

-continued

X = 140]	Link: Eudaf Hen	http://freespace.virgin.net/
Y = 135	& Conan Meri.	david.ford2/eudanc.html
...		

[0095] FIG. 2 shows a Braille document entitled “Early British Kingdoms,” (Doc: 873) for blind or visually impaired users. Hyperlinks have been previously defined between certain items selected on the pages and information and/or services on the user workstation or on servers connected by a communication network, preferably the Internet. As shown in **FIG. 10**, the method for activating hyperlinks and for accessing information and/or services directly from the hyperlinked items located on the pages of the Braille document, comprises the steps of:

- [0096] (1001)** selecting a Braille document by entering the reference number of this document in the user workstation;
 - [0097] (1002)** selecting a page (or a portion) of the Braille document by entering the page number in the user workstation;
 - [0098] (1003)** determining whether or not the selected page comprises at least one hyperlinked items;
 - [0099] (1004)** placing and aligning a proximity sensing foil under the selected page;
 - [0100] (1005)** determining by means of the proximity sensing foil the position of the user’s fingertips on the surface of this page;
 - [0101] (1006)** detecting when the user’s fingertips are positioned over, or nearby, a hyperlinked item and alerting the user;
 - [0102] (1007)** selecting a detected hyperlinked item and activating the hyperlink corresponding to the hyperlinked item;
 - [0103] (1008)** identifying the hyperlink in the hyperlink table from the position of the selected hyperlinked item, the hyperlink table comprising an indication of the position (coordinates X, Y) of each hyperlinked item on each page of the Braille document;
 - [0104] (1009)** identifying the information or/and the service associated with the selected hyperlinked item referring to the hyperlink table, the hyperlink table comprising, for each hyperlinked item of the selected page, the identification of the requested information and/or service in the user workstation or within the network (preferably by means of a destination address);
 - [0105] (1010)** accessing the information and/or service; and
 - [0106] (1011)** retrieving and displaying this information and/or service.
- [0107] (1001)** Entering the Reference Number of the Braille Document: By means of any user interface (keyboard, bar code reader, voice recognition software and

microphone, and so forth), the user enters the reference number (identifier) of the document (e.g.: document 873) he wants to select (**201**). In the particular embodiment shown in **FIG. 1**, the user enters the reference number of the document (e.g.: Doc: 873) by means of a bar code reader (**103**). The reference number is encoded in bar codes printed on pages of the document (**102**), (**301**) on predefined reserved places. This procedure gives access to the hyperlink table (see **FIG. 4**) associated with the selected Braille document.

[0108] (1002) Selecting a Page of the Braille Document: In the embodiment of the invention shown in **FIG. 1**, the user selects a page of the Braille document (**101**) and enters the page number by means of the bar code reader (**103**). This procedure gives access to the selected page (e.g., Pg. 16) within the hyperlink table (see **FIG. 4**) associated with the selected document (e.g., Doc: 387).

[0109] (1003) Determining whether or not the selected page comprises hyperlinked items: If one or more hyperlinked items have been defined on the selected page, the user is alerted by a perceptible signal (e.g., a “beep”). Otherwise the user can read this page in the normal way (i.e., without placing the proximity sensing foil under the page).

[0110] (1004) Placing and aligning the proximity sensing foil under a page of the document: As shown in **FIG. 5**, after the step of selecting a Braille document and a page containing hyperlinks, the proximity sensing foil is placed under the page and aligned with the borders of the selected page (e.g., by adjusting the upper left corner of the proximity sensing foil with the upper right or left corner of the page).

[0111] (1005) Determining the position of the user’s fingertips on the surface of the page: The operating mode of the proximity sensing foil is illustrated in **FIG. 11**. When the user reads the Braille document using his fingertips, the proximity sensing foil continuously detects the position of the fingertips on the surface of the page. The coordinates of the user’s fingertips are directly sent to the user workstation. The user workstation, using the coordinates of the hyperlinks defined for this page on the Hyperlink Table, determines whether or not the user’s fingertips are placed over a hyperlinked item on the Braille document.

[0112] (1006) Detecting when the user’s fingertips are positioned over a hyperlinked item and alerting the user: As shown in **FIG. 6**, when the user workstation detects that the user’s fingertips are placed over, or nearby, a hyperlinked item on the page (e.g., the word “Afallach”), the user is alerted by means by a perceptible signal (e.g., a “beep”).

[0113] (1007) Selecting a detected hyperlink: As shown in **FIG. 7**, when the user detects the presence of a hyperlinked item (e.g., the word “Afallach”), he can activate this hyperlink by pressing, for example, a key on the user workstation.

[0114] (1008) Identifying the hyperlink in the hyperlink table from the position of the detected hyperlinked item: As shown in **FIG. 8**, when the user selects a hyperlinked item (“Afallach”) on the page, the proximity sensing foil generates a signal and sends it to the user workstation. The signal indicates the position of the selected item on the page. The signal is generally proportional to the coordinates (X/Y) of the point pressed. In our example, the proximity sensing foil measures the position on the page of the item (“Afallach”) selected by the user. The coordinates measured at this point are approximately X=225 and Y=160.