







learners with similar preference patterns, and predicting learner interest or resource preferences based on the neighbors-learner's resource preferences and evaluation.

### **5.6. Personalized Learning Resources Presentation**

The presentation of personalized resource is an output process of the result of recommendation. The engine also needs to analyze the characteristics of learning resources and content, and learner customization information. Based on the preferences of learners recommending resources, the engine improves the efficiency and effectiveness of the personalized recommendation. After analysis of customized information and recommended information, the system presents the information automatically to learner.

## **6. The Key Technology For Achievement**

### **6.1. Social Tagging**

The practice of generating electronic tags or keywords by users rather than specialists as a way to classify and describe online content: Social tagging can enhance students' access to online collections of art. Compared with the traditional classification, the social tagging has the following characteristics or advantages: classification is booked generally in advance. It means that the category of the resources has been ordained in advance. But the social tagging is different. The tagging is added after the resource is completed. Social tagging in the environment of personalized mobile learning can facilitate clustering learning resources and information, matching resources and customized information,

and improving the accuracy of the recommendation.

### **6.2. Personalized Recommendation Technology**

Typically, personalized recommendation uses rule filtering, content filtering and collaborative filtering approach. Personalized recommendation algorithm includes association rules, cluster analysis, sequential pattern mining and regression analysis. Collaborative filtering technology was first developed in Tapestry system, and was mainly used to solve the problem of the screening of the e-mail. Collaborative filtering algorithm can find and recommend learners' potential needs and novel learning resources, and implement recommendation. The specific algorithms have been discussed in a lot of literatures, and don't repeat here.

## **7. References**

- [1] MAO Yi-hong, "On the Content and Mode of Mobile Information Service," *Information Science*, pp. 210-215, 2012(2).
- [2] Wang Xiaodong, Li Yanmin, "Mobile phone SMS based mobile learning," *China Educational Technology*, pp. 114-117, 2007 (1).
- [3] Sun Yaoting, "Practice and research on the M-Learning and mobile services," *Distance Education in China*, pp. 68-70, 2008 (8).
- [4] Fu Hui, "Design and Achievement of the mobile learning system," *Thesis of the master degree*. Wuhan: Central China Normal University, 2008.
- [5] <http://www.linezine.com/2.1/features/cqmmwiyp.htm>.
- [6] Zhu Shouye, "Mobile learning-oriented curriculum design and learning mode," *China Educational Technology*, pp. 67-70, 2008(12).