# MAS13

## How AI can facilitate teaching of quantitative decision-making tools

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**Abstract**

The purpose of this presentation is to report on a preliminary results of our investigation as how artificial intelligence (AI) can facilitate teaching of analytical decision-making tools to undergraduate business students. Selected examples that will be discussed are a transportation problem, a product mix problem, and a decision tree problem.

Quantitative decision-making tools ("algorithms") are mainly developed by operations researchers and then used primarily by business professionals. Developing these tools requires full understanding of the mathematics that these algorithms are based upon. On the other hand, what is required for a user of these tools, a business professional, is to have a complete understanding of the assumptions upon which these algorithms are based upon, to implement them judiciously and correctly. In other words, as long as the user is aware of the assumptions upon which the solution technique is based upon, they need not know all the mathematical details of the algorithms, or how to select and use appropriate software.

It is generally agreed that all undergraduate business students should be able to use analytical decision-making tools in their fields of interest. There are at least two obstacles to this goal: (1) Undergraduate business curricula is overfull with required discipline courses and that there is no room to include additional analytical courses, and (2) The long-established aversion of quantitative analysis by most business undergraduates. Then, would it not be expedient to simply state the decision problem in words to an AI software like ChatGPT.4o, and have the answer?

**Conference Track**

Modeling and Simulation