



US006037882A

United States Patent [19]

[11] Patent Number: **6,037,882**

Levy

[45] Date of Patent: **Mar. 14, 2000**

[54] **METHOD AND APPARATUS FOR INPUTTING DATA TO AN ELECTRONIC SYSTEM**

[57] **ABSTRACT**

[76] Inventor: **David H. Levy**, 16 Blake St., Cambridge, Mass. 02140

A method and apparatus for inputting data to an electronic system. The method includes the steps of generating a representation of an input device having a plurality of input options in virtual space, sensing the position of a user in real space, and displaying the representation of the input device and the position of the user in virtual space relative to the representation of the input device on a head-mounted display. The method further includes the steps of sensing selection of one of the plurality of input options by the user and determining which of the plurality of input options the user's selected in response to the position of the user in virtual space relative to the representation of the input device. In one embodiment, the representation of an input device is a representation of a keyboard. In another embodiment, the position of the user's finger is sensed. In one such embodiment, a finger-shaped cursor is used to display the position of the user's finger. The apparatus includes a sensor, a processor in communication with the sensor, and a head-mounted display in communication with the processor. The processor executes an algorithm which includes a module generating a representation of an input device in virtual space, a module determining a position of the user in virtual space relative to the representation of the input device; and a module determining which of the plurality of input options the user selects in response to the user's position.

[21] Appl. No.: **08/940,222**

[22] Filed: **Sep. 30, 1997**

[51] **Int. Cl.⁷** **H04Q 1/00**

[52] **U.S. Cl.** **341/20; 340/825.56; 345/168**

[58] **Field of Search** 341/20, 22; 345/158, 345/157, 355, 179, 168; 340/407.1, 825.56

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Primary Examiner—Michael Horabik
Assistant Examiner—Albert K. Wong

2 Claims, 6 Drawing Sheets

