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(54) **PORTABLE ELECTRONIC DEVICE, METHOD, AND GRAPHICAL USER INTERFACE FOR DISPLAYING STRUCTURED ELECTRONIC DOCUMENTS**

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,025,842 A 2/2000 Filetto et al. 345/345

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0476972 A2 3/1992

(Continued)

OTHER PUBLICATIONS

Milic-Frayling, N. et al., "Smartview: Enhanced Document Viewer for Mobile Devices," Microsoft Technical Report, Nov. 15, 2002, URL: ftp://ftp.research.microsoft.com/pub/tr/tr-2002-114.pdf, retrieved Dec. 17, 2007.

(Continued)

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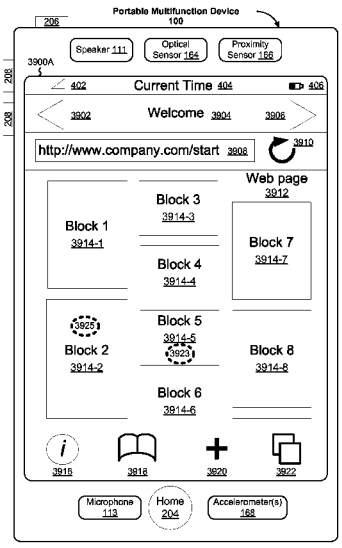
(57) **ABSTRACT**

A computer-implemented method, for use in conjunction with a portable electronic device with a touch screen display, comprises displaying at least a portion of a structured electronic document on the touch screen display, wherein the structured electronic document comprises a plurality of boxes of content, and detecting a first gesture at a location on the displayed portion of the structured electronic document. A first box in the plurality of boxes at the location of the first gesture is determined. The first box on the touch screen display is enlarged and substantially centered.

61 Claims, 29 Drawing Sheets