other data transfer services, a change of the cellular channel or provider, an expiration of a timer, a calendar alarm event, or a low battery warning.

[0035] In one embodiment, the user interface **104** comprises a plurality of actuation elements **114**. Each of the plurality of actuation elements **114** is configured to control a corresponding device function, such as entering or deleting a typed character. The device function may be user definable. Further, the actuation element **106** that changes its actuation element profile **108** in response to the device event may also be user definable. For example, one of the plurality of actuation elements **114** may be configured as the "answer call" button because it is easily accessible by the user's finger when viewing the display **105**. However, a change in the actuation element profile of this actuation element may not be easily "felt" when the electronic device **100** is in the user's pocket. To overcome this, the user may select another actuation element to change profile when incoming calls are received. Further, multiple actuation elements may be selected to alter their actuation element profile in response to a device event. For instance, three actuation elements may be selected to change their respective actuation element profiles—at different times—in response to an incoming phone call, thereby creating a "wave-like" effect.

[0036] In one embodiment, the alteration of the actuation element profile **108** prompts the user for at least one of a plurality of responses. The user may then actuate the actuation element **106** to signal a response. By way of example, turning now to FIG. **3**, illustrated therein is a radiotelephone **300** capable of electronic communication. The actuation element of interest is a call activation key **306** configured to answer incoming calls. The call activation key **306** is configured to alter its actuation element profile **308** relative to the housing **302** in response to an incoming communication **310**. Upon receipt of the incoming communication **310**, the call activation key **306** extends telescopically from the housing **302**, thereby altering its actuation element profile **308**. The user is thus prompted to answer the incoming communication **310** by pressing or otherwise actuating the call activation key **306**. In one embodiment, the mechanism for altering the actuation element profile **308** is a nested slide, driven by a piezoelectric micro-motor.

[0037] Turning to FIG. **4**, illustrated therein is another embodiment of an electronic device **400** comprising an actuation element **406** configured to alter its actuation element profile **408** with respect to a housing **402** in response to a device event **410**. In one embodiment, the user may be prompted for one of a plurality of responses **401** to the device event **410**. To facilitate the selection, the actuation element **406** is configured as a navigation key **407**. The navigation key **407** is suitable for navigation among the plurality of options suitable for response **401**. In one embodiment, the navigation key **407** includes a navigation wheel **412** capable selecting from the plurality of options suitable for response **401**. In one embodiment, the navigation key **407** is actuated by pressing the navigation key **407** downward to select of one of the plurality of options suitable for response **401**.

[0038] While extending an actuation element distally from the housing is one mechanism for altering the actuation element profile, other mechanisms exist as well. Turning now to FIG. **5**, illustrated therein is one such alternate mechanism. In FIG. **5**, a housing **102** comprises a deformable cover layer **502**. The deformable cover layer **502** is configured to cover all or at least a portion of the housing **102**. The deformable cover layer **502** may vary in texture, thickness, material, composition, and optical characteristics. In one embodiment, the deformable cover layer **502** is a thin, semitransparent layer of flexible material, such as rubber, configured to cover, while permitting visibility, the actuation element **106**. In another embodiment, the deformable cover layer is an opaque material, such that the actuation element **106** is not seen until its actuation element profile **108** is altered.

[0039] Following a device event **110**, the actuation element **106** alters the actuation element profile **108**, thereby deforming the deformable cover layer **502**. In one embodiment, the deformable cover layer **502** rests on a plane **504** parallel to the housing **102**. Upon the altering of the actuation element profile **108**, the deformable cover layer **502** deforms, thereby creating a shape that is non-coplanar with the plane **504**.

[0040] Many actuation element profile drivers, mechanisms, and engines are capable of altering the actuation element profile (**108**), as illustrated in FIG. **2**, FIG. **3** and FIG. **5**. In one embodiment for example, distal extension of the actuation element (**106**) is implemented by a piezoelectric driver. Other drivers may also be used, including an electromagnetic driver, an electrostatic driver, a shape memory alloy driver, an electrorheological driver, and an electroactive polymer driver. It will be clear to those of ordinary skill in the art having the benefit of this disclosure that other devices may be used to alter the actuation element profile (**108**) as well.

[0041] Turning to FIG. **6**, illustrated therein is one embodiment of an actuation element profile driver implemented to alter the actuation element profile **608** with respect to the housing **602**. The actuation element profile driver comprises a shape memory alloy spring **604**. In some embodiments, such as the one illustratively shown in FIG. **6**, the actuation element profile driver is bistable. It is "bistable" in that it is configured to enter a low power mode after altering the actuation element profile **608**. The shape memory alloy spring **604** is a bistable actuation element having two stable states. The two stable states are a compacted shape memory alloy spring (the low power mode), and an extended shape memory alloy spring (the actuated mode).

[0042] The exemplary shape memory alloy spring **604** of FIG. **6** is made of martensite and is situated in a first profile state at step **609**. In one embodiment, when the shape memory alloy spring **604** is in the first profile state, it is in the low power mode because energy is not continually required to maintain the first profile state. In response to a device event **610**, at step **612**, the shape memory alloy spring **604** is heated by a driver, causing the martensite to change into a memorized austenite phase, thereby elongating the shape memory alloy spring **604**. The elongation of the shape memory alloy spring **604** creates an outward force on the actuation element **606**, thereby causing it to enter a second profile state at step **614**. Upon cooling at step **616**, the shape memory alloy spring **604** returns to the first profile state. At step **618**, the actuation element **606** is depressed by a user **620** and an electrical signal associated with the actuation element **606** is transmitted.

[0043] Note that there are many additional embodiments of shape memory alloy drivers for use with embodiments of the invention. In one embodiment, the shape memory alloy driver comprises a pump. The pump further comprises a cylinder, a piston, a shape memory alloy element, a spring and an end-cap with electrical terminals. The end-cap tightly seals the cylinder. The shape memory alloy element is engaged with the piston on one side and connected with the end-cap terminals on the other side. When voltage is supplied to the elec-