Construction and Application of a Personalized Mobile-P2P Shopping Platform

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ABSTRACT

Lots of novel mobile services have been developed and provided by dealers since personal mobile devices are very popular nowadays. Although wireless communication technology continues to progress, applications related to mobile shopping platforms are still lack. The designs of personalization services on mobile shopping platforms are thus focused in the research to let users feel convenient and efficient under the limited re-sources of mobile devices. The P2P shopping platform proposed by Huang was extended by improving the functions of system modules and by providing more detailed information of goods in this research. To utilize the convenience of mobile devices and the characteristic of re-source sharing of P2P techniques, each cell phone would be regarded as a operational node within the improved P2P shopping platform. Personalization services in this paper were devised by applying the techniques of AHP and neural fuzzy inference. AHP was used to analyze users ’ habits of searching and browing goods. In addition, a mechanism was designed to record the feedback in-formation from users; those recorded information was analyzed by the ANFIS module of MATLAB through machine learning to obtain personal system parameters of each user. The proposed personalization services were demonstrated to successfully provide a better shopping environment through the posterior evaluation of satisfaction question-naires from users.

Keywords : personalization service ; mobile commerce ; peer to peer

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