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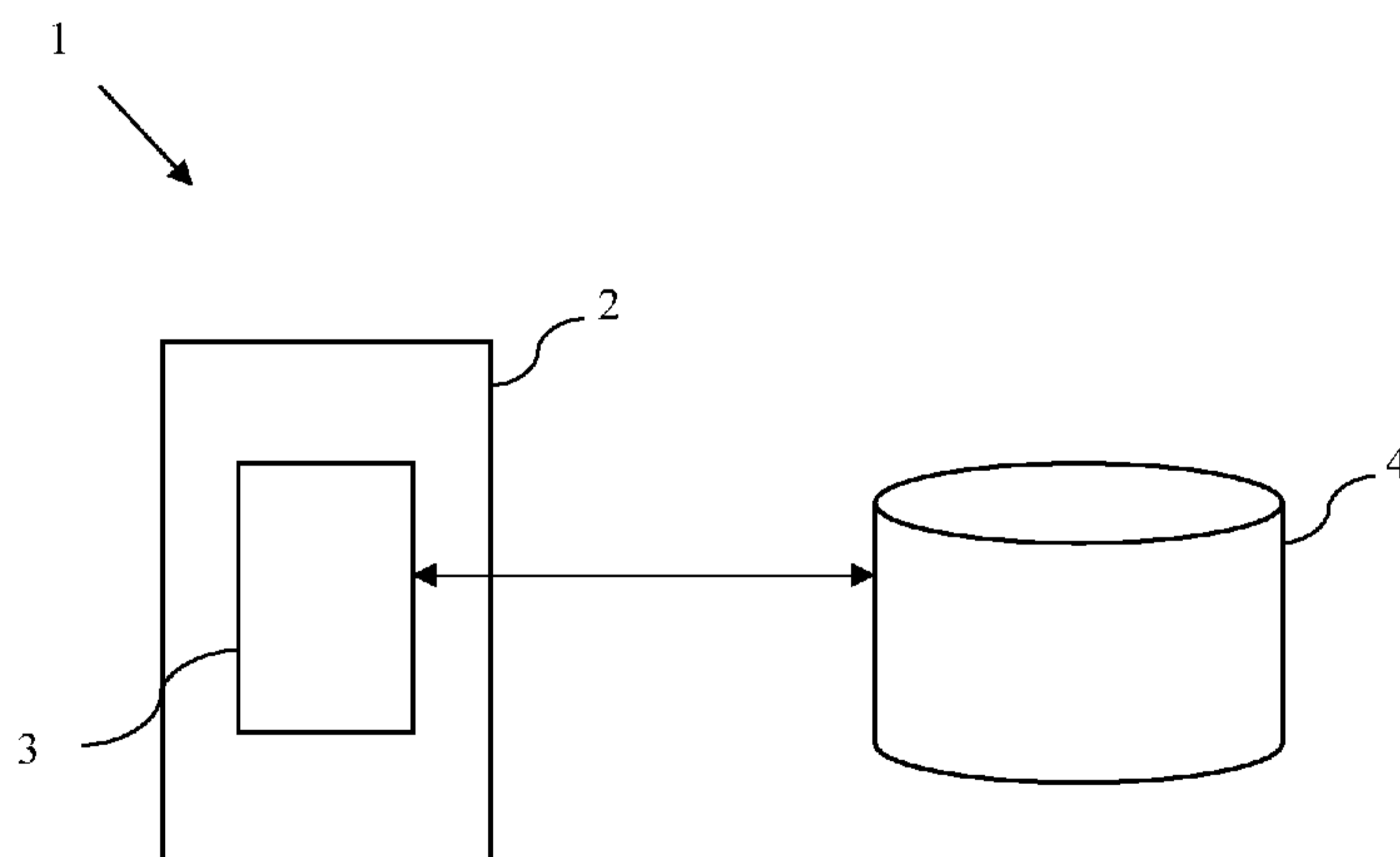
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(54) Title: A SYSTEM FOR USING AUGMENTED REALITY IN MESSAGING APPLICATIONS

Figure 1



(57) Abstract: The present invention relates to a system (1) whereby addition of augmented reality content into message content is enabled by analysis of message contents in messaging that are performed in a messaging application running on an electronic device (2).

[Continued on next page]

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## **A SYSTEM FOR USING AUGMENTED REALITY IN MESSAGING APPLICATIONS**

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### **Technical Field**

The present invention relates to a system whereby addition of augmented reality content into message content is enabled by analysis of message contents in messaging that are performed in a messaging application running on an electronic device.

### **Background of the Invention**

15 Use of smart phones and applications included on smart phones increase day by day. Messaging applications are the leading applications that are most commonly used on smart phones. In said messaging applications, mutual communication is realized by media components such as text, photo, and sound provided for applications. The said media components can only present their own technical characteristics to users. However, the message or feeling that you give to the person you communicate is limited to text and media components. Therefore, the message or feeling that you can give to the other party is as much as the characteristic and quality that the said components have. And this causes us not to be able to express our feelings to the other party clearly in our messaging with other parties. For this reason, today there is need for a solution whereby user experience is enhanced by interpreting text, sound and media components further in messaging applications and it is enabled to transfer feelings to persons to whom messages are delivered more clearly.

The United States patent document no. **US2019204994** discloses a system which comprises interacting with one or more electronic messages. In the said system, each of avatars represents sender of one of a plurality electronic messages. The invention comprises selecting the one corresponding to one of a plurality of  
5 messages that are presented in a virtual space in a computing environment, in connection with one of avatars. The system comprises receiving an indicator in order to present the corresponding electronic message in a virtual space and presentation of the corresponding electronic message in the virtual space by the computer.

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### **Summary of the Invention**

An objective of the present invention is to realize a system whereby addition of augmented reality content into message content is enabled in a real or virtual  
15 environment by analysis of message contents in messaging that are performed in a messaging application on an electronic device being able to take picture and run a messaging application.

### **Detailed Description of the Invention**

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“A System for Using Augmented Reality in Messaging Applications” realized to fulfil the objective of the present invention is shown in the figure attached, in which:

25 **Figure 1** is a schematic block diagram of the inventive system for using augmented reality in messaging applications.

The components illustrated in the figure are individually numbered, where the numbers refer to the following:

30

1. System
2. Electronic device
3. Application
4. Server

5

The inventive system (1) for enabling addition of compatible augmented reality content into a message content comprises:

- at least one electronic device (2) which is configured to run at least one application on itself;
- 10 - at least one application (3) which runs on the electronic device (2) and is configured to ensure that the messaging content among the electronic devices (2) are transmitted over external server and the image or content and message contents symbolizing the person are viewed by augmented reality in a virtual or real environment; and
- 15 - at least one server (4) which is configured to decide on the message type – –that can be text, photo or sound– of the message content reaching from a messaging server to the application (3) in mutual messaging; to analyse the message content based on the message type it determines; and to add augmented reality content into the message; and to send the message
- 20 wherein it added the augmented reality data to the application (3) of the other party.

The electronic device (2) included in the inventive system (1) is a device such as mobile phone, tablet computer, desktop computer or portable computer. The

25 electronic device (2) is configured to perform data exchange by using any communication protocol. In a preferred embodiment of the invention, the electronic device (2) performs data exchange over a mobile communication network or a data bus such as Internet. In a preferred embodiment of the invention, the electronic device (2) is a mobile phone.

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In the inventive system (1), the application (3) is an instant messaging application configured to be run on the electronic device (2) and to present at least one interface. In a preferred embodiment of the invention, the application (3) is configured to enable users to make data entry. Message contents comprising elements such as text, sound, video, photo are created on the interface owned by the application (3); and the elements included in the content of the incoming message are viewed.

The application (3) is configured to ensure that the chat type is selected as augmented reality; it is determined by the user whether the messaging comprising the augmented reality data will be realized in virtual or real environment; and the messages are sent in an environment determined by the other party. Thereby, the user selects over the interface of the application (3) whether the augmented reality mode will be realized in a virtual or real environment.

The server (4) included in the inventive system (1) is configured to receive the message content reaching the electronic device (2); to determine the type of the message content received; to analyse the message content on the basis of the message type it determined; and to obtain information about the content. The server (4) is preferably configured to communicate with external servers wherein the message contents are included in order to analyse the message content it received. Thereby, accuracy of the augmented reality data to be added is increased by analysing the message content with high precision. The server (4) is configured to add the augmented reality data –that is compatible with the content information it received after analysis– into the message content and to share it with the application (3) over the electronic device (2). The server (4) adds the augmented reality data into the message content reaching the electronic device (2) over the application (3), on the basis of the virtuality or reality selection made over the application (3); and ensures that it is shared with the user by resending it to the application (3). For example, when a message comprising a sad emoji is delivered

to the application (3), the server (4) first determines the message type and in case that it determines that the message type comprises media, it adds compatible augmented reality data into the related message content and then resends it to the application (3). When a sad emoji is delivered to the application (3), the server (4)  
5 ensures that the avatar of the message owner looks sad by using augmented reality on the application (3).

The server (4) adds augmented reality data onto the avatar –that is usually a photo or content symbolizing the message owner– on the basis of the message type and  
10 content received over the application (3). Thereby, when a sad emoji is included in the message content, the sad face status of the message owner is shared with the other party from the application (3).

In the inventive system (1), in order that message contents can be received by  
15 augmented reality, users determine the chat type over the application (3) as augmented reality and then decides on whether the messaging comprising the augmented reality data will be realized in virtual or real environment. In the inventive system (1), after the chat type and the augmented reality environment are determined, the server (4) receives the message reaching the application (3);  
20 determines the message type; and analyses the content thereof. The server (4) adds the augmented reality data into the content information obtained as a result of the content analysis and shares it with the user over the application (3). Thereby, avatar of the message owner created by the augmented reality and his/her messages are viewed on the application (3).

25

With the inventive system (1), it is ensured that the chats wherein a plurality of users included in the messaging applications (3) running on the electronic device (2), are presented to users' experience in virtual or real environment. With the inventive system (1), due to the fact that the message type characteristics used in  
30 the chat are transferred to the virtual environment and the message contents are

interpreted further, the communication problems encountered are avoided by bringing the feelings into the forefront in the messaging applications (3) further.

It is possible to develop various embodiments of the inventive system for using  
5 augmented reality in messaging applications (1); the invention cannot be limited to examples disclosed herein and it is essentially according to claims.



## CLAIMS

1. A system (1) for enabling addition of compatible augmented reality content into a message content **comprising**
- 5 - at least one electronic device (2) which is configured to run at least one application on itself;
- characterized by**
- 10 - at least one application (3) which runs on the electronic device (2) and is configured to ensure that the messaging content among the electronic devices (2) are transmitted over external server and the image or content and message contents symbolizing the person are viewed by augmented reality in a virtual or real environment; and
- 15 - at least one server (4) which is configured to decide on the message type – that can be text, photo or sound – of the message content reaching from a messaging server to the application (3) in mutual messaging; to analyse the message content based on the message type it determines; and to add augmented reality content into the message; and to send the message wherein it added the augmented reality data to the application (3) of the other party.
- 20
2. A system (1) according to Claim 1; **characterized by** the electronic device (2) which is a device such as mobile phone, tablet computer, desktop computer or portable computer.
- 25 3. A system (1) according to Claim 1 or 2; **characterized by** the electronic device (2) which is configured to perform data exchange by using any communication protocol.

4. A system (1) according to any of the preceding claims; **characterized by** the electronic device (2) which performs data exchange over a mobile communication network or a data bus such as Internet.
- 5 5. A system (1) according to any of the preceding claims; **characterized by** the application (3) which is an instant messaging application configured to be run on the electronic device (2) and to present at least one interface.
- 10 6. A system (1) according to any of the preceding claims; **characterized by** the application (3) which is configured to enable users to make data entry.
- 15 7. A system (1) according to any of the preceding claims; **characterized by** the application (3) wherein message contents comprising elements such as text, sound, video, photo are created on the interface that it owns; and the elements included in the content of the incoming message are viewed.
- 20 8. A system (1) according to any of the preceding claims; **characterized by** the application (3) which is configured to ensure that the chat type is selected as augmented reality; it is determined by the user whether the messaging comprising the augmented reality data will be realized in virtual or real environment; and the messages are sent in an environment determined by the other party.
- 25 9. A system (1) according to any of the preceding claims; **characterized by** the server (4) which is configured to receive the message content reaching the electronic device (2); to determine the type of the message content received; to analyse the message content on the basis of the message type it determined; and to obtain information about the content.
- 30 10. A system (1) according to any of the preceding claims; **characterized by** the server (4) which is configured to communicate with external servers wherein

the message contents are included in order to analyse the message content it received.

5     **11.**     A system (1) according to any of the preceding claims; **characterized by** the server (4) which is configured to add the augmented reality data –that is compatible with the content information it received after analysis– into the message content and to share it with the application (3) over the electronic device (2).

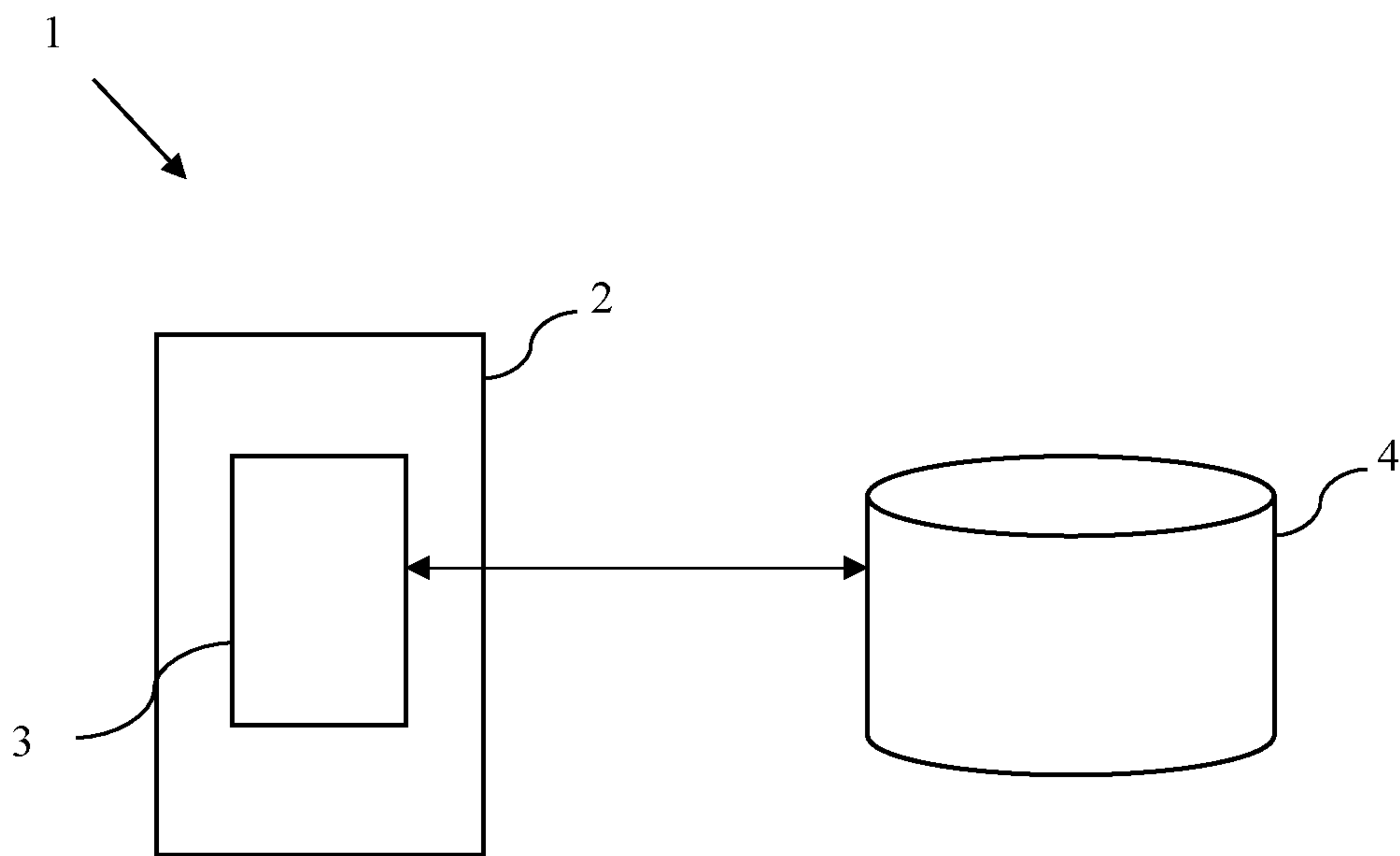
10    **12.**     A system (1) according to any of the preceding claims; **characterized by** the server (4) which adds the augmented reality data into the message content reaching the electronic device (2) over the application (3), on the basis of the virtuality or reality selection made over the application (3); and ensures that it is shared with the user by resending it to the application (3).

15

**13.**     A system (1) according to any of the preceding claims; **characterized by** the server (4) which adds augmented reality data onto the avatar –that is usually a photo or content symbolizing the message owner– on the basis of the message type and content received over the application (3).

20

Figure 1



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International application No.

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
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According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols)		
G06F; G06T; H04L		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
EPODOC, WPI		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2019228552 A1 (SAMSUNG ELECTRONICS CO LTD [KR]) 25 July 2019 (2019-07-25) paragraph [0100], paragraph [0108]- paragraph [0109], paragraph [0130]- paragraph [0135]	1-13
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<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

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