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departing substantially from the disclosure. All such modifications and variations are included herein within the scope of this disclosure.

We claim:

1. A reconfigurable interface, comprising:
a reconfigurable keyboard configurable to emulate a first user-selected keyboard, the reconfigurable keyboard comprising an array of microchambers, each microchamber coupled to a port through which a fluid is injected into the microchamber for changing the microchamber from a first height to a second height, each port including a bi-stable valve operable for regulating the injection of the fluid into the microchamber; and
a keyboard emulator controller operable to emulate a first user-selected keyboard upon the reconfigurable keyboard, the emulation comprising setting a first group of microchambers in the array to the second height by operating a respective set of bi-stable valves for injecting the fluid into each of the first group of microchambers, whereupon the first group of microchambers collectively constitute a first emulated hard key that emulates a first key of the first user-selected keyboard.
2. The reconfigurable interface of claim 1, wherein the keyboard emulator controller is further configured to operate the respective set of bi-stable valves for extracting fluid from each of the microchambers in the first group of microchambers, whereby the first group of microchambers is reset to the first height for emulating an inactive portion of the first user-selected keyboard.
3. The reconfigurable interface of claim 2, wherein the keyboard emulator controller is further operable to set a second group of microchambers to the second height, the second group of microchambers collectively constituting a second emulated hard key that emulates a first key of a second user-selected keyboard.
4. The reconfigurable interface of claim 3, wherein at least one of the microchambers is common to the first group of microchambers and the second group of microchambers.
5. The reconfigurable interface of claim 1, in which the keyboard emulator controller comprises:
a microchamber controller operable to provide to a microchamber a first volume of fluid corresponding to the first height of the microchamber, and a second volume of fluid corresponding to the second height of the microchamber.
6. The reconfigurable interface of claim 1, wherein the fluid comprises one of air, a liquid, a gas, and a gel.
7. The reconfigurable interface of claim 1, wherein the first user-selected keyboard comprises one of a QWERTY keyboard, a cellphone keypad, a music player keypad, and a game controller keypad.
8. The reconfigurable interface of claim 1, wherein the reconfigurable keyboard comprises a first portion operable to provide, under control of the keyboard emulator controller, a sensory feedback in the form of a vibration.
9. The reconfigurable interface of claim 1, wherein the reconfigurable keyboard comprises a first portion operable in response to the keyboard emulator controller to provide sensory feedback in the form of a first electric stimulus to a user of the reconfigurable keyboard.
10. The reconfigurable interface of claim 1, wherein the reconfigurable keyboard comprises a first portion operable in response to the keyboard emulator controller for providing sensory feedback in the form of a temperature change.
11. The reconfigurable interface of claim 1, wherein the keyboard emulator controller is further configured to operate the respective set of bi-stable valves for momentarily

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extracting and then re-injecting at least a portion of the fluid in the first group of microchambers thereby providing a tactile feedback from the first emulated hard key.

12. The reconfigurable interface of claim 1, wherein the keyboard emulator controller is further configured to operate the respective set of bi-stable valves for changing the first group of microchambers to a third height by extracting at least a portion of the fluid from the first group of microchambers.
13. The reconfigurable interface of claim 12, wherein the first group of microchambers of the third height constitutes a second emulated hard key that emulates a first key of a second user-selected keyboard.
14. A method of keyboard emulation, the method comprising:
providing a reconfigurable keyboard;
providing a selector for selecting at least one of a first emulated keyboard and a second emulated keyboard;
emulating, when the first emulated keyboard is selected, a first key of the first emulated keyboard by configuring a first portion of the reconfigurable keyboard to emulate a first hard key, wherein configuring the first portion of the keyboard comprises:
opening a first bi-stable valve coupled to a first port of a first microchamber;
injecting a fluid into the first microchamber for changing the height of the first microchamber from a first height to a second height; and
emulating, when the second emulated keyboard is selected, a first key of the second emulated keyboard by configuring a second portion of the reconfigurable keyboard to emulate a second hard key, wherein configuring the second portion of the keyboard comprises:
opening a second bi-stable valve coupled to a second port of a second microchamber;
injecting the fluid into the second microchamber for changing the height of the second microchamber from the first height to the second height.
15. The method of claim 14, further comprising providing a tactile feedback to a user via at least one of a) the first emulated hard key and b) the second emulated hard key.
16. The method of claim 14, wherein:
the reconfigurable keyboard comprises a first surface; and
configuring one of a) the first emulated hard key and b) the second emulated hard key further comprises providing a tactile feedback by vibrating the first surface in the respective one of the first portion and the second portion.
17. The method of claim 14, wherein:
the reconfigurable keyboard comprises a first surface; and
configuring one of a) the first emulated hard key and b) the second emulated hard key comprises providing a first electrical stimulus from the first surface in the respective one of the first portion and the second portion, the first electrical stimulus being operative as a tactile feedback.
18. The method of claim 14, wherein:
the reconfigurable keyboard comprises a first surface of the keyboard; and
configuring one of a) the first emulated hard key and b) the second emulated hard key comprises providing a tactile feedback by changing a temperature of the first surface in the respective one of the first portion and the second portion.