Building a context-aware route suggestion system for museums

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ABSTRACT

Guiding service plays an important role in museums. Without guiding service, visitors might spend much time for finding exhibits or get lost in the museums. Therefore, how to develop a guiding system to satisfy visitor's requirements becomes an important issue for museums. This research proposes a context-aware museum route suggestion system that yields routes to fulfill visitor's requirements. This research assumes that the museum exhibition area has deployed with RFID and wireless network. In order to generate the suggestion route, the users need to enter the information of intend-visiting time and must-see exhibits from PDA. Based on the suggested exhibits by managers, the route suggestion system will generate a list of wish-to-browse exhibits. In addition, the proposed system takes the total number of visitors in each exhibit detected through RFID technology into consideration. Then, the system uses A* algorithm to generate multi-exits suggestion routes. Finally, the suggested routes will be send back to the visitor's PDA.

Keyword: A* Algorithm   RFID   Guiding system   Context-aware