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(54) **METHOD AND APPARATUS FOR SHARING ELECTRONIC CONTENT**

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H04L 29/08	(2006.01)
H04W 4/02	(2009.01)

(52) **U.S. Cl.**

CPC ***H04L 67/18*** (2013.01); ***H04L 67/06*** (2013.01); ***H04L 67/20*** (2013.01); ***H04W 4/023*** (2013.01)

(58) **Field of Classification Search**

USPC 709/204, 205, 206, 218, 226

See application file for complete search history.

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(57) **ABSTRACT**

Disclosed is a method and system for sharing content between a plurality of electronic devices including identifying an event and detecting one or more electronic devices based on the identified event. Electronic content is obtained from one or more of the electronic devices related to the event and provided to one or more output devices based on a comparison.

26 Claims, 6 Drawing Sheets

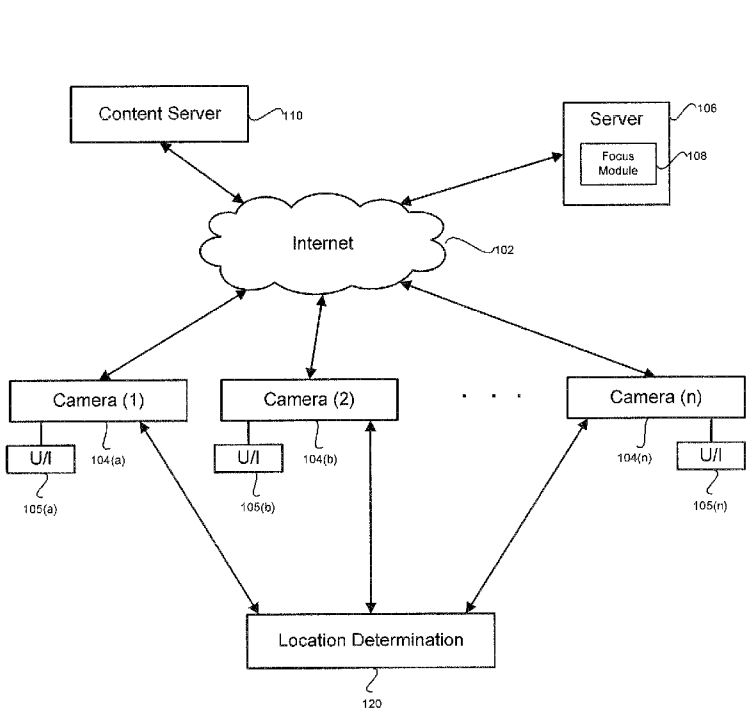


Figure 1

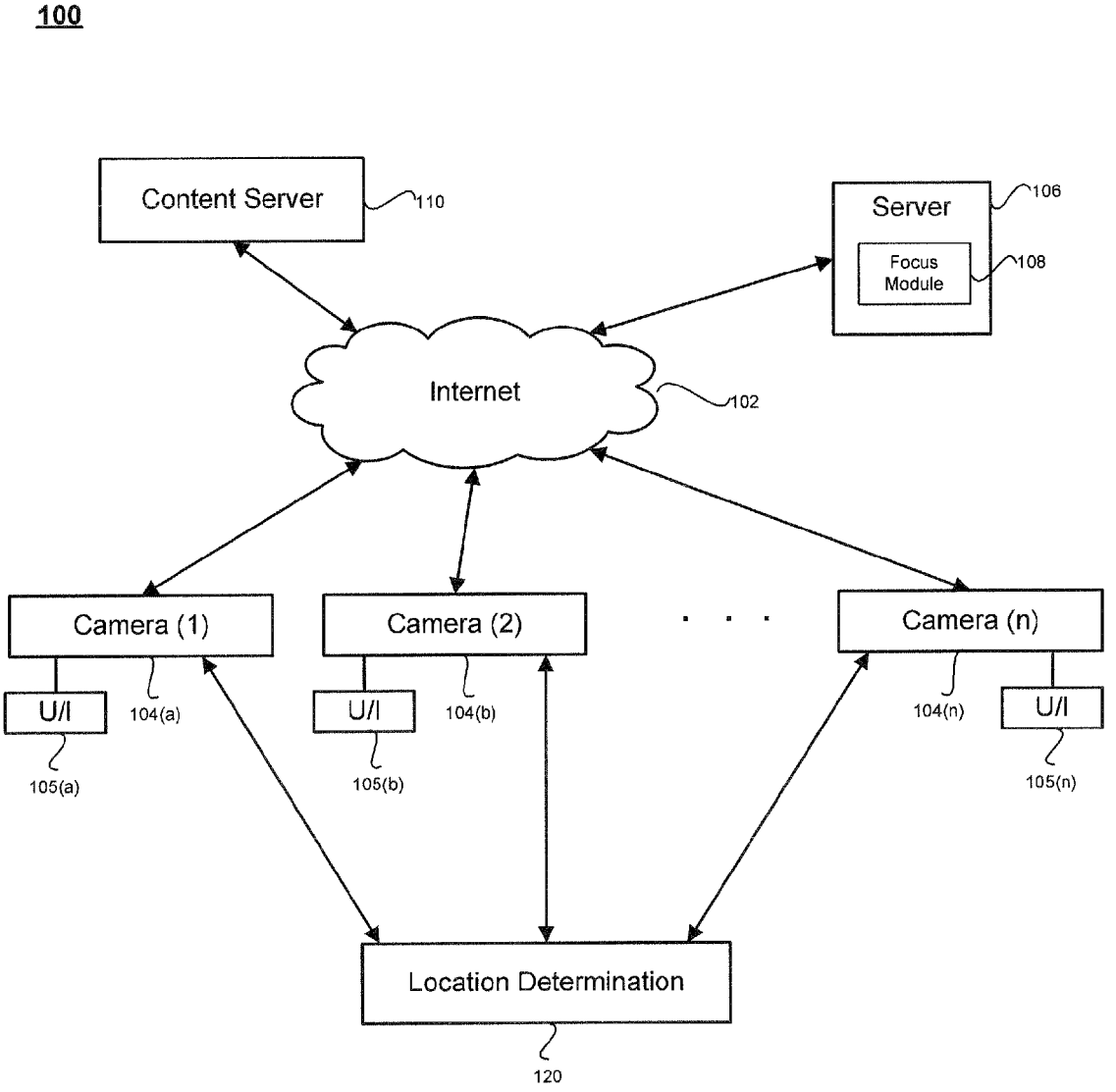

100
Content Server
110
Server
106
Focus Module
108
Internet
102
Camera (1)
Camera (2)
Camera (n)
U/I
104(a)
105(a)
U/I
104(b)
105(b)
104(n)
U/I
105(n)
Location Determination
120

Figure 2

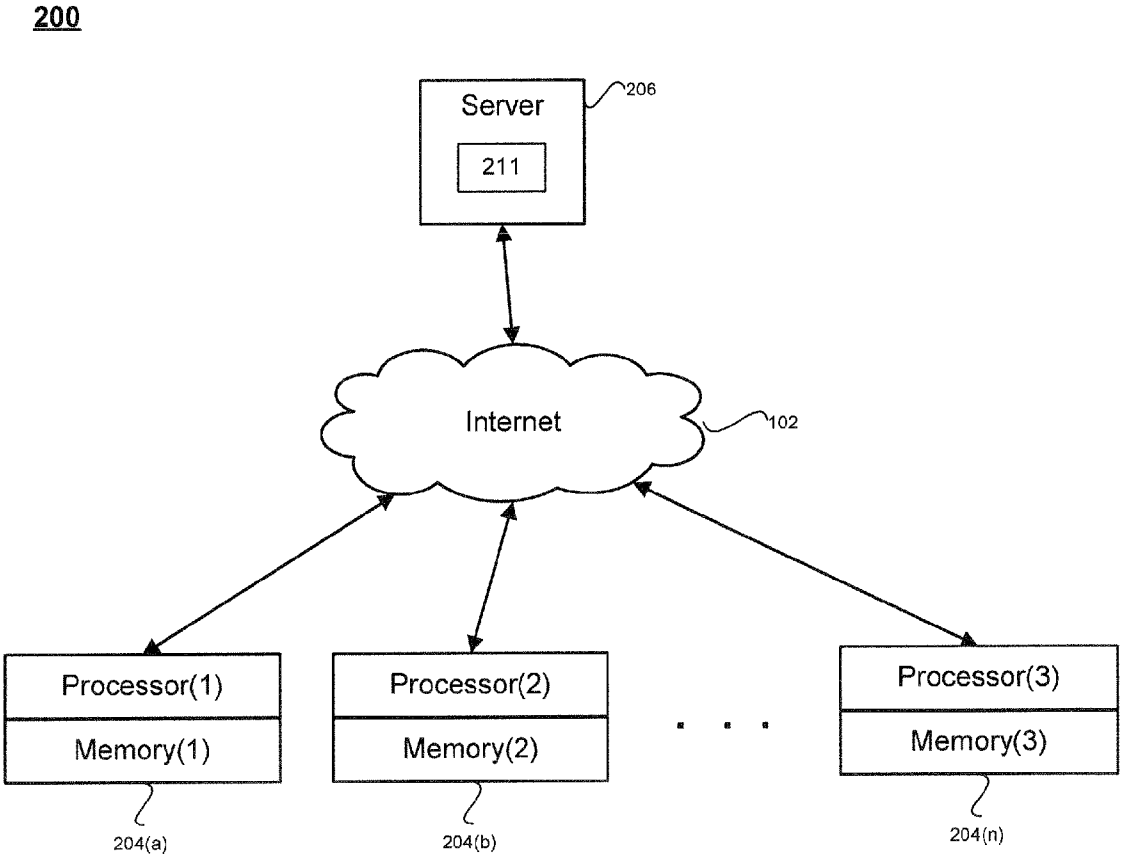

200
Server
211
206
Internet
102
Processor(1)
Memory(1)
204(a)
Processor(2)
Memory(2)
204(b)
Processor(3)
Memory(3)
204(n)

Figure 3

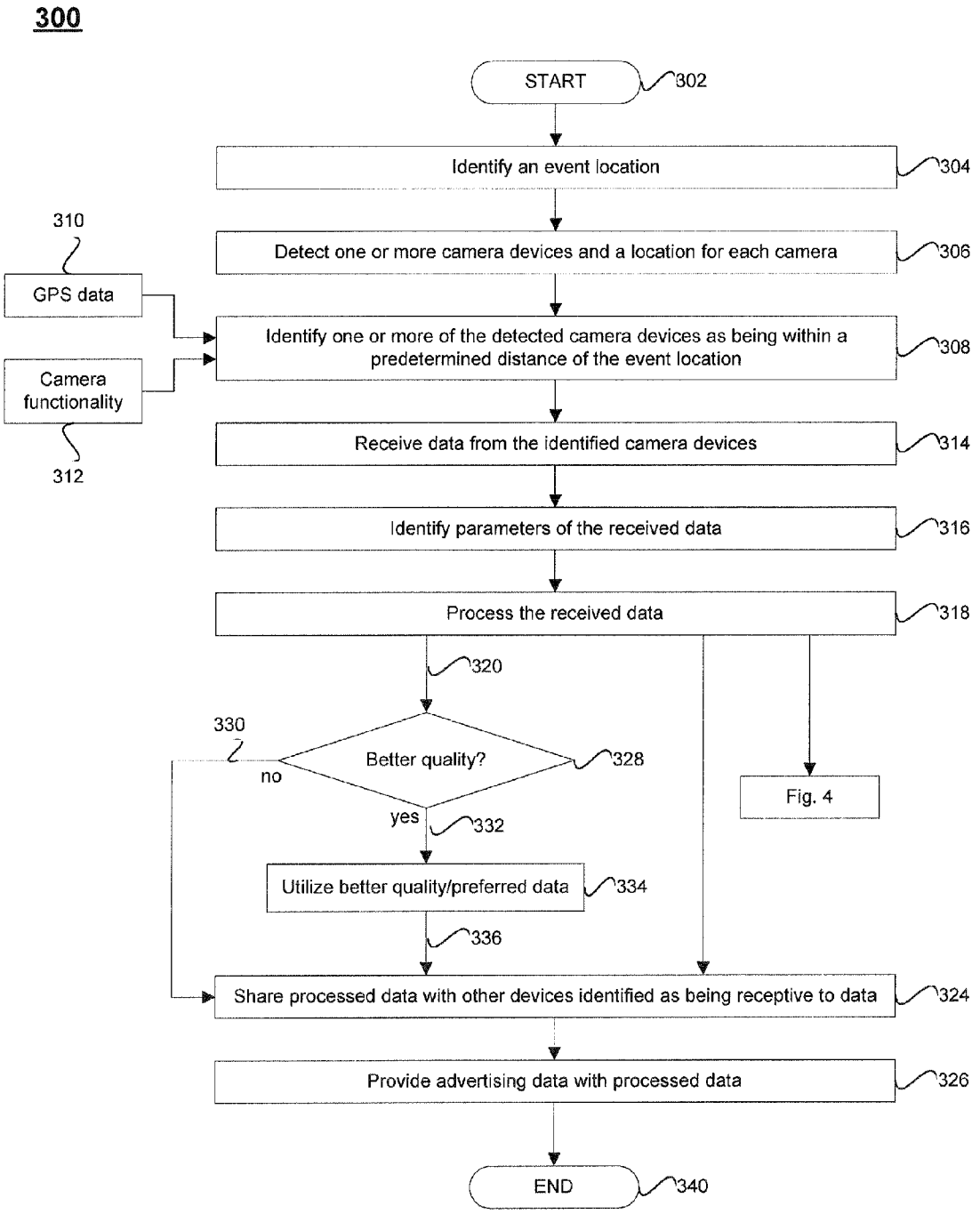

300
START
302
Identify an event location
304
Detect one or more camera devices and a location for each camera
306
310
GPS data
Camera functionality
312
Identify one or more of the detected camera devices as being within a predetermined distance of the event location
308
Receive data from the identified camera devices
314
Identify parameters of the received data
316
Process the received data
318
320
330
Better quality?
328
no
yes
332
Fig. 4
Utilize better quality/preferred data
334
336
Share processed data with other devices identified as being receptive to data
324
Provide advertising data with processed data
326
END
340

Figure 4

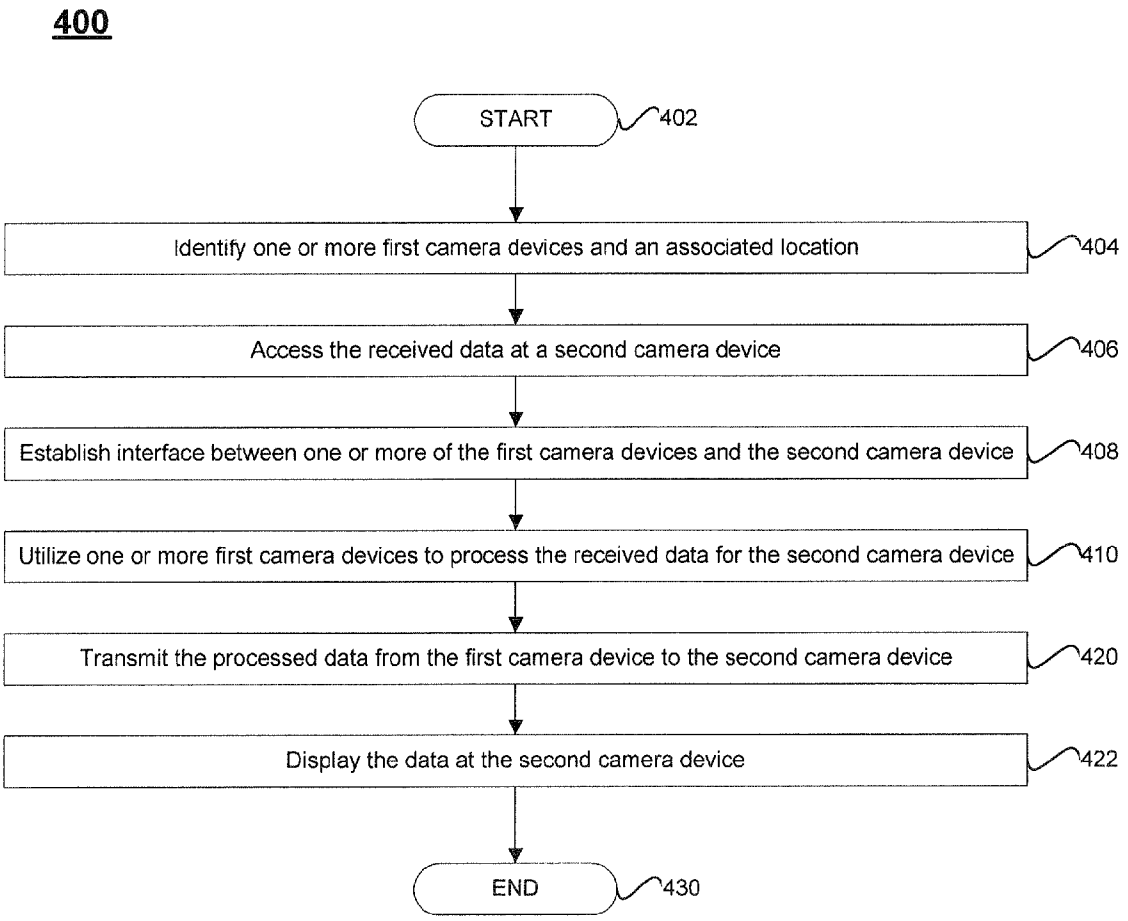

400
START
402
Identify one or more first camera devices and an associated location
404
Access the received data at a second camera device
406
Establish interface between one or more of the first camera devices and the second camera device
408
Utilize one or more first camera devices to process the received data for the second camera device
410
Transmit the processed data from the first camera device to the second camera device
420
Display the data at the second camera device
422
END
430

Figure 5

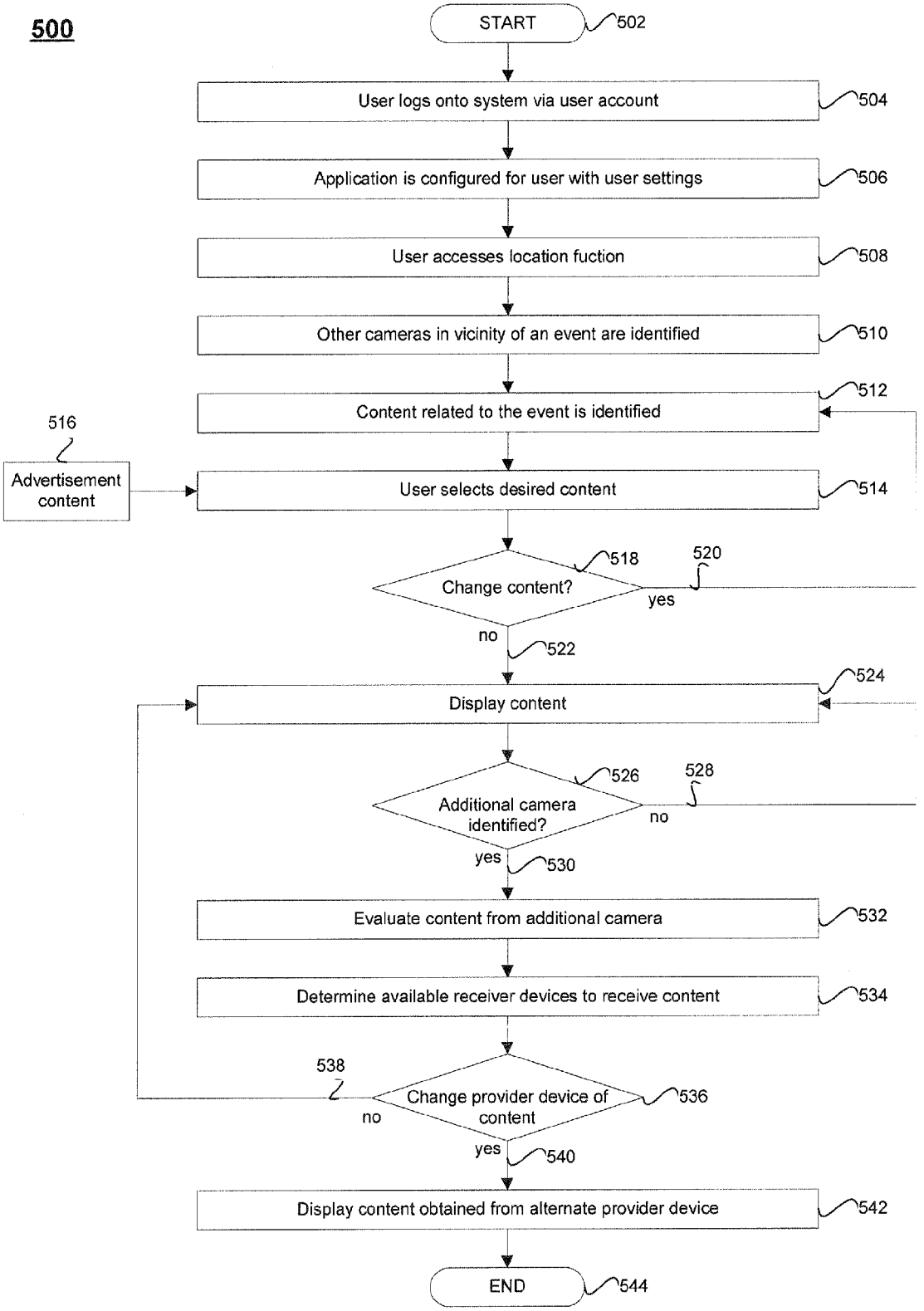
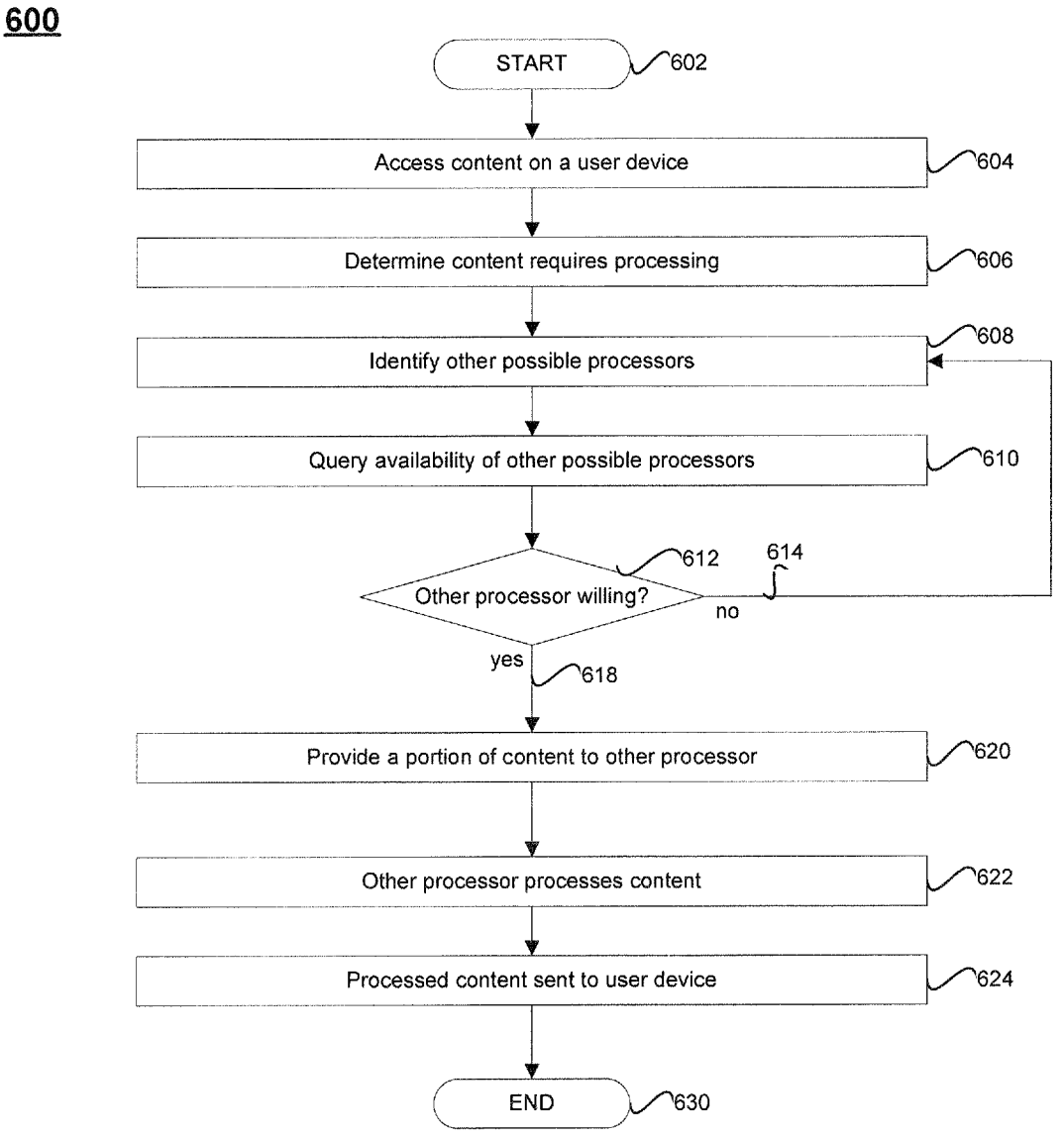

500
START
502
User logs onto system via user account
504
Application is configured for user with user settings
506
User accesses location fuction
508
Other cameras in vicinity of an event are identified
510
Content related to the event is identified
512
516
Advertisement content
User selects desired content
514
518
Change content?
520
yes
no
522
Display content
524
526
Additional camera identified?
528
no
yes
530
Evaluate content from additional camera
532
Determine available receiver devices to receive content
534
538
Change provider device of content
536
no
yes
540
Display content obtained from alternate provider device
542
END
544

Figure 6


600
START
602
Access content on a user device
604
Determine content requires processing
606
Identify other possible processors
608
Query availability of other possible processors
610
Other processor willing?
612
614
no
yes
618
Provide a portion of content to other processor
620
Other processor processes content
622
Processed content sent to user device
624
END
630

METHOD AND APPARATUS FOR SHARING ELECTRONIC CONTENT

BACKGROUND

1. Field of the Invention

This invention relates generally to obtaining and sharing electronic content between users wishing to access the electronic content. More particularly, the present invention relates to identifying electronic devices in a particular area and providing an interface between the identified devices so that content and processing functions may be shared between devices.

2. Background Discussion

Sharing electronic content has become a popular way for users of electronic devices to interact. Many social networking websites and services permit users to share content of interest. While social networking provides a forum to share electronic content, it would be an advancement in the art to provide an efficient and user-friendly system for a user to obtain and share electronic content.

SUMMARY

Embodiments of the present invention involve a system and method to share live event data through the use of an application and a network.

Accordingly, one embodiment of the present invention is directed to a method and system for sharing content between a plurality of electronic devices including identifying an event and detecting one or more electronic devices based on the identified event. Electronic content is obtained from one or more of the electronic devices related to the event and provided to one or more output devices based on a comparison.

In another embodiment, the one or more output modules are located remotely from the one or more electronic devices.

In yet another embodiment, a positioning system is utilized to detect that one or more electronic devices that are within a predetermined geographical distance from the event. A longitude coordinate and a latitude coordinate associated with each electronic device is identified.

In another embodiment, a perspective viewing location of an electronic device that is obtaining content is determined.

In yet another embodiment, the electronic content is in a 3D format.

In another embodiment, the electronic content is in a high definition format.

In yet another embodiment, electronic content is provided from the electronic devices to the output devices as a data stream. The electronic content can be stored.

In another embodiment, the electronic content includes advertisement data. The advertisement data based can be selected based on a geographical location of the electronic device receiving the advertisement data.

In yet another embodiment, capabilities of the detected devices are identified.

In another embodiment, the method includes identifying a location of one or more second electronic devices; generating a notification related to the event; and transmitting the notification to one or more of the second electronic devices.

In another embodiment, the method includes modifying the obtaining step based on the comparison.

In yet another embodiment, the electronic devices that are within a predetermined geographical distance from the event are fixed cameras.

In another embodiment, the method includes associating a user-applied tag to content.

In yet another embodiment, the method includes identifying one or more available processing modules, the available processing modules being able to process electronic content; providing electronic content to selected one or more available processing modules; processing the electronic content at the selected one or more available processing modules; and providing the processed electronic content to an output device.

In another embodiment, the method includes providing a listing of electronic devices that are providing data related to an event to a user device; receiving a selection of an electronic device from the user device; and providing content to the user device based on the selection.

In yet another embodiment, the listing of electronic devices includes functionality of each listed electronic device.

In another embodiment, the electronic devices include cameras.

In yet another embodiment, the method includes restricting electronic content provided by one of the electronic devices based on a user of the electronic device refusing to provide electronic content to an output device.

In another embodiment, the method includes providing a listing of electronic devices that are providing data related to an event to a user device; receiving a selection of a media format from the user device; and providing content to the user device based on the selection.

In yet another embodiment, the method includes providing a plurality of content to the user device in a plurality of formats simultaneously.

In another embodiment, the electronic devices include audio output devices.

In yet another embodiment, the method includes the electronic content is text content.

In another embodiment, the electronic content includes video content, and/or image content and/or audio content.

In yet another embodiment of the method, the identifying an event further includes identifying a plurality of events within a predefined geographical region; organizing the plurality of events within the predefined geographical region into one or more clusters; and labeling the one or more clusters.

In another embodiment of the method, the identifying an event further includes identifying a plurality of events within a predefined time period; organizing the plurality of events within the predefined time period into one or more clusters; and labeling the one or more clusters.

BRIEF DESCRIPTION OF THE DRAWINGS

To the accomplishment of the foregoing and related ends, certain illustrative embodiments of the invention are described herein in connection with the following description and the annexed drawings. These embodiments are indicative, however, of but a few of the various ways in which the principles of the invention may be employed and the present invention is intended to include all such aspects and their equivalents. Other advantages, embodiments and novel features of the invention may become apparent from the following description of the invention when considered in conjunction with the drawings. The following description, given by way of example, but not intended to limit the invention solely to the specific embodiments described, may best be understood in conjunction with the accompanying drawings, in which:

FIG. **1** shows a diagram of a network environment that supports embodiments of the present invention.

FIG. **2** shows diagram of modules and a network according to another embodiment of the present invention.

FIG. **3** shows a series of steps to implement an embodiment of the present invention.

FIG. **4** shows a series of steps to implement another embodiment of the present invention.

FIG. **5** shows a series of steps to change a source of content, according to an embodiment of the present invention.

FIG. **6** shows a series of steps to share processing functions between a plurality of devices.

DETAILED DESCRIPTION

It is noted that in this disclosure and particularly in the claims and/or paragraphs, terms such as "comprises," "comprised," "comprising," and the like can have the meaning attributed to it in U.S. patent law; that is, they can mean "includes," "included," "including," "including, but not limited to" and the like, and allow for elements not explicitly recited. Terms such as "consisting essentially of" and "consists essentially of" have the meaning ascribed to them in U.S. patent law; that is, they allow for elements not explicitly recited, but exclude elements that are found in the prior art or that affect a basic or novel characteristic of the invention. These and other embodiments are disclosed or are apparent from and encompassed by, the following description. As used in this application, the terms "component" and "system" are intended to refer to a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited to being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program, and/or a computer. By way of illustration, both an application running on a server and the server can be a component. One or more components may reside within a process and/or thread of execution and a component may be localized on one computer and/or distributed between two or more computers.

Furthermore, the detailed description describes various embodiments of the present invention for illustration purposes and embodiments of the present invention include the methods described and may be implemented using one or more apparatus, such as processing apparatus coupled to electronic media. Embodiments of the present invention may be stored on an electronic media (electronic memory, RAM, ROM, EEPROM) or programmed as computer code (e.g., source code, object code or any suitable programming language) to be executed by one or more processors operating in conjunction with one or more electronic storage media. This electronic storage media may include, for example a non-transitory electronic storage medium/media such as a register, or other electronic repository or electronic storage location for data that is capable of storing data represented in electronic form, such as bits, bytes, kilobytes, waveforms, electronic signals, digital format and other data types, formats and forms of data.

Embodiments of the present invention may be implemented using one or more processing devices, or processing modules. The processing devices, or modules, may be coupled such that portions of the processing and/or data manipulation may be performed at one or more processing devices and shared or transmitted between a plurality of processing devices.

FIG. **1** illustrates an example of a system **100** that supports embodiments of the present invention. The system **100** shown in FIG. **1** includes a network **102**, one or more electronic media source devices (cameras) **104**(*a*), **104**(*b*) . . . **104**(*n*) (where "n" is any suitable number), a server module **106**, a content server **110** and a location determination module **120**, that is used to determine the location of the device(s) **104**. The location determination module **120** may utilize GPS functionality, cell tower triangulation, monitoring of wi-fi or other local radio signals, looking up an address, zip-code, IP address, or other identifying information to accurately identify the geographic location of devices(s) **104**.

The network **102** is, for example, any combination of linked computers, or processing devices, adapted to transfer and process data. The network **102** may be private Internet Protocol (IP) networks, as well as public IP networks, such as the Internet that can utilize World Wide Web (www) browsing functionality. An example of a wired network is a network that uses communication buses and MODEMS, or DSL lines, or a local area network (LAN) or a wide area network (WAN) to transmit and receive data between terminals. An example of a wireless network is a wireless LAN. Global System for Mobile Communication (GSM) is another example of a wireless network. The GSM network is divided into three major systems which are the switching system, the base station system, and the operation and support system (GSM). Also, IEEE 802.11 (Wi-Fi) is a commonly used wireless network in computer systems, which enables connection to the Internet or other machines that have Wi-Fi functionality. Wi-Fi networks broadcast radio waves that can be picked up by Wi-Fi receivers that are attached to different computers.

The media source electronic devices, modules, or facilities, or units (also referred to as media source, and/or cameras) **104**(*a*), **104**(*b*) . . . **104**(*n*) (where "n" is any suitable number), (generally referred to as **104**, herein) typically have electronic data acquisition capability, such as obtaining, recording, reproducing and processing image data and/or audio data and/or a combination of image data and audio data. The media source devices **104** may be, for example, network cameras that can receive and transmit data via a network (**102**). The media source devices **104** may also be embodied as a Smartphone, IPTV (Internet Protocol Television) devices or other handheld device that can acquire and transmit image/audio data. The media source devices **104** may be electronic devices with processing capabilities and memory and an output displays, such as, laptop computers, desktop computers, cell phone, personal digital assistant (PDA), wireless handheld device, and the like. The media source devices **104** may be capable of processing and storing and displaying data themselves or merely capable of accessing processed and stored data from another location (i.e., both thin and fat terminals) and displaying the accessed or retrieved data. The media source devices **104** may also be a source of still images related to an event. The media source devices **104** are in bi-directional communication with network **102** as shown by the associated arrows. The bi-directional communication may be, for example, a serial bus such as IEEE 1394, or other wire or wireless transmission medium. The media source devices **104** are each coupled to an associated user interface module **105**(*a*), **105**(*b*) and **105**(*n*), respectively. The user interface module (generally **105**) is used to present media about an event to a user. The user interface device **105** is, for example, a display screen and may also include a keyboard, mouse, track ball or other input mechanism. The user interface **105** may also include a speaker to provide audio data to a user.

The server module, or facility, or unit, **106** is typically one or more processors with associated memory, such as computers, or other processing devices such as a desktop computer, laptop computer, personal digital assistant (PDA), wireless handheld device, cellular telephone, or the like. The server module **106** is capable of processing and storing data or

merely capable of accessing processed and stored data from another location (i.e., both thin and fat terminals). The server **106** includes electronic storage locations, such as RAM, ROM, EEPROM, registers and any suitable electronic storage medium that can store electronic data. The storage functionality of server **106** may be used to store algorithms, such as the algorithms described herein in relation to FIGS. **3-6**. Storage may be any suitable electronic storage, such as RAM, ROM, EEPROM, or other storage medium, or cloud-based storage using local or remote storage via a network, such as storage at a remote server.

The server module **106** includes a focus module **108**. The focus module **108** is used to process and compare image data received from the camera devices **104**.

The server module **106** is in bi-directional communication with network **102** as shown by the arrow. The bi-directional communication may be, for example, a serial bus such as IEEE 1394, or other wire or wireless transmission medium.

The content server **110** is a or facility, or unit, that typically includes one or more processors with associated memory, such as computers, or other processing devices such as a desktop computer, laptop computer, personal digital assistant (PDA), wireless handheld device, cellular telephone, or the like. The content server module **110** is capable of processing and storing data or merely capable of accessing processed and stored data from another location (i.e., both thin and fat terminals). The content server module **110** is used to store electronic content, such as audio data, image data and/or a combination thereof. The content server **110** may also access other storage databases, such as IMDB (Internet Movie Database) database. The content server **110** is in bi-directional communication with network **102** as shown by the associated arrow. The bi-directional communication may be, for example, a serial bus such as IEEE 1394, or other wire or wireless transmission medium.

The location determination module (also referred to as GPS module herein) **120** is used to identify a location of camera devices **104**. The location determination module **120** is typically to used to identify longitude and latitude coordinates of each camera **104**. The location determination module **120** can provide location data of each camera **104** to server **106**. Server **106** can use the camera location data from location determination module **120** to correlate a camera's proximity to an event. The location determination module **120** is in bi-directional communication with network **102** as shown by the associated arrow. The bi-directional communication may be, for example, a serial bus such as IEEE 1394, or other wire or wireless transmission medium.

The media source devices (cameras) **104**, server module **106**, and content server **110** may be communication appliances, or user locations, or subscriber devices.

Embodiments of the present invention may be implemented using one or more processing devices, or processing modules. The processing devices, or modules, may be coupled such that portions of the processing and/or data manipulation may be performed at one or more processing devices and shared or transmitted between a plurality of processing devices.

The media source (camera) devices **104** may be IPTV (Internet Protocol Television) devices, smart phones or other device capable of obtaining image data, audio data or a combination thereof and processing or reproducing or transmitting the acquired electronic content. The media source devices **104** have memory and processing capabilities. Indeed, the devices **104** may also access one or more computer readable storage media such as RAM-based storage (e.g., a chip implementing dynamic random access memory (DRAM) or flash memory or disk-based-storage. Software code implementing present logic executable by the media source device **104** may also be stored on one of the memories of the media source device **104**.

It is an embodiment of the present invention that the media source devices **104** are IPTV devices. An IPTV device can access a vast pool of content provided by numerous content providers. The IPTV device may also be used to control further distribution of content that has been provided by a third party to the IPTV device so that unauthorized access is prevented. Typically, IPTV is controlled by a single input device and has a single display device. Indeed, there may be a plurality of sources providing content to the media source devices **104**, which may correspond to an event. When users are accessing the content it is possible to compare various sources for a particular event. The popularity of events that users are choosing to view and the duration of the viewing may be used to determine a preferred source of the content being accessed by a user. Thus, one way to identify an event or interest to a user is to use the proximity of the event venue to the user's location. For example, a user at a baseball game may be interested in viewing media content from the baseball game event. Other users in the same town, but not at the ballpark are fairly likely to be interested in the baseball game too. Users in neighboring towns may be assumed to be more interested in that ball game than in a ball game in a far away state.

Furthermore, information known about a user's preferences could also be used to identify those events that are likely to be of interest to a user. For example, it could be known that some users are interested in sports while other users are not interested in sports, but are interested in cooking.

FIG. **2** shows diagram **200** that include modules and a network according to another embodiment of the present invention. As shown in FIG. **2** the system **200** includes network **102** one or more electronic devices **204**(*a*), **204**(*b*) . . . **204**(*n*) (where "n" is any suitable number) and a server module **206**.

The network **102** is, similar to FIG. **1**, any combination of linked computers, or processing devices, adapted to transfer and process data. The network **102** may be private Internet Protocol (IP) networks, as well as public IP networks, such as the Internet that can utilize World Wide Web (www) browsing functionality. An example of a wired network is a network that uses communication buses and MODEMS, or DSL lines, or a local area network (LAN) or a wide area network (WAN) to transmit and receive data between terminals. An example of a wireless network is a wireless LAN. Global System for Mobile Communication (GSM) is another example of a wireless network. The GSM network is divided into three major systems which are the switching system, the base station system, and the operation and support system (GSM). Also, IEEE 802.11 (Wi-Fi) is a commonly used wireless network in computer systems, which enables connection to the Internet or other machines that have Wi-Fi functionality. Wi-Fi networks broadcast radio waves that can be picked up by Wi-Fi receivers that are attached to different computers.

The electronic devices, modules, or facilities, or units **204**(*a*), **204**(*b*) . . . **204**(*n*) (where "n" is any suitable number), (generally referred to as **204**, herein) typically have electronic data acquisition capability, such as obtaining, recording, reproducing and processing image data and/or audio data and/or a combination of image data and audio data. The electronic device **204** may be, for example, network cameras that can receive and transmit data via a network (**102**). The electronic devices **204** may also be embodied as a Smartphone, IPTV (Internet Protocol Television) devices or other

handheld device that can acquire and transmit image/audio data. The electronic devices **204** include a processing module and a memory module. The electronic devices **204** may also include an output display. Examples of electronic devices **204** include laptop computers, desktop computers, cell phone, personal digital assistant (PDA), wireless handheld device, and the like.

The electronic devices **204** may be capable of processing and storing and displaying data themselves or merely capable of accessing processed and stored data from another location (i.e., both thin and fat terminals) and displaying the accessed or retrieved data. The electronic devices **204** are in bi-directional communication with network **102** as shown by the associated arrows. The bi-directional communication may be, for example, a serial bus such as IEEE 1394, or other wire or wireless transmission medium.

The server module, or facility, or unit, **206** is typically one or more processors with associated memory, such as computers, or other processing devices such as a desktop computer, laptop computer, personal digital assistant (PDA), wireless handheld device, cellular telephone, or the like. The server module **206** is capable of processing and storing data or merely capable of accessing processed and stored data from another location (i.e., both thin and fat terminals). The server **206** includes electronic storage locations, such as RAM, ROM, EEPROM, registers and any suitable electronic storage medium that can store electronic data. The storage functionality of server **206** may be used to store algorithms, such as the algorithms described herein in relation to FIGS. **3-6**. Storage may be any suitable electronic storage, such as RAM, ROM, EEPROM, or other storage medium, or cloud-based storage using local or remote storage via a network, such as storage at a remote server.

The server module **206** includes a directing module **211**. The directing module **211** is used to store and execute program code to direct processing functionality for the electronic devices **204**. For example, one electronic device **204**(*a*) may acquire image data that requires processing. The electronic device **204**(*a*) may not be able to process the data as efficiently as another electronic device (e.g., **204**(*b*)) so the electronic device **204**(*a*) may use directing module **211** to send data to electronic device **204**(*b*) for processing. The processed data from device **204**(*b*) would then be returned to device **204**(*a*).

FIG. **3** illustrates an example of a series of steps **300** for an embodiment of the present invention. The series of steps **300** may be stored on a non-transitory computer readable medium or media (e.g., RAM, ROM, EEPRPOM, DRAM or other memory, electronic storage device or registry) and may be executed by a processor or plurality of processors. The storage medium may be resident on the device (local) or accessed from a remote device (remote). The steps **300** are typically executed by a processor having adequate speed and processing capabilities. The execution may be at the client device and/or an associated server device. The steps **300** may be computer code or other program code (e.g., source code) that may be compiled into object code.

The code, stored on a medium and/or accessed, is a module. The steps **300** may be stored on any one or more suitable modules described in relation to FIG. **1** and FIG. **2** herein.

The process executed by the steps shown in FIG. **3** begins with start step **302**. An event location is identified, as shown in step **304**. This event location step may include, for example, identifying a location or venue of an event, such as a concert, play, fair, or other activity. The event location may be determined using longitude and latitude coordinates, GPS, print advertisement, web site notification, email blast, or other notification mechanism.

One or more camera devices and a location for the camera device are detected, as shown in step **306**. The proximity, or relative location of a camera to the event, is identified, as shown in step **308**. This identification step may use GPS data, step **310**, to determine how close a camera device is to an event. Furthermore, the available camera device functionality may be identified, as shown in step **312**. The camera device functionality may be accessed once a particular camera is identified as being within a predetermined distance of the event location. Thus, one or more camera devices, and the functions (memory, storage, processing, transmitting, focus and other camera functions) of the camera are determined.

The identified camera devices are used to provide data, such as video data, audio data, image data or other electronic data to a data collection source (e.g., a memory location as described herein, for example, at a server, as described in FIG. **1** and FIG. **2** herein), as shown in step **314**. This data, obtained from the camera devices is usually obtained from the event, which was identified.

The data is analyzed and parameters of the data received from each camera device are identified. These parameters include, for example, position of the camera device when the data was received, degree of noise or other interference present, quality of the electronic data and other aspects of the obtained data, as shown in step **316**. There may be multiple cameras at a particular event, such as a live stage performance, streaming content from a different perspective or different location. For example, one camera may be being held by a user in a stadium seat, a second camera may be held by a user closer to the stage and a third camera may be held by a user backstage. Each camera will be providing content for the event from their vantage or viewing point.

The data that is obtained is then processed, as shown in step **318**. This processing may include, filtering, storing, manipulating, comparing data from various camera devices that are sending electronic content from the same event, and other data operations, based on the condition of the data that is received. The processing may be used to determine a better quality content, or more desirable focus or other determination about the received content. The step of processing the data may lead to a subroutine, as shown in FIG. **4**. Alternatively, the processed data may be shared with other devices that are receptive to the data, as shown in step **324**.

A decision is made whether regarding the quality of the content, as shown in decision step **328**, reach via line **320**. This determination about the quality of the content is made after the data has been processed.

If some of the content is deemed to be of better quality in step **328**, that content or data may be used as a representation of the event, as shown in step **334**, reached via "yes" line **332**.

If there is no better quality content, "no" line **330** shows that the processed data, or content is shared with other devices, as shown in step **324**. The content data may be provided to other devices, as deemed appropriate, as having necessary storage/processing/display capabilities. The other devices may include any device that can receive the content. The device may store the content, display the content or transmit the content to another location.

Alternatively, step **324** may be reached from step **334**, via line **336**. In either embodiment, the highest quality content is used to represent the event.

The content data, which is provided to other devices, may also include advertising data, as shown in step **326**. The advertisement data may include advertisement content that is

related to the content being displayed. For example, the event may be a concert put on by an artist and the advertisement may be advertising a new album by the artist giving the performance. Alternatively, the advertising data may be non-specific advertisements that are provided with the content.

The process **300** ends, as shown by end step **340**.

FIG. **4** shows a series of steps **400** to implement another embodiment of the present invention. The series of steps **400** may be stored on a non-transitory computer readable medium or media (e.g., RAM, ROM, EEPRPOM, DRAM or other memory, electronic storage device or registry) and may be executed by a processor or plurality of processors. The storage medium may be resident on the device (local) or accessed from a remote device (remote). The steps **400** are typically executed by a processor having adequate speed and processing capabilities. The execution may be at the client device and/or an associated server device. The steps **400** may be computer code or other program code (e.g., source code) that may be compiled into object code. The code, stored on a medium and/or accessed, is a module. The steps **400** may be stored on any one or more suitable modules described in relation to FIG. **1** and FIG. **2** herein.

The process **400** may be a subroutine that can be used in conjunction with the process **300** in FIG. **3** or may be executed as a stand-alone process. Also, the process **400** may be used with the modules shown in FIG. **2**. The process **400** may be executed by a processor and begins with start step **402**.

One or more first camera devices and a location of the camera device are identified, as shown in step **404**. This includes, for example, using GPS data to identify the longitude and latitude coordinates of a camera device. While this process is described in terms of camera devices, any suitable electronic device may be used to implement the method **400**. The step of identifying the first camera devices is to determine devices, such as IPTV devices that are available to perform processing functions for data, such as content data. The video capability, such as 3D, 1080p, closed caption etc., may also be identified.

Received data is accessed at a second camera device, as shown by step **406**. Similar to the first devices, described above, the second camera devices may be any suitable electronic device, such as IPTV devices that are available to perform processing functions for data, such as content data.

Next, an interface between one or more of the first camera devices and the second camera devices is established, as shown in step **408**. This interface may be used to determine processing and communication abilities of the first and second devices.

One or more of the first camera devices are then used to process data, as shown in step **410**. This processing step is typically used to facilitate data processing needs of the second camera device. The first camera device(s) are used to process data for the second camera device.

The processed data is then transmitted from the first camera device(s) to the second camera device, as shown in step **420**.

The processed data, processed at the first camera device is displayed at the second camera device, as shown in step **422**.

The process **400** ends, as shown by end step **430**.

FIG. **5** shows a series of steps **500** to change a source of content, according to an embodiment of the present invention. The series of steps **500** may be stored on a non-transitory computer readable medium or media (e.g., RAM, ROM, EEPRPOM, DRAM or other memory, electronic storage device or registry) and may be executed by a processor or plurality of processors. The storage medium may be resident on the device (local) or accessed from a remote device (remote). The steps **500** are typically executed by a processor having adequate speed and processing capabilities. The execution may be at the client device and/or an associated server device. The steps **500** may be computer code or other program code (e.g., source code) that may be compiled into object code. The code, stored on a medium and/or accessed, is a module. The steps **500** may be stored on any one or more suitable modules described in relation to FIG. **1** and FIG. **2** herein.

The process **500** may be a subroutine that can be used in conjunction with the process **300** in FIG. **3**, process **400** in FIG. **4**, or may be executed as a stand-alone process. Also, the process **500** may be used with the modules shown in FIGS. **1** and **2**. The process **500** may be executed by a processor and begins with start step **502**.

A user logs onto a system, such as an IPTV system, via a user account, as shown in step **504**. This may include a GPS location reporting, privacy viewing, message notification, languages and rating information.

An application is configured for a particular user with the user settings, as shown in step **506**. This may include settings, available live events, pushing content to a user based on a user profile, sending a notification to a user about the content being obtained and other information.

User accesses a location function, as shown in step **508**.

Other cameras, or processing devices, such as any suitable electronic device, such as IPTV devices that are available to perform processing functions for data, such as content data, that are within a predetermined distance of an event are identified, as shown in step **510**. The predetermined distance is determined using longitude/latitude coordinates of the device, GPS or other suitable location technique to determine where (geographic location) a device is disposed.

Content related to the event is identified, as shown in step **512**. This content may be the artist, the performance, streaming video, audio, or other data.

The user selects desired content, as shown in step **514**. This user may be located remotely from the event. The available content may be indicated using an icon showing the various angles, positions of cameras providing content, etc.

The desired content that is selected may also include advertisement content, as shown in step **516**. The advertisement content (**516**) may be audio, video, image, or other electronic content that is offering merchandise, services or other commercial transactions. The advertisement content (**516**) may be based on the user account, the desired content, or other criteria.

A determination is made whether or not to change the source of the content, as shown in step **518**.

When the source of the content is changed, "yes" line **520** shows that the content is identified, as shown in step **512**. This content that is identified may be from a different content provider, a different device, or a memory location.

When the content source is not changed, "no" line **522** shows that the content is displayed, as shown in step **524**.

Additional cameras are identified, as shown in step **526**. Additional cameras are cameras or electronic content obtaining devices that provide electronic content from a source to other devices, typically via a network, as described herein.

If an additional camera is not identified, "no" line **528** leads to display step **524**. If an additional camera is identified, "yes" line **530** shows that the content provided from another source (camera) is evaluated, as shown in step **532**.

Other available receiver devices are identified, as shown in step **534**. This step includes determining whether there are other receiver devices and if so, if the devices are available to receive content.

A determination is made whether to change the source of the content, as shown in step **536**. This may include changing the device that provides content to the other devices, as described herein.

If the provider source is not changed, "no" line **538** shows that the content is displayed, as shown in step **524**.

If the provider device is changed, "yes" line **540** shows that the content from the alternate provider device is displayed, as shown in step **542**.

The process **500** ends, as shown in step **544**.

FIG. **6** shows a series of steps **600** to share processing functions between a plurality of devices. The series of steps **600** may be stored on a non-transitory computer readable medium or media (e.g., RAM, ROM, EEPRPOM, DRAM or other memory, electronic storage device or registry) and may be executed by a processor or plurality of processors. The storage medium may be resident on the device (local) or accessed from a remote device (remote). The steps **600** are typically executed by a processor having adequate speed and processing capabilities. The execution may be at the client device and/or an associated server device. The steps **600** may be computer code or other program code (e.g., source code) that may be compiled into object code. The code, stored on a medium and/or accessed, is a module. The steps **600** may be stored on any one or more suitable modules described in relation to FIG. **1** or FIG. **2** as described herein.

The process **600** may be executed by a processor and begins with start step **602**.

A user accesses content on a user device, as shown in step **604**. This content is audio content, image data, video content or other electronic data.

A determination is made whether the content requires additional processing, as shown in step **606**. The additional processing may include filtering, and other processing operations.

A determination is made of other available processing units, as shown in step **610**.

The other possible processors are sent a request, typically an API, regarding whether the processor is capable to perform processing operations, as shown in step **612**. If not, "no" line **614** shows that other possible processors are identified, as shown in step **608**. If the other identified processor is capable to perform processing, "yes" line **618** shows that a portion of content is provided to another processor, as shown in step **620**.

The other capable processor processes the content, as shown in step **622**.

The processed content is then transmitted to the user device, as shown in step **624**

The process **600** ends, as shown in end step **630**.

It will be appreciated from the above that the invention may be implemented as computer software, which may be supplied on a storage medium such as through a transmission medium such as a local-area network or a wide-area network, such as the Internet. It is to be further understood that, because some of the constituent system components and method steps depicted in the accompanying Figures can be implemented in software, the actual connections between the systems components (or the process steps) may differ depending upon the manner in which the present invention is programmed. Given the teachings of the present invention provided herein, one of ordinary skill in the related art will be able to contemplate these and similar implementations or configurations of the present invention.

It is to be understood that the present invention can be implemented in various forms of hardware, software, firmware, special purpose processes, or a combination thereof. In one embodiment, the present invention can be implemented in software as an application program to tangible embodied on a computer readable program storage device. The application program can be uploaded to, and executed by, a machine comprising any suitable architecture.

The particular embodiments disclosed above are illustrative only, as the invention may be modified and practiced in different but equivalent manners apparent to those skilled in the art having the benefit of the teachings herein. Furthermore, no limitations are intended to the details of construction or design herein shown, other than as described in the claims below. It is therefore evident that the particular embodiments disclosed above may be altered or modified and all such variations are considered within the scope and spirit of the invention. Although illustrative embodiments of the invention have been described in detail herein with reference to the accompanying drawings, it is to be understood that the invention is not limited to those precise embodiments, and that various changes and modifications can be effected therein by one skilled in the art without departing from the scope and spirit of the invention as defined by the appended claims.

What is claimed is:

1. A method for sharing content between a plurality of electronic cameras comprising:

identifying an event associated with a geographic location;

detecting plural user-operated cameras proximate the geographic location that acquire electronic content related to the identified event;

obtaining the acquired electronic content from at least two of the user-operated cameras that are proximate the event;

comparing preference factors of the acquired electronic content obtained from the at least two user-operated cameras;

selecting acquired content from one of the user-operated cameras based on the compared preference factors; and

providing the selected electronic content to one or more output devices.

2. The method as claimed in claim **1**, wherein the one or more output devices are located remotely from the plural user-operated cameras.

3. The method as claimed in claim **1**, further comprising:

utilizing a positioning system to detect that the plural user-operated cameras are a predetermined geographical distance from the geographic location of the event.

4. The method as claimed in claim **3**, further comprising:

identifying a geographic longitude coordinate and a latitude coordinate of each user-operated camera.

5. The method as claimed in claim **1**, further comprising:

determining a perspective viewing location of a user-operated camera that is acquiring content.

6. The method as claimed in claim **1**, wherein the electronic content is in a 3D format.

7. The method as claimed in claim **1**, wherein the electronic content is in a high definition format.

8. The method as claimed in claim **1**, wherein the providing step provides selected electronic content to the output devices as a data stream.

9. The method as claimed in claim **8**, further comprising:

storing the electronic content.

10. The method as claimed in claim 1, further comprising: providing advertisement data as part of the electronic content.

11. The method as claimed in claim 10, further comprising: selecting the advertisement data based on a geographical location of the output device receiving the advertisement data.

12. The method as claimed in claim 1, further comprising: identifying capabilities of the detected cameras.

13. The method as claimed in claim 1, further comprising: identifying the geographic location of one or more second user-operated cameras;

generating a notification related to the event; and

transmitting the notification to at least one of the second user-operated cameras.

14. The method as claimed in claim 1, wherein the plural user-operated cameras that acquire the electronic content are fixed cameras.

15. The method as claimed in claim 1, further comprising: associating a user-applied tag to the electronic content.

16. The method as claimed in claim 1, further comprising: identifying one or more available processing modules, the available processing modules being able to process electronic content;

providing electronic content to selected one or more available processing modules; processing the electronic content at the selected one or more available processing modules; and

providing the processed electronic content to at least one output device.

17. The method as claimed in claim 1, further comprising: providing to a user device a listing of user-operated cameras that are acquiring data related to the event;

receiving a selection of a listed user-operated camera from the user device; and

providing content to the user device from the selected user-operated camera.

18. The method as claimed in claim 17, wherein the listing of user-operated cameras includes functionality of each listed user-operated camera.

19. The method as claimed in claim 1, further comprising: restricting electronic content provided by one of the user-operated cameras based on a user of that one user-operated camera refusing to provide electronic content to an output device.

20. The method as claimed in claim 1, further comprising: providing to a user device a listing of user-operated cameras that are acquiring data related to the event;

receiving a selection of a media format from the user device; and

providing content to the user device based on the selected media format.

21. The method as claimed in claim 20, further comprising: providing a plurality of content to the user device in a plurality of formats simultaneously.

22. The method as claimed in claim 1, wherein the user-operated cameras include audio output devices.

23. The method as claimed in claim 1, wherein the electronic content is text content.

24. The method as claimed in claim 1 wherein the electronic content includes at least one of video content, image content and audio content.

25. The method as claimed in claim 1, wherein the step of identifying an event further comprises:

identifying a plurality of events within a predefined geographical region;

organizing the plurality of events within the predefined geographical region into one or more clusters; and

labeling the one or more clusters.

26. The method as claimed in claim 1, wherein the step of identifying an event further comprises:

identifying a plurality of events within a predefined time period;

organizing the plurality of events within the predefined time period into one or more clusters; and

labeling the one or more clusters.

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