[0001]   As shown in Fig. 4, process 400 may include receiving an active call notification (block 410). For example, earpiece 220 may receive an active call notification from user device 210. The active call notification may indicate that user device 210 is engaged in a voice call, in which case the user would likely prefer not to be interrupted by an in-person conversation.

[0002]   The active call notification may be sent from user device 210 to earpiece 220 when user device 210 detects a phone call, for instance, when an incoming-call ring begins. Alternatively, the user may provide an input to user device 210 to indicate the presence of an active call, for example by issuing a "dial" command on user device 210 to initiate an outbound call to another party, or by issuing an "answer" command on user device 210 to accept an inbound call from another party. In other cases, user device and/or earpiece 220 may monitor for a call such that earpiece 220 receives an active call notification whenever a call is detected. This monitoring might be based on detection of an active cellular signal indicating a call, and could be set to trigger an active call notification only for detected calls of a certain minimum length, for example, lasting at least ten seconds.

[0003]   As further shown in Fig. 4, process 400 may include displaying an indication of an active call based on receiving the active call notification (block 420). For example, earpiece 220 may provide an indication of an active call on a display on the side of earpiece 220, shown in Fig. 1.

[0004]   The indication may include text, an image, an animation, a video, a color, or any other visual signifier that the user is engaged in an active call. For instance, the display could flash red when a call is in progress. Alternatively, it could scroll or flash the text "DO NOT DISTURB" or "BUSY". In another implementation, the display could shown an image such as a

generic photo of a person using a phone, or a photo of the specific person engaged in the call with the user based on public information or on user-supplied information stored in user device 210 or in a user's account. The display might play a video or animation to provide notice of an active call, for example, a telephone scene from the film "Phone Booth" or Bugs Bunny in "Teliophone". More than one type of indication might be displayed simultaneously or in series, such as a blinking red light with the text "BUSY".

[0005]   In certain embodiments, the indication could include information about the call. For example, various call statuses could be displayed: "ACTIVE" to indicate the user is in a call and does not wish to be disturbed, "ON HOLD" to indicate the user might be free for in-person conversation, or "RESCUE ME" to indicate the user would welcome an interruption as an excuse to end the call. Additionally, information about the other party to the call could be displayed, such as the party's phone number, name, business name, or photograph.

[0006]   A default indication might be set to automatically display, for example, "BUSY" in blinking red letters when a call is active. The particular indication displayed could be chosen by the user from a selection of stock indications, or might be user-customizable. Customization features could be activated through an application on user device 210 or via an internet account, or could be built-in to ear piece 220 and selectable via buttons or a touch screen.

[0007]   As further shown in Fig. 4, process 400 may include receiving an inactivity notification (block 430). For example, earpiece 220 may receive an inactivity notification from user device 210. The inactivity notification may indicate that user device 210 is not engaged in a call, in which case the user may likely be available for in-person conversation.

[0008]   The inactivity notification may be sent from user device 210 to earpiece 220 when user device 210 detects no phone call is active. Alternatively, the user may provide some input to user device 210 to indicate inactivity, for example by issuing a "hang up" command on user device 210 to end a call. In other cases, user device and/or earpiece 220 may monitor for the end of a call such that earpiece 220 receives an inactivity notification whenever termination of a call is detected. This monitoring might be based on detection of cessation of an active cellular signal indicating a call.

[0009]   As further shown in Fig. 4, process 400 may include removing the indication of the active call based on receiving the inactivity notification (block 440). For example, earpiece 220 may simply stop displaying the active call notification. To conserve battery power, the display on earpiece 220 could also turn off.

[0010]   Alternatively, the display may show an indication that the user is not engaged in a voice call. For instance, the display could glow steady green when a call is not in progress. Or it could scroll or flash text such as "AVAILABLE" or "TALK TO ME". In another implementation, the display could shown an image such as a generic photo of an unused desk phone. The display might also play a video or animation to provide notice of inactivity, for example, a dozing man swaying in a hammock on a tropical beach. More than one type of indication might be displayed simultaneously or in series, such as a solid green light with the text, "FREE".

[0011]   A default indication might be set to automatically display, for example, "FREE" in solid green letters when no call is active. The particular indication displayed could be chosen by the user from a selection of stock indications, or might be user-customizable as described above.

[0012] Employing earpiece 220 to indicate when a voice call is active/inactive allows others in the vicinity of the user to know whether the user is engaged in a call or speaking to them, preventing confusion. Further, displaying an active call notification on earpiece 220 can prevent people from initiating in-person conversation when the user is on a voice call, thus avoiding unwanted interruptions.

[0013] Although Fig. 4 shows example blocks of process 400, in some implementations, process 400 may include additional blocks, fewer blocks, different blocks, or differently arranged blocks than those depicted in Fig. 4. Additionally, or alternatively, two or more of the blocks of process 400 may be performed in parallel.