random number of data packages to the recipient.
- 15 2. The server of claim 1, wherein the processor module is further configured to determine a random duration of time for each of the random number of data packages, wherein the processor module is further configured to provide each of the random number of data packages to the output module after the corresponding random duration of time has elapsed from a time the request was received from the
- 20 receiver module.
3. The server of claim 1 or 2, wherein the data comprises at least one context associated with the request.
- 25 4. The server of any of claims 1 to 3, wherein a total number of tokens in all of the randomly selected subset of the user-selected number of tokens comprises the user-selected number of tokens specified by the user.
5. The server of claim 4, further comprising a database coupled to the
- 30 processor module and configured to store the data.
6. The server of claim 5, wherein the processor module is further configured to deduct the user-selected number of tokens from a balance of tokens associated with

an account of the user, wherein the balance of tokens and the account of the user are stored in the database.

7. The server of claim 5, wherein the processor module is further configured to
5 credit the total number of tokens in all of the randomly selected subset of the user-selected number of tokens to a balance of tokens associated with an account of the recipient, wherein the balance of tokens and the account of the recipient are stored in the database.

10 8. A method for facilitating anonymous communication, the method comprising:

receiving a request from a user for sending data and a user-selected number
of tokens to a recipient;
generating a random number of data packages, in response to a negative
15 indication associated with the request, each of the random number of data packages including an anonymous message corresponding to the data and a randomly selected subset of the user-selected number of tokens; and
sending the random number of data packages to the recipient.

20 9 The method of claim 8, further comprising:
determining a random duration of time for each of the random number of data packages, and wherein the step of sending comprises
sending each of the random number of data packages after the
corresponding random duration of time has elapsed from a time the request was
25 received.

10. The method of claims 8 or 9, wherein the data comprises at least one context associated with the request.

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11. The method of any of claims 8 to 10, wherein a total number of tokens in all of the randomly selected subset of the user-selected number of tokens comprises the user-selected number of tokens specified by the user.

12. The method of claim 11, further comprising storing the data.

13. The method of claim 12, further comprising:

5 deducting the user-selected number of tokens from a balance of tokens associated with an account of the user, wherein the data comprises the balance of tokens and the account of the user.

14. The method of claim 12, further comprising:

10 crediting the total number of tokens in all of the randomly selected subset of the user-selected number of tokens to a balance of tokens associated with an account of the recipient, wherein the data comprises the balance of tokens and the account of the recipient.

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