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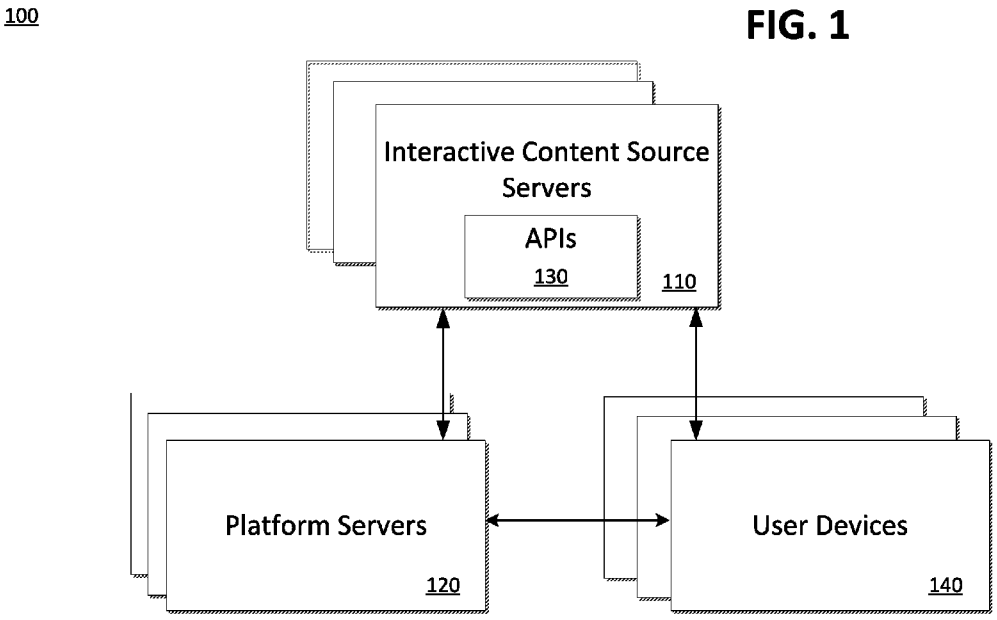
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(57) Abstract: A system and method for generating an integrated interface is provided. A user dataset of a user, a peer dataset of a peer user, and interactive titles available to the user are stored in memory. A network interface establishes a session with a user device associated with the first user. A processor executes instructions stored in memory, wherein execution of the instructions by the processor constructs a group of interactive activities based on the sets of one or more activities of each interactive title, a user presence based on the first user dataset, and a peer presence based on the peer dataset and displays the set of interactive activities, the user presence, and the peer presence on an integrated interface displayed on the first user device.

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INTEGRATED INTERFACES FOR DYNAMIC USER EXPERIENCES

BACKGROUND

1. Field of the Invention

[0001] The present technology pertains to providing dynamic user experiences. More specifically, the present technology may generate integrated interfaces for dynamic user experiences.

2. Description of the Related Art

[0002] User interfaces for platform-based gameplay (*e.g.*, Sony PlayStation®) may include a variety of different user interfaces used to select content (*e.g.*, a game) to play, interact with other users, or otherwise interact with the selected content or other content in different ways. The user interfaces used in digital games may also display information about the user, peers, and gameplay by the users and/or peers. Presently available user interfaces for displaying the user gameplay data may include displaying a string text and/or a specific achievement (*e.g.*, a trophy) provided by each game for each user. Such string text may be displayed within each game and may not be viewable outside of the game.

[0003] Due to its usage in numerous aspects of digital content interaction, user interfaces can have significant impact on user experience. Such interfaces may, for example, detract from the user experience when gameplay information and statistics are not displayed or poorly displayed. Further, such interfaces may detract from the user experience when peer information and availability of peer interaction is not displayed or only displayed within each game.

[0004] There is, therefore, a need in the art for systems and methods for generating integrated interfaces for dynamic user experiences.

SUMMARY OF THE PRESENTLY CLAIMED INVENTION

[0005] Embodiments of the present invention include systems and methods for integrated interfaces. Data regarding a user, at least one peer, and at least one interactive title available to the user may be stored in memory. The at least one interactive title may include a set of one or more activities that the user can interactive with. A session may be established with a user device associated with the user. A plurality of interactive activities may be constructed based on the data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user. Such interactive activities may be associated with a presence of the user and a presence of the at least one peer. An integrated interface may be generated based on the constructed plurality of interactive activities, the presence of the user, and the presence of the at least one peer.

[0006] Various embodiments may include methods for generating an integrated interface. Such methods may include retrieving stored data regarding a user, at least one peer, and at least one interactive title available to the user. The at least one interactive title may include a set of one or more activities. Such methods may include establishing a session with a user device associated with the user. Such methods may include constructing a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user. Each interactive activity may be associated with a presence of the first user and a presence of the at least one peer. Such methods may include generating an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer. The generated integrated interface may be displayed on the user device.

[0007] Additional embodiments may include systems for generating an integrated interface. Such systems may include memory that stores data regarding a user, at least one peer, and at least one interactive title available to the user. The at least one interactive title may include a set of one or more activities. Such systems may include a

network interface that establishes a session with a user device associated with the user over a communication network. Such systems may include a processor that executes instructions stored in memory. Execution of the instructions by the processor may construct a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user. Each interactive activity may be associated with a presence of the first user and a presence of the at least one peer. Execution of the instructions by the processor may generate an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer. The generated integrated interface may be displayed on the user device

[0008] Further embodiments include non-transitory computer-readable storage media having embodied thereon a program executable by a processor to generate an integrated interface.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 illustrates a network environment in which a system for generating an integrated interface may be implemented.

[0011] FIG. 2 is a flowchart illustrating an exemplary method for generating an integrated interface.

[0012] FIG. 3 is an exemplary electronic entertainment system that may be used in generating an integrated interface.

DETAILED DESCRIPTION

[0014] The detailed description set forth below is intended as a description of various configurations of the subject technology and is not intended to represent the only configurations in which the technology can be practiced. The appended drawings are incorporated herein and constitute a part of the detailed description. The detailed description includes specific details for the purpose of providing a more thorough understanding of the technology. However, it will be clear and apparent that the technology is not limited to the specific details set forth herein and may be practiced without these details. In some instances, structures and components are shown in block diagram form in order to avoid obscuring the concepts of the subject technology.

[0015] Embodiments of the present invention include systems and methods for generating an integrated interface that displays a group of available activities associated with interactive content titles, a user presence, and a peer presence on a user device. Such an integrated interface presents multiple options for participating in an activity, or viewing or interacting with a peer (*e.g.*, based on peer presence information). User history and peer history may also be displayed on the integrated interface, thereby presenting the user with past activities in which the user or peer has previously participated. Such histories can therefore provide additional options by which the user can newly participate in a previous activity of an interactive content title or be reminded to try participating in a different activity associated with the same interactive content title. Further, peer history provides an opportunity for the user to discover a new interactive content title, as the user may view a peer history of activities within an interactive content title to which the user does not currently or previously have access or interaction. The integrated interface provides a rich user experience by identifying and presenting multiple options for the user to interact with peers, new or old interactive content titles, and opportunities for multi-user interactions.

[0016] FIG. 1 illustrates a network environment 100 in which a system for generating an integrated interface may be implemented. The network environment 100

may include one or more interactive content source servers 110 that provide interactive content (*e.g.*, video games, interactive video, etc.), platform servers 120, and one or more user devices 140.

[0017] Interactive content source servers 110 may maintain and host interactive content titles available for play to a user device 140 over a communication network. Such interactive content servers 110 may be implemented in the cloud (*e.g.*, one or more cloud servers). Each interactive content title may include one or more activities available within the content title. The one or more activities may be playable by a single user or by multiple users. In one example, the interactive content title is a video game title having different modes of competitive gameplay available within that game title. In another example, the interactive content title is another video game title having an interactive storyline for single user play. The interactive content source servers 110 may also provide user data pertaining to a hosted interactive title. For example, the user data may include a current status of the user within an interactive title and current and historical statistics related to the user and/or user interaction with one or more interactive titles.

[0018] The platform servers 120 may be responsible for communicating with the different interactive content source servers 110 in order to retrieve activity data of one or more activities available within each content title, user data, and/or peer (*e.g.*, one or more other users) data to the user device 140. Such platform servers 120 may be implemented on one or more cloud servers. Peer data may be stored in memory on a corresponding platform server 120 and/or interactive content source servers 110. The platform server 120 may carry out instructions, for example, for constructing a set of activities available to the user based on the activity data, a user presence based on the user data, and/or a peer presence based on the peer data on user device 140. The user presence and peer presence may be updated in real-time, for example, as the user progresses through an interactive title and the peer progresses through another interactive title. As such, the set of activities, user presence, and peer presence can be different each time the user accesses the user device 140. The platform servers 120 may also carry out further instructions, for example, for tracking and displaying user

progress within an interactive content title (*e.g.*, progress of an activity, competitive match, gameplay, storyline, etc.) and/or up-to-date information or progress of a peer within the same or a different interactive title. The platform server 120 may also generate a user interface to be displayed on a specific user device 140 by which the user can view and select activities, interactive content, user data, user history, peer data, peer history, or the like.

[0019] The interactive content titles and their corresponding activities may be provided through an application programming interface (API) 130, which allows various types of interactive content sources server 110 to communicate with different platform servers 120 and different user devices 140. API 130 may be specific to the particular computer programming language, operating system, protocols, etc., of the interactive content source servers 110 providing the interactive content titles and user devices 140 receiving the same. In a network environment 100 that includes multiple different types of interactive content source servers 110 (or platform servers 120 or user devices 140), there may likewise be a corresponding number of APIs 130.

[0020] The user device 140 may include a plurality of different types of computing devices. For example, the user device 140 may include any number of different gaming consoles, mobile devices, laptops, and desktops. Such user devices 140 may also be configured to access data from other storage media, such as, but not limited to memory cards or disk drives as may be appropriate in the case of downloaded services. Such devices 140 may include standard hardware computing components such as, but not limited to network and media interfaces, non-transitory computer-readable storage (memory), and processors for executing instructions that may be stored in memory. These user devices 140 may also run using a variety of different operating systems (*e.g.*, iOS, Android), applications or computing languages (*e.g.*, C++, JavaScript). An exemplary user device 140 is described in detail herein with respect to FIGURE 3.

[0021] FIG. 2 is a flowchart illustrating an exemplary method 200 for generating an integrated interface. The method 200 of FIG. 2 may be embodied as executable instructions in a non-transitory computer readable storage medium including but not

limited to a CD, DVD, or non-volatile memory such as a hard drive. The instructions of the storage medium may be executed by a processor (or processors) to cause various hardware components of a computing device hosting or otherwise accessing the storage medium to effectuate the method. The execution of the instructions may be implemented on the cloud servers (*e.g.*, the steps identified in FIG. 2 are performed in the cloud). The steps identified in FIG. 2 (and the order thereof) are exemplary and may include various alternatives, equivalents, or derivations thereof including but not limited to the order of execution of the same.

[0022] In step 210, a user dataset associated with a user, a peer dataset associated with one or more peers, and one or more activity sets are retrieved by, for example, the platform server 120. The user dataset, the peer dataset, and the one or more activity sets may be stored in memory on the interactive content source servers 110 or the platform servers 120.

[0023] The user dataset may include data related to a past activity completed (*e.g.*, a completed competitive match, a completed task or quest, etc.) by the user. Such past activity may be re-playable by the user, as discussed below. The user dataset may also include content captured during the past activity (*e.g.*, video, broadcast, screenshots, etc.). The user dataset may also include data related to an in-progress user session, where the user is currently participating in an activity. The user session can be paused and resumed at a later time. Such in-progress data may be continuously retrieved by the platform server 120 as the progress data is updated. The user dataset may also include data and statistics related to the in-progress user session (*e.g.*, time elapsed since start of the activity, percentage of activity completed, progress efficiency, team members in competitive activity, etc.) or to a past activity (*e.g.*, total time to complete activity, result of competitive activity, etc.).

[0024] The peer may be any other user in the interactive network, including designated friends, team members, celebrities, and other individuals. The peer dataset may include data related to a past activity completed (*e.g.*, a completed competitive match, a completed task or quest, etc.) by the peer. Such past activity may be viewable

and/or playable by the user. The peer dataset may also include content captured during the past activity (*e.g.*, video, broadcast, screenshots, etc.). The peer dataset may also include data related to an in-progress peer session, where the peer is currently participating in an activity. Such in-progress data may be continuously retrieved by the platform server 120 as the progress data is updated. The peer dataset may also include data and statistics related to the in-progress peer session (*e.g.*, time elapsed since start of the activity, percentage of activity completed, progress efficiency, team members in competitive activity, etc.) or related to a past activity (*e.g.*, total time to complete activity, result of competitive activity, etc.).

[0025] In step 220, a session is established between a user device 140 associated with the user and the platform server 120. The session enables the platform server 120 to communicate to and from the user device 140.

[0026] In step 230, the retrieved data may be used to construct user-specific (and peer-specific) components for an integrated interface. For example, a group of interactive activities based on the one or more activity sets, a user presence based on the user dataset, and a peer presence based on the peer dataset may be constructed by the platform server 120. The user presence may include a current status of the user. Such user current status may be constructed from the data related to the in-progress user session, which may be updated in real-time as the data may be retrieved continuously from the interactive content source servers 110. A user history may also be constructed by the platform server 120. Such user history may be constructed from the data and statistics related to the retrieved past activity data regarding the user. Such history may further combine both the user and peer histories, including data regarding head-to-head competitions, team activities, and other items in common.

[0027] The peer presence may include a current status of the peer. Such peer current status may be constructed from the data related to the in-progress peer session, which may be updated in real-time as the data may be retrieved continuously from the interactive content source servers 110. The peer current status may also include whether the peer is available to chat or interactive with directly by the user. A peer history may

also be constructed by the platform server 120. Such peer history may be constructed from data and statistics related to past activity or activities of the peer.

[0028] In step 240, the interface components—*e.g.*, group of interactive activities, the user presence, and the peer presence—may be configured and displayed on the user device 140 in an integrated interface. The group of interactive activities displayed may be available to currently interact with by the user or in the future (*e.g.*, at a predetermined time). The user may also save an activity for future interaction. The user may also invite a peer to currently join the user in an activity or to join the user in the activity at a later time. For example, the user can send an invitation to five peers who are online to join the user in a competitive match requiring six total users. The invite sends a request to the platform servers 120 to transmit an invitation from the user to the peer. After receiving such request, the platform servers 120 may retrieve data from a past activity (*e.g.*, participants, the interactive title associated with the past activity, configuration of content, match type, match field, etc.) selected by the user. Such data from a past activity, a current activity, or a future activity may be used to create invitations for a current activity or a future activity based on the retrieved data. Such invitation is generated by the platform server 120 of the user and includes a link to the activity. Such invitation may be edited by the user prior to transmission of the invitation to the peer. The invitation is then transmitted from the user platform server 120 to the peer platform server 120 over a communication network. Similarly, the user can receive an invitation from the peer to join the peer in an activity chosen by the peer.

[0029] The user presence may be displayed on a peer device and may indicate to a peer whether the user is available to interact with (*e.g.* voice chat, direct message, etc.) or whether the user is in a user session and participating in an activity of an interactive content title available to the user. The user presence may also display whether the user is interacting with other users within the user session. For example, if the user is participating in a competitive match with three additional users against a team of four other users, the user presence may display the additional users that the user is participating in the competitive match with on the integrated interface. The user may

choose to hide user presence from appearing on a peer device. For example, the user may choose to appear offline even when the user is online

[0030] The peer presence may be displayed on the user device and may indicate to the user whether the peer is available to directly interact with by the user (*e.g.* voice chat, direct message, etc.) or whether the peer is in a peer session and participating in an activity of an interactive content title available to the peer. If the activity includes multi-user interactions, the user may join the peer session and interact with the peer within the activity or view the interaction of the peer in the activity. If the activity is a single-user activity, the user may join the peer session to view the interaction of the peer in the activity. Furthermore, if the interactive content title is not available to the user because the user has not yet obtained access to the interactive content title (*e.g.*, purchased), the user may be able to view a portion of the peer participation in the activity or the user may be able to participate in an excerpt of the activity (*e.g.*, a demo), thereby incentivizing the user to obtain access to the interactive content title. Peer presences of multiple peers of the user may be displayed, such that the user can view which peers are online or otherwise available to interact with, what activity each peer is participating in if the peer is participating in an activity, and whether the activity each peer is participating in is joinable by the user. Such presence data may provide opportunities for the user to interactive with one or more peers (*e.g.*, friends). In some embodiments, visual indicators may be used to illustrate which peers are or are likely to be available, for how long, and for which activities.

[0031] The user history and the peer history may also be displayed on the user device 140. Illustrative content regarding the user history and/or the peer history (*e.g.*, video, broadcast, screenshots, etc.) may be viewable by the user or the peer. Such content may be stored at the platform server 120. The content may also link to a portion of the activity stored at the interactive content source server 110. Such link may allow the user to view the content directly in the interactive content title.

[0032] The past activity of the user history displayed on the user device 140 may be available for re-interaction with by the user, thereby incentivizing the user to continue

interacting with the interactive title associated with the past activity. The user history may also display the statistics of the past activity. The user history may also display an amount of completion of an interactive content title completed by the user. For example, if the user has completed half of an interactive content title (*e.g.*, completed half of the activities available in the interactive content title), "50% completed" may be displayed by a visual of the interactive content title. Such overall progress may incentivize the user to continue interacting with the interactive title to finish or complete all activities associated with the interactive content title. Further, even if the user has completed activities associated with a main storyline of an interactive content title, the user may not have completed all side activities (*e.g.*, side quests). A progress display may show that the user has completed 90% of the interactive content title and as such, may incentivize the user to continue interacting with the interactive content title until all activities are completed.

[0033] The past activity of the peer history may also be displayed on the user device. The user may be able to view statistics related to the peer's past activity, or play the past activity if the interactive content title associated with the peer's past activity is available to the user. Such peer history may provide information to the user such that the user can determine if the user wishes to interact with the peer. For example, the user may decide to interact with the peer because the peer history indicates that the peer and the user interact with the same or similar interactive content titles. If the interactive content title associated with the peer's past activity is not available to the user, the user may view an excerpt of the peer participation stored with the peer's past activity or may play an excerpt of the peer's past activity, thereby incentivizing the user to obtain access to the interactive content title associated with the peer's past activity.

[0034] As described, a mixture of currently available activities for a user to interactive with, user history, peer presence, and peer history may be displayed on an integrated interface, providing the user with multiple options and opportunities to interact with new and/or old interactive content titles and/or with peers of the user. The specific configuration of the different components (*e.g.*, activities) within the integrated

interface may be based on predetermined preferences, priorities, and conditions specified by the user. Such interface provides opportunities for the user to directly interact with multiple peers and presents available multi-user experiences to the user. The user may also view peer history and peer presence to determine if the user wants to interact with a particular peer directly or join the peer in a user or peer session. Further, such interface allows the user to send an invitation to one or more peers to join the user in participating in an activity and interacting with an interactive content title.

[0035] FIG. 3 is an exemplary user electronic entertainment system that may be used in launching interactive content and providing dynamic interfaces. The entertainment system 300 of FIG. 3 includes a main memory 305, a central processing unit (CPU) 310, vector unit 315, a graphics processing unit 320, an input/output (I/O) processor 325, an I/O processor memory 330, a peripheral interface 335, a memory card 340, a Universal Serial Bus (USB) interface 345, and a communication network interface 350. The entertainment system 300 further includes an operating system read-only memory (OS ROM) 355, a sound processing unit 360, an optical disc control unit 370, and a hard disc drive 365, which are connected via a bus 375 to the I/O processor 325.

[0036] Entertainment system 300 may be an electronic game console. Alternatively, the entertainment system 300 may be implemented as a general-purpose computer, a set-top box, a hand-held game device, a tablet computing device, a virtual reality device, an augmented reality device, or a mobile computing device or phone. Entertainment systems may contain more or less operating components depending on a particular form factor, purpose, or design.

[0037] The CPU 310, the vector unit 315, the graphics processing unit 320, and the I/O processor 325 of FIG. 3 communicate via a system bus 385. Further, the CPU 310 of FIG. 3 communicates with the main memory 305 via a dedicated bus 380, while the vector unit 315 and the graphics processing unit 320 may communicate through a dedicated bus 390. The CPU 310 of FIG. 3 executes programs stored in the OS ROM 355 and the main memory 305. The main memory 305 of FIG. 3 may contain pre-stored programs and programs transferred through the I/O Processor 325 from a CD-ROM,

DVD-ROM, or other optical disc (not shown) using the optical disc control unit 370. I/O Processor 325 of FIG. 3 may also allow for the introduction of content transferred over a wireless or other communications network (e.g., 3G, LTE, 1G, and so forth). The I/O processor 325 of FIG. 3 primarily controls data exchanges between the various devices of the entertainment system 300 including the CPU 310, the vector unit 315, the graphics processing unit 320, and the peripheral interface 335.

[0038] The graphics processing unit 320 of FIG. 3 executes graphics instructions received from the CPU 310 and the vector unit 315 to produce images for display on a display device (not shown). For example, the vector unit 315 of FIG. 3 may transform objects from three-dimensional coordinates to two-dimensional coordinates, and send the two-dimensional coordinates to the graphics processing unit 320. Furthermore, the sound processing unit 360 executes instructions to produce sound signals that are outputted to an audio device such as speakers (not shown). Other devices may be connected to the entertainment system 300 via the USB interface 335, and the communication network interface 350 such as wireless transceivers, which may also be embedded in the system 300 or as a part of some other component such as a processor.

[0039] A user of the entertainment system 300 of FIG. 3 provides instructions via the peripheral interface 335 to the CPU 310, which allows for use of a variety of different available peripheral devices (e.g., controllers) known in the art. For example, the user may instruct the CPU 310 to store certain game information on the memory card 330 or other non-transitory computer-readable storage media or instruct a character in a game to perform some specified action.

[0040] The present invention may be implemented in an application that may be operable by a variety of end user devices. For example, an end user device may be a personal computer, a home entertainment system (e.g., Sony PlayStation2® or Sony PlayStation3® or Sony PlayStation4®), a portable gaming device (e.g., Sony PSP® or Sony Vita®), or a home entertainment system of a different albeit inferior manufacturer. The present methodologies described herein are fully intended to be operable on a variety of devices. The present invention may also be implemented with cross-title

neutrality wherein an embodiment of the present system may be utilized across a variety of titles from various publishers.

[0041] The present invention may be implemented in an application that may be operable using a variety of devices. Non-transitory computer-readable storage media refer to any medium or media that participate in providing instructions to a central processing unit (CPU) for execution. Such media can take many forms, including, but not limited to, non-volatile and volatile media such as optical or magnetic disks and dynamic memory, respectively. Common forms of non-transitory computer-readable media include, for example, a floppy disk, a flexible disk, a hard disk, magnetic tape, any other magnetic medium, a CD-ROM disk, digital video disk (DVD), any other optical medium, RAM, PROM, EPROM, a FLASHEPROM, and any other memory chip or cartridge.

[0042] Various forms of transmission media may be involved in carrying one or more sequences of one or more instructions to a CPU for execution. A bus carries the data to system RAM, from which a CPU retrieves and executes the instructions. The instructions received by system RAM can optionally be stored on a fixed disk either before or after execution by a CPU. Various forms of storage may likewise be implemented as well as the necessary network interfaces and network topologies to implement the same.

[0043] The foregoing detailed description of the technology has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the technology to the precise form disclosed. Many modifications and variations are possible in light of the above teaching. The described embodiments were chosen in order to best explain the principles of the technology, its practical application, and to enable others skilled in the art to utilize the technology in various embodiments and with various modifications as are suited to the particular use contemplated. It is intended that the scope of the technology be defined by the claim.

CLAIMS

WHAT IS CLAIMED IS:

1. A method for generating an integrated interface, the method comprising:

retrieving stored data regarding a user, at least one peer, and at least one interactive title available to the user, wherein the at least one interactive title includes a set of one or more activities;

establishing a session with a user device associated with the user;

constructing a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user, wherein each interactive activity is associated with a presence of the user and a presence of the at least one peer; and

generating an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer, the generated integrated interface being displayed on the user device.

2. The method of claim 1, wherein the user data includes data related to a user past activity completed by the user and the peer data includes a peer past activity completed by the peer.

3. The method of claim 2, further comprising constructing a user history based off of the data related to the user past activity and a peer history based off of the data related to the peer past activity, wherein the user past activity is associated with a first title available to the user and the peer past activity is associated with a second title available to the peer.

4. The method of claim 3, further comprising displaying the user history on the integrated interface, wherein the first past activity is available to replay by the user.

5. The method of claim 3, further comprising displaying the peer history on the integrated interface, wherein the second title is available to the user, and wherein the second past activity is available to the user to interact with.

6. The method of claim 1, wherein the peer data includes data related to an in-progress session of the peer, wherein the peer participates in an activity of an interactive title available to the peer within the session.

7. The method of claim 6, wherein the peer presence includes a current status constructed from the data related to the in-progress session.

8. The method of claim 7, wherein the interactive title that the peer is interacting with is also available to the user, and wherein the user joins the peer in the in-progress session.

9. The method of claim 7, wherein the interactive title that the peer is interacting with is also available to the user, and wherein the user enters the in-progress session and views the peer participation in the activity.

10. The method of claim 7, wherein the interactive title that the peer is interacting with is not available to the user, and wherein the user views a portion of the peer participation in the activity.

11. The method of claim 7, wherein the interactive title that the peer is interacting with is not available to the user, wherein the user enters a different session than the peer, and wherein the different session is an excerpt of the activity that the peer is participating in.

12. The method of claim 1, wherein one of the plurality of interactive activities requires multiple users to participate.

13. The method of claim 12, further comprising:

receiving a request from the user to transmit an invitation to the at least one peer to participate in the activity requiring multiple users, wherein the interactive title is available to the user and the at least one peer; and

generating the invitation, the invitation linking to the activity; and

transmitting the invitation to the peer.

14. A system for generating an integrated interface, the system comprising:

memory that stores data regarding a user, at least one peer, and at least one interactive title available to the user, wherein the at least one interactive title includes a set of one or more activities;

a network interface that establishes a session with a user device associated with the user over a communication network; and

a processor that executes instructions stored in memory, wherein execution of the instructions by the processor:

constructs a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user, wherein each interactive activity is associated with a presence of the first user and a presence of the at least one peer; and

generates an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer, the generated integrated interface being displayed on the user device.

15. The system of claim 14, wherein the user data includes data related to a user past activity completed by the user and the peer data includes a peer past activity completed by the peer.

16. The system of claim 15, wherein the process further constructs a user history based off of the data related to the user past activity and a peer history based off of the data related to the peer past activity, wherein the user past activity is associated with a first title available to the user and the peer past activity is associated with a second title available to the peer.

17. The system of claim 16, wherein the processor further displays the user history on the integrated interface, wherein the user past activity is available to replay by the user.

18. The method of claim 16, wherein the processor further displays the peer history on the integrated interface, wherein the second title is available to the user, and wherein the peer past activity is available to the user to interact with.

19. The system of claim 14, wherein one of the plurality of interactive activities requires multiple users to participate.

20. The system of claim 14, wherein the processor further:

receives a request from the first user to transmit an invitation to the second user to participate in the activity requiring multiple users, wherein the interactive title is available to the first user and the second user; and

generates the invitation, the invitation linking to the activity; and

transmits the invitation to the second user.

21. A non-transitory computer-readable medium having embodied thereon a program executable by a processor to perform a method for generating an integrated interface, the method comprising:

retrieving stored data regarding a user, at least one peer, and at least one interactive title available to the user, wherein the at least one interactive title includes a set of one or more activities;

establishing a session with a user device associated with the user;

constructing a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user, wherein each interactive activity is associated with a presence of the user and a presence of the at least one peer; and

generating an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer, the generated integrated interface being displayed on the user device.

AMENDED CLAIMS
received by the International Bureau on 17 January 2020 (17.01.2020)

WHAT IS CLAIMED IS:

1. A method for generating an integrated interface, the method comprising:

retrieving stored data regarding a user, at least one peer, and at least one interactive title available to the user, wherein the at least one interactive title includes a set of one or more activities;

establishing a session with a user device associated with the user;

constructing a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user, wherein each interactive activity is associated with a presence of the user and a presence of the at least one peer; [[and]]

generating an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer, the generated integrated interface being displayed on the user device;

receiving a request from the user via the integrated interface, the user requesting that an invitation be transmitted to the peer regarding participation in one of the constructed activities in the integrated interface; and

transmitting the invitation to the peer, the invitation including a link to the selected activity.

2. The method of claim 1, wherein the user data includes data related to a user past activity completed by the user and the peer data includes a peer past activity completed by the peer.

3. The method of claim 2, further comprising constructing a user history based off of the data related to the user past activity and a peer history based off of the data related to the peer past activity, wherein the user past activity is associated with a first title available to the user and the peer past activity is associated with a second title available to the peer.

4. The method of claim 3, further comprising displaying the user history on the integrated interface, wherein the first past activity is available to replay by the user.

5. The method of claim 3, further comprising displaying the peer history on the integrated interface, wherein the second title is available to the user, and wherein the second past activity is available to the user to interact with.

6. The method of claim 1, wherein the peer data includes data related to an in-progress session of the peer, wherein the peer participates in an activity of an interactive title available to the peer within the session.

7. The method of claim 6, wherein the peer presence includes a current status constructed from the data related to the in-progress session.

8. The method of claim 7, wherein the interactive title that the peer is interacting with is also available to the user, and wherein the user joins the peer in the in-progress session.

9. The method of claim 7, wherein the interactive title that the peer is interacting with is also available to the user, and wherein the user enters the in-progress session and views the peer participation in the activity.

10. The method of claim 7, wherein the interactive title that the peer is interacting with is not available to the user, and wherein the user views a portion of the peer participation in the activity.

11. The method of claim 7, wherein the interactive title that the peer is interacting with is not available to the user, wherein the user enters a different session than the peer, and wherein the different session is an excerpt of the activity that the peer is participating in.

12. The method of claim 1, wherein one of the plurality of interactive activities requires multiple users to participate.

13. The method of claim 12, further comprising generating the invitation based on multiple users being required to participate, wherein the invitation is transmitted to a plurality of peers.

14. A system for generating an integrated interface, the system comprising:

memory that stores data regarding a user, at least one peer, and at least one interactive title available to the user, wherein the at least one interactive title includes a set of one or more activities;

a network interface that establishes a session with a user device associated with the user over a communication network; and

a processor that executes instructions stored in memory, wherein execution of the instructions by the processor:

constructs a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user, wherein each interactive activity is associated with a presence of the first user and a presence of the at least one peer;

generates an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer, the generated integrated interface being displayed on the user device;

receives a request from the user via the integrated interface, the user requesting that an invitation be transmitted to the peer regarding participation in one of the constructed activities in the integrated interface; and

transmits the invitation to the peer, the invitation including a link to the selected activity.

15. The system of claim 14, wherein the user data includes data related to a user past activity completed by the user and the peer data includes a peer past activity completed by the peer.

16. The system of claim 15, wherein the process further constructs a user history based off of the data related to the user past activity and a peer history based off of the data related to the peer past activity, wherein the user past activity is associated with a first title available to the user and the peer past activity is associated with a second title available to the peer.

17. The system of claim 16, wherein the processor further displays the user history on the integrated interface, wherein the user past activity is available to replay by the user.

18. The method of claim 16, wherein the processor further displays the peer history on the integrated interface, wherein the second title is available to the user, and wherein the peer past activity is available to the user to interact with.

19. The system of claim 14, wherein one of the plurality of interactive activities requires multiple users to participate.

20. The system of claim 19, wherein the processor further generates the invitation based on multiple users being required to participate, wherein the invitation is transmitted to a plurality of peers.

21. A non-transitory computer-readable medium having embodied thereon a program executable by a processor to perform a method for generating an integrated interface, the method comprising:

retrieving stored data regarding a user, at least one peer, and at least one interactive title available to the user, wherein the at least one interactive title includes a set of one or more activities;

establishing a session with a user device associated with the user;

constructing a plurality of interactive activities based on retrieved data regarding the user, the at least one peer, and the set of activities included in the at least one interactive title available to the user, wherein each interactive activity is associated with a presence of the user and a presence of the at least one peer;

generating an integrated interface based on the constructed plurality of interactive activities, the presence of the user, and the presence of the peer, the generated integrated interface being displayed on the user device;

receiving a request from the user via the integrated interface, the user requesting that an invitation be transmitted to the peer regarding participation in one of the constructed activities in the integrated interface; and

transmitting the invitation to the peer, the invitation including a link to the selected activity.

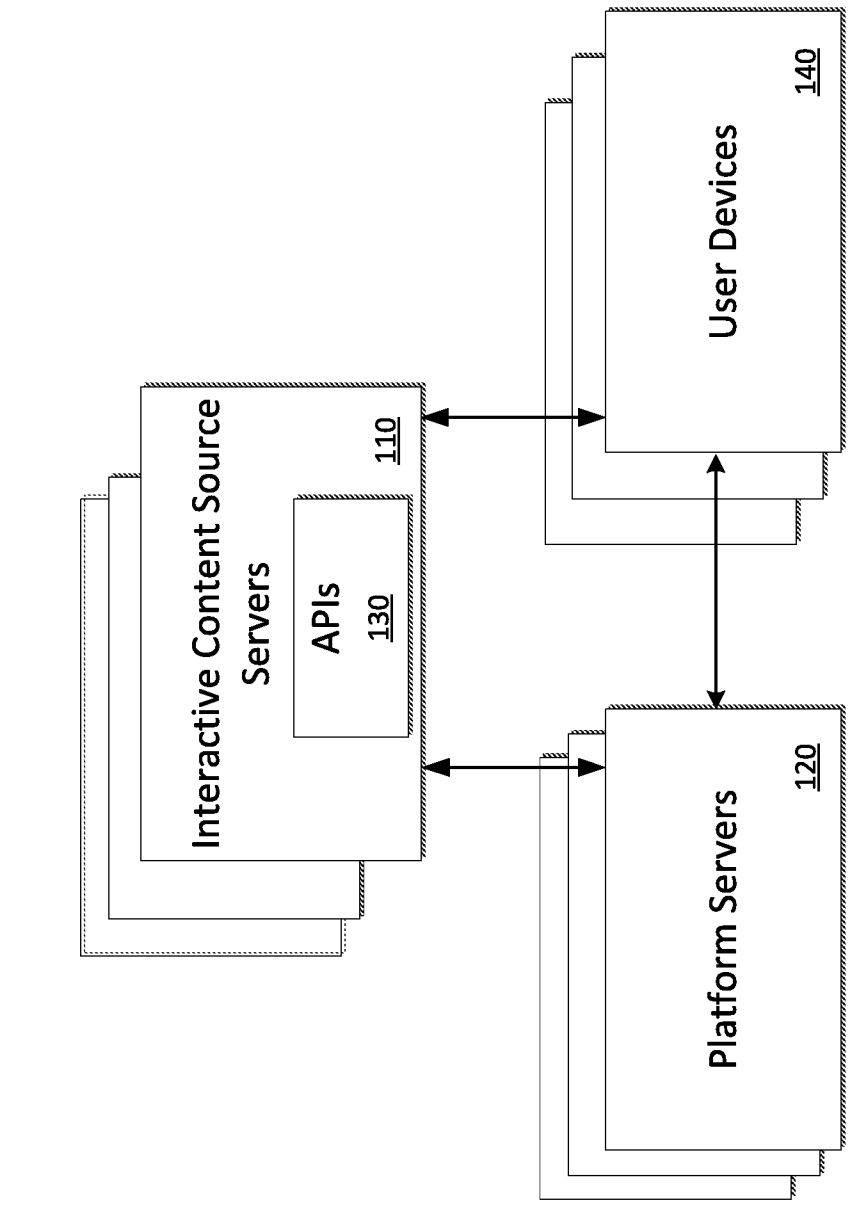

Interactive Content Source Servers
110
APIs
130
User Devices
140
Platform Servers
120
100

FIG. 1

200

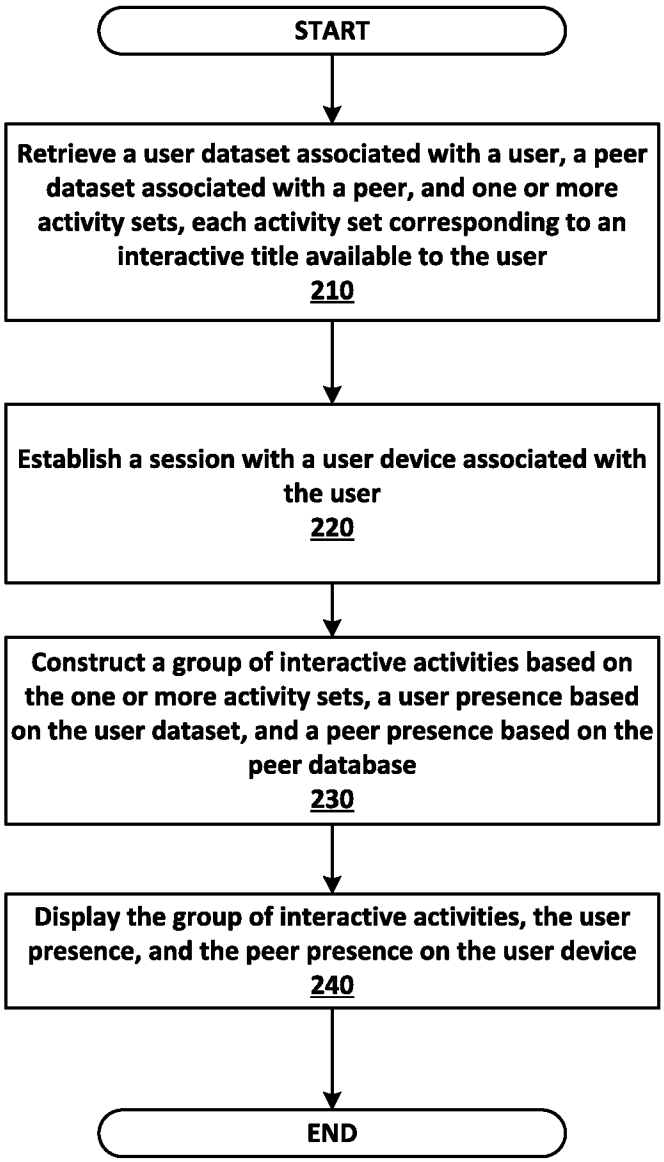

START
Retrieve a user dataset associated with a user, a peer dataset associated with a peer, and one or more activity sets, each activity set corresponding to an interactive title available to the user
210
Establish a session with a user device associated with the user
220
Construct a group of interactive activities based on the one or more activity sets, a user presence based on the user dataset, and a peer presence based on the peer database
230
Display the group of interactive activities, the user presence, and the peer presence on the user device
240
END

FIG. 2

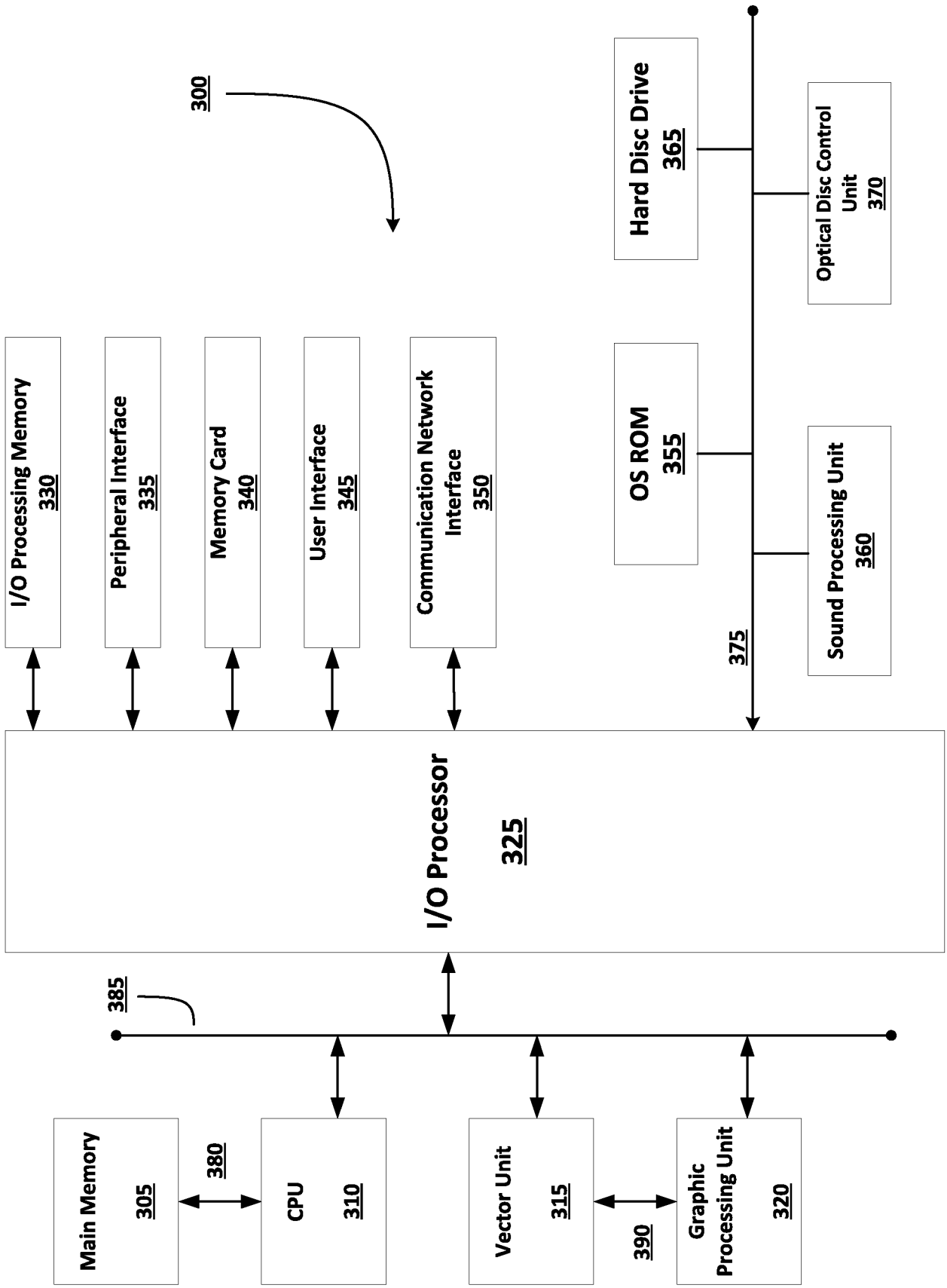

300
Hard Disc Drive 365
Optical Disc Control Unit 370
I/O Processing Memory 330
Peripheral Interface 335
Memory Card 340
User Interface 345
Communication Network Interface 350
OS ROM 355
Sound Processing Unit 360
375
I/O Processor 325
385
Main Memory 305
380
CPU 310
Vector Unit 315
390
Graphic Processing Unit 320

FIG. 3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2019/051146

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A63F 13/00; A63F 13/215; A63F 13/30; A63F 13/33 (2019.01)

CPC - A63F 13/52; A63F 13/30; A63F 13/49; A63F 13/497; A63F 13/50; A63F 13/53; A63F 13/533; A63F 13/5372; A63F 13/5378 (2019.08)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 463/1; 463/23; 463/29; 463/37; 463/42 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012/0322560 A1 (JOO) 20 December 2012 (20.12.2012) entire document	1, 2, 12, 14, 15, 19, 21
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Y		3-11, 13, 16-18, 20
Y	US 2006/0121991 A1 (BORINIK et al) 08 June 2006 (08.06.2006) entire document	3-5, 16-18
Y	US 2016/0346701 A1 (AMAZON TECHNOLOGIES, INC.) 01 December 2016 (01.12.2016) entire document	4, 17
Y	US 2009/0111576 A1 (OSTERGREN et al) 30 April 2009 (30.04.2009) entire document	6-11, 13, 20
Y	US 2007/0117635 A1 (SPANTON et al) 24 May 2007 (24.05.2007) entire document	9, 10
Y	US 2018/0250591 A1 (THE FAST MIND, LLC) 06 September 2018 (06.09.2018) entire document	11

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
26 October 2019	18 NOV 2019

Name and mailing address of the ISA/US	Authorized officer
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450 Facsimile No. 571-273-8300	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774