Language Understanding λ(μ) Laboratory

LU TALKS

Recent R&D Activities of Dr. Akkharawoot Takhom

Chairperson

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4 December 2021
9:30 am
(Myanmar Time)
10:00 am
(Thailand Time)

Our Guest Speaker

Dr. Akkharawoot Takhom

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Biography

Dr. Akkharawoot Takhom received the degrees in Management of Information Technology from Mae Fah Luang University in 2009, and M.Eng. degree in Information and Communication Technology for Embedded Systems from SIIT in 2013. He received Ph.D. degree in Knowledge Science from the JAIST in 2018 and received Ph.D. degree in Engineering and Technology from SIIT in 2019.

Research and Areas of Interest

Semantic Web and Knowledge Engineering

Semantic web is an effort to enhance current web so that computers can process the information presented on World Wide Web (WWW), interpret and connect it, to help humans to find required knowledge. If we consider WWW as a huge distributed hypertext system, semantic web will be considered as a huge distributed knowledge-based system. The focus of semantic web is to provide a common framework that allows data to be shared and reused across applications, enterprise, and community boundaries. Our research focuses on two problems, first how to capture knowledge and represent it in an explicit format such as ontology so it can be shared, integrated, processed and reused by the systems. Second, how to apply semantic web technology and research to create intelligent systems to solve real-world problems. This research may also include some work in the field of natural language processing.

Collaboration and Ontology Development

Creating an ontology from multidisciplinary knowledge is a challenge because it needs a number of various domain experts to collaborate in knowledge construction and verify the semantic meanings of the cross-domain concepts. Confusions and misinterpretations of concepts during knowledge creation are usually caused by having different perspectives and different business goals from different domain experts. He proposed a collaborative environment with supportive features enabling multidisciplinary knowledge co-creation, called a community-driven ontology-based application management (CD-OAM) framework. The framework intends to detect existing polysemantic words in discussion contexts of the stakeholders and to suggest cross-disciplinary concepts to each discipline (e.g., environmental protection, economics, or sociology). In addition, the framework's features provide crucial services: discussion forum for misunderstanding diagnosis, cross-domain concept detection, and ontology visualization.

Online Seminar Via Microsoft Team