

**AN AI PROGRAM TO SOLVE COLLEGE-LEVEL ALGEBRA PROBLEMS
WITH KNOWLEDGE ACQUISITION CAPABILITY**

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Most of the modern Artificial Intelligence (AI) programs use knowledge to such an extent that they can be categorised as knowledge-based systems. The systems described in this paper is an AI package to solve Algebra word (sentence-like) problems. It was a natural language processor with self learning knowledge base and a problem solver. The approach adopted here is different from that of Bobrow's STUDENT system.

A human would adopt the following steps to solve a typical college-level algebra problem.

- (1) Reading the problem, identifying the key variables and formulating the relationships between them.
- (2) Solving the relationships with appropriate common knowledge to obtain the desired solutions.

In the package described here the above steps have been included in three main modules.