



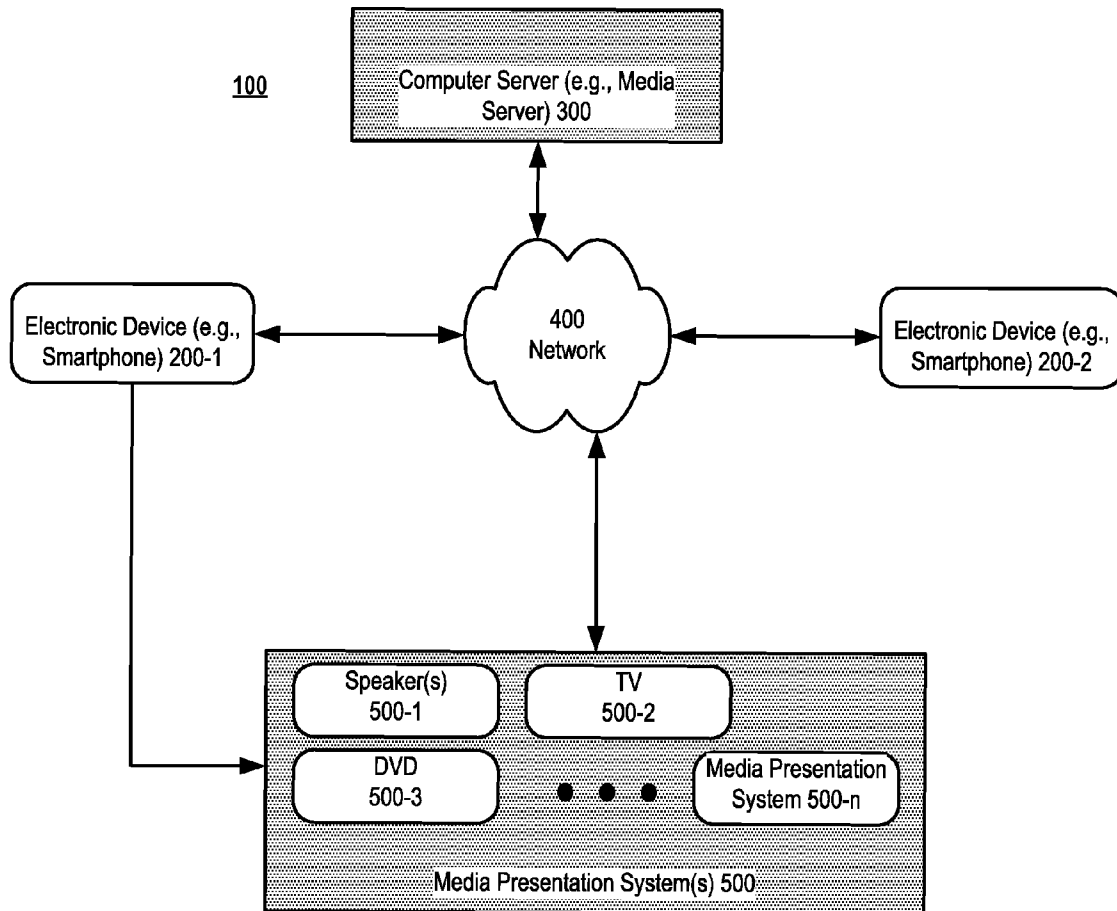
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(19) **United States**(12) **Patent Application Publication**
MEDAGHRI ALAOUI et al.(10) **Pub. No.: US 2016/0335046 A1**(43) **Pub. Date: Nov. 17, 2016**(54) **METHODS AND ELECTRONIC DEVICES
FOR DYNAMIC CONTROL OF PLAYLISTS****G06F 17/30** (2006.01)**G05B 15/02** (2006.01)(71) Applicant: **SPOTIFY AB**, Stockholm (SE)(52) **U.S. Cl.**CPC **G06F 3/165** (2013.01); **G05B 15/02**
(2013.01); **H04L 65/60** (2013.01); **G06F**
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(57)

ABSTRACT

This disclosure concerns the playback of audio content, e.g. in the form of music. More particularly, the disclosure concerns the playback of streamed audio. In one example embodiment, there is a method of operating an electronic device for dynamically controlling a playlist including one or several audio items. A request to adjust an energy level (e.g. a tempo) associated with the playlist is received. In response to receiving this request, the playlist is adjusted in accordance with the requested energy level (e.g., the tempo).

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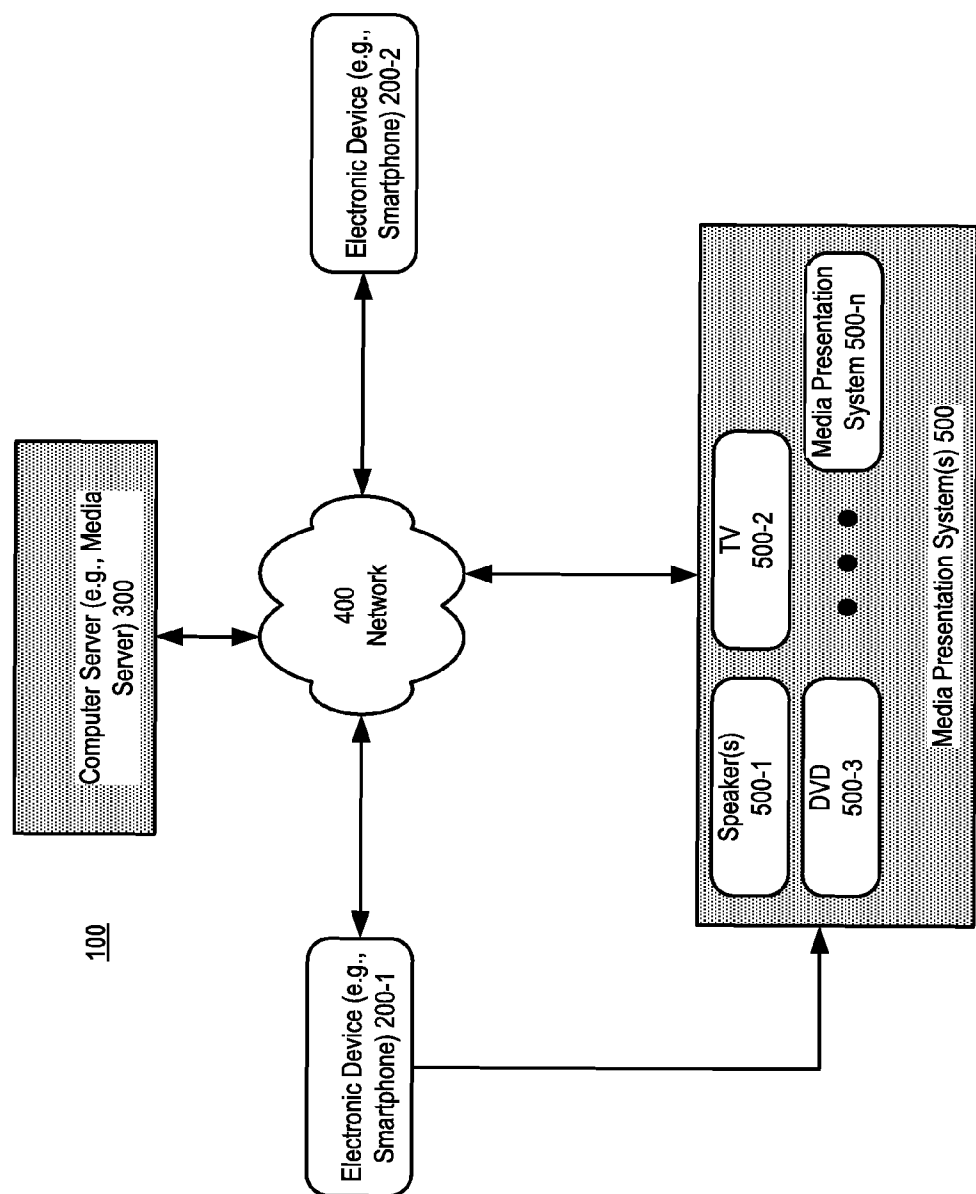


Figure 1

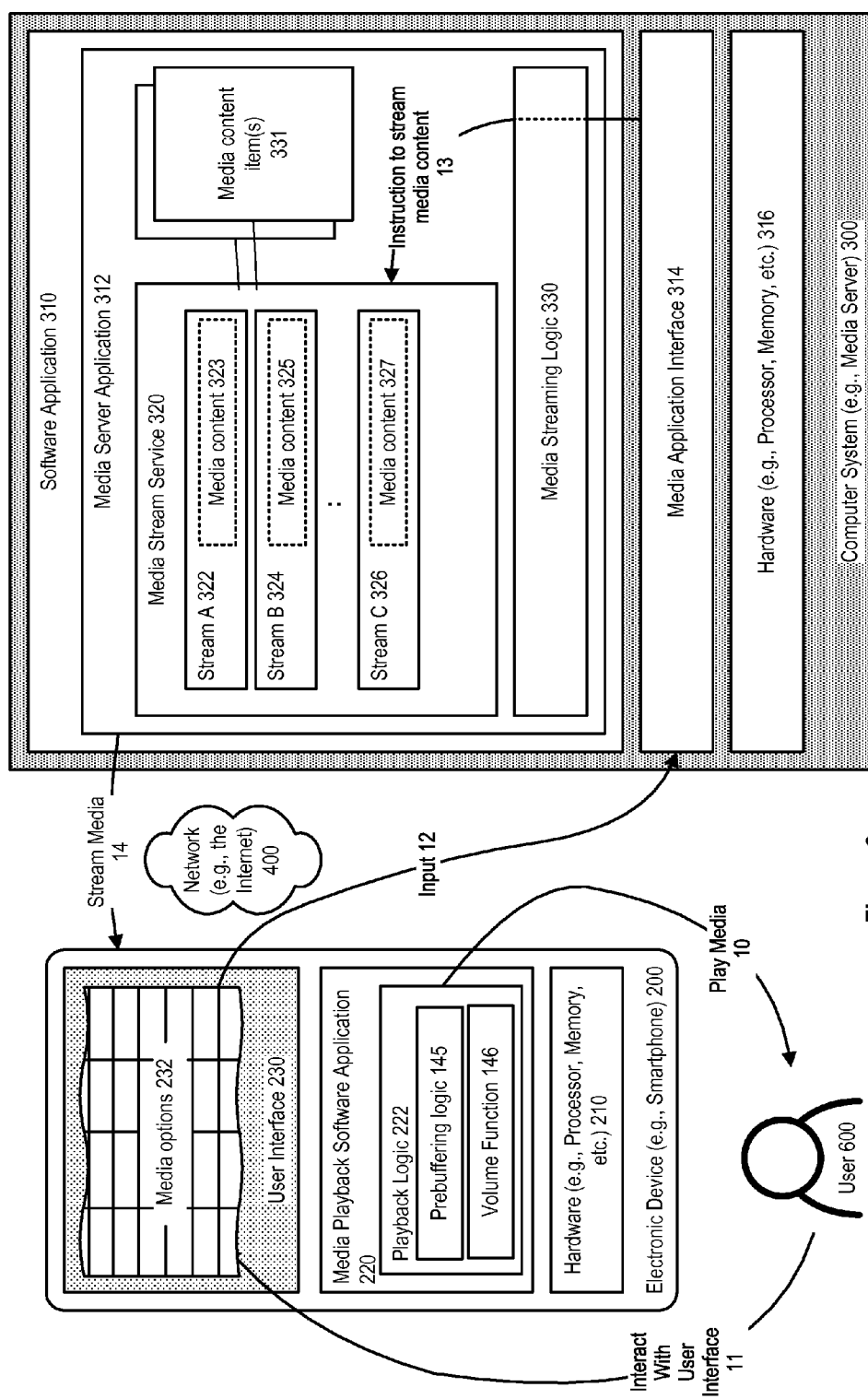


Figure 2

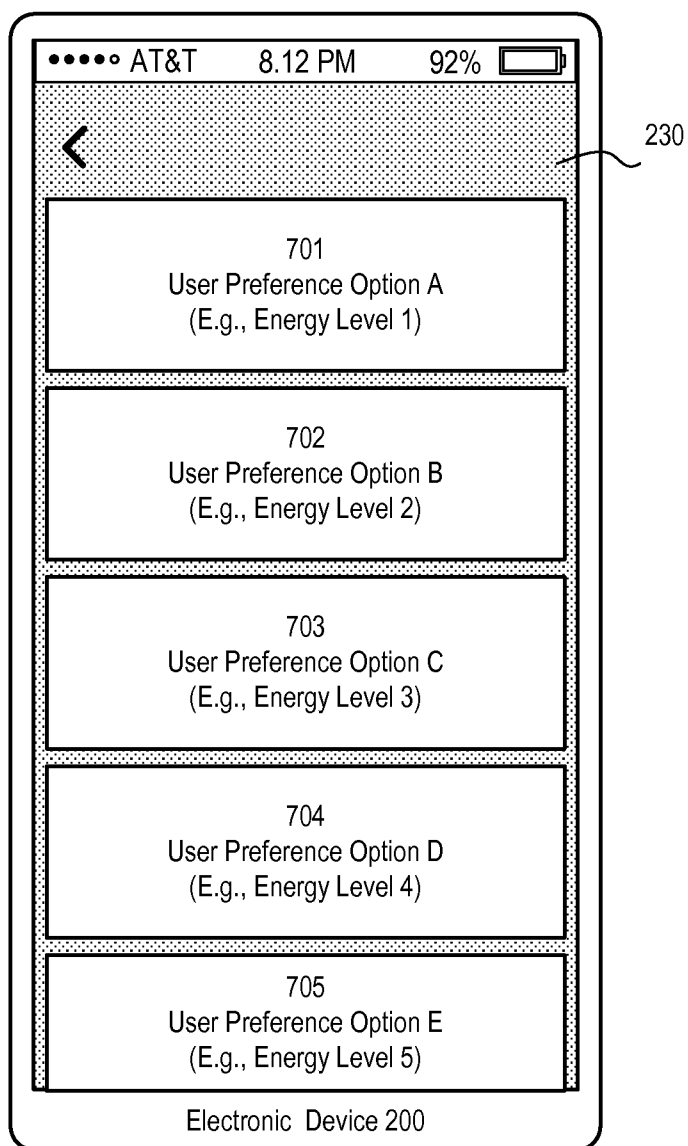


Figure 3A

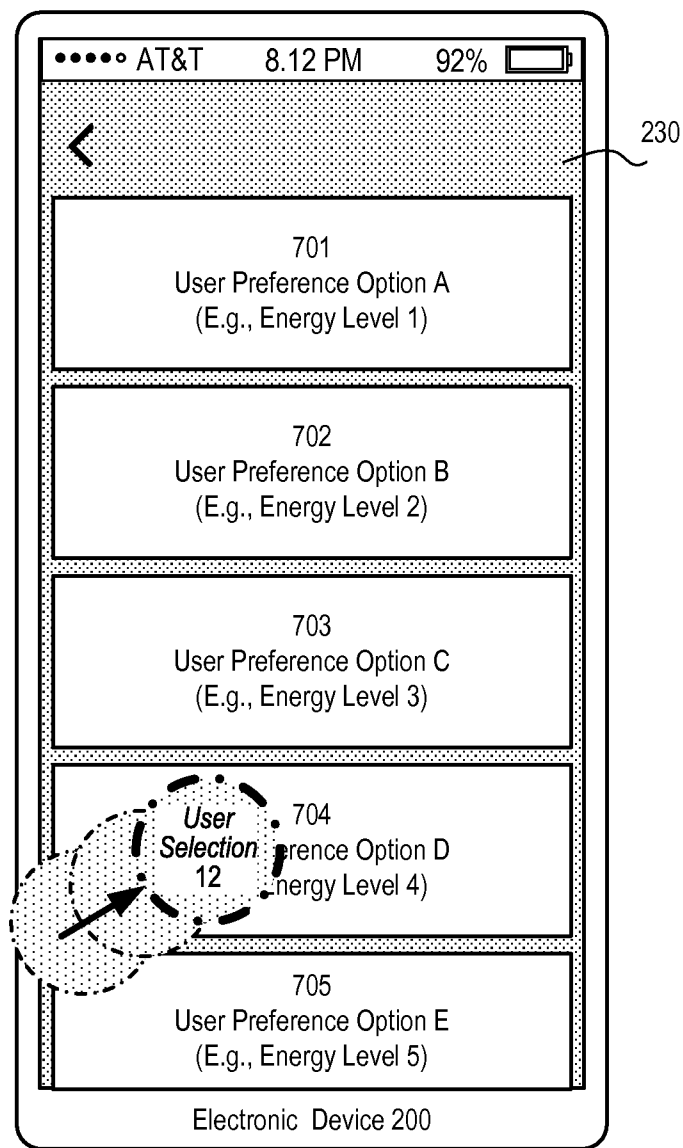


Figure 3B

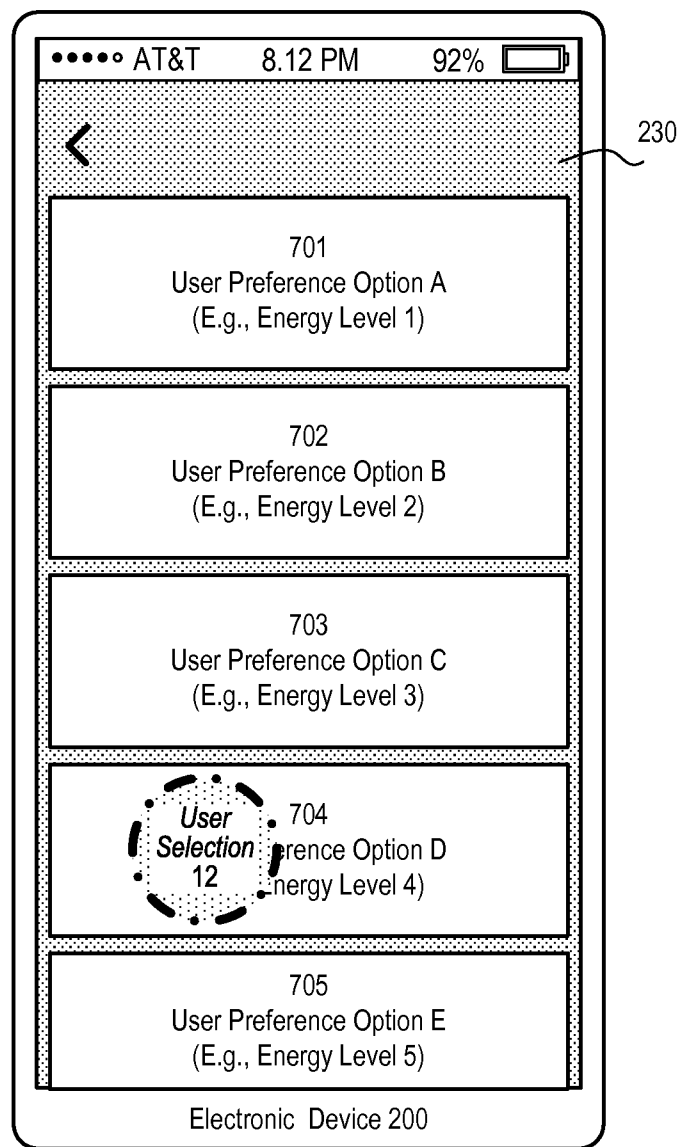
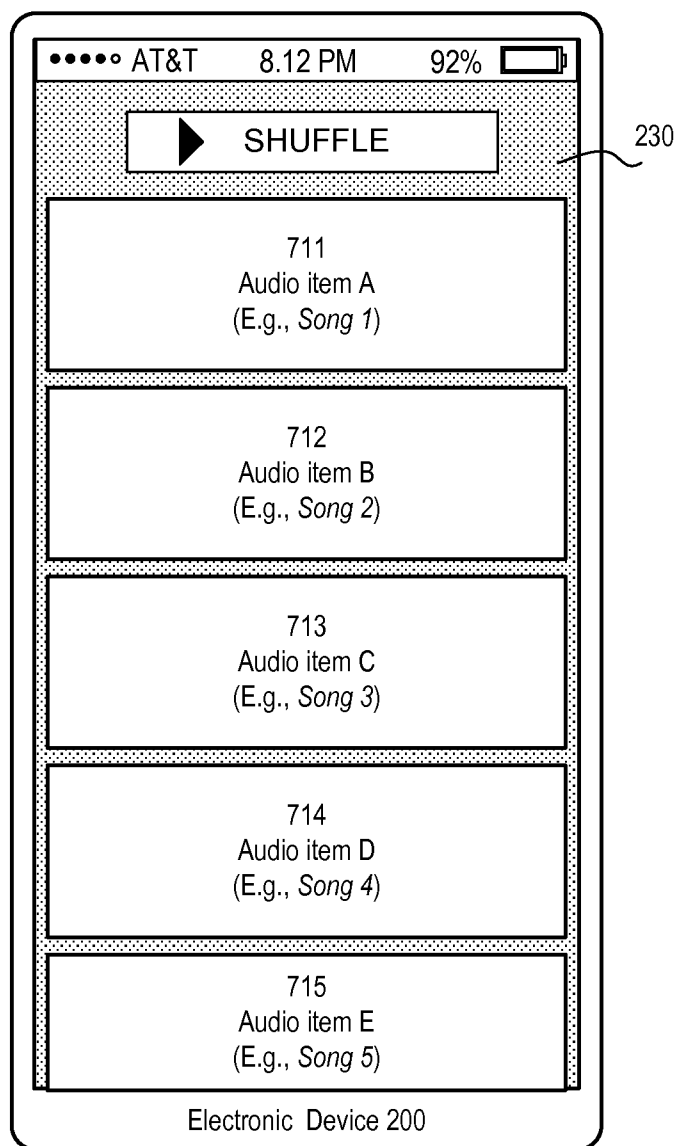


Figure 3C

**Figure 3D**

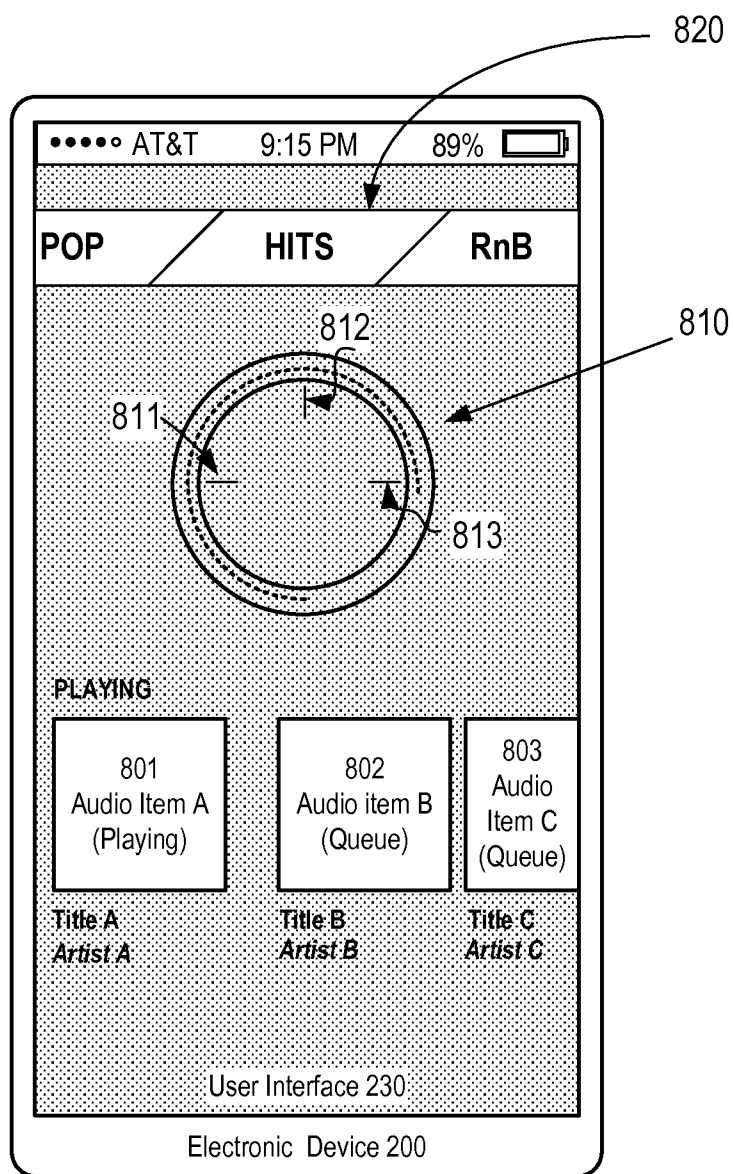


Figure 4A

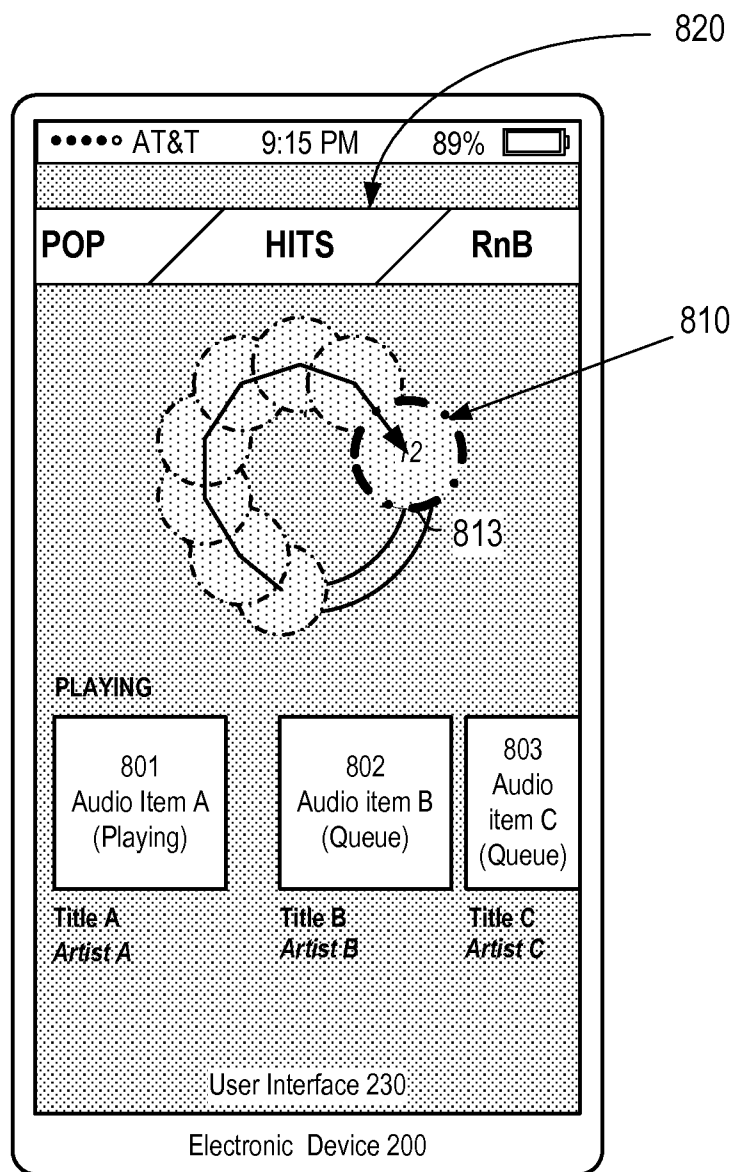


Figure 4B

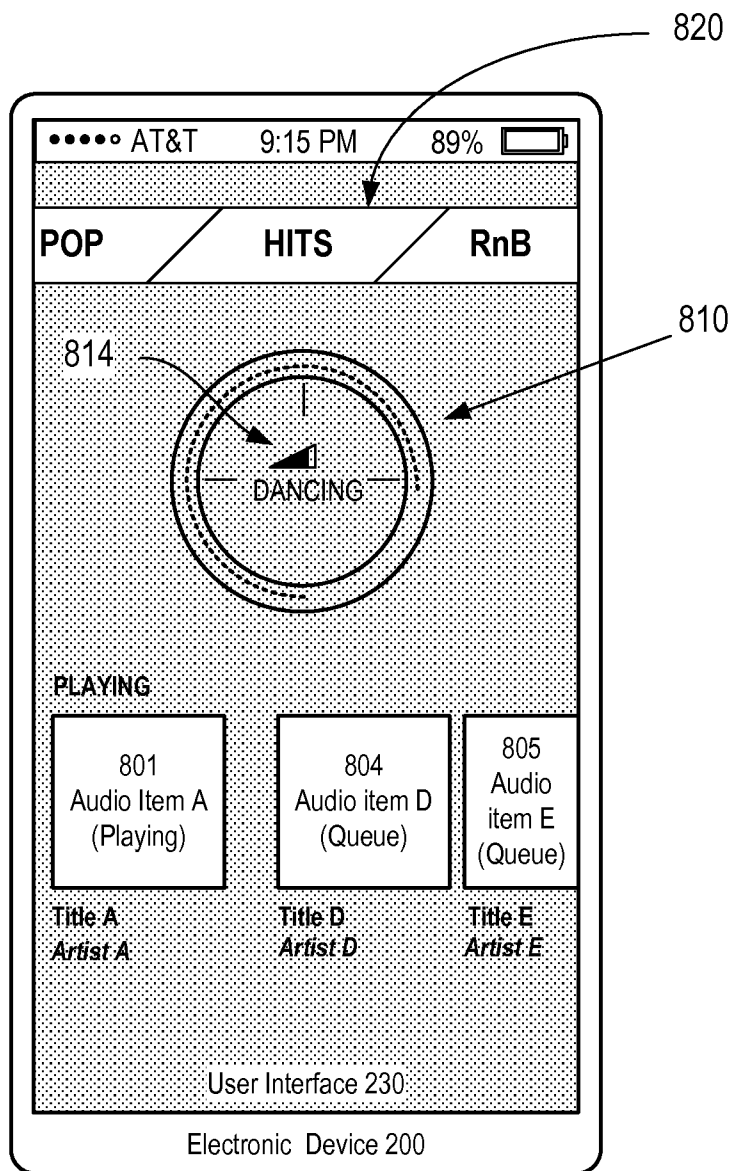


Figure 4C

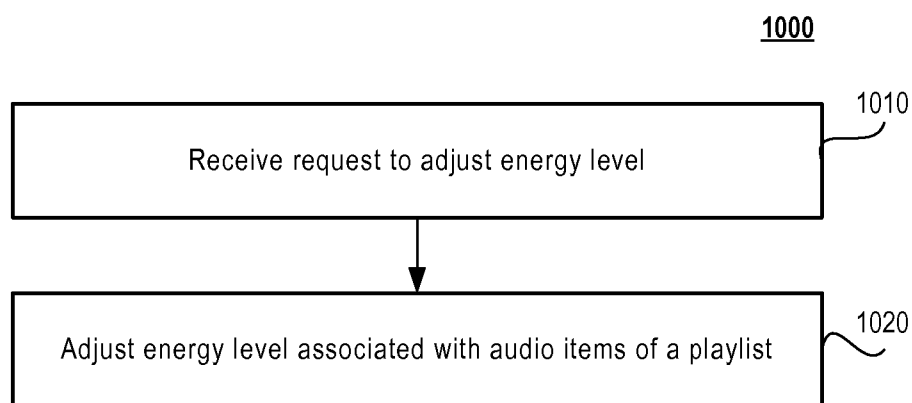


Figure 5A

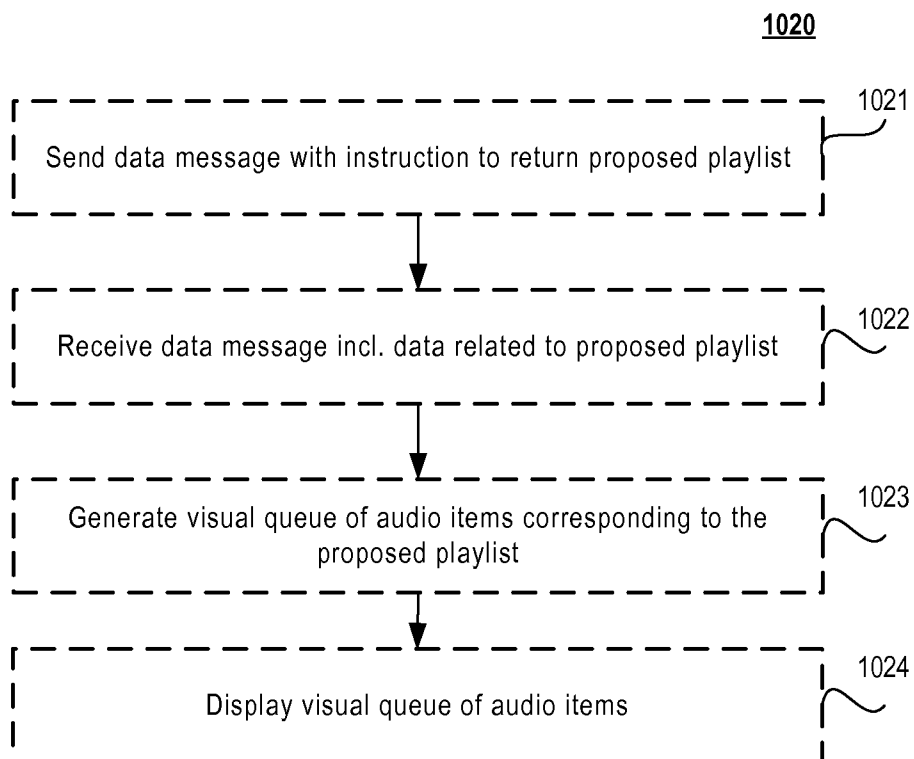


Figure 5B

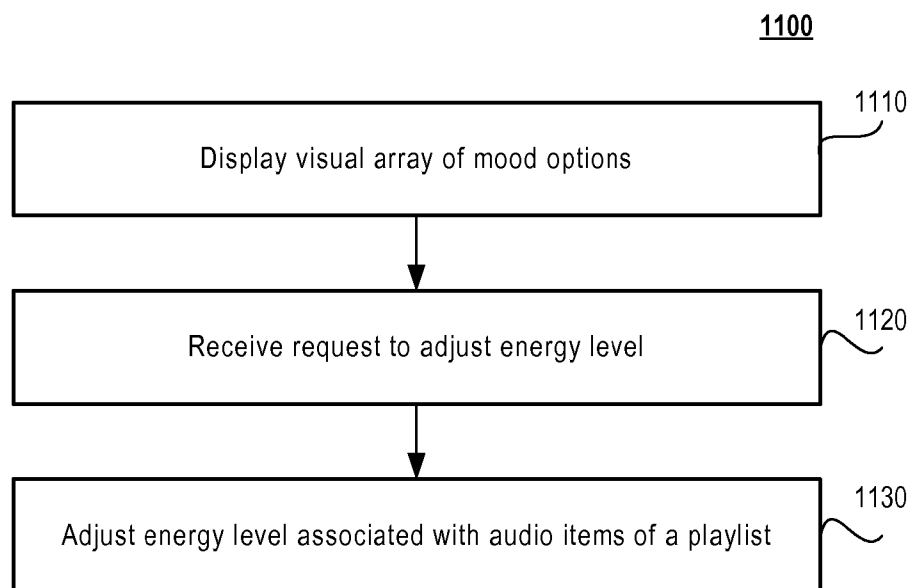


Figure 6A

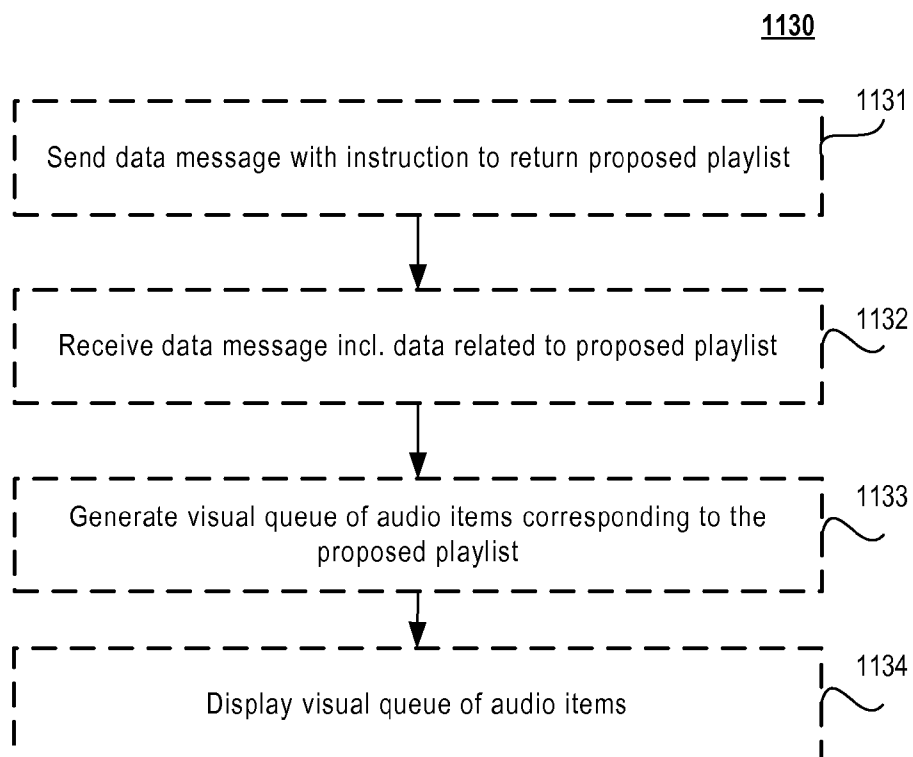


Figure 6B

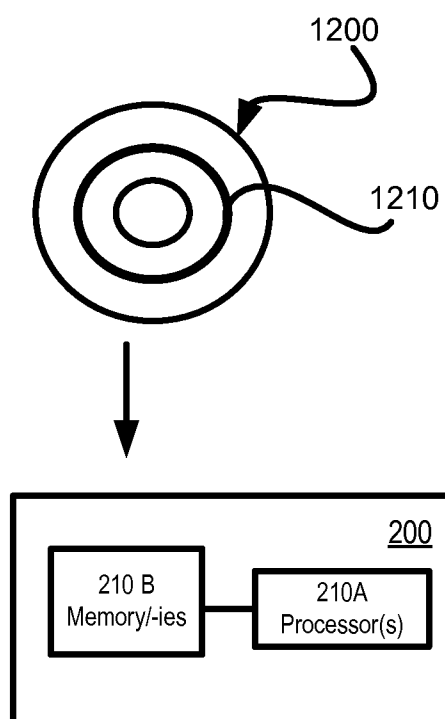


Figure 7

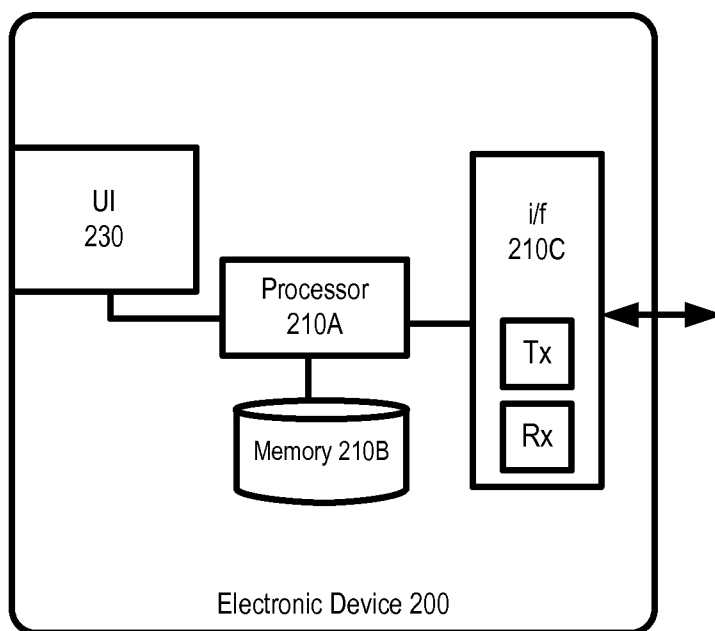


Figure 8

METHODS AND ELECTRONIC DEVICES FOR DYNAMIC CONTROL OF PLAYLISTS

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FIELD OF INVENTION

[0002] The present disclosure generally relates to the providing of audio, and more particularly to the streaming of audio, such as music. In particular, the embodiments described herein relate to methods and electronic devices for dynamic control of playlists. More specifically, the embodiments described herein concern methods and electronic devices for dynamic control of playlists, whereby the playlists can be adjusted (or, prepared) in accordance with a requested energy level.

BACKGROUND

[0003] As computer technology has improved, the digital media industry has evolved greatly in recent years. Users are able to use electronic devices such as mobile communication devices (e.g., cellular telephones, smart phones, tablet computers, etc.) to consume music, video and other forms of media content. For instance, users can listen to audio content (e.g., music) and/or watch video content (e.g., movies, television (TV) broadcasts, etc.) on a variety of electronic devices.

[0004] At the same time, advances in network technology have increased the speed and reliability with which information can be transmitted over computer networks. It is therefore possible for users to stream media content over computer networks as needed, or on demand, rather than receiving a complete file in physical media (such as a CD or a DVD, or downloading the entire file) before consuming the media content.

[0005] At social gatherings, users often wish to share media content with friends, relatives, and new acquaintances. For example, a party host may access media content on a portable electronic device, such as a mobile phone or a tablet computer, and present media content through a media presentation system (e.g., play music on one or several speakers or stream video on a screen).

SUMMARY

[0006] It is in view of the above considerations and others that the various embodiments disclosed herein have been made.

[0007] It is a general object of the embodiments described herein to allow for an improved way of controlling playback of audio, such as music, e.g. at social gatherings.

[0008] This general object has been addressed by the appended independent claims. Advantageous embodiments are defined in the appended dependent claims.

[0009] In a first of its aspects, this disclosure concerns a method of operating an electronic device for dynamically controlling a playlist of audio items. The method comprises receiving a request to adjust an energy level associated with

the playlist; and in response to receiving said request, adjusting the playlist in accordance with the requested energy level.

[0010] The energy level may be indicative of an average tempo of the audio items included in said playlist. Furthermore, said tempo may for example be measured in Beats Per Minute (BPM).

[0011] In some embodiments, the method further comprises displaying a visual array of selectable mood options at a user interface of the electronic device, wherein each selectable mood option is associated with a respective mood. Furthermore, receiving the request to adjust the energy level may comprise receiving an instruction to select one of the selectable mood options.

[0012] In some embodiments, adjusting the playlist in accordance with the requested energy level additionally comprises: sending a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; and receiving a data message including data related to a proposed playlist of audio items; in response thereto generating, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto displaying the visual queue of selectable audio items at the user interface of the electronic device.

[0013] In a second of its aspects, this disclosure concerns an electronic device for dynamically controlling a playlist of audio items. The electronic device comprises a processor and a memory. The electronic device may also comprise a transmitter and a receiver, or alternatively a transceiver. Still further, the electronic device may comprise a user interface.

[0014] The memory may store computer program code, which, when run in the processor causes the electronic device to receive a request to adjust an energy level associated with the playlist; and in response thereto adjust the playlist in accordance with the requested energy level.

[0015] The energy level may be indicative of an average tempo of the audio items included in said playlist. Furthermore, said tempo may for example be measured in Beats Per Minute (BPM).

[0016] In some embodiments, a user interface is adapted to display a visual array of selectable mood options, wherein each selectable mood option is associated with a respective mood. The memory may additionally store computer program code, which, when run in the processor causes the user interface to receive an instruction to select one of the selectable mood options.

[0017] In some embodiments, the memory may also store computer program code, which, when run in the processor causes the electronic device to: send, by means of the transmitter, a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; and receive, by means of the receiver, a data message including data related to a proposed playlist of audio items; in response thereto generate, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto display the visual queue of selectable audio items at the user interface.

[0018] In some embodiments, the electronic device is a portable electronic device, such as a mobile telephone, a cellular telephone, a tablet computer, a laptop computer, or a personal digital assistant.

[0019] In alternative embodiments, the electronic device is a stationary electronic device such as a stationary computer.

[0020] In a third of its aspects, this disclosure concerns a computer program. The computer program comprises instructions which, when executed on at least one processor, cause the at least one processor to carry out the method according to the first aspect. A carrier comprising the computer program may also be provided. The carrier may for example be one of an electronic signal, an optical signal, a radio signal, or a computer readable storage medium.

[0021] Various embodiments described herein allow for a user of an electronic device to dynamically control the energy level (e.g., the tempo) of a playlist of audio items, such as songs. In some advantageous embodiments, the energy level of a playlist can be adjusted based on a selected mood option corresponding to a selected mood. Thus, in one example scenario, a party host (i.e., a user) may dynamically control the tempo of songs to be played next based on a current mood of the people at a social gathering (e.g., a party). This may improve the experience of social gatherings such as parties. According to some embodiments, it may also be possible to influence the mood of people at a social gathering. For example, if a party host wishes to change the mood of the people at a social gathering, he or she may in some embodiments select a mood option to adjust the energy level of the playlist and, accordingly, the songs to be played next at the social gathering.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] These and other aspects, features and advantages will be apparent and elucidated from the following description of various embodiments, reference being made to the accompanying drawings, in which:

[0023] FIG. 1 is a block diagram schematically illustrating an exemplary media content delivery system in accordance with some embodiments;

[0024] FIG. 2 illustrates an example embodiment of a system for playback of audio streams, in accordance with an embodiment;

[0025] FIGS. 3A-3D schematically illustrates an example embodiment of a user interface of an electronic device, e.g. in the form of a smart phone, which supports playback of audio and a dynamic control of playlists;

[0026] FIGS. 4A-4C schematically illustrates another example embodiment of a user interface of an electronic device, e.g. in the form of a smart phone, which supports playback of audio and a dynamic control of playlists;

[0027] FIGS. 5A-5B schematically illustrate flowcharts of a method in accordance with an embodiment;

[0028] FIGS. 6A-6B schematically illustrate flowcharts of a method in accordance with an embodiment;

[0029] FIG. 7 illustrates a carrier comprising a computer program, in accordance with an embodiment; and

[0030] FIG. 8 illustrates an example implementation of an embodiment of an electronic device as illustrated in any one of FIGS. 1-4.

DETAILED DESCRIPTION

[0031] The present invention will now be described more fully hereinafter. The invention may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided by way of example so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those persons skilled in the art. Like reference numbers refer to like elements or method steps throughout the description.

[0032] As described earlier, some existing solutions for controlling the playback of audio, such as music, may be inadequate. It is therefore a general object of the embodiments described herein to allow for an improved way of controlling playback of audio, such as music, e.g. at social gatherings.

[0033] To address this, in accordance with an embodiment, described herein are a method and an electronic device for dynamically controlling a playlist of audio items. A request, or instruction, to adjust an energy level associated with the playlist is received and, in response thereto, the playlist is adjusted or otherwise changed in accordance with the requested energy level.

[0034] This way, it is made possible to enable a user of an electronic device to dynamically control the energy level (e.g., a tempo) associated with playlists in real time. In some advantageous embodiments, the energy level associated with the playlist can be adjusted based on a selected mood option corresponding to a selected mood. Thus, in one example scenario, a party host (i.e., a user) may dynamically control the tempo of songs to be played next based on a current mood of the people at a social gathering (e.g., a party). This may improve the experience of social gatherings, such as parties. According to some embodiments, it may also be possible to influence the mood of people at a social gathering. For example, if a party host wishes to change the mood of the people at the social gathering, he or she may in some embodiments select a mood option to adjust the energy level of the playlist and, accordingly, the songs to be played next.

[0035] FIG. 1 is a block diagram illustrating an exemplary media content delivery system 100 in accordance with some embodiments. The media content delivery system 100 may comprise one or several electronic devices 200 (e.g., electronic device 200-1 and electronic device 200-2), one or more computer servers 300 (e.g., media content servers also known as media servers), and one or more media presentation systems (e.g., media presentation systems 500 including speaker(s) 500-1, television (TV) 500-2, Digital Versatile Disk (DVD) 500-3, and/or other media presentation system 500-n).

[0036] In some embodiments, the electronic device 200 may be a mobile telephone, such as a smart phone. Alternatively, the electronic device 200 may be a tablet computer. In yet other embodiments, the electronic device 200 may be any other electronic device capable of playback of media content such as, for example, one of the electronic devices of the following group: a personal computer, a laptop, and a mobile electronic device (e.g. a handheld entertainment device, a digital media player, or other media device).

[0037] One or several networks (e.g., network(s) 400) may communicatively connect each component of the media content delivery system 100 with other components of the media content delivery system 100. The network(s) 400 may

include public communications networks, private communication networks or a combination of both public and private communication networks. For example, the network(s) may include any network(s) such as the Internet, other wide area networks (WAN), local area networks (LAN), virtual private networks (VPN), metropolitan area networks (MAN), peer-to-peer networks, and/or ad-hoc networks.

[0038] In some embodiments, as is illustrated in FIG. 1, the electronic device **200** (e.g., the electronic device **200-1**) is capable of remotely controlling one or more of the media presentation systems **500**. To this end, the electronic device **200** may for example implement, or otherwise utilize, any of the techniques described in the international patent application PCT/IB2013/001938 (published under WO 2014/001913 A2). For example, it is possible for a user of the electronic device **200** (e.g., the electronic device **200-1** in this example) to remotely control the presentation of media at any one or a combination of the media presentation systems **500**. In order to give context to the embodiments described throughout this disclosure, the international patent application PCT/IB2013/001938 is incorporated herein by reference. More specifically, the electronic device **200-1** may receive a media control command for a media presentation system **500** (e.g. speaker(s) **500-1**). In response to receiving this media control command, the electronic device **200-1** may send a server media control request to the computer server **300** and a local media control request to the media presentation system **500**, which may be located within the same local network, e.g. a LAN, as the electronic device **200-1** (i.e., a local network to which both the electronic device **200-1** and the media presentation system **500** are connected). The server media control request may e.g. be sent to the computer server **300** over the Internet. Typically, but not necessarily, the computer server **300** may be associated with an Internet Protocol (IP) address outside the space of the local network to which both the electronic device **200-1** and the media presentation system **500** are connected. As will be appreciated, the electronic device **200-1** and the media presentation system **500** are thus associated with IP addresses within the same sub network. The electronic device **200-1** can thus provide a user interface **230** (see e.g. FIG. 2) that allows a user **600** to select media content for presentation by the electronic device **200-1** itself and, also, to generate media control request(s) to cause the media content to be presented, or played, by the media presentation system **500**. Furthermore, the server media request and the local media request are both configured to cause a media control operation, performed at the electronic device **200-1**, to be implemented at the media presentation system **500**.

[0039] In an example scenario related to a social gathering, a host (i.e., a user) may thus interact with his or her electronic device **200-1** to remotely control the playback of media content at the media presentation system **500**, e.g. the playback of audio (e.g., songs) through loudspeakers(s) **500-1**. This way, it is for example possible for a party host (i.e., the user) to control the playback of music that is being played at a social gathering, such as a party.

[0040] Turning now to FIG. 2, an example environment where embodiments of this disclosure may be applied will be described. An electronic device **200**, e.g. electronic device **200-1** of FIG. 1, may be communicatively connectable to the computer server **300** via the network **400**, e.g. the

Internet, as described hereinabove. As can be seen in FIG. 2, only a single electronic device **200** and a single computer server **300** are shown. However, the computer server **300** may support the simultaneous use of multiple electronic devices, and/or the electronic device **200** can simultaneously access media content at multiple computer servers **300**. Although FIG. 2 illustrates the computer server **300** in accordance with one example embodiment, FIG. 2 is intended more as a functional description of the various features, or components, which may be present in one or more computer servers, rather than a structural schematic of the various implementations described throughout this disclosure. In practice, and as recognized by persons skilled in the art, components shown separately could be combined and some components could be separated.

[0041] In the following description and in order not to obscure the detailed description with unnecessary detail, the media content will in general be exemplified to be audio content, e.g. in form of music. This should, however, not be interpreted as limiting the scope of the various embodiments of the disclosed embodiments.

[0042] As is schematically shown in FIG. 2, the electronic device **200** may be used for the playback of media content (e.g., audio content such as music), which is provided by the computer server **300**. The electronic device **200** may include one or several physical computer resources, or hardware resources **210**. The hardware resources **210** may e.g. include one or several processors (or, processing circuitry), a communications interface (or, communication circuitry) and one or several memories. Likewise, the computer server **300** operating as a media server may include one or several physical computer resources, or hardware resources **316**. The hardware resources **316** may likewise include one or several processors (or, processing circuitry), a communications interface (or, communication circuitry) and one or several memories.

[0043] The computer server **300** may include an operating system or other processing system which supports execution of a software application **310**, including a media server application **312** which may be used, for example, to stream media content. A media stream service **320** may be used to buffer media content, for streaming to one or more media streams **322**, **324**, **326**. A media application interface **314** may receive requests from electronic devices **200** or other systems, to retrieve media content **331** from the computer server **300**.

[0044] Media content **331**, or media items, may be provided, for example, within a first storage such as a memory (e.g., including a database), or may be received by the computer server **300** from another source (not shown). This another source (not shown) could be external to the computer server **300**, i.e. it may be located remotely from the computer server **300**.

[0045] A media streaming logic **330** may be used to retrieve or otherwise access the media content **331** in response to requests from electronic devices **200** or other systems, and populate the media stream service with streams **322**, **324**, **326** of corresponding media content data **323**, **325**, **327** that may be returned, i.e. streamed, to the requesting electronic device **200**.

[0046] The electronic device **200** comprises a user interface **230**, which is adapted to display or otherwise provide a visual array of media options **232**, for example as a two-dimensional grid, a list, or other visual array format, and

determine a user input. Each media option in the visual array of media options 232 correspond to a respective media stream 322, 324, 326.

[0047] Selecting a particular media option within the visual array 232 may in some embodiments be used, or otherwise interpreted, as a request or instruction to the media server application 312 to stream or otherwise return a corresponding particular media content item. For example, in accordance with some embodiments, the software application 310 at the computer server 300 may be used to stream or otherwise communicate media content to the electronic device 200, wherein the user interface 230 at the electronic device 200 is adapted to display a plurality of media options that correspond to respective media streams.

[0048] In accordance with some embodiments, the electronic device 200 may also include a media playback application 220, together with a playback logic 222, pre-buffering logic 145, and a volume function 146, which may be used to control the playback of media content that is received from the media server application 312, for playback by the electronic device 200, as described in further detail below.

[0049] A user 600 may interact 11 with the user interface 230 and issue requests, for example the playing of a selected media option at the electronic device 200. The user's selection of a particular media option may be communicated 12 to the media server application 312, via the media application interface 314. The media server application 312 may then be instructed 13 to stream corresponding media content 13, including one or more streams of media content data 323, 325, 327, and subsequently stream 14 or otherwise communicate the selected media to the user's electronic device 200. In accordance with some embodiments, pre-buffering requests from the electronic device 200 may also be communicated 12 to the media server application 312 via the media application interface 314. At the electronic device 200, in response to the user's interaction with the user interface 230, the media playback application 220, including the playback logic 222, may play 10 the requested media content to the user 500600.

[0050] FIGS. 3A-3D illustrate an electronic device 200 which supports playback of audio content associated with respective audio items. The electronic device 200 typically comprises a user interface 230 as described earlier with reference to FIG. 2. The user interface 230 typically includes output device(s) and input device(s), as is known and conventional in the art. In some implementations, the input devices may include a keyboard, a mouse or a track pad. Alternatively, or in addition, in some implementations, the user interface 230 includes a display that includes a touch-sensitive surface, in which case the display is a touch-sensitive display. In electronic devices 200 that have a touch-sensitive display, a soft keyboard may be displayed when keyboard entry is needed. Typically, a soft keyboard is a keyboard that replaces the physical keyboard on electronic devices 200 having touch-sensitive displays. Hence, in electronic devices 200 that have a touch-sensitive display a physical keyboard is optional. The output device(s) may for example include one or more speakers and/or one or more audio output connections for connection to external speaker(s), headphones or earphones. Optionally, the input devices may further include an audio input device (e.g., a microphone) to capture audio (e.g., speech). Still further, the input devices may also optionally comprise audio recognition

device(s) to recognize audio (e.g., speech), which in combination with a microphone, may for example supplement or replace the keyboard.

[0051] In an embodiment, such as in the example embodiment illustrated in FIG. 3A, the user interface 230 includes a display that comprises a touch-sensitive surface. An exemplary user interface 230 of the electronic device 200 is hence schematically illustrated in FIG. 3A. In the example embodiment of FIG. 3A, a visual array of one or several selectable user preference options A (701), B (702), C (703), D (704) and E (705) is displayed at the user interface 230. Each selectable user preference option A (701), B (702), C (703), D (704) and E (705) is associated with a respective energy level. For example, the energy level may be indicative of a tempo (e.g., measured in terms of Beats Per Minute (BPM)).

[0052] As will be appreciated, user preference option A (701) may be associated with an energy level which is higher than that of user preference option B (702). In other words, user preference option A (701) may be associated with a tempo (e.g., measured in BPM) which is higher than that of user preference option B (702). Likewise, user preference option B (702) may be associated with an energy level which is higher than that of user preference option C (703), and so forth. In an alternative embodiment, user preference option A (701) may be associated with an energy level which is lower than that of user preference option B (702). In other words, user preference option A (701) may be associated with a tempo (e.g., measured in BPM) which is lower than that of user preference option B (702). Likewise, user preference option B (702) may be associated with an energy level which is lower than that of user preference option C (703), and so forth. In still other embodiments, the various user preference options 701-705 are not associated with a certain order of the energy level (i.e., from high to low or from low to high, as described above) but can, instead, be provided in any random order.

[0053] In advantageous embodiments, each one of the various user preference options A (701), B (702), C (703), D (704) and E (705) corresponds to a respective mood option. In other words, a visual array of one or several selectable mood options A (701), B (702), C (703), D (704) and E (705) can be displayed at the user interface 230. Each mood option may hence be associated with a respective mood, i.e. an emotional state or state of mind (such as happy, calm, energetic, and depressed, etc). As will be appreciated, each selectable mood option A (701), B (702), C (703), D (704) and E (705) is further associated with a certain (e.g., pre-defined) energy level. Typically, but not necessarily, mood options corresponding to positive moods may be associated with higher energy levels as compared to mood options corresponding to negative moods. Or said differently, mood options corresponding to negative moods may be associated with lower energy levels as compared to mood options corresponding to positive moods.

[0054] Turning now to FIG. 3B, a user 600 may e.g. perform a first control gesture. The first control gesture may for example be a hovering gesture (e.g., by the user's finger or by means of a stylus) over the display area of the display of the user interface 230 to approach, and eventually reach, the display area of a desired selectable mood option (in this example mood option D (704)). As can be seen in FIGS. 3B and 3C, upon reaching the display area corresponding to the desired mood option (i.e., mood option D (704) in this example), the user 600 may further perform another, i.e.

second, control gesture. For example, the second control gesture may be a press gesture or tap gesture within the display area corresponding to the desired mood option. This press gesture or tap gesture within the display area corresponding to the desired mood option may be interpreted by the electronic device 200 to be a request, or instruction, to select the thus pressed, or tapped, mood option (i.e., mood option D (704) in this example). In this embodiment, the above-mentioned press gesture or tap gesture may also be interpreted by the electronic device 200 to be a request, or instruction, to adjust an energy level (e.g., a tempo) associated with a playlist (see FIG. 3D).

[0055] As will be appreciated from the description herein, each selectable mood option 701-705 may be understood as associated with an automatically generated playlist that is generated by the computer server system 300 and which is, furthermore, corresponding to a requested energy level corresponding to the selected mood option from the list of mood options 701-705.

[0056] In advantageous embodiments, the electronic device 200 is further adapted to send, i.e. transmit, a data message including an instruction to the computer server system 300 (see FIG. 2) to return a proposed playlist of audio items in accordance with the requested energy level (i.e., energy level 4 corresponding to mood option D (704) in this example). The above-mentioned data message may for example also comprise i) information about the selected mood option (i.e. mood option D (704) in this example), ii) information about the energy level (e.g., tempo) associated with the selected mood option, and/or iii) an instruction to generate a proposed playlist including audio items having an energy level (e.g., tempo) corresponding to the requested energy level (e.g., tempo). Accordingly, the computer server system 300 may be adapted to receive the above-mentioned data message including the instruction to return said proposed playlist. In response to receiving this data message, the computer server system 300 is capable of generating a proposed playlist of audio items in accordance with the requested energy level (e.g., tempo). There exist various techniques for generating suggested playlists on the basis of different factors, which are known in the art. For example, the U.S. Patent Application Publication No. US 2014/0280181 A1 describes some techniques for generating playlists that could be used. U.S. Patent Application Publication US No. 2014/0280181 A1 is incorporated herein by reference to give context to the embodiments described in this disclosure. In accordance with one embodiment, the audio content associated with the different audio items may be classified on the basis of their respective energy level. As described earlier, the energy level may be defined as the tempo, e.g., measured in BPM. The various available audio content that can be streamed, or otherwise communicated, from the computer server 300 to the electronic device 200 can thus be classified in different energy level classifications depending on their energy level. Based on this classification of energy levels, a playlist generator logic (not shown in FIG. 2) may be configured to generate, or otherwise create, suitable playlists including audio content 323, 325, 327 etc. in dependence of the energy level of the audio content to be streamed, or otherwise communicated, to the electronic device 200. The generation of playlists per se is not the main focus of this disclosure and will therefore not be described in any further detail herein.

[0057] Subsequently, the electronic device 200 may receive a data message including data related to the proposed playlist of audio items that was generated by the computer server system 300. The electronic device 200 may further be configured to generate or otherwise create a visual queue of selectable audio items corresponding to the proposed playlist based on the received data related to the proposed playlist. In response thereto, a visual queue of selectable audio items 711-715 can be displayed or otherwise presented at the user interface 230 of the electronic device 200, as is schematically illustrated in FIG. 3D.

[0058] In view of the above, it will be appreciated that the visual queue of selectable audio items 711-715 can be adjusted (or, prepared) on the basis of a requested energy level (e.g., tempo as measured in BPM).

[0059] In one embodiment, the media playback application 220, including the playback logic 222, may begin playing 10 (see FIG. 2) the audio content to the user 600 in the order defined by the displayed visual queue of selectable audio items 711-715. That is, audio content corresponding to audio item 701 is played first and then the next audio content corresponding to audio item 702 is played, and so forth. Alternatively, or in addition to, upon a user selection 12 (e.g., a third control gesture in the form of a press gesture or a tap gesture within the display area denoted "SHUFFLE") the media playback application 220, including the playback logic 222, may begin playing 10 the audio content to the user 600 in a random order, i.e. the audio content corresponding to the displayed visual audio options can be played in any random order. Additionally, or alternatively, upon a user selection 12 (e.g., a fourth control gesture in the form of a press gesture or a tap gesture within a display area corresponding to a desired audio item from the list of audio items included in the playlist) the media playback application 220, including the playback logic 222, may begin playing 10 the audio content corresponding to the thus selected audio item. Selecting a particular audio item within the visual queue of selectable audio items 711-715 may in some embodiments be used, or otherwise interpreted, as a request or instruction to the media server application 312 of the computer server 300 to stream or otherwise return a corresponding particular audio content item. For instance, in accordance with some embodiments, the software application 310 at the computer server 300 may be used to stream or otherwise communicate audio content to the electronic device 200 for playback to the user 600.

[0060] The embodiments described with reference to FIG. 3A-3D may allow for an improved playback of streamed audio content, e.g. at social gatherings such as parties. The embodiments described with reference to FIGS. 3A-3D may for example allow for a user of the electronic device 200 to dynamically control the energy level (e.g., a tempo) of the audio items included in a playlist by using his or her electronic device. In some advantageous embodiments, the streamed audio (e.g., songs) that is/are going to be played at the social gathering can be controlled based on a mood, i.e. an emotional state or a state of mind. Thus, in one example scenario, a party host (i.e., the user) may dynamically control the tempo of the songs to be played on the basis of the current mood of the people at the party. This may improve the experience of the people at social gatherings such as parties.

[0061] With reference to FIGS. 4A-4C, another embodiment will be briefly described. In this example embodiment,

a visual array **810** of mood options is represented by a soft keyboard including a circular control device. The circular control device includes different mood options, or levels, **811**, **812**, **813**. The different mood levels **811**, **812** and **813** may represent different emotional states. In an example embodiment, mood level **811** may represent a low energy level (e.g., “chill”), mood level **812** may represent a medium energy level (e.g., “upbeat”) and mood level **813** may represent a high energy level (e.g., “dancing”). Hence, each of the mood levels **811-813** is associated with a respective energy level (e.g., a tempo as measured in BPM). For example, the low energy level such as “chill” would typically have lower value of BPM as compared to the medium energy level such as “upbeat”. Likewise, a high energy level such as “dancing” would typically have a higher value of BPM as compared to the medium energy level such as “upbeat”. In some embodiments, the circular control device may be capable of visualizing that a user selection **12** of the mood option can be made from a low energy level (e.g., “chill”) to a higher energy level (e.g., “dancing”). For example, as can be seen in FIG. 4B, upon a user **600** performing a hovering gesture along the circular control device **810**, the user may select his or her mood option **811**, **812** or **813**. In this example, the user **600** performs a hovering gesture from a start position of the circular control device to an end position corresponding to a position at the mood option **813**. Upon the user **600** completing his or her hovering gesture at the position of the mood option **813**, this can be interpreted by the electronic device **200** to represent a user selection of mood option **813**. In response to receiving this request, the queue of subsequently playable audio items can be adjusted accordingly, as can be seen in FIG. 4C.

[0062] As can be seen in FIG. 4A, audio content corresponding to audio item A (**801**) is currently being played. The audio content may e.g. be played to the user **600** through loudspeaker(s) of the user interface **230** of the electronic device. Alternatively, the audio content may be played through external loudspeaker(s) **500-2** that are remotely controlled by the electronic device **200** (see FIG. 1). While the audio content corresponding to audio item A (**801**) is being played, a visual queue of selectable audio items B (**802**) and C (**803**) of a playlist is also displayed, or otherwise presented, at the user interface **230** of the electronic device. Furthermore, while the audio content corresponding to audio item A (**801**) is being played a user **600** may perform a hovering gesture (see FIG. 4B) from the start position of the circular control device to another position corresponding to a position at the mood option **813**. Upon the user **600** completing his or her hovering gesture at the position of the mood option **813**, this can be interpreted by the electronic device **200** to represent a user selection of mood option **813**. In response to receiving this request, the queue of subsequently playable audio items can be adjusted accordingly, as can be seen in FIG. 4C. The new visual queue of selectable audio items D (**804**) and E (**805**) of a playlist is displayed, or otherwise presented, at the user interface **230** of the electronic device **200**. Each of the audio items D (**804**) and E (**805**) has an energy level (e.g., a tempo measured in BPM) corresponding to the selected, thus requested, mood option (i.e. mood option **813** “dancing” in this example). Optionally, an icon **814** representing the selected mood option (here exemplified by mood level **813**) may also be displayed at the user interface **230**. Hereby, the user **600** of the electronic

device **200** can be informed about the selected mood option in a convenient and user-friendly way.

[0063] In advantageous embodiments, the electronic device **200** is adapted to send, i.e. transmit, a data message including an instruction to the computer server system **300** (see FIG. 2) to return a proposed playlist of audio items in accordance with the requested energy level (i.e., a high energy level corresponding to mood option **813** in this example). The above-mentioned data message may for example also comprise i) information about the selected mood option (i.e. mood option **813** in this example), ii) information about the energy level associated with the selected mood option, and/or iii) an instruction to generate a proposed playlist including audio items having an energy level (e.g., tempo) corresponding to the requested energy level (e.g., tempo). Accordingly, the computer server system **300** may be adapted to receive the above-mentioned data message including the instruction to return said proposed playlist. In response to receiving this data message, the computer server system **300** is capable of generating a proposed playlist of audio items in accordance with the requested energy level (e.g., tempo). As described earlier, there exist various techniques for generating suggested playlists on the basis of different factors, which are e.g. known from the US Patent Application Publication US 2014/0280181 A1. Therefore, this will not be repeated here. Subsequently, the electronic device **200** may hence receive a data message including data related to the proposed playlist of audio items that is generated by the computer server system **300**. The electronic device **200** may further be configured to generate or otherwise create a visual queue of selectable audio items corresponding to the proposed playlist based on the received data related to the proposed playlist. In response thereto, the visual queue of selectable audio items **804**, **805**, etc. can be displayed or otherwise presented at the user interface **230** of the electronic device **200**, as is schematically illustrated in FIG. 4C. It will thus be appreciated that the visual queue of selectable audio items **802**, **803**, **804**, **805**, etc. can be adjusted on the basis of a requested energy level based on the earlier-mentioned selection carried out by the hovering gesture, as schematically illustrated in FIG. 4B.

[0064] In one embodiment, the media playback application **220**, including the playback logic **222**, may begin playing **10** (see FIG. 2) the audio content to the user **600** in the order defined by the displayed visual queue of selectable audio items **804-805**. That is, audio content corresponding to audio item **804** is played immediately after the currently played audio item **801** has finished, or stopped. Thereafter, audio item **805** is played after audio item **804**, and so forth. Additionally, or alternatively, upon a user selection **12** (e.g., a control gesture in the form of a press gesture or a tap gesture within a display area corresponding to a desired audio item from the list of audio items **804**, **805** included in the playlist) the media playback application **220**, including the playback logic **222**, may begin playing **10** the audio content corresponding to the thus selected audio item. Selecting a particular audio item within the visual queue of selectable audio items **804**, **805**, etc. may in some embodiments be used, or otherwise interpreted, as a request or instruction to the media server application **312** of the computer server **300** to stream or otherwise return a corresponding particular audio content item. For instance, in accordance with some embodiments, the software application **310**

at the computer server **300** may be used to stream or otherwise communicate audio content to the electronic device **200** for playback to the user **600**.

[0065] The embodiments described with reference to FIG. 4A-4C may allow for an improved playback of streamed audio content, e.g. at social gatherings such as parties. The embodiments described with reference to FIGS. 4A-4C may for example allow for a user of the electronic device **200** to dynamically control the energy level (e.g., a tempo) of the audio items included in a playlist by using his or her electronic device. In some advantageous embodiments, the streamed audio (e.g., songs) that is/are going to be played at the social gathering can be controlled based on a mood, i.e. an emotional state. Thus, in one example scenario, a party host (i.e., the user) may dynamically control the tempo of the songs to be played on the basis of the current mood of the people at the party. This may improve the experience of the people at social gatherings such as parties.

[0066] With reference to FIGS. 5A-5B, an embodiment of a method **1000** of operating an electronic device for dynamically controlling a playlist of audio items will be described. As described hereinabove, a request to adjust an energy level associated with the playlist is received **1010**. In response to receiving **1010** this request, the playlist is adjusted **1020** (or, prepared) in accordance with the requested energy level. Typically, but not necessarily, the energy level is indicative of a tempo of the audio items included in said playlist. The tempo may for example be measured in BPM.

[0067] In some embodiments, e.g. as schematically illustrated in FIG. 5B, the adjusting **1020** of the playlist may comprise: sending **1021** a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; and receiving **1022** a data message including data related to a proposed playlist of audio items. In response thereto, the method may also comprise generating **1023**, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist. Furthermore, in response thereto the visual queue of selectable audio items may be displayed **1024** at the user interface of the electronic device. Furthermore, audio content corresponding to the displayed audio items may be played (not shown) to the user **600**, as described hereinabove.

[0068] With reference to FIGS. 6A-6B, another embodiment of a method **1100** of operating an electronic device for dynamically controlling a playlist of audio items will be described. A visual array of selectable mood options is displayed **1110** at a user interface of the electronic device. Furthermore, each selectable mood option is associated with a respective mood. Still further, each selectable mood option may be associated with a respective energy level such as a tempo (e.g., measured in BPM). As described hereinabove, a request to adjust an energy level associated with the playlist is received **1120**. Receiving **1120** this request may thus include receiving an instruction to select one of the selectable mood options. Furthermore, in response to receiving **1120** this request, the playlist is adjusted **1130** (or, prepared) in accordance with the requested energy level.

[0069] Turning now to FIG. 7, still another embodiment will be briefly discussed. FIG. 7 shows an example of a computer-readable medium, in this example in the form of a data disc **1200**. In one embodiment the data disc **1200** is a magnetic data storage disc. The data disc **1200** is config-

ured to carry instructions **1210** that can be loaded into a memory **210B** of an electronic device **200**. Upon execution of said instructions by a processor **210A** of the electronic device **200**, the electronic device **200** is caused to execute a method or procedure according to any one of the embodiments described in this disclosure. The data disc **1200** is arranged to be connected to or within and read by a reading device (not shown), for loading the instructions into the processor. One such example of a reading device in combination with one (or several) data disc(s) **1200** is a hard drive. It should be noted that the computer-readable medium can also be other mediums such as compact discs, digital video discs, flash memories or other memory technologies commonly used. In such an embodiment the data disc **1200** is one type of a tangible computer-readable medium. The instructions may alternatively be downloaded to a computer data reading device, such as an electronic device **200** capable of reading computer coded data on a computer-readable medium, by comprising the instructions in a computer-readable signal (not shown) which is transmitted via a wireless (or wired) interface (for example via the Internet) to the computer data reading device for loading the instructions into a processor **210A** of the electronic device **200**. In such an embodiment, the computer-readable signal is one type of a non-tangible computer-readable medium.

[0070] With reference to FIG. 8, an example embodiment of the electronic device **200** of FIGS. 1-4 will be described in some further detail. Advantageously, the electronic device **200** may be embodied as a portable electronic device, such as a mobile telephone, a cellular telephone, a tablet computer, a laptop computer, or a personal digital assistant. Alternatively, the electronic device **200** may be implemented as a stationary electronic device, such as a stationary computer.

[0071] In some embodiments, the electronic device **200** may comprise means adapted to perform the method described herein with reference to FIGS. 5 through 6. In one embodiment, the electronic device **200** thus comprises means adapted to receive a request to adjust an energy level associated with the playlist and means adapted to adjust the playlist in accordance with the requested energy level in response to receiving said request. As mentioned earlier, the energy level may be indicative of the tempo of the audio items included in said playlist. The tempo may be measured in BPM.

[0072] In advantageous embodiments, the electronic device **200** further comprises means adapted to display a visual array of selectable mood options at a user interface of the electronic device, wherein each selectable mood option is associated with a respective mood. Furthermore, each selectable mood option may also be associated with a respective energy level such as a tempo (e.g., measured in BPM). Still further, the electronic device **200** may comprise means adapted to receive an instruction to select one of the selectable mood options. A selection of one of the mood options may be interpreted or otherwise recognized by the electronic device to be the request to adjust the energy level.

[0073] In some embodiments, the electronic device additionally comprises means adapted to send a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; means adapted to receive a data message including data related to a proposed playlist of audio items; means adapted to generate, based on said data

related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and means adapted to display the visual queue of selectable audio items at the user interface of the electronic device.

[0074] Furthermore, electronic device 200 may comprise means adapted to playback audio content, e.g. to the user 600 of the electronic device 200.

[0075] With continued reference to FIG. 8, an example implementation of the electronic device 200 will now be described. The electronic device 200 is configured to execute, or otherwise perform, any of the methods described herein. As is schematically illustrated in FIG. 8, the electronic device 200 comprises hardware 210A-C. For example, the electronic device 200 may comprise one or more processors 210A and one or more memories 210B. Also, a communications interface 210C may be provided in order to allow the electronic device 200 to communicate with other electronic devices and/or computer servers 300, e.g. via a network 400 such as the Internet. To this end, the communications interface 210C may comprise a transmitter (Tx) and a receiver (Rx). Alternatively, the communications interface 210C may comprise a transceiver (Tx/Rx) combining both transmission and reception capabilities. The communications interface 210C may include a radio frequency (RF) interface allowing the electronic device 200 to communicate with other devices and/or computer servers 300 through a radio frequency band through the use of different radio frequency technologies such as LTE (Long Term Evolution), WCDMA (Wideband Code Division Multiple Access), any other cellular network standardized by the 3rd Generation Partnership Project (3GPP), or any other wireless technology such as Wi-Fi, Bluetooth®, etcetera. Thus, the electronic device 200 may for example be configured to remotely control media presentation system(s) 500 as described earlier hereinabove. The electronic device 200 may further comprise a user interface 230, which may be comprised of a display and a keypad. Advantageously, the user interface includes a touch-sensitive display as described earlier in this disclosure. As such, the touch-sensitive display may be a touch screen display upon which virtual keys may be displayed and operated. Furthermore, the user interface 230 may include output means such as loudspeakers (not shown) and/or one or several audio output connections as described earlier herein. As described with reference to FIG. 1, the electronic device 200 may also comprise one or more applications, e.g. the media playback application 220. These applications may include sets of instructions (e.g., computer program code) that when executed by the one or more processors 210A controls the operation of the electronic device 200.

[0076] In some implementations, the one or more memories 210B stores computer program code, which, when run in the one or more processors 210A causes the electronic device 200 to receive a request to adjust an energy level associated with the playlist; and in response thereto adjust the playlist in accordance with the requested energy level. As mentioned earlier, the energy level may be indicative of the tempo of the audio items included in said playlist. The tempo may be measured in BPM.

[0077] In advantageous embodiments, the user interface 230 is further adapted to display a visual array of selectable mood options, wherein each selectable mood option is associated with a respective mood. Each selectable mood option may also be associated with a respective energy level

such as a tempo (e.g., measured in BPM). Furthermore, the memory may store computer program code, which, when run in the processor causes the user interface 230 to receive an instruction to select one of the selectable mood options. A selection of one of the mood options may be interpreted or otherwise recognized by the electronic device to be the request to adjust the energy level.

[0078] Moreover, in some embodiments, the memory may also store computer program code, which, when run in the processor causes the electronic device to send, by means of the transmitter, a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; and receive, by means of the receiver, a data message including data related to a proposed playlist of audio items; in response thereto generate, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto display the visual queue of selectable audio items at the user interface.

[0079] Furthermore, the memory may stores computer program code, which, when run in the processor causes the electronic device to playback audio content, e.g. to the user 600 of the electronic device 200.

[0080] The various embodiments described throughout this disclosure may allow a user of an electronic device to dynamically control the energy level (e.g., the tempo) of a playlist of audio items, such as songs. In some advantageous embodiments, the energy level of a playlist may be adjusted based on a selected mood option corresponding to a selected mood. Thus, in one example scenario, a party host (i.e., a user) may dynamically control the tempo of songs to be played next based on a current mood of the people at a social gathering (e.g., a party). This may improve the experience of social gatherings such as parties. According to some embodiments, it may also be possible to influence the mood of people at a social gathering. For example, if a user wishes to change the mood of the people at a social gathering, he or she may in some embodiments select a mood option to adjust the energy level of the playlist and, accordingly, the songs to be played next at the social gathering.

[0081] In the detailed description hereinabove, for purposes of explanation and not limitation, specific details are set forth in order to provide a thorough understanding of various embodiments described in this disclosure. In some instances, detailed descriptions of well-known devices, components, circuits, and methods have been omitted so as not to obscure the description of the embodiments disclosed herein with unnecessary detail. All statements herein reciting principles, aspects, and embodiments disclosed herein, as well as specific examples thereof, are intended to encompass both structural and functional equivalents thereof. Additionally, it is intended that such equivalents include both currently known equivalents as well as equivalents developed in the future, i.e., any elements developed that perform the same function, regardless of structure. Thus, for example, it will be appreciated that block diagrams herein can represent conceptual views of illustrative circuitry or other functional units embodying the principles of the described embodiments. Similarly, it will be appreciated that any flow charts and the like represent various processes which may be substantially represented in computer readable medium and so executed by a computer or processor, whether or not such computer or processor is explicitly

shown. The functions of the various elements including functional blocks, may be provided through the use of hardware such as circuit hardware and/or hardware capable of executing software in the form of coded instructions stored on the above-mentioned computer readable medium. Thus, such functions and illustrated functional blocks are to be understood as being hardware-implemented and/or computer-implemented, and thus machine-implemented. In terms of hardware implementation, the functional blocks may include or encompass, without limitation, digital signal processor (DSP) hardware, reduced instruction set processor, hardware (e.g., digital or analog) circuitry including but not limited to application specific integrated circuit(s) [ASIC], and/or field programmable gate array(s) (FPGA(s)), and (where appropriate) state machines capable of performing such functions. In terms of computer implementation, a computer is generally understood to comprise one or more processors or one or more controllers. When provided by a computer or processor or controller, the functions may be provided by a single dedicated computer or processor or controller, by a single shared computer or processor or controller, or by a plurality of individual computers or processors or controllers, some of which may be shared or distributed. Moreover, use of the term “processor” or “controller” may also be construed to refer to other hardware capable of performing such functions and/or executing software, such as the example hardware recited above.

[0082] In some embodiments, the present invention includes a computer program product which is a non-transitory storage medium or computer readable medium (media) having instructions stored thereon/in which can be used to program a computer to perform any of the processes of the present invention. Examples of the storage medium can include, but is not limited to, any type of disk including floppy disks, optical discs, DVD, CD-ROMs, microdrive, and magneto-optical disks, ROMs, RAMs, EPROMs, EEPROMs, DRAMs, VRAMs, flash memory devices, magnetic or optical cards, nanosystems (including molecular memory ICs), or any type of media or device suitable for storing instructions and/or data.

[0083] Modifications and other variants of the described embodiments will come to mind to one skilled in the art having benefit of the teachings presented in the foregoing description and associated drawings. Therefore, it is to be understood that the embodiments are not limited to the specific example embodiments described in this disclosure and that modifications and other variants are intended to be included within the scope of this disclosure. As one mere example, while certain gestures (e.g., hovering gestures, press gestures, and tap gestures) have been described to exemplify some embodiments, other conceivable gestures also exist (e.g. flick gestures, swipe gestures, swipe-and-hold gestures, release-of-hold gestures) that could be contemplated when reducing embodiments described herein into practice.

[0084] Furthermore, it should be appreciated that embodiments described in this disclosure could be advantageously combined with any one of the embodiments described in the co-filed U.S. patent application Ser. No. _____/_____, filed on May 15, 2015, (Attorney Docket No.: SPTFY-01027U50), entitled “PLAYBACK OF MEDIA STREAMS AT SOCIAL GATHERINGS”, inventors Souheil Medaghri Alaoui, et al and/or in the co-filed U.S. patent application Ser. No. _____/_____, filed on May 15, 2015 (Attorney

Docket No.: SPTFY-01028U50), entitled “METHODS AND DEVICES FOR ADJUSTMENT OF THE ENERGY LEVEL OF A PLAYED AUDIO STREAM”, inventors Souheil Medaghri Alaoui, et al, both of which patent applications are incorporated herein by reference in their entirety. **[0085]** Still further, although specific terms may be employed herein, they are used in a generic and descriptive sense only and not for purposes of limitation. Therefore, a person skilled in the art would recognize numerous variations to the described embodiments that would still fall within the scope of the appended claims. As used herein, the terms “comprise/comprises” or “include/includes” do not exclude the presence of other elements or steps. Furthermore, although individual features may be included in different claims, these may possibly advantageously be combined, and the inclusion of different claims does not imply that a combination of features is not feasible and/or advantageous. In addition, singular references do not exclude a plurality.

What is claimed is:

1. A method of operating an electronic device for dynamically controlling a playlist of audio items, the method comprising:

receiving a request to adjust an energy level associated with the playlist; and
in response to receiving said request, adjusting the playlist in accordance with the requested energy level.

2. The method of claim 1, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

3. The method of claim 2, wherein said tempo is measured in Beats Per Minute, BPM.

4. The method of claim 1, comprising:

displaying a visual array of selectable mood options at a user interface of the electronic device, wherein each selectable mood option is associated with a respective mood; wherein

receiving the request to adjust the energy level comprises receiving an instruction to select one of the selectable mood options.

5. The method of claim 4, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

6. The method of claim 5, wherein said tempo is measured in Beats Per Minute, BPM.

7. The method of claim 1, wherein adjusting the playlist in accordance with the requested energy level comprises:

sending a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; and

receiving a data message including data related to a proposed playlist of audio items; in response thereto generating, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto

displaying the visual queue of selectable audio items at the user interface of the electronic device.

8. The method of claim 7, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

9. The method of claim 8, wherein said tempo is measured in Beats Per Minute, BPM.

10. The method of claim **4**, wherein adjusting the playlist in accordance with the requested energy level comprises, comprises:

sending a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level;

and receiving a data message including data related to a proposed playlist of audio items; in response thereto generating, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto

displaying the visual queue of selectable audio items at the user interface of the electronic device.

11. The method of claim **10**, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

12. The method of claim **11**, wherein said tempo is measured in Beats Per Minute, BPM.

13. An electronic device for dynamically controlling a playlist of audio items, the electronic device comprising:

a processor; and

a memory storing computer program code, which, when run in the processor causes the electronic device to receive a request to adjust an energy level associated with the playlist; and in response thereto adjust the playlist in accordance with the requested energy level.

14. The electronic device of claim **13**, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

15. The electronic device of claim **14**, wherein said tempo is measured in Beats Per Minute, BPM.

16. The electronic device of claim **13**, further comprising: a user interface adapted to display a visual array of selectable mood options, wherein each selectable mood option is associated with a respective mood; wherein the memory stores computer program code, which, when run in the processor causes the user interface to receive an instruction to select one of the selectable mood options.

17. The electronic device of claim **16**, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

18. The electronic device of claim **17**, wherein said tempo is measured in Beats Per Minute, BPM.

19. The electronic device of claim **13**, further comprising: a transmitter; and

a receiver; wherein

the memory stores computer program code, which, when run in the processor causes the electronic device to: send, by means of the transmitter, a data message including an instruction to a computer server system to return

a proposed playlist of audio items in accordance with the requested energy level; and

receive, by means of the receiver, a data message including data related to a proposed playlist of audio items; in response thereto

generate, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto

display the visual queue of selectable audio items at the user interface.

20. The electronic device of claim **19**, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

21. The electronic device of claim **20**, wherein said tempo is measured in Beats Per Minute, BPM.

22. The electronic device of claim **16**, further comprising: a transmitter; and

a receiver; wherein

the memory stores computer program code, which, when run in the processor causes the electronic device to:

send, by means of the transmitter, a data message including an instruction to a computer server system to return a proposed playlist of audio items in accordance with the requested energy level; and

receive, by means of the receiver, a data message including data related to a proposed playlist of audio items; in response thereto

generate, based on said data related to the proposed playlist, a visual queue of selectable audio items corresponding to the proposed playlist; and in response thereto

display the visual queue of selectable audio items at the user interface.

23. The electronic device of claim **22**, wherein the energy level is indicative of an average tempo of the audio items included in said playlist.

24. The electronic device of claim **23**, wherein said tempo is measured in Beats Per Minute, BPM.

25. The electronic device of claim **13**, wherein the electronic device is a stationary electronic device, such as a stationary computer.

26. The electronic device of claim **13**, wherein the electronic device is a portable electronic device, such as a mobile telephone, a cellular telephone, a tablet computer, a laptop computer, a personal digital assistant

27. A non-transitory computer readable storage medium storing one or more instructions which, when executed on at least one processor, cause the at least one processor to carry out the method comprising:

receiving a request to adjust an energy level associated with the playlist; and

in response to receiving said request, adjusting the playlist in accordance with the requested energy level.

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