Interactive Multiple Functions User Interface

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Abstract : Tangible user interfaces (TUI) that employ markers in the augmented reality (AR) environment has hampered the interactivity between the user and the software application. This is because the user lacks focus on visualizing the contents due to the interaction mechanisms whereby multiple markers may need to be used to perform a particular function. In this research, we have designed a novel TUI user interface where multiple functions could be triggered similar to a natural keyboard thus allowing user to focus more on its digital contents such as 2D/3D, text input, animation and sound. Test results of the user interface with potential users and HCI experts revealed that the multiple functions user interface was new, preferred and appreciated more as opposed to marker based user interface.

Keywords : multimedia, augmented reality, engineering, user interface, visualization

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