United States Patent	12389070
Kind Code	B2
Date of Patent	August 12, 2025
Inventor(s)	Kikuchi; Ko

Generation of group for viewers of video to communicate with each other

Abstract

The generator (**141**) generates a group (for example, a group chat) for viewers of a video introducing a product to interact with each other on social media (for example, a messenger service). The detector (**142**) detects a viewer who has viewed the video introducing the product and purchased the product. The registrar (**145**) then registers the viewer detected by the detector (**142**) to the group generated by the generator (**141**).

Inventors: **Kikuchi; Ko (Tokyo, JP)**

Applicant: **Rakuten Group, Inc.** (Tokyo, JP)

Family ID: **1000008751032**

Assignee: **Rakuten Group, Inc. (Tokyo, JP)**

Appl. No.: **17/921806**

Filed (or PCT Filed): **May 25, 2022**

PCT No.: **PCT/JP2022/021341**

PCT Pub. No.: **WO2023/228297**

PCT Pub. Date: November 30, 2023

Prior Publication Data

Document Identifier	Publication Date
US 20250056094 A1	Feb. 13, 2025

Publication Classification

Int. Cl.: **H04N21/454** (20110101); **H04N21/45** (20110101); **H04N21/478** (20110101); **H04N21/4788** (20110101)

U.S. Cl.:

CPC **H04N21/454** (20130101); **H04N21/4532** (20130101); **H04N21/47815** (20130101); **H04N21/4788** (20130101);

Field of Classification Search

CPC: H04N (21/454); H04N (21/4532); H04N (21/47815); H04N (21/4788)

References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
2002/0120516	12/2001	Sakagami	N/A	G06F 17/60
2021/0152854	12/2020	Shibata	N/A	N/A

FOREIGN PATENT DOCUMENTS

Patent No.	Application Date	Country	CPC
2016-197411	12/2015	JP	N/A
2021-081882	12/2020	JP	N/A
WO 2022/011293	12/2021	WO	G06Q 50/10

OTHER PUBLICATIONS

"What is a cafe?", Sony, Feb. 13, 2011, 6 pgs., < https://web.archive.org/web/20110213071531/http://acafe.msc.sony.jp/about/index.html>. cited by applicant

International Search Report for PCT/JP2022/021341 dated, Aug. 30, 2022 (PCT/ISA/210). cited by applicant

---

Primary Examiner: Bantamoi; Anthony

Attorney, Agent or Firm: Sughrue Mion, PLLC

Background/Summary

CROSS REFERENCE TO RELATED APPLICATIONS

(1) This application is a National Stage of International Application No. PCT/JP2020/021341 filed May 25, 2022.

TECHNICAL FIELD

(2) This disclosure relates to generating a group for viewers of a video to interact with each other.

BACKGROUND ART

(3) In recent years, electric commerce, known as "live commerce," has been attracting attention.

This live commerce is electric commerce in which a streamer distributes a live video introducing a product, and a viewer who is viewing the live video can purchase the introduced product.
(4) For example, Patent Literature 1 discloses a system that can promote entry of new viewers into a video distribution service. In this system, a message received from a viewer (a message relating to the live video) is automatically posted to SNS during the live video distribution, and what is going on in the video distribution is notified to a user who is not viewing the live video (a new viewer). In addition, the message posted to SNS has a link to the live video, so that an interested user can follow the link from the message and view the live video.
CITATION LIST
Patent Literature
(5) Patent Literature 1: Unexamined Japanese Patent Application Publication No. 2021-81882
SUMMARY OF INVENTION
Technical Problem
(6) In the system disclosed in Patent Literature 1 described above, a viewer's message is automatically posted to SNS to encourage a new viewer to view a live video. Through such SNS, viewers can also be expected to interact with each other.
(7) However, because ordinary SNS allow non-viewers to post messages freely, inappropriate messages are often posted, hindering viewers from engaging in beneficial interactions with each other.
(8) The present disclosure is made to solve the above-described problem, and the objective of the present disclosure is to provide generation of a group that can promote beneficial interaction among viewers.
Solution to Problem
(9) A server device according to a first aspect of the present disclosure comprises one or more processors, wherein at least one of the one or more processors performs the processing of: generating a group for viewers of a video introducing a product to interact with each other on social media; detecting a viewer who has viewed the video and purchased the product; and registering the detected viewer to the group.
(10) A management method according to a second aspect of the present disclosure includes: by a computer, generating a group for viewers of a video introducing a product to interact with each other on social media; detecting a viewer who has viewed the video and purchased the product; and registering the detected viewer to the group.
(11) A recording medium according to a third aspect of the present disclosure stores a program for causing a computer to perform the processing of: generating a group for viewers of a video introducing a product to interact with each other on social media; detecting a viewer who has viewed the video and purchased the product; and registering the detected viewer to the group.
Advantageous Effects of Invention
(12) According to the present disclosure, beneficial interaction among viewers is promoted.

Description

BRIEF DESCRIPTION OF DRAWINGS
(1) FIG. **1** is a schematic diagram illustrating an example of the overall configuration of a distribution system according to Embodiment 1 of the present disclosure;
(2) FIG. **2** is a block diagram illustrating an example of the outline configuration of a typical information processing device in which a management server and/or the like is realized;
(3) FIG. **3** is a block diagram illustrating an example of the functional configuration of the management server according to Embodiment 1;
(4) FIG. **4** is a schematic diagram illustrating an example of video management information;

(5) FIG. **5** is a schematic diagram illustrating an example of viewer management information;
(6) FIG. **6** is a schematic diagram illustrating an example of purchase history information;
(7) FIG. **7** is a schematic diagram illustrating an example of group management information;
(8) FIG. **8** is a schematic diagram illustrating an example of an invitation message;
(9) FIG. **9** is a block diagram illustrating an example of the functional configuration of a distribution server;
(10) FIG. **10** is a block diagram illustrating an example of the functional configuration of a streamer terminal;
(11) FIG. **11** is a block diagram illustrating an example of the functional configuration of a viewer terminal;
(12) FIG. **12** is a schematic diagram illustrating an example of an invitation message displayed on the display of a viewer terminal;
(13) FIG. **13** is a flowchart for describing registration processing according to Embodiment 1;
(14) FIG. **14** is a schematic diagram illustrating an example of the overall configuration of a distribution system according to Embodiment 2 of the present disclosure;
(15) FIG. **15** is a block diagram illustrating an example of the functional configuration of a management server according to Embodiment 2;
(16) FIG. **16** is a schematic diagram illustrating an example of a suggestion message;
(17) FIG. **17** is a flowchart for describing suggestion processing according to Embodiment 2; and
(18) FIG. **18** is a flowchart for describing registration processing according to Embodiment 2.

DESCRIPTION OF EMBODIMENTS

(19) The following describes the detailed embodiments of the present disclosure with reference to the drawings. Note that the same or corresponding elements in the drawings are designated by the same reference numerals. The following describes a case in which a management server (a server device) provides a messenger service to viewers and/or the like as an example of social media and generates a group (an ad hoc group chat described later) for viewers to interact with each other. However, the present disclosure may also be applied in a similar manner to providing various other services with a community function (such as, a social networking service (SNS) and a blog) to viewers and/or the like and generating a group. The management server may also use external social media to generate a group. The term “product” described below includes not only a physical product but also an electronic product (for example, electronic money, software such as a game sold as a download and the usage right, an electronic item, and/or the like). That is, the embodiments described below are for illustrative purposes only and do not limit the scope of the present disclosure. Accordingly, those skilled in the art can adopt embodiments in which each or all of these components are replaced by equivalents, and such embodiments are also included in the scope of this disclosure.

Embodiment 1

(20) FIG. **1** is a schematic diagram illustrating an example of the overall configuration of a distribution system **1** according to Embodiment 1 of the present disclosure. The distribution system **1**, as an example, includes a management server **100** for managing a viewer and the like, a distribution server **200** for distributing a video (a video that introduces a product), a streamer terminal **300** that is used by a streamer, and a viewer terminal **400** that is used by a viewer, all of which are communicatively connected via the Internet **900**. Note that there are many streamer terminals **300** and viewer terminals **400** depending on the number of streamers and viewers using the system.
(21) The management server **100** is, for example, a server device (a computer dedicated to a server) that manages a streamer who uses the streamer terminal **300** and a viewer who uses the viewer terminal **400** and provides a messenger service, as an example of social media, to the viewer and/or the like. Note that, in addition to the messenger service, the management server **100** may provide various services having a community function (for example, SNS, a blog, and the like) to a viewer

and the like. The management server **100** may also use external social media.
(22) The management server **100** can also exchange information with a predetermined sales server, not illustrated in the drawings, and stores purchase history information (information on a product purchased by a viewer at a predetermined electronic market) that is described later. The management server **100** registers a viewer who has purchased a product after viewing a video introducing the product to a group chat (an ad hoc group chat described below).
(23) The distribution server **200** is, for example, a server device that manages distribution (for example, live streaming or recorded video distribution) provided by a streamer. In other words, the distribution server **200** receives a video (a video introducing a product) sent from the streamer terminal **300** and distributes the video to the viewer terminal **400**.
(24) The streamer terminal **300** is a terminal, such as a personal computer (PC), a smartphone, and a tablet, that is used by a streamer who provides distribution (for example, live streaming). As a specific example, the streamer distributes a video to introduce a product requested by an advertiser. In other words, the streamer is an example of an introducer who introduces a product. In addition, the advertiser is a provider of the product, for example, a manufacturer of the product, a store that sells the product (at an electronic market) (that may not be a manufacturer), and/or the like.
(25) The viewer terminal **400** is, for example, a terminal such as a smartphone, a tablet, and a PC, that is used by a viewer who views a video distributed by a streamer. As a specific example, after logging into the distribution server **200** by operating the viewer terminal **400** or through other means, the viewer views a video (a live video or a recorded video) distributed by the streamer terminal **300** via the distribution server **200**.
(26) (Outline Configuration of the Information Processing Device **500**)
(27) The following describes a typical information processing device **500** that implements the management server **100**, the distribution server **200**, the streamer terminal **300**, and the viewer terminal **400** according to Embodiment 1.
(28) As illustrated in FIG. **2**, the information processing device **500** comprises a central processing unit (CPU) **501**, a read-only memory (ROM) **502**, a random-access memory (RAM) **503**, a network interface card (NIC) **504**, an image processor **505**, an audio processor **506**, a secondary storage **507**, an interface **508**, an imaging unit **509**, an operation unit **510**, and a display unit **511**.
(29) The CPU **501** controls the entire operation of the information processing device **500** and is connected to each component to exchange control signals and data.
(30) The ROM **502** stores an initial program loader (IPL) executed immediately after power-on. When the IPL is executed, a program stored in the secondary storage **507** is read into the RAM **503** and the program is started by the CPU **501**.
(31) The RAM **503** is for temporarily storing data and a program and retains the program and data read from the secondary storage **507** and other data necessary for communications.
(32) The NIC **504** is for connecting the information processing device **500** to a computer communication network such as the Internet, including: one that conforms to the 10BASE-T/100BASE-T standard that is used when constructing a local area network (LAN); an analog modem, an integrated services digital network (ISDN) modem, and an asymmetric digital subscriber line (ADSL) modem for connecting to the Internet using a telephone line; and a cable modem and/or the like for connecting to the Internet using a cable television line.
(33) The image processor **505** processes image data that is read from the secondary storage **507** or the like by the CPU **501** and the image computing processor (not illustrated) equipped in the image processor **505** and then stores the processed image in a frame memory (not illustrated) equipped in the image processer **505**. The image information that is recorded in the frame memory is converted into a video signal at a predetermined synchronization timing and output to the display unit **511** via the interface **508** or the like. That is, the image processor **505** generates an image necessary for the progress of the processing performed by the information processing device **500** under the control of the CPU **501** and causes the display unit **511** to display the image.

(34) The audio processor **506** converts music data and audio data read from the secondary storage **507** or the like to an audio signal and outputs the audio signal to outside via the interface **508** or the like. Note that, when the information processing device **500** incorporates a speaker, the audio processor **506** outputs the converted audio signal to the speaker. That is, the audio processor **506** generates a music sound or audio to be played in the progress of the processing performed by the information processing device **500** under the control of the CPU **501** and outputs the music sound or the like from an internal or external speaker.
(35) The secondary storage **507** is a hard disk, a solid-state drive (SSD), or the like that stores various programs and various data necessary for controlling the entire operation of the information processing device **500**. For example, the secondary storage **507** stores a program for implementing the management server **100** and/or the like according to the embodiments. Then, under the control of the CPU **501**, the secondary storage **507** reads the stored program and data as necessary and causes the RAM **503** or the like to temporarily store the program and data.
(36) The interface **508** conforms to standards such as HDMI (registered trademark), universal serial bus (USB), inter-integrated circuit (I2C) or the like, to which is connected the imaging unit **509**, the operation unit **510**, and the display unit **511**. Note that the interface **508** may also transmit and receive necessary information to and from an external device that is connected to the interface **508**.
(37) The imaging unit **509** includes, for example, a single focal length lens and an image sensor with a predetermined number of pixels (complementary metal-oxide semiconductor (CMOS) or charge-coupled device (CCD)) that takes still images or videos.
(38) The operation unit **510** receives an operation input by an operator or the like who uses the information processing device **500**.
(39) The display unit **511** draws an image according to the image data that is output by the image processor **505** and presents the image to an operator or the like using the information processing device **500**.
(40) In addition, the information processing device **500** may comprise a drive unit for a digital versatile disc (DVD)-ROM or the like, instead of the secondary storage **507**. In such a case, the information processing device **500** reads a program and data from the DVD-ROM or the like mounted on the drive unit and operates the program and data in a similar manner to described above.
(41) The following describes the functions and the like of the management server **100**, the distribution server **200**, the streamer terminal **300**, and the viewer terminal **400** realized in the information processing device **500** described above with reference to FIGS. **3** to **12**. When the power is turned on to the information processing device **500**, the program that causes the functions of the management server **100**, the distribution server **200**, the streamer terminal **300**, and the viewer terminal **400** according to Embodiment 1 is executed, realizing the management server **100**, the distribution server **200**, the streamer terminal **300**, and the viewer terminal **400** according to Embodiment 1.
(42) (Functional Configuration of the Management Server **100**)
(43) FIG. **3** is a block diagram illustrating an example of the functional configuration of the management server **100** according to Embodiment 1. As illustrated, the management server **100** comprises a transmitter **110**, a receiver **120**, a storage **130**, and a controller **140**.
(44) The transmitter **110** transmits various information to the viewer terminal **400** or the like via the Internet **900**. For example, the transmitter **110** is controlled by the controller **140** (an inviter **143** described later), and an invitation message for inviting a viewer to a group chat (an ad hoc group chat described later) is transmitted to the viewer terminal **400**. Note that the NIC **504** described above may function as such a transmitter **110**.
(45) The receiver **120** receives various information transmitted from the viewer terminal **400** or the like via the Internet **900**. For example, the receiver **120** receives a response (response information indicating acceptance or rejection) that is replied from the viewer terminal **400** to which the

invitation message was sent. Note that the above-described NIC **504** may function as such a receiver **120**.

(46) The storage **130** stores various information necessary for processing in the management server **100**. For example, the storage **130** stores video management information **131**, viewer management information **132**, purchase history information **133**, and group management information **134**.

(47) The video management information **131** is information for managing a video that is distributable from the distribution server **200** and includes, as an example, the information as illustrated in FIG. **4**. In other words, the video management information **131** includes information such as a video ID **131***a*, a product ID **131***b*, a product name **131***c*, a streamer ID **131***d*, and a group ID **131***e*. Note that the product ID **131***b* is information for identifying a product introduced in a video indicated by the video ID **131***a*. In addition, the product name **131***c* is a product name, a model number, or the like of a product introduced in the video. In addition, the streamer ID **131***d* is the identity information of a streamer who distributes the video. Then, the group ID **131***e* is information for identifying a group chat generated by the controller **140** (a generator **141** described later). In other words, a distributed video is associated with a group chat.

(48) Referring back to FIG. **3**, the viewer management information **132** is information for managing a viewer who uses the viewer terminal **400** and includes, as an example, information as illustrated in FIG. **5**. In other words, the viewer management information **132** includes information such as a viewer ID **132***a*, a name **132***b*, an address **132***c*, a viewed video ID **132***d*, and a viewed date and time **132***e*. Note that the viewed video ID **132***d* is information for identifying a video viewed by the viewer indicated by the viewer ID **132***a*. The viewed date and time **132***e* is date and time at which the viewer viewed the video indicated by the viewed video ID **132***d*.

(49) Referring back to FIG. **3**, the purchase history information **133** is information about a product purchased by a viewer at a predetermined electronic marketplace (including a product purchased independently of viewing a video) and includes, as an example, information as illustrated in FIG. **6**. In other words, the purchase history information **133** includes information such as a viewer ID **133***a*, a purchased product ID **133***b*, a purchased product name **133***c*, purchase date and time **133***d*, a purchased price **133***e*, and the like.

(50) Referring back to FIG. **3**, the group management information **134** is information for managing a group chat generated by the controller **140** (the generator **141** described later) and includes, as an example, information as illustrated in FIG. **7**. That is, the group management information **134** includes information such as a group ID **134***a*, a user ID **134***b*, a state **134***c* and the like. Note that the user ID **134***b* is information for identifying a viewer or a streamer belonging to a group indicated by the group ID **134***a*. In addition, the state **134***c* indicates the current state of a viewer or the like indicated by the user ID **134***b*.

(51) The storage **130** also stores various other information necessary for processing in the controller **140**. For example, the storage **130** also stores information about a streamer or an advertiser (the provider of a product). Note that the secondary storage **507** or the like described above may function as such a storage **130**.

(52) Referring back to FIG. **3**, the controller **140** controls the entire management server **100**. The controller **140** includes, for example, a generator **141**, a detector **142**, an inviter **143**, a reception **144**, and a registrar **145**.

(53) The generator **141** generates an ad hoc group chat that is a group for viewers of a video introducing a product to interact with each other on social media. For example, when a video introducing a product (a new video) becomes distributable from the distribution server **200**, the generator **141** generates an ad hoc group chat that is associated with the video. In other words, the generator **141** generates an ad hoc group chat with a new group ID **134***a* in the group management information **134** of FIG. **7** described above. Note that, for example, only a streamer who distributes a video is registered to an ad hoc group chat at an initial stage, and a viewer who satisfies conditions is sequentially registered by the registrar **145** that is described later. In addition, the

generator **141** adds the identification information of the generated ad hoc group chat to the group ID **131***e* of the corresponding video in the video management information **131** of FIG. **4** described above.

(54) The detector **142** detects a viewer who purchased a product introduced in a video after viewing the video. For example, for each viewer, the detector **142** determines whether the product introduced in the video indicated by the viewed video ID **132***d* (the product indicated by the product ID **131***b* corresponding to the same video ID **131***a* in the video management information **131** of FIG. **4** described above) has been purchased by the corresponding viewer in the above-described purchase history information **133** of FIG. **6** within a certain period of time (for example, within one week) from the viewed date and time **132***e* in the above-described viewer management information **132** of FIG. **5**. Once the viewer who satisfies the conditions has been identified, the detector **142** then notifies the inviter **143** of the information of the viewer.

(55) The inviter **143** invites the viewer detected by the above-described detector **142** to the ad hoc group chat generated by the above generator **141** (the ad hoc group chat corresponding to the video viewed by the viewer). For example, the inviter **143** generates an invitation message MS as illustrated in FIG. **8** and sends the invitation message MS to the viewer terminal **400** used by the viewer detected by the detector **142**. This invitation message MS includes an accept button CB**1** for accepting the invitation and a reject button CB**2** for rejecting the invitation. Note that these accept button CB**1** and reject button CB**2** are, for example, associated with information for identifying an ad hoc group chat and a viewer and, when pressed by the viewer, response information including information for identifying the ad hoc group chat and the viewer is returned to the management server **100**.

(56) Referring back to FIG. **3**, the reception **144** accepts a response to the invitation from the viewer invited by the inviter **143** described above. For example, the reception **144** accepts response information indicating acceptance when the accept button CB**1** is pressed on the viewer terminal **400** to which the above-described invitation message MS illustrated in FIG. **8** has been sent. Whereas, when the reject button CB**2** is pressed, the reception **144** accepts response information indicating rejection.

(57) When the above-described reception **144** receives a response indicating acceptance, the registrar **145** registers the corresponding viewer to the ad hoc group chat generated by the above-described generator **141** (the ad hoc group chat corresponding to the video viewed by the viewer). In other words, the registrar **145** adds the identification information of the viewer who has replied a response indicating acceptance to the user ID **134***b* of the corresponding group ID **134***a* in the above-described group management information **134** of FIG. **7**. At that time, the registrar **145** sets "registered" to the corresponding state **134***c*.

(58) The above-described CPU **501** or the like may function as a controller **140** of such a configuration.

(59) (Functional Configuration of the Distribution Server **200**)

(60) FIG. **9** is a block diagram illustrating an example of the functional configuration of the distribution server **200**. As illustrated, the distribution server **200** comprises a transceiver **210**, a storage **220**, and a controller **230**.

(61) The transceiver **210** transmits and receives various information to and from the streamer terminal **300** and the viewer terminal **400** via the Internet **900**. For example, the transceiver **210** receives a video (for example, a live video or a recorded video) transmitted from the streamer terminal **300** and distributes the received video to the viewer terminal **400**. Note that the NIC **504** described above may function as such a transceiver **210**.

(62) The storage **220** stores various information necessary for processing in the distribution server **200**. For example, the storage **220** stores the ID, password, and the like of the viewer who uses the viewer terminal **400**. Note that the secondary storage **507** or the like described above may function as such a storage **220**.

(63) The controller **230** controls the entire distribution server **200**. The controller **230** includes, for example, a manager **231** and a distribution controller **232**.
(64) The manager **231** authenticates a viewer by verifying, for example, the ID, password and/or the like sent from the viewer terminal **400**, who is requesting login, with an ID, a password and/or the like stored in the storage unit **220**.
(65) The distribution controller **232** controls the transceiver **210** and distributes the video received from the streamer terminal **300** to the viewer terminal **400**.
(66) The above-described CPU **501** or the like may function as a controller **230** of such a configuration.
(67) (Functional Configuration of the Streamer Terminal **300**)
(68) FIG. **10** is a block diagram illustrating an example of the functional configuration of the streamer terminal **300**. As illustrated, the streamer terminal **300** includes an imager **310**, a transceiver **320**, an operation reception **330**, a storage **340**, a controller **350**, and a display **360**.
(69) The imager **310** is, for example, a camera arranged in the streamer terminal **300** and films the streamer and the like during distribution. That is, the imager **310** outputs a video (for example, a live video) including the streamer during distribution. Note that the above-described imaging unit **509** can function as such an imager **310**.
(70) The transceiver **320** transmits and receives various information to and from the distribution server **200** via the Internet **900**. For example, the transceiver **320** is controlled by the controller **350** (a deliverer **352** described later), and transmits to the distribution server **200** a video obtained by compositing an object with the video filmed by the imager **310** (distributes to the viewer terminal **400** via the distribution server **200**). Note that the above-described NIC **504** may function as such a transceiver **320**.
(71) The operation reception **330** is a touch panel or a pointing device that accepts various operations from a streamer. For example, the operation reception **330** accepts an operation directed to an object to be composited into a video filmed by the imager **310**. Note that the above-described operation unit **510** may function as such an operation reception **330**.
(72) The storage **340** stores various information necessary for processing in the streamer terminal **300**. For example, the storage **340** stores information about an object to be composited into the filmed video, the composition position of the object, and/or the like. For example, an object is a caption (a banner) that includes text information to notify a viewer in a live stream. The composition position is a position at which an object is composited into the video. Note that the above-described secondary storage **507** or the like may function as such a storage **340**.
(73) The controller **350** controls the entire streamer terminal **300**. The controller **350** includes, for example, a compositor **351** and a deliverer **352**.
(74) The compositor **351** composites an object into a video that was filmed by the imager **310**. For example, the compositor **351** composites character information for notifying a viewer into the filmed image according to the information and composition position of the object stored in the storage **340**.
(75) The deliverer **352** transmits the video that was composited with the object by the compositor **351** to the distribution server **200** for distributing the video to the viewer terminal **400**. That is, the deliverer **352** controls the transceiver **320** to transmit the video that was composited with the object to the distribution server **200** and distribute the video to the viewer terminal **400** via the distribution server **200**.
(76) Note that the above-described CPU **501** or the like may function as a controller **350** of such a configuration.
(77) The display **360** displays the video that was composited with the object by the above-described compositor **351**. Note that the above-described display unit **511** may function as such a display **360**.
(78) (Functional Configuration of the Viewer Terminal **400**)

(79) FIG. **11** is a block diagram illustrating an example of the functional configuration of the viewer terminal **400**. As illustrated, the viewer terminal **400** comprises a transceiver **410**, an operation reception **420**, a storage **430**, a controller **440**, and a display **450**.
(80) The transceiver **410** transmits and receives various information to and from the management server **100** and the distribution server **200** via the Internet **900**. For example, the transceiver **410** receives a video distributed from the distribution server **200** under the control of the controller **440**. Further, the transceiver **410** receives an invitation message MS as illustrated in FIG. **8** described above sent from the management server **100**. Then, when the accept button CB**1** or the reject button CB**2** is pressed by the viewer while the invitation message MS is displayed on the display **450** as described later, the transceiver **410** transmits response information to the management server **100**. Note that the NIC **504** described above may function as such a transceiver **410**.
(81) The operation reception **420** is a touch panel or a pointing device that accepts various operations from a viewer. For example, the operation reception **420** accepts an operation directed to the accept button CB**1** or the reject button CB**2** while an invitation message MS as illustrated in FIG. **8** is displayed on the display **450**. Note that the operation unit **510** described above may function as such an operation reception **420**.
(82) The storage **430** stores various information necessary for processing in the viewer terminal **400**. For example, the storage **430** stores various applications including a video playback application and a messenger application. More specifically, various applications are installed in the storage **430**. Note that the video playback application is, for example, an application for reproducing a video distributed from the distribution server **200**. Further, the messenger application is, for example, an application for using a messenger service provided by the management server **100**. Note that the above-described secondary storage **507** or the like may function as such a storage **430**.
(83) The controller **440** controls the entire viewer terminal **400**. For example, the controller **440** plays a video distributed from the distribution server **200** by executing a video playback application stored in the storage **430** and causes the display **450** to display the video. Further, the controller **440** executes a messenger application stored in the storage **430** and causes the display **450** to display various messages sent from the management server **100**. Note that the above-described CPU **501** or the like may function as a controller **440** of such a configuration.
(84) The display **450** displays a screen and various messages according to the application executed by the controller **440**. For example, when the transceiver **410** receives an invitation message MS sent from the management server **100**, the display **450** displays the invitation message MS as illustrated in FIG. **12**. The invitation message MS includes an accept button CB**1** and a reject button CB**2** as described above. Note that the above-described display unit **511** may function as such a display **450**.
(85) (Operation of the Management Server **100**)
(86) The following describes the operation of the management server **100** with reference to FIG. **13**. FIG. **13** is a flowchart for describing the registration processing according to Embodiment 1. This registration processing is executed repeatedly, for example, at regular intervals.
(87) First, the management server **100** determines whether or not there is a newly distributable video (step S**11**). For example, the controller **140** controls the transmitter **110** to access the distribution server **200** and determines whether there is a newly distributable video.
(88) When the management server **100** determines that there is no newly distributable video (step S**11**; No), the management server **100** proceeds with processing at step S**13** described later.
(89) On the other hand, when the management server **100** determines that there is a newly distributable video (step S**11**; Yes), the management server **100** creates an ad hoc group chat in association with the video (step S**12**). For example, the controller **140** (the generator **141**) generates an ad hoc group chat associated with the new video. In other words, the controller **140** generates an ad hoc group chat with a new group ID **134***a* in the above-described group management

information **134** of FIG. **7**. Note that, for example, only a streamer who distributes a video is registered to an ad hoc group chat at an initial stage. The controller **140** adds new video information to the above-described video management information **131** of FIG. **4**.

(90) The management server **100** sets **1** as an initial value to a variable N (step S**13**). This variable N is, for example, information for referring to viewers in sequence in the above-described viewer management information **132** of FIG. **5**.

(91) The management server **100** identifies the product that was introduced in the video that the Nth viewer has viewed (step S**14**). For example, the controller **140** (the detector **142**) searches the video management information **131** of FIG. **4** described above using the viewed video ID **132***d* viewed by the Nth viewer in the viewer management information **132** of FIG. **5** described above as a key and identifies the product represented by the product ID **131***b* corresponding to the same video ID **131***a*.

(92) The management server **100** determines whether or not the Nth viewer has purchased the target product (step S**15**). For example, the controller **140** (the detector **142**) searches the purchase history information **133** of FIG. **6** described above using the viewer ID **132***a* of the Nth viewer in the viewer management information **132** of FIG. **5** described above as a key and determines whether the purchased product ID **133***b* corresponding to the same viewer ID **133***a* includes the product identified at step S**14** above.

(93) When the management server **100** determines that the Nth viewer has not purchased the target product (step S**15**; No), the management server **100** proceeds with processing at step S**20** described later.

(94) On the other hand, when the management server **100** determines that the Nth viewer has purchased the target product (step S**15**; Yes), the management server **100** determines whether or not the purchase was made within a certain period of time after viewing (step S**16**). For example, the controller **140** (the detector **142**) determines whether the purchase date and time **133***d* of the target product in the purchase history information **133** of FIG. **6** described above is within a certain period of time from the viewed date and time **132***e* of the Nth viewer in the viewer management information **132** of FIG. **5** described above (viewed date and time **132***e* corresponding to the viewed video ID **132***d* that introduces the target product).

(95) When the management server **100** determines that the purchase was not made within a certain period of time after viewing (step S**16**; No), the management server **100** proceeds with processing at step S**20** described later.

(96) On the other hand, when the management server **100** determines that the purchase was made within a certain period of time after viewing (step S**16**; Yes), the management server **100** transmits an invitation message to the Nth viewer (Step S**17**). For example, the controller **140** (the inviter **143**) generates an invitation message MS as illustrated in FIG. **8** described above and transmits the invitation message MS to the viewer terminal **400** used by the Nth viewer. The viewer terminal **400** that has received the invitation message MS displays the received invitation message MS on the display **450** as illustrated in FIG. **12** described above. Then, the viewer presses the accept button CB**1** or the reject button CB**2**.

(97) The management server **100** determines whether or not there is a response indicating acceptance (step S**18**). For example, the controller **140** (the reception **144**) determines that there is a response indicating acceptance when the accept button CB**1** is pressed on the viewer terminal **400** illustrated in FIG. **12** described above. Whereas, the controller **140** determines that there is no response indicating acceptance when the reject button CB**2** is pressed (or when there is no operation) on the viewer terminal **400** illustrated in FIG. **12**.

(98) When the management server **100** determines that there is no response indicating acceptance (step S**18**; No), the management server **100** proceeds with processing at step S**20** described later.

(99) On the other hand, when the management server **100** determines that there is a response indicating acceptance (step S**18**; Yes), the management server **100** registers the information of the

Nth viewer to an ad hoc group chat (step S**19**). For example, the controller **140** (the registrar **145**) adds identification information of the Nth viewer to the user ID **134***b* of the corresponding group ID **134***a* in the group management information **134** of FIG. **7** described above. At that time, the controller **140** sets "registered" to the corresponding state **134***c*.

(100) The management server **100** determines whether or not processing for all viewers has been completed (step S**20**).

(101) When the management server **100** determines that processing for all viewers has not been completed (step S**20**; No), the management server **100** adds 1 to the variable N (step S**21**). Then, the management server **100** returns the processing to step S**14** described above.

(102) On the other hand, when the management server **100** determines that the processing for all viewers has been completed (step S**20**; Yes), the management server **100** ends the registration processing.

(103) Note that, the above-described registration processing of FIG. **13** has been described as a case in which a response from the viewer can be obtained at step S**18** immediately after sending the invitation message at step S**17**, but in fact, the response from the viewer may be obtained with a certain delay. As described above, since the response information sent from the viewer terminal **400** also includes information for identifying an ad hoc group chat and a viewer, the presence or absence of a delayed response indicating acceptance is also determined at step S**18**, and the target viewer may be registered to the target ad hoc group chat according to the identification information contained in the response information at step S**19**.

(104) Through such registration processing, a viewer who has viewed the video and purchased the product introduced in the video is registered to an ad hoc group chat in association with the video. Therefore, in the ad hoc group chat, the viewers who actually purchased the product introduced in the video exchange candid opinions about the product by chatting. As a result, beneficial interaction among the viewers can be promoted. In addition, the streamer can also listen to viewers' opinions on the video, which can be expected to be put in use in a future distribution.

Embodiment 2

(105) Although the above Embodiment 1 describes a case where a viewer who has purchased a product introduced in a video after viewing the video is registered to an ad hoc group chat, a viewer who purchased a product without viewing the video introducing the product, then later, viewed the video introducing the product may also be registered to an ad hoc group chat. The following describes a distribution system characterized in that a viewer who has purchased a product without viewing a video introducing a product is guided to the video, and the viewer who viewed the video in response to the guidance is also registered to an ad hoc group chat.

(106) FIG. **14** is a schematic diagram illustrating an example of the overall configuration of a distribution system **2** according to Embodiment 2 of the present disclosure. As an example, the distribution system **2** includes a management server **600** for managing a viewer and the like, a distribution server **200** for distributing a video, a streamer terminal **300** that is used by a streamer, and a viewer terminal **400** that is used by a viewer, all of which are communicatively connected via the Internet **900**. Note that the distribution server **200**, the streamer terminal **300**, and the viewer terminal **400** have the same configurations as the distribution server **200**, the streamer terminal **300**, and the viewer terminal **400** of the distribution system **1** according to the above-described Embodiment 1. In other words, only the management server **600** is different from the distribution system **1** of FIG. **1**.

(107) The management server **600** is also realized by the above-described information processing device **500** of FIG. **2**. That is, when power is turned on to the information processing device **500**, a program that causes the information processing device **500** to function as the management server **600** according to Embodiment 2 is executed, realizing the management server **600** according to Embodiment 2.

(108) (Functional Configuration of the Management Server **600**)

(109) FIG. **15** is a block diagram illustrating an example of the functional configuration of the management server **600** according to Embodiment 2. As illustrated, the management server **600** comprises a transmitter **110**, a receiver **120**, a storage **130**, and a controller **640**. Note that the transmitter **110**, the receiver **120**, and the storage **130** have the same configurations as the transmitter **110**, the receiver **120**, and the storage **130** of the above-described management server **100** in FIG. **3**.
(110) The controller **640** controls the entire management server **600**. The controller **640** includes, for example, a generator **141**, a suggester **641**, a detector **642**, an inviter **143**, a reception **144**, and a registrar **145**. Note that the generator **141**, the inviter **143**, the reception **144**, and the registrar **145** have the same configurations as the generator **141**, the inviter **143**, the reception **144**, and the registrar **145** of the above-described management server **100** (the controller **140**) in FIG. **3**.
(111) The suggester **641** suggests a video that introduces a product to a viewer who purchased the product without viewing the video. For example, if there is a video introducing the product indicated by the purchased product ID **133***b* in the purchase history information **133** of FIG. **6** described above (distributable from the distribution server **200**) and the video has not been viewed by the viewer, the suggester **641** generates a suggestion message IM as illustrated in FIG. **16** and transmits the suggestion message IM to the viewer terminal **400** of the viewer who purchased the product without viewing the video. The suggestion message IM includes a banner BN through which the viewer can view the video introducing the product. Note that, for example, this banner BN is associated with information for identifying a viewer in addition to the identification information of the video, and, when the banner BN is pressed by the viewer, the necessary information is passed to the management server **600** before redirected to the distribution server **200**.
(112) Referring back to FIG. **15**, the detector **642** detects a viewer who has viewed a video introducing a product and purchased the product introduced in the video. In other words, the detector **642** detects not only the viewer who has viewed the video and purchased the product introduced in the video but also the viewer who has viewed the video introducing the product after purchasing the product without watching the video. For example, when a video that was suggested to a viewer by the above-described suggestion message IM as illustrated in FIG. **16** is viewed by pressing the banner BN, the detector **642** detects the viewer as a viewer who has purchased the product without viewing the video introducing the product and viewed the video later on.
(113) (Operation of the Management Server **600**)
(114) The following describes the operation of the management server **600** with reference to FIGS. **17** and **18**. FIG. **17** is a flowchart for describing suggestion processing according to Embodiment 2. FIG. **18** is a flowchart for describing registration processing according to Embodiment 2.
(115) First, the suggestion processing of FIG. **17** is described. This suggestion processing is executed repeatedly at regular intervals.
(116) The management server **600**, first, sets **1** as an initial value to a variable N. (Step S**31**). This variable N is, for example, information for referring to viewers in sequence in the viewer management information **132** of FIG. **5** described above.
(117) The management server **600** identifies a product that is newly bought by the Nth viewer (step S**32**). For example, the controller **640** (the suggester **641**) searches the purchase history information **133** of FIG. **6** described above using the viewer ID **132***a* of the Nth viewer in the viewer management information **132** of FIG. **5** described above as a key and identifies a product of which purchase date and time **133***d* corresponding to the same viewer ID **133***a* is the new purchased product ID **133***b* (newer than the date and time when the previous suggestion processing was performed). Note that, if there is no purchased product ID **133***b* with new purchase date and time **133***d*, the management server **600** proceeds with processing at step S**36** described later.
(118) The management server **600** determines whether or not there is a video introducing the product identified at step S**32** above (step S**33**). For example, the controller **640** (the suggester **641**)

searches the above-described video management information **131** of FIG. **4** using the corresponding purchased product ID **133***b* in the purchase history information **133** of FIG. **6** described above as a key and determines whether there is a video introducing a product of the same product ID **131***b*.

(119) When the management server **600** determines that there is no video for introducing the identified product (step S**33**; No), the management server **600** proceeds with processing at step S**36** described later.

(120) On the other hand, when the management server **600** determines that there is a video introducing the identified product (step S**33**; Yes), the management server **600** determines whether or not the target video is unviewed (step S**34**). For example, the controller **640** (the suggester **641**) refers to the viewed video ID **132***d* of the Nth viewer in the viewer management information **132** of FIG. **5** described above to determine whether the Nth viewer has viewed the target video.

(121) When the management server **600** determines that the target product is not unviewed (step S**34**; No), the management server **600** proceeds with processing at step S**36** described later.

(122) On the other hand, when the management server **600** determines that the target video is unviewed (step S**34**; Yes), the management server **600** sends a suggestion message to the Nth viewer (step S**35**). For example, the controller **640** (the suggester **641**) generates a suggestion message IM as illustrated in FIG. **16** described above and transmits the suggestion message IM to the viewer terminal **400** used by the Nth viewer. The viewer terminal **400** that has received the suggestion message IM displays the suggestion message IM on the display **450**. Then, the viewer who is interested in the video by the suggestion message IM presses the banner BN.

(123) The management server **600** determines whether or not the processing for all viewers has been completed (step S**36**).

(124) When the management server **600** determines that processing for all viewers has not been completed (step S**36**; No), the management server **600** adds 1 to the variable N (step S**37**). Then, the management server **600** returns the processing to step S**32** described above.

(125) On the other hand, when the management server **600** determines that the processing for all viewers has been completed (step S**36**; Yes), the management server **600** ends the suggestion processing.

(126) Through such suggestion processing, a video introducing the purchased product is suggested to the viewer who purchased the product without watching the video introducing the product. This suggestion is timed right after a viewer makes a purchase, so the video is expected to be viewed at a high rate.

(127) Next, the registration processing of FIG. **18** is described. This registration processing has a processing content in which step S**41** is added to the registration processing of FIG. **13** described above. That is, the registration processing of FIG. **18** is the same as the registration processing of Embodiment 1 except for step S**41**. Therefore, the same processing content is briefly described.

(128) First, the management server **600** determines whether or not there is a newly distributable video (step S**11**). When the management server **600** determines that there is no newly distributable video (step S**11**; No), the management server **600** proceeds with processing at step S**13** described later.

(129) On the other hand, when the management server **600** determines that there is a newly distributable video (step S**11**; Yes), the management server **600** creates an ad hoc group chat in association with the video (step S**12**).

(130) The management server **600** sets **1** as an initial value to the variable N (step S**13**). The management server **600** identifies the product that is introduced in the video viewed by the Nth viewer (step S**14**).

(131) The management server **600** determines whether or not the Nth viewer has purchased the target product (step S**15**). When the management server **600** determines that the Nth viewer has not purchased the target product (step S**15**; No), the management server **600** proceeds with processing

at step S**20** described later.
(132) On the other hand, when the management server **600** determines that the Nth viewer has purchased the target product (step S**15**; Yes), the management server **600** determines whether or not the purchase is made within a certain period of time after viewing (step S**16**). When the management server **600** determines that the purchase is made within a certain period of time after viewing (step S**16**; Yes), the management server **600** proceeds with processing at step S**17** described later.
(133) On the other hand, when the management server **600** determines that the purchase is not made within a certain period of time after viewing (step S**16**; No), the management server **600** determines whether or not the video is the suggested video (step S**41**). For example, the controller **640** (the detector **642**) determines whether or not the video suggested to the viewer by the suggestion message IM as illustrated in FIG. **16** has been viewed.
(134) When the management server **600** determines that the video is not the suggested video (step S**41**; No), the management server **600** proceeds with processing at step S**20** described later.
(135) On the other hand, when the management server **600** determines that the video is the suggested video (step S**41**; Yes), the management server **600** transmits an invitation message to the Nth viewer (Step S**17**).
(136) The management server **600** determines whether or not there is a response indicating acceptance (step S**18**). When the management server **600** determines that there is no response indicating acceptance (step S**18**; No), the management server **600** proceeds with processing at step S**20** described later.
(137) On the other hand, when the management server **600** determines that there is a response indicating acceptance (step S**18**; Yes), the management server **600** registers the information of the Nth viewer to an ad hoc group chat (step S**19**).
(138) The management server **600** determines whether or not the processing for all viewers has been completed (step S**20**). When the management server **600** determines that processing for all viewers has not been completed (step S**20**; No), the management server **600** adds 1 to the variable N (step S**21**). Then, the management server **600** returns the processing to step S**14** described above.
(139) On the other hand, when the management server **600** determines that the processing for all viewers has been completed (step S**20**; Yes), the management server **600** ends the registration processing.
(140) Through such registration processing, not only viewers who have viewed the video and purchased the products introduced in the video but also viewers who have viewed the video after purchasing the product before viewing the video introducing the product are registered to an ad hoc group chat corresponding to the video. Therefore, in the ad hoc group chat, the viewers who actually purchased the product introduced in the video exchange candid opinions about the product by chatting. As a result, beneficial interaction between viewers is promoted. In addition, the streamer can also listen to viewers' opinions on the video, which can be expected to be put in use in a future distribution.
OTHER EMBODIMENTS
(141) The above-described Embodiments 1 and 2 describe a case in which an invitation message MS as illustrated in FIG. **8** is sent to a viewer terminal **400** of the viewer detected by the detector **142**, **642** and, when a response indicating acceptance is obtained, the viewer is registered to the ad hoc group chat. However, the sending of the invitation message MS may be omitted, and the viewer detected by the detector **142**, **642** may be automatically registered to the ad hoc group chat.
(142) Although the above Embodiments 1 and 2 describe a case of registering a streamer to an ad hoc group chat generated by the generator **141** (an ad hoc group chat at an initial stage), instead of the streamer, or together with the streamer, the provider of the product may also be registered to the ad hoc group chat. In this case, the provider of the product can hear candid opinions about the product from the viewers who actually purchased the product, which is expected to be put in use

for future product development and/or the like.
(143) Although the above-described Embodiments 1 and 2 describe a case in which a viewer who satisfies conditions is registered to an ad hoc group chat of a messenger service, the case is only an example and any cases involving registering of viewers to a group of a social media can be adopted to the invention. For example, a viewer who satisfies the conditions may be registered to a group of various services having a community function (for example, SNS, a blog, and/or the like).
(144) In the above-described Embodiments 1 and 2, the program executed by the management server **100**, **600** and/or the like can also be stored in and distributed through a computer-readable storage medium such as a compact disc read-only memory (CD-ROM), a digital versatile disc (DVD), a magneto-optical disk (MO), a USB memory, a memory card, and/or the like. By installing such a program in a specific or general-purpose computer, the computer can be made to function as the management server **100**, **600** in the above-described Embodiments 1 and 2.
(145) Additionally, the above-described program may be stored in a disk device of a server device on a communication network such as the Internet and, for example, may be superimposed on a carrier wave so that the program can be downloaded to a computer. Further, the above-described processing can also be achieved by executing the program while transferring the program over a communication network. Furthermore, the above-described processing can also be achieved by executing the program in such a way that a server device executes all or part of the program while another computer sends and receives information pertaining to the processing over a communication network.
(146) Note that, in a case in which the aforementioned functions are realized by operating system (OS) sharing or by cooperation between the OS and an application and/or the like, only the functions that are performed by other than the OS may be stored in and distributed through the aforementioned recording medium or may be downloaded to a computer.
(147) [1]A server device comprising one or more processors, performing the processing of: generating a group for viewers of a video introducing a product to interact with each other on social media; detecting a viewer who has viewed the video and purchased the product; and registering the detected viewer to the group.
(148) [2] The server device according to [1], wherein at least one of the one or more processors further performs the processing of: inviting the detected viewer to the group; and receiving a response from the invited viewer, and registration to the group is carried out when the response indicating acceptance is received.
(149) [3] The server device according to [1] or [2], wherein at least one of the one or more processors further performs the processing of suggesting the video to a viewer who purchased the product without viewing the video, and the detected viewer includes a viewer who viewed the suggested video.
(150) [4] The server device according to any one of [1] to [3], wherein, in addition to the detected viewer, an introducer who introduces the product in the video is also registered to the group.
(151) [5] The server device according to any one of [1] to [3], wherein, in addition to the detected viewer, a provider of the product is also registered to the group.
(152) [6]A management method by which a computer performs: generating a group for viewers of a video introducing a product to interact with each other on social media; detecting a viewer who has viewed the video and purchased the product; and registering the detected viewer to the group.
(153) [7]A computer-readable recording medium on which is recorded a program for causing a computer to perform: generating a group for viewers of a video introducing a product to interact with each other on social media; detecting a viewer who has viewed the video and purchased the product; and registering the detected viewer to the group.
INDUSTRIAL APPLICABILITY
(154) The present disclosure may be suitably employed in generation of a group capable of promoting beneficial interactions between viewers.

REFERENCE SIGNS LIST
(155) **1**, **2** Distribution system **100**, **600** Management server **110** Transmitter **120** Receiver **130** Storage **131** Video management information **132** Viewer management information **133** Purchase history information **134** Group management information **140**, **640** controller **141** Generator **142**, **642** Detector **143** Inviter **144** Reception **145** Registrar **641** Suggester **200** Distribution server **210** Transceiver **220** Storage **230** Controller **231** Manager **232** Distribution controller **300** Streamer terminal **310** Imager **320** Transceiver **330** Operation reception **340** Storage **350** Controller **351** Compositor **352** Deliverer **360** Display **400** Viewer terminal **410** Transceiver **420** Operation reception **430** Storage **440** Controller **450** Display **500** Information processing device **501** CPU **502** ROM **503** RAM **504** NIC **505** Image processor **506** Audio processor **507** Secondary storage **508** Interface **509** Imaging unit **510** Operation unit **511** Display unit **900** Internet

Claims

1. A server device, comprising: a memory; and one or more processors, wherein at least one of the one or more processors perform configured to: provide, to viewers, a video introducing a product, the video being associated with a video identifier, the product being associated with a product identifier, the video identifier and the product identifier stored in the memory; generate a group for viewers who viewed the video introducing a product to interact with each other on social media; detect a viewer from the viewers who has viewed the video associated with the video identifier and purchased the product associated with the product identifier based on a correlation of the video identifier and the product identifier in the memory; and register the detected viewer to the group.
2. The server device according to claim 1, wherein at least one of the one or more processors is further configured to: invite the detected viewer to the group; and receive a response from the invited viewer, and registration to the group is performed based on determining the response indicating acceptance is received.
3. The server device according to claim 1, wherein at least one of the one or more processors is further configured to provide a recommendation of the video to a viewer who purchased the product without viewing the video, and the detected viewer includes a viewer who viewed the suggested video.
4. The server device according to claim 1, wherein, an introducer who introduces the product in the video is also registered to the group.
5. The server device according to claim 1, wherein, a provider of the product is registered to the group.
6. A management method performed by at least one processor, the management method comprising: providing, to viewers, a video introducing a product, the video being associated with a video identifier, the product being associated with a product identifier, the video identifier and the product identifier stored in a memory; generating a group for viewers who viewed the video introducing a product to interact with each other on social media; detecting a viewer from the viewers who has viewed the video associated with the video identifier and purchased the product associated with the product identifier based on a correlation of the video identifier and the product identifier in the memory; and registering the detected viewer to the group.
7. A non-transitory computer-readable recording medium storing instructions, which when executed by a processor cause the processor to execute a method comprising: providing, to viewers, a video introducing a product, the video being associated with a video identifier, the product being associated with a product identifier, the video identifier and the product identifier stored in the memory; generating a group for viewers who viewed the video introducing a product to interact with each other on social media; detecting a viewer from the viewers who has viewed the video associated with the video identifier and purchased the product associated with the product identifier based on a correlation of the video identifier and the product identifier in the memory; and

registering the detected viewer to the group.

8. The server device according to claim 1, wherein at least one of the one or more processors is configured to: detect a viewer from the viewers who has purchased the product within a certain period of time from a date and time when the viewer viewed the video; and register the detected viewer to the group.