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(54) **SYSTEM AND METHOD FOR PROVIDING DYNAMIC TACTILE FEEDBACK ON HAND-HELD ELECTRONIC DEVICES**

(57) **ABSTRACT**

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Various dynamic tactile feedback is provided to the user of a handheld electronic device through a scrollwheel depending on the types of data, priority of particular data and user preferences.

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In one embodiment the type of feedback is determined by a software module, which analyses the data being displayed on a display screen, and provides differing types and levels of feedback including resistance to rotational movement, such as free slides, partially resisted rotation, and full stops, as well as lateral motion feedback such as "bumps," "holes," and plateaus, to the user through a scrollwheel or scroll-wheel. Intelligent software decides what if any feedback should be associated with a particular type of feedback

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In another embodiment of the invention, information telling the software application to use a particular feedback type is embedded in the data. The system then provides tactile feedback at specified locations according to the embedded data. For example, software reads tactile triggers embedded into a data page, such as an email, electronic document or web page, and then translate these tactile triggers into dynamic tactile feedback which is provided to the user of the handheld device through the scrollwheel.

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