

## Abstract

*Question Answering (QA) Systems allow the user to ask questions in a natural language and obtain an exact answer. Through this thesis work, we tried to learn the important issues in the field of Question Answering (QA) systems. We peeked into the internals of many established QA systems. We explored the capabilities of each of them and the reasons that make them good at their task. Then we looked into the details of cross-language QA task. We learned that most of such systems employ some form of machine translation engines. We aimed to have a complete cross-language QA system for Bangla. The language Bangla is among one of the most widely spoken languages of the world but is still in its early stages of research regarding language processing resources and tools. Thus for the cross-language QA task we did not have access to translation engine which was very essential. So we narrowed down our aim and finally proposed an innovative concept of translation based on transliteration and a table look-up approach as an interface for a cross-language QA task where one of the languages involved is at a disadvantage in terms of digital language resources and tools. The proposed concept is implemented in a form of a prototype framework for a very controlled cross-language QA scenario. We do not claim that our proposed approach is a complete approach for a Bangla QA task but we did achieve promising results that can help in Bangla QA task until mature Bangla language processing tools become available.*