A University and Public Library Cooperation: Mixed-reality Children’s Library Using Wearable Smartwatch Navigation and Visualized Interfaces

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Background

Book storage and classification in libraries depend on book metadata. Thus for the new young generation of “digital natives,” the book-finding approach of using complicated classification numbers might not work.

Strategies

- This study developed a mixed-reality children’s library using a wearable Smartwatch and RFID smart bookshelves for the Children’s Learning Center at the National Library of Public Information (NLPI) in Taiwan.
- To employ digital navigation, visualized interfaces, and big-data analysis to meet the expectations of young users.

**Diagram:**

- **People**
  - 01: Children’s reader identification & smartwatch input interface
  - 02: Children’s knowledge structure & keywords analysis
  - 03: Thematic metadata generated by structure mining in library collection
  - 04: Smartwatch navigation for finding books (beacon technologies & indoor positioning algorithm)
  - 05: RFID smart bookshelves for popular books and visualized interface
  - 06: A large touch-screen book wall which recommends different books to different reader group
  - 07: Immersed Game Hallway atmosphere at library entrance

**Building a smart library to improve access to literacies for children: an innovative project of NLPI in Taiwan**

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