
Editorial

Toyohide Watanabe

Department of Systems and Social Informatics,
Graduate School of Information Science,
Nagoya University,
Furo-cho, Chikusa-ku, Nagoya 464-8603, Japan
E-mail: watanabe@is.nagoya-u.ac.jp

This special issue focuses on the support functionality of human intelligent activities and communication environment of human cooperative interactions, and is composed of six articles selected from the 15th International Conference on Knowledge-based and Intelligent Information and Engineering Systems (KES2011), held on Kaiserslautern, Germany on September 12–14, 2011. These selected articles are mainly classified into three classes: intelligent support in e-learning, creative support in information composition and information retrieval, and infrastructure support in cooperative environment.

First, from a viewpoint of learning support Prof. P. Rózewski and Prof. E. Kuszina concentrated on open and distance learning environment under the title ‘Open system of distance learning: soft system approach to information system analysis’, and discussed the soft system analysis method, based on the theory of hierarchical multi-level structure. Additionally, as the second article, Prof. K. Nishino et al. discussed the learning environment suitable to the learning styles of individuals. In this case, a learner’s course adjustability can be inferred on the basis of questionnaire results which were gained prior to the start of course by using the multiple regression model, derived from the past exercises of learners. Their title is ‘The development of a course recommendation system for e-learning students’. In the following article, Mr. X. Zhang et al. focused on intelligent learning support method on Chinese-Japanese translation exercises, which many Chinese students must try as a means to learn Japanese. Their mainly proposed idea is to divide the mistake detection process into three procedural steps such as translation of necessary vocabularies, adjustment of word order, and complement of Japanese functional expressions. The title is ‘Mistake detection method in Chinese-Japanese translation for Japanese learning support’.

Next, with respect to creative support, Prof. R. Okamoto and Prof. A. Kashihara discuss the presentation rehearsal support system which enables to be aware of insufficiency or incompleteness among already acquired knowledge and refining the complicated knowledge under the title ‘Back-review support system for presentation rehearsal review’. The basic keyword in their idea is ‘back-review’, which is a review of results of the review work in the presentation rehearsal. The second article on the subject of creative support is the topic about e-book recommendation under the title ‘Review-based recommendation of attractive sentences in a novel for effective browsing’ written by Mr. S. Murai and Prof. T. Ushiyama. Their method is: first, the attractiveness of each term in a novel is calculated based on reviews about the novel on web and then the

attractiveness of each sentence in the novel is calculated based on the attractiveness of terms.

Finally, with respect to the topic of ‘infrastructure support’ Mr. Y. Nonaka and Prof. M. Hasegawa proposed that the delay feedback method for chaos control is applied to the chaotic phenomena in the cognitive radio networks and can stabilise the chaotic oscillations in the user-centric cognitive radio networks. Their article title is ‘Chaotic oscillations in user-cognitive radio networks and their control’.

We are hopeful these six selected articles outline the excellent activities and advanced infra-environment support that is desirable in our future society.