Digitally Augmented Collectibles
extending the functionality of collector’s items beyond simple exhibition

The Digitally Augmented Collectibles system establishes an emotional bond by playing item-related multimedia and offers a simple interface to access item-specific information. It consists of a display and an exhibition platform for the collectibles and incorporates unobtrusively into a user’s environment. The system identifies items through RFID and senses different combinations of collectibles. It is not limited to home-user applications but suggests potential to serve as a marketing tool at the point-of-sale.

Overview

User Interaction

Implicit Interaction
The system is indiscernibly integrated in a stage which many collectors already use as exhibition platform. Therefore no new elements are introduced and the interaction with the collectibles remains unchanged. If the collector exhibits the figurines, the system uses item-specific multimedia to leverage aesthetical pleasing and emotional engagement.

Explicit Interaction
The user can access further item-specific information through the pocket PC’s touch-sensitive display which allows for simple user-system interaction not requiring additional input devices.

The detection of each item is displayed by showing its picture. Further information is accessed by touch-selecting the item’s picture.

Implementation

The Sony Vaio U-71 pocket PC runs the software application and provides a touch-sensitive display. It is embedded in a picture frame to make the hardware unobtrusive.

Each collectible contains a passive high frequency RFID tag of 0.5”x1” in size (13.56MHz, ISO15693). This tag is attached to the figure’s socket and is invisible to the observer.

The FEIG PR100 RFID reader is unobtrusively embedded in the picture frame connected to a custom built antenna, which is molded into the stage allowing for close proximity to the exhibited collectibles.

The .Net-based application is built on top of our RFID middleware (RFIDStack). The system creates a play list for the exhibited collectibles based on their sets of characterization and the available multimedia files (music, pictures, video).

Applications

Home
Collectors can exhibits their figurines in various and alternating combinations on the stage and the system intends to establish an emotional bond by playing item-related multimedia. Items from the same product line form a homogeneous play list while the combination of figurines from different product lines leads to an interesting mixture.

Point-of-sale
The system can act as a digital information-providing service allowing customers to place items on the stage to request additional information. The features of the items are presented including information such as price, article number and other items a customer may be interested in. Customers are encouraged to interact with the products which potentially leads to increased sales.

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