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(54) **SOCIAL PRODUCT PROMOTION**

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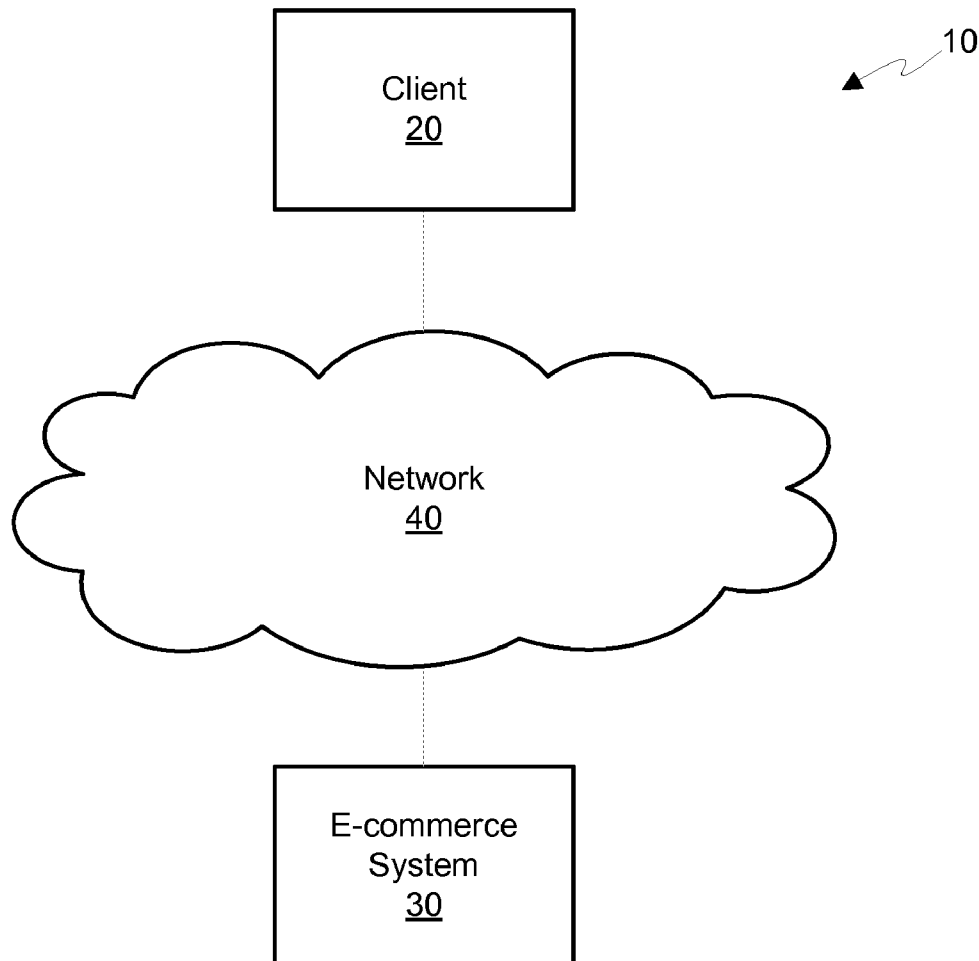
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(57) **ABSTRACT**

**Related U.S. Application Data**

(60) Provisional application No. 61/727,913, filed on Nov. 19, 2012, provisional application No. 61/641,329, filed on May 2, 2012.

Methods and apparatus are disclosed regarding an e-commerce system having social networking aspects. The e-commerce system leverages such social networking aspects to help promote the sale of products.



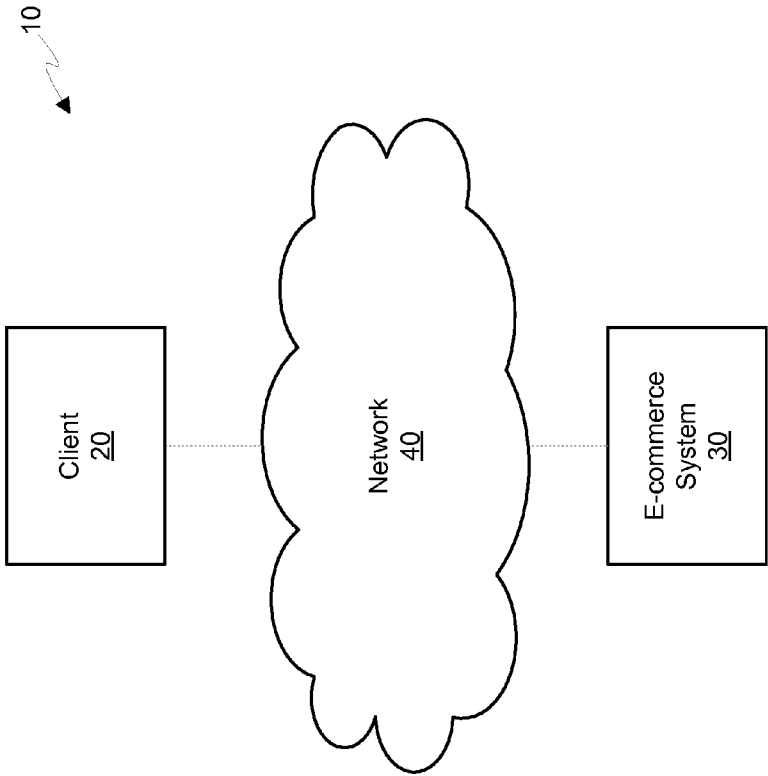


Fig. 1

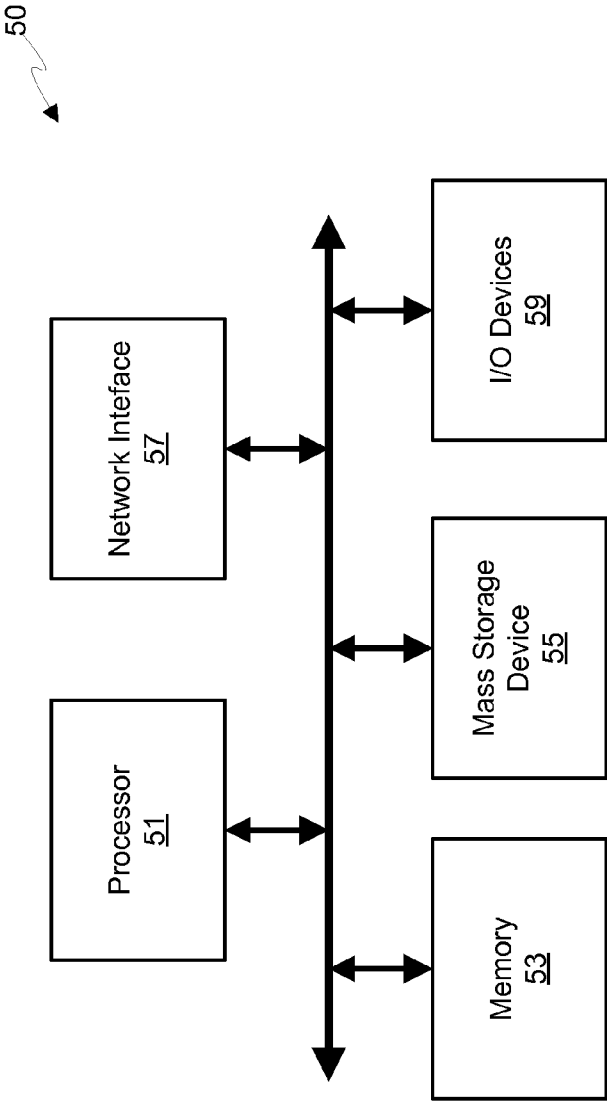


Fig. 2

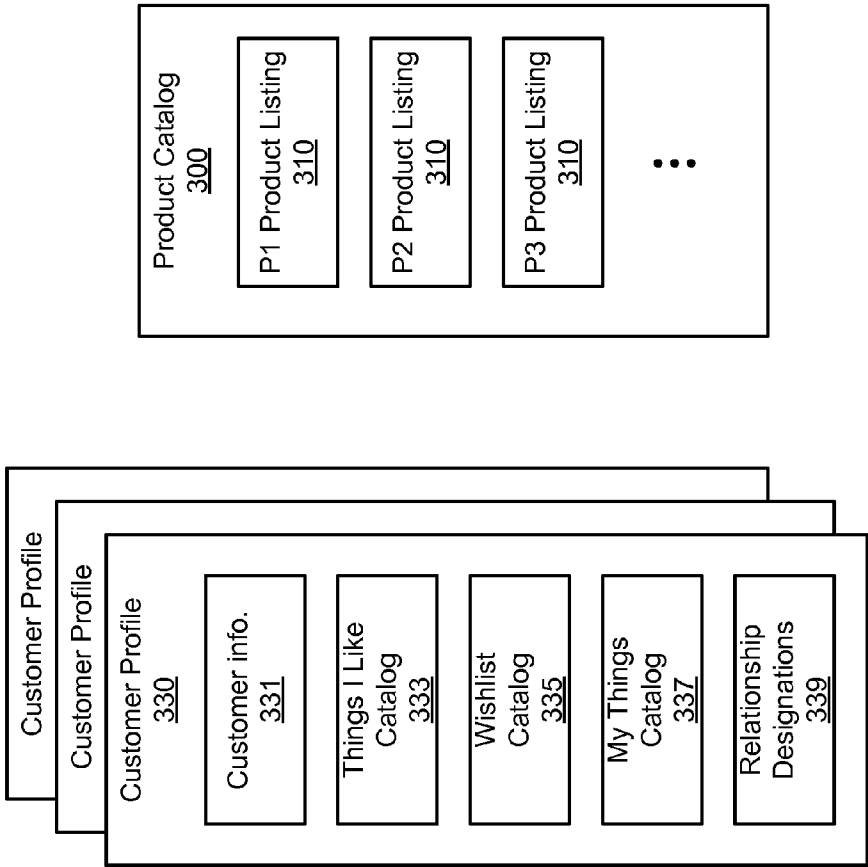


Fig. 3

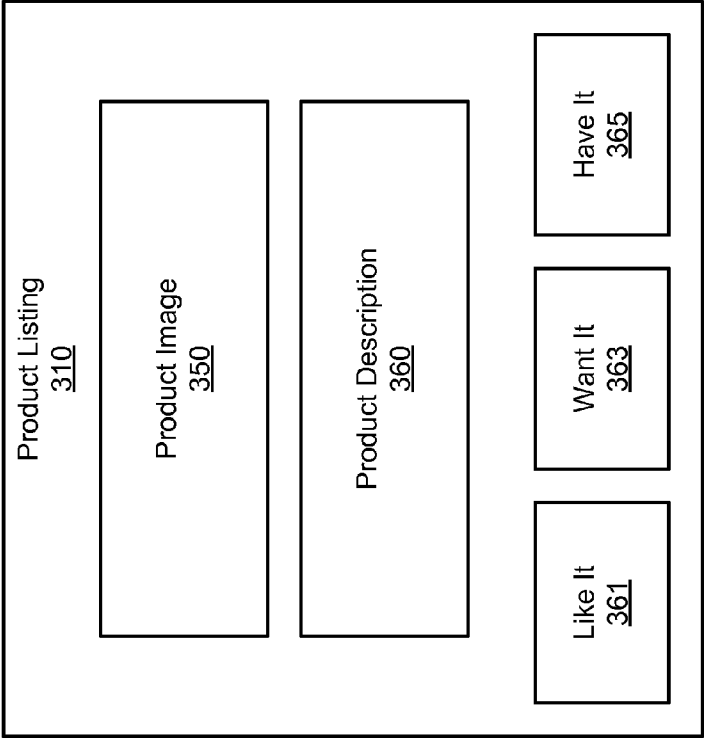


Fig. 4

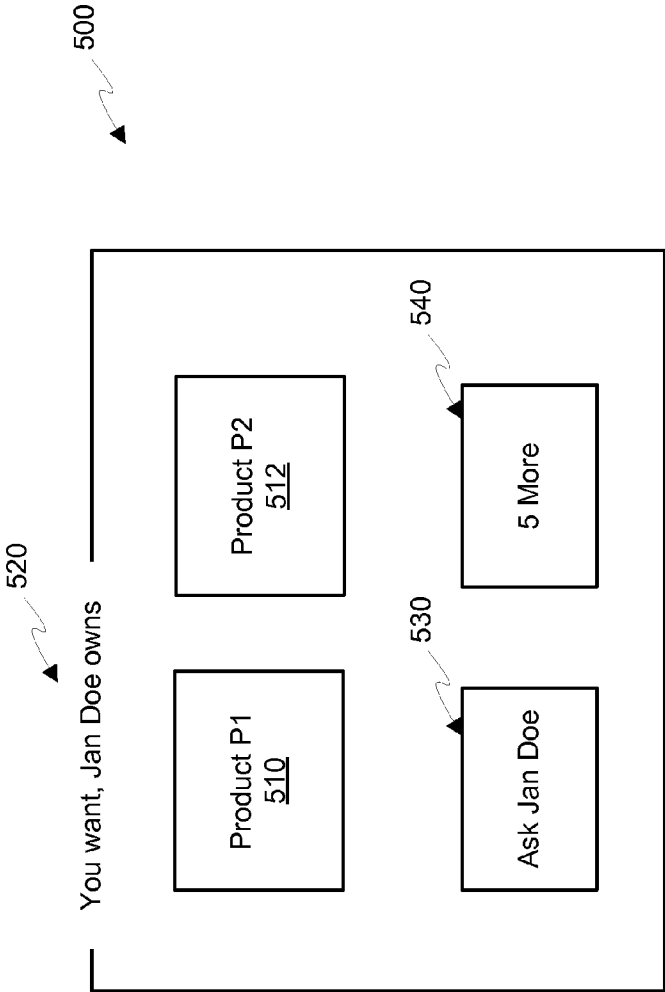


Fig. 5

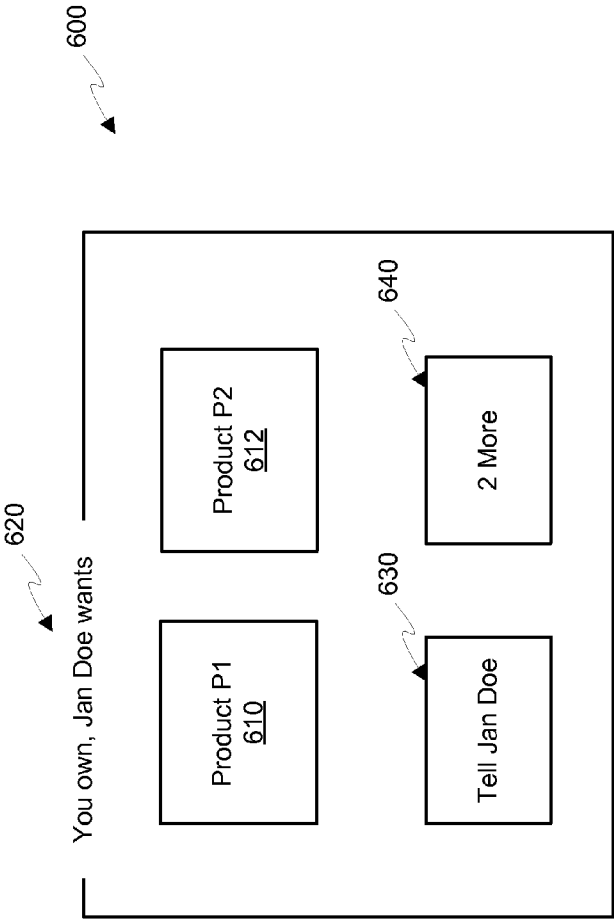


Fig. 6

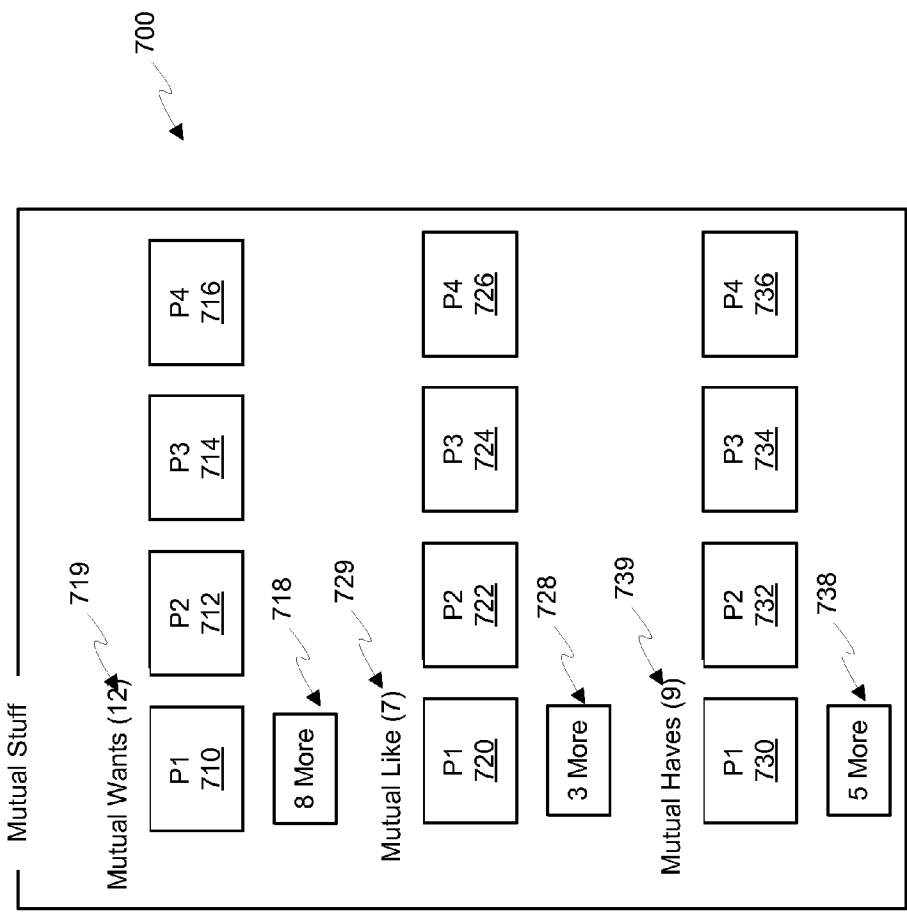


Fig. 7



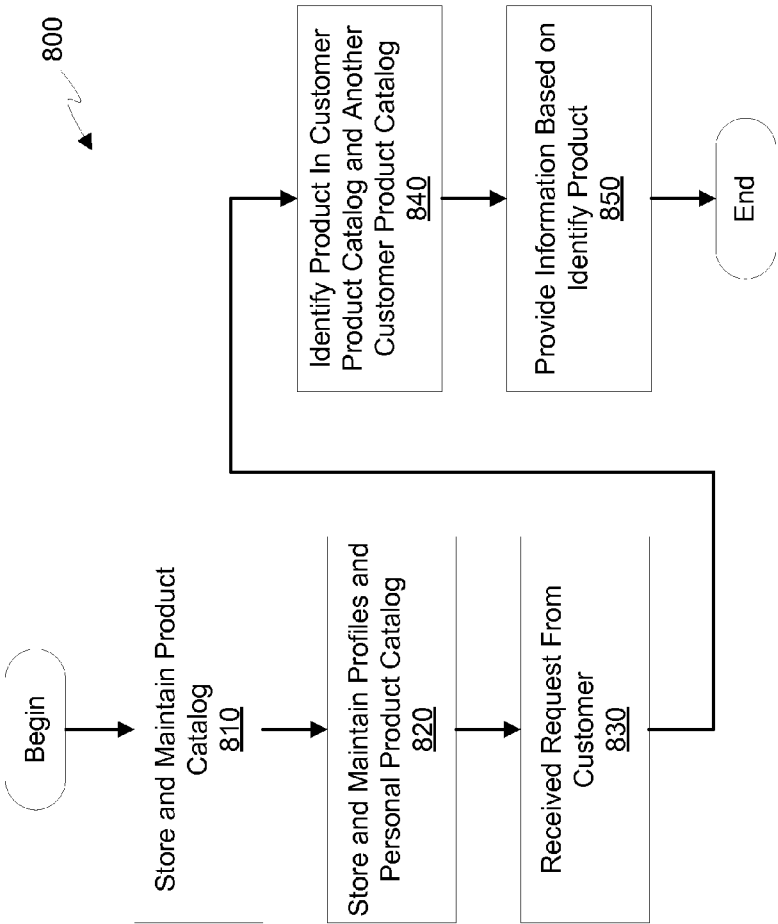


Fig. 8

## SOCIAL PRODUCT PROMOTION

### RELATED APPLICATIONS

[0001] This application is a non-provisional application claiming priority of U.S. Provisional Application No. 61/727, 913, filed Nov. 19, 2012, and U.S. Provisional Application No. 61/641,329, filed May 2, 2012, which are incorporated herein by reference in their entirety.

### FIELD OF THE INVENTION

[0002] Various embodiments relate to electronic commerce (e-commerce) and social networking, and more, particularly to product promotion in an e-commerce environment having social networking aspects.

### BACKGROUND OF THE INVENTION

[0003] Electronic commerce (e-commerce) sites are an increasing popular venue for consumers to research and purchase products without physically visiting a conventional brick-and-mortar retail store. Similarly, social networking sites, such as Facebook and Google+, are an increasing popular venue for members to further grow and establish relationships with friends, family, and acquaintances. Given the success of such social networking sites, e-commerce sites have added features that integrate the e-commerce site with popular social networking sites and/or add social networking features to foster and grow a community on the e-commerce site itself. While such approaches have garnered various levels of success in the form of increased patronage and sales, incorporation of additional social networking features and further leveraging of social relationships in an e-commerce environment may drive even greater sales and customer loyalty.

[0004] Limitations and disadvantages of conventional and traditional approaches should become apparent to one of skill in the art, through comparison of such systems with aspects of the present invention as set forth in the remainder of the present application.

### BRIEF SUMMARY OF THE INVENTION

[0005] Apparatus and methods of promoting products in an e-commerce environment are substantially shown in and/or described in connection with at least one of the figures, and are set forth more completely in the claims.

[0006] These and other advantages, aspects and novel features of the present invention, as well as details of an illustrated embodiment thereof, will be more fully understood from the following description and drawings.

### BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

[0007] FIG. 1 shows an e-commerce environment comprising a client and an e-commerce system in accordance with an embodiment of the present invention.

[0008] FIG. 2 shows a highly-simplified embodiment of a computing device for use in the e-commerce environment of FIG. 1.

[0009] FIG. 3 shows user profiles and product catalogs maintained by an e-commerce system of FIG. 1.

[0010] FIG. 4 shows an embodiment of a product listing provided by the e-commerce system of FIG. 1.

[0011] FIG. 5 shows a listing of products wanted by the requesting customer and owned by another customer of the e-commerce system of FIG. 1.

[0012] FIG. 6 shows a listing of products owned by the requesting customer and wanted by another customer of the e-commerce system of FIG. 1.

[0013] FIG. 7 shows a mutual listing of products that have the same attributes across two separate customers of the e-commerce system of FIG. 1.

[0014] FIG. 8 shows a method of promoting products implemented by the e-commerce system of FIG. 1.

### DETAILED DESCRIPTION OF THE INVENTION

[0015] Aspects of the present invention are related to e-commerce systems with social networking features. More specifically, certain embodiments of the present invention relate to apparatus and methods that leverage social networks to promote products.

[0016] Referring now to FIG. 1, a highly-simplified depiction of e-commerce environment 10 is provided. As shown, the e-commerce environment 10 may include a client 20 connected to an e-commerce system 30 via a network 40. The network 40 may include a number of private and/or public networks such as, for example, wireless and/or wired LAN networks, cellular networks, and the Internet that collectively provide a communication path and/or paths between the client 20 and the e-commerce system 30. The client 20 may include a desktop, a laptop, a tablet, a smart phone, and/or some other type of computing device which enables a user to communicate with the e-commerce system 30 via the network 40. The e-commerce system 30 may include one or more web servers, database servers, routers, load balancers, and/or other computing and/or networking devices that operate to provide an e-commerce experience for users that connect to the e-commerce system 30 via the client 20 and the network 40.

[0017] As noted above, the depicted e-commerce environment 10 is highly simplified. Those skilled in the art readily appreciate that the e-commerce environment 10 of FIG. 1 may be implemented in numerous different manners using a wide range of different computing devices, platforms, networks, etc. Moreover, those skilled in the art readily appreciate that while aspects of the e-commerce environment 10 may be implemented using a client/server architecture, aspects of the e-commerce may be implemented using a peer-to-peer architecture or another networking architecture.

[0018] As noted above, the client 20 and the e-commerce system 30 may include a computing device. FIG. 2 provides a highly-simplified depiction of a computing device 50 suitable for implementing a computing device of the client 20 and/or e-commerce system 30. As shown, the computing device 50 may include a processor 51, a memory 53, a mass storage device 55, a network interface 57, and various input/output (I/O) devices 59. The processor 51 may be configured to execute instructions, manipulate data and generally control operation of other components of the computing device 50 as a result of its execution. To this end, the processor 51 may include a general purpose processor such as an x86 processor or an ARM processor which are available from various vendors. However, the processor 51 may also be implemented using an application specific processor and/or other logic circuitry.

[0019] The memory 53 may store instructions and/or data to be executed and/or otherwise accessed by the processor 51.

In some embodiments, the memory **53** may be completely and/or partially integrated with the processor **51**.

**[0020]** In general, the mass storage device **55** may store software and/or firmware instructions which may be loaded in memory **53** and executed by processor **51**. The mass storage device **55** may further store various types of data which the processor **51** may access, modify, and/or otherwise manipulate in response to executing instructions from memory **53**. To this end, the mass storage device **55** may comprise one or more redundant array of independent disks (RAID) devices, traditional hard disk drives (HDD), solid-state device (SSD) drives, flash memory devices, read only memory (ROM) devices, etc.

**[0021]** The network interface **57** may enable the computing device **50** to communicate with other computing devices via network **40**. To this end, the networking interface **57** may include a wired networking interface such as an Ethernet (IEEE 802.3) interface, a wireless networking interface such as a WiFi (IEEE 802.11) interface, a radio or mobile interface such as a cellular interface (GSM, CDMA, LTE, etc), and/or some other type of networking interface capable of providing a communications link between the computing device **50** and network **40** and/or another computing device.

**[0022]** Finally, the I/O devices **59** may generally provide devices which enable a user to interact with the computing device **50** by either receiving information from the computing device **50** and/or providing information to the computing device **50**. For example, the I/O devices **59** may include display screens, keyboards, mice, touch screens, microphones, audio speakers, etc.

**[0023]** While the above provides some general aspects of a computing device **50**, those skilled in the art readily appreciate that there may be significant variation in actual implementations of a computing device. For example, a smart phone implementation of a computing device generally uses vastly different components and may have a vastly different architecture than a database server implementation of a computing device. However, despite such differences, computing devices still generally include processors that execute software and/or firmware instructions in order to implement various functionality. As such, the above described aspects of the computing device **50** are not presented from a limiting standpoint but from a generally illustrative standpoint. The present application envisions that aspects of the present application will find utility across a vast array of different computing devices and the intention is not to limit the scope of the present application to a specific computing device and/or computing platform beyond any such limits that may be found in the appended claims.

**[0024]** As part of the provided e-commerce experience, the e-commerce system **30** may enable customers, which may be guests or members of the e-commerce system **30**, to browse and/or otherwise locate products. The e-commerce system **30** may further enable such customers to purchase products offered for sale. To this end, the e-commerce system **30** maintains a product catalog or database **300**. As shown in FIG. 3, the product catalog **300** includes product listings **310** for each product available for purchase. Each product listing **310** may include various information regarding the respective product, such as a unique product identifier (e.g., stock-keeping unit “SKU”), a product description, product image(s), manufacture information, available quantity, price, etc. Moreover, while the e-commerce system **30** may enable guests to purchase products without registering and/or otherwise signing-

up for a membership, the e-commerce system **30** provides additional functionality to those users that become a member.

**[0025]** One additional feature the e-commerce system **30** provides to members is the ability to create a customer profile **330**. As shown, a customer profile **330** may include personal information **331**, personal catalogs **333**, **335**, **337**, and relationship designations **339**. The personal information **331** may include such items as name, mailing address, email address, phone number, billing information, clothing sizes, birthdates of friends and family, etc. which the e-commerce system **30** maintains in a private manner. The personal catalogs **333**, **335**, **337** may enable a member to assign various ownership, desirability, and/or other attributes to products in the product catalog **300**. The e-commerce system **30** may further enable the member to assign relationship designations **339** to other members. For example, the e-commerce system **30** may permit a member to identify another member as a friend, buddy, co-worker, family member, or some other designation. The e-commerce system **30** may utilize such relationship designations **339** to control the amount of information shared between members. For example, the e-commerce system **30** may enable the member to share information (e.g., birth date, clothing sizes, name, email address, personal catalogs, etc.) with members having one designation but not with members having another designation. In particular, the member may share certain information with their “friends” and may share a subset of such information with general “members” of the e-commerce site.

**[0026]** As noted above, the e-commerce system **30** permits members to assign attributes to products and create personal catalogs based on such assigned attributes. To this end, the e-commerce system **30** may cause a client **10** to display a product listing **310** as shown in FIG. 4. In particular, the e-commerce system **30** may provide such a product listing **310** in response to a member browsing products by type, price, kind, etc., viewing a list of products obtained from a product search, and/or other techniques supported by the e-commerce system **30** for locating products of interest. As shown, the product listing **310** may include one or more representative images **350** of the product as well as a product description **360**. The product listing **310** may further include one or more attribute controls **361**, **363**, **365** which the member may activate (e.g., clicking via a mouse, touching a touch screen, etc.) in order to associate a particular attribute with the product. In one embodiment, the e-commerce system **30** may cause the client **20** to display a product listing **310** that includes a “Like It” control **361**, a “Want It” control **363**, and a “Have It” control **365**.

**[0027]** By activating the “Like It” control **361**, the member may cause the e-commerce system **30** to add the product to a “Things I Like” or “Like It” personal catalog **333** which maintains a listing of products which the member likes. Similarly, by activating the “Want It” control **363**, the member may cause the e-commerce system **30** to add the product to a “Wishlist” or “Want It” personal catalog **335** which maintains a listing of products which the member wants to own. Furthermore, by activating the “Have It” control **365**, the member may cause the e-commerce system **30** to add the product to a “My Things” or “Have It” personal catalog **337** which maintains a listing of products which the member owns.

**[0028]** Besides permitting a member the ability to add products to respective personal catalogs via a product listing, the e-commerce system **30** may further provide various manners by which the member may remove a product from a

personal catalog. For example, the product listing **310** may display the controls **361**, **363**, **365** in a manner that indicates the respective attribute has already been assigned to the product. In particular, the product listing **310** may depict a depressed button, a checked box, etc. associated with the respective attribute. In such embodiments, the member may remove a product from a personal catalog by simply reactivating the corresponding control **361**, **363**, **365** in the product listing **310**. The e-commerce system **30** may further permit the member to browse their respective personal catalogs **333**, **335**, **337** in order to perform various management tasks such as removing products from the respective catalog. For example, the e-commerce system **30** via the client **20** may provide a product listing with a “Remove” control that enables the member to activate the control in order to remove the product from the respective catalog.

**[0029]** Thus, the e-commerce system **30** may enable members to create and maintain various personal catalogs of products with common attributes assigned by the member. In one embodiment, the e-commerce system **30** may leverage such personal catalogs of its members in order to help promote products. In particular, as shown in FIG. 5, the e-commerce system **30** via the client **20** may present a member with a listing **500** of products **510**, **512** that the member wants to own and another member owns. Besides identifying the products that satisfy the relevant criteria, the listing **500** may further include a title **520** that conveys the depicted criteria or attributes of the displayed products **510**, **512**. For example, the listing of FIG. 5 indicates that the products **510**, **512** are products that the member (e.g., “You”) wants and that the other member (e.g., “Jan Doe”) owns. The listing **500** may further include a Contact control **530** and a “More” control **540**.

**[0030]** In one embodiment, the e-commerce system **30** may limit the listing **500** to a predetermined number (e.g., **4**) of products to prevent presenting the member with too much information. The e-commerce system **30** may select the predetermined number of products based on various criteria such as popularity of the product, price of the product, availability of the product, promotions associated with the product, price reductions, and/or heuristically determined desirability of the product to the member. For example, the e-commerce system **30**, based on various information maintained about the member, may calculate the likelihood of the member purchasing the product. Since the e-commerce system **30** may limit the number of products presented in the listing **500**, the More control **540** provides the member with a way to view additional products that satisfy the attributes of the products in the listing **500**. In particular, the More control **540** may further indicate the number of additional products which satisfy the attributes.

**[0031]** As noted above, the listing **500** may further include a Contact control **530**. In one embodiment, the e-commerce system **30** may present the Contact control **530** in a manner that asks the member whether they want to ask the other member for information or other feedback about the product. The member may then activate the Contact control **530** in order to initiate communication and ask the other member (e.g., Jan Doe) for such information about one of the products **510**, **512**. Such communication may take many different forms. For example, the communication may be an e-mail message, an instant message, a comment placed in a timeline of home page, profile page, etc. of the other member. In this manner, the e-commerce system **30** provides a vehicle by

which the member may obtain additional information regarding a product. In particular, the member may ask other members regarding their experience, opinion, etc. with product. Such feedback may greatly influence the member’s decision to purchase the product for themselves especially if the other member is a family member, friend, or acquaintance for which they respect their opinion.

**[0032]** It should be appreciated that the e-commerce system **30** may provide the member with the listing **500** as a result of various browsing, research, and/or other usage of the e-commerce system **30**. For example, the e-commerce system **30** may provide the listing **500** when the member requests the profile of another member. The e-commerce system **30** may also provide the listing **500** when the member views a page for a product that is in the member’s “Wishlist” catalog **335** and that is in another member’s “My Things” catalog **337**. In such situations, the e-commerce system **30** may limit the search of “My Things” catalogs **337** to those members with which the member has specified a relationship (e.g., family member, friend, etc.). Feedback from such members is likely to have a greater influence on the member’s purchasing decision than feedback from a stranger.

**[0033]** As shown in FIG. 6, the e-commerce system **30** via the client **20** may present a member with a listing **600** of products **610**, **612** that the member owns and another member wants to own. Besides identifying the products that satisfy the relevant criteria, the listing **600** may further include a title **620** that conveys the depicted criteria or attributes of the displayed products **610**, **612**. For example, the listing of FIG. 6 indicates that the products **610**, **612** are products that the member (e.g., “You”) own and that the other member (e.g., “Jan Doe”) wants to own. The listing **600** may further include a Contact control **630** and a More control **640**. It should be appreciated that the e-commerce system **30** may implement listing **600** in a manner similar to listing **500**. The main difference between listing **500** and listing **600** is that Contact control **530** results in the member requesting information about a product **510**, **512** that the other member owns, whereas the Contact control **630** results in the member providing information about a product **610**, **612** that the other member wants to own. To this end, the e-commerce system **30** may present the Contact control **630** such that the Contact control **630** requests the member to share information about a product **610**, **612** with the other member.

**[0034]** The e-commerce system **30** via the client **20** may further provide a mutual listing or listings **700** based on personal catalogs as shown in FIG. 7. As shown, the mutual listing **700** may provide products mutually wanted, mutually liked, and mutually owned by two members. More specifically, the listing **700** may provide a subset of products **710**, **712**, **714**, **716** that are mutually wanted by two members, the number **719** of products mutually wanted by both members, and a more control **718** that can be activated to show additional products mutually wanted by both members. As depicted, the more control **718** may provide an indication of the number of additional products that are mutually wanted by both members but not currently displayed. It should be appreciated that the e-commerce system **30** may generate such mutually wanted listing based on the “Wishlist” catalogs **335** for the two members. If the product is present in the “Wishlist” catalog **335** of two members, then both members want the product.

**[0035]** The e-commerce system **30** may generate the mutually liked and the mutually owned listings in a similar manner

based on the “Things I Like” catalogs **333** and “My Things” catalogs **337** of the two members. More specifically, the listing **700** may provide a subset of products **720**, **722**, **724**, **726** that are mutually liked by two members, the number **729** of products mutually liked by both members, and a more control **728** that can be activated to show additional products mutually liked by both members. Similarly, the listing **700** may provide a subset of products **730**, **732**, **734**, **736** that are mutually owned by two members, the number **739** of products mutually owned by both members, and a more control **738** that can be activated to show additional products mutually owned by both members.

**[0036]** It should be appreciated that the e-commerce system **30** may provide a member with the mutual listing(s) **700** as a result of various browsing, research, and/or other usage of the e-commerce system **30**. For example, the e-commerce system **30** may provide the listing **700** when the member requests the profile of another member. The e-commerce system **30** may also provide the listing **700** when the member requests the e-commerce system **30** to locate a member with similar product preferences. Such a request may help the member to expand their social network to other members that share a similar view of products and thus provide another avenue for relevant feedback. Such identification of previously unknown members may be helpful to a member when none of their current contacts have experience with a product of interest.

**[0037]** Referring now to FIG. **8**, a flowchart of a method **800** of promoting products in an e-commerce environment having social networking aspects is shown. In particular, at block **810** a computing system such as e-commerce system **30** may store and maintain a catalog of products that are available for sale. Such catalog may be stored in one more mass storage devices **55** which may be associated with one more database servers. The catalog may include various information about the products for sale such as, for example, quantity available, price, product description, etc. At block **820**, the e-commerce system **30** may store and maintain profiles **330** and personal catalogs **333**, **335**, **337** for customers/members of the e-commerce system **30**. The e-commerce system **30** at block **830** may receive a request for information from a particular customer. In response to such request, the e-commerce system at block **840** may obtain the personal catalogs for the customer and identify based on personal catalogs for at least one other customer a product that is present in a personal catalog of the customer and the personal catalog of the other customer. As block **850**, the e-commerce system **30** may provide the customer via client **20** information based upon the product identified as being present in personal catalogs of the two customers. In particular, the e-commerce system **30** may provide the client **20** with information for a product listing **500**, a product listing **600**, and/or a mutual listing **700**.

**[0038]** Various embodiments of the invention have been described herein by way of example and not by way of limitation in the accompanying figures. For clarity of illustration, exemplary elements illustrated in the figures may not necessarily be drawn to scale. In this regard, for example, the dimensions of some of the elements may be exaggerated relative to other elements to provide clarity. Furthermore, where considered appropriate, reference labels have been repeated among the figures to indicate corresponding or analogous elements.

**[0039]** Moreover, certain embodiments may be implemented as a plurality of instructions on a tangible, computer readable storage medium such as, for example, flash memory

devices, hard disk devices, compact disc media, DVD media, EEPROMs, etc. Such instructions, when executed by one or more computing devices, may enable result in the one or more computing devices promoting the sale of products and/or one or more of the other aspects of the e-commerce environment **10** described above.

**[0040]** While the present invention has been described with reference to certain embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted without departing from the scope of the present invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the present invention without departing from its scope. Therefore, it is intended that the present invention not be limited to the particular embodiment or embodiments disclosed, but that the present invention encompasses all embodiments falling within the scope of the appended claims.

What is claimed is:

1. A method, comprising:  
identifying a product that is present in a first product catalog of a plurality of first product catalogs for a first customer and in a second product catalog of plurality of second product catalogs for the second customer; and  
providing information regarding the identified product, the first product catalog, and the second product catalog.
2. The method of claim **1**, further comprising:  
Maintaining, in the first product catalog, products that the first customer owns;  
maintaining, in the second product catalog, products that the second customer wants to own;  
generating the information to indicate that the first customer owns the product and the second customer wants to own the product.
3. The method of claim **2**, further comprising requesting the first customer to share information with the second user about the product.
4. The method of claim **2**, further comprising requesting the second customer to ask the first user for information about the product.
5. The method of claim **1**, further comprising:  
maintaining, in the first product catalog, products that the first customer owns; and  
maintaining, in the second product catalog, products that the second customer owns; and  
generating the information to indicate that the first customer and the second customer own the product.
6. The method of claim **1**, further comprising:  
maintaining, in the first product catalog, products that the first customer wants to own; and  
maintaining, in the second product catalog, products that the second customer wants to own; and  
generating the information to indicate that the first customer and the second customer want to own the product.
7. The method of claim **1**, further comprising:  
maintaining, in the first product catalog, products that the first customer likes; and  
maintaining, in the second product catalog, products that the second customer likes;  
generating the information to indicate that the first customer and the second customer like the product.
8. A computer readable medium comprising a plurality of instructions, that in response to being executed, cause a computing system to:

receive a request of a first customer for information about a second customer;  
 identify a product that is present in a first product catalog of the first customer and in a second product catalog of the second customer; and  
 provide information regarding the identified product, the first product catalog, and the second product catalog.

9. The computer readable medium of claim 8, wherein the plurality of instructions further cause a computing system to: maintain, in the first product catalog, products that the first customer owns;  
 maintain, in the second product catalog, products that the second customer wants to own;  
 generate the information to indicate that the first customer owns the product and the second customer wants to own the product.

10. The computer readable medium of claim 8, wherein the plurality of instructions further cause a computing system to request the first customer to share information with the second user about the product.

11. The computer readable medium of claim 8, wherein the plurality of instructions further cause a computing system to request the second customer to ask the first user for information about the product.

12. The computer readable medium of claim 8, wherein the plurality of instructions further cause a computing system to: maintain, in the first product catalog, products that the first customer owns; and  
 maintain, in the second product catalog, products that the second customer owns; and  
 generate the information to indicate that the first customer and the second customer own the product.

13. The computer readable medium of claim 8, wherein the plurality of instructions further cause a computing system to: maintain, in the first product catalog, products that the first customer wants to own; and  
 maintain, in the second product catalog, products that the second customer wants to own; and  
 generate the information to indicate that the first customer and the second customer want to own the product.

14. The computer readable medium of claim 8, wherein the plurality of instructions further cause a computing system to: maintain, in the first product catalog, products that the first customer likes; and  
 maintain, in the second product catalog, products that the second customer likes;

generate the information to indicate that the first customer and the second customer like the product.

15. A computing system, comprising:  
 a mass storage device to store product catalogs of a plurality of customers;  
 a network interface configured to transmit information; and  
 a processor configured to identify a product that is present in a first product catalog of a first customer and in a second product catalog of a second customer; and to cause the network interface to transmit information regarding the identified product, the first product catalog, and the second product catalog.

16. The computer computing system of claim 15, wherein: the first product catalog comprises products that the first customer owns;  
 the second product catalog comprises products that the second customer wants to own; and  
 the processor is configured to cause the network interface to transmit information that indicates that the first customer owns the product and the second customer wants to own the product.

17. The computer computing system of claim 15, wherein the processor is configured to cause the network interface to transmit information that requests the first customer to share information with the second user about the product.

18. The computer computing system of claim 15, wherein the processor is configured to cause the network interface to transmit information that requests the second customer to ask the first user for information about the product.

19. The computer computing system of claim 15, wherein: the first product catalog comprises products that the first customer owns; and  
 the second product catalog comprises products that the second customer owns; and  
 the processor is configured to cause the network interface to transmit information that indicates that the first customer and the second customer own the product.

20. The computer system of claim 15, wherein: the first product catalog comprises products that the first customer wants to own; and  
 the second product catalog comprises products that the second customer wants to own; and  
 the processor is configured to cause the network interface to transmit information that indicates that the first customer and the second customer want to own the product.

\* \* \* \* \*