

## PLATO: ONE TEACHING COMPUTER FOR TWO GAMES

At the University of Illinois the PLATO (programmed logic for automated teaching operations) teaching computer is being programmed with two different games, both of which are being used for education and social science research.

Head of the project is Professor Charles E. Osgood who first thought of using a teaching computer to obtain people's judgments about the desirable shape of the future and who invented "Security", originally designed for ordinary playing cards.

PLATO is a time-sharing teaching system which has, at present, 20 student booths. Each booth has a TV screen and a typewriter-like keyboard. Within the next few years new physical facilities may raise the number of student booths to approximately 4000, operating simultaneously and independently.

One game, "The Delphi Exploration", allows people to explore and render subjective judgments on alternative future situations and describes the future in terms of a number of developments which may characterize the world at some future date, such as the year 2000. The TV screen displays the list of developments and background paragraphs on each one. Using his keyboard the "explorer" forges ahead into the future, investing his time and effort as he believes most desirable. The computer calculates the constantly changing statement probabilities on the basis of the investments made and according to the programmed relationships among developments. The exploration enables people to see what probable effects the actions they would like to take today will have on the future.

The future is also described by periodic "oracles" assembled by the computer. An example of an oracle message from the present program is: "By the year 2000 there will be ocean farming. There will not be a world aid program. According to present predictions there will 'probably' be synthetic food production and weather modification. There will 'probably not' be population planning, 3-D color TV, or a world currency."

"Security" simulates much of the complexity of international relations by the acquisition, manipulation, and exchange of symbols representing the welfare and warfare potentials of hypothetical nations. Each player represents a nation, and he attempts to maximize its welfare by strategic use of the alternatives available to him. These include drawing from the pool of resources, organizing his resources into welfare or warfare strings (either openly or in secrecy), making unilateral, bilateral or multilateral exchanges with other nations, contributing to the United Nations, and waging wars at various levels.

The game allows for very complex interactions within a precisely stipulated set of rules. In the version presently being programmed, as many as three games,

each with six players, can be played simultaneously. The computer directs the sequencing of the game, guarantees legality of the play, and serves as a bookkeeper. Appropriately programmed, the computer could also function as one or more players. Unlike the real world, "nations" can go back to any point in "history", recorded on magnetic tape, and try again to work toward a desirable outcome.

Publications on PLATO can be obtained from the Computer-based Education Research Laboratory, University of Illinois, Urbana, Ill. 61801

## CIRUNA

Simulations have been successfully introduced to a number of colleges in the past year with the help of The Council on International Relations and United Nations Affairs (CIRUNA), a student organization. CIRUNA, with its 550 college affiliates in the United States, devotes a major portion of its program to models and simulations.

To date, its modeling activities have largely been focused on such international organizations as the United Nations, the Organization of American States, and the International Court of Justice. But more recently, students have ventured into the field of modifying and working out new features to certain games. For example, a variation of Inter-Nation Simulation (INS) allowing the system to consider the effects of population transfer, has been developed by Scott Bennett, Jr. and others of Colgate University and is scheduled to become operative in the fall.

CIRUNA is also sponsoring the Mid-South Regional Conference in Chapel Hill, N.C. on October 17, 1969. The program will include a series of simulation workshops designed to give participating students the capability to run simulations on their campuses.

In addition, several CIRUNA chapters plan to host simulations this year. On November 13-15, games will be offered at the University of Utah. Jersey City State College will conduct a computerized version of INS on December 7-8. On March 4-7, George Washington University will run the Inter-Nation Simulation as well as the Mid-South Model United Nations.