

ABSTRACT

In the academic domain, a significant challenge in knowledge acquisition involves combining explicit information from academic documents and implicit knowledge through interviews with experts, such as program secretaries, and lecturers. This research proposes an automated Knowledge Acquisition System (KAS) that utilizes the Large Language Model (LLM) to address inefficiencies in explicit and implicit knowledge extraction. The background of the research highlights the urgency of efficiency in knowledge acquisition to support academic processes, including problems involving final assignments, graduation information, practical work, and course registration. Traditional methods tend to be less effective in capturing implicit knowledge, hindering a holistic understanding of the academic domain. This research integrates LLM to collect explicit knowledge from documents and implicit knowledge from interviews, creating a system architecture that facilitates comprehensive knowledge acquisition. Key results demonstrate the effectiveness of the system in acquiring knowledge, with the potential to improve various academic processes, including Final Project completion, Practical Work, Graduation, Course Registration, and External Activities. This research achieves significant advances in knowledge acquisition methodologies in academic environments, offering a holistic and efficient approach to managing explicit and implicit knowledge, while providing solutions to a number of academic problems.

Keywords: knowledge acquisition, large language model, academic domain, explicit knowledge, implicit knowledge