

tightly organized and that the resulting structure is probably optimized to make the best use of the limited computational resources of the physician.

Sussman proposes that the structure of the organization of diagnostic knowledge may be represented as an extension of Minsky's theory of frames. In medicine a frame is a chunk of the clinical picture of a patient -- anything from a confirmed diagnosis to a syndrome or a collection of symptoms. The MIT group intends to develop a diagnostic model for acute renal failure that is based upon a representation of interrelated frames.

Wednesday evening was filled with informal discussions among the one-third or so of the participants that remained at the chalet through Thursday morning.

There was general agreement among the participants that such informal workshops provide an extremely valuable opportunity to learn about and discuss each other's work, and that this particular workshop had been a successful example of such an opportunity.

INTRODUCTION TO ARTIFICIAL INTELLIGENCE -- An AI Text

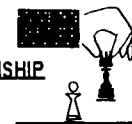
Philip C. Jackson, Jr.
Petrocelli Books, New York, 1974.

(The following is an excerpt from the preface and dust jacket of this new text.)

"Are we intelligent enough to understand intelligence? One approach to answering this question is "artificial intelligence," the field of computer science that studies how machines can be made to act intelligently. This book is intended to be a comprehensive introduction to the field of artificial intelligence, written primarily for the student who has some knowledge of computers and mathematics (say, at the junior or senior levels of college). In general, this book is addressed to all persons who are interested in studying the nature of thought, and hopefully much of it can be read without previous, formal exposure to mathematics and computers.

This book ... covers current issues and methodology in AI research and also presents basic research approaches and results of the past two decades. This coverage includes: problem solving methods; representation and models; game playing; automated understanding of natural languages; heuristic search theory; robot systems; heuristic scene analysis; and specific AI accomplishments. Associated subjects are also treated: predicate-calculus theorem proving; self-organizing systems; pattern classification theory; philosophy of science; machine architecture; psychological simulation; automatic programming; novel software techniques; and industrial automation. The interrelationships between AI and other areas of research and between isolated recurrent problems in the field are emphasized. Also discussed are natural intelligence and language as contrasted with their artificial counterparts; paradigms and thought experiments as significant AI tools; and AI potential and control problems."

FIRST WORLD COMPUTER CHESS CHAMPIONSHIP



Final plans have been completed for the First World Computer Chess Championship to be held at the IFIP Congress 74 in Stockholm on August 5-8, 1974. The four-round Swiss-style tournament will be held at the Hotel Birger-Jari in central Stockholm, each evening, Monday through Thursday, starting at 7:30 p.m. The tournament organizers are Prof. Benjamin Mittman of Northwestern University, Mr. David Levy, an international chess master from London, and Prof. Monroe Newborn of Columbia University.

Mr. Levy will act as the Tournament Director. Local arrangements in Stockholm are being handled by Mr. Torgil Thornquist of the IFIP Congress Organizing Committee and Mr. Goran Kjellberg of the Stockholm Chess Federation.

There are to be 12 chess playing programs competing in each of the four rounds. The current list of potential participants is given below. These programs will be using computers all over Europe, connected to the tournament site via telephones. During the tournament Mr. Levy will provide running commentary for the audience on each game as it progresses, using large chess display boards. The programs must play according to "human" tournament rules, such as being required to complete the first 40 moves in two hours and then to make 10 moves per half hour thereafter.

List of Potential Participants (as of July 10, 1974)

Program Name and Author(s)	Affiliation	Computer and Tentative Location
CHESS 4.0 Larry Atkin David Slate	Northwestern University Evanston, Ill. U.S.A.	CDC6600 Control Data-Sweden Stockholm
TECH II Alan Baisley	MIT AI Lab Cambridge, Mass. U.S.A.	PDP-10 MIT via ARPA link in Norway or London
CHAOS I. Ruben F. Swartz J. Winograd V. Berman W. Toikka	UNIVAC Blue Bell, Pa. U.S.A.	UNIVAC 1108 (or other) Stockholm
OSTRICH Monroe Newborn George Arnold	Columbia University New York, N.Y. U.S.A.	Data General 840 At tournament site in Stockholm
MASTER Peter Kent J.A. Birmingham	Atlas Computer Lab Chilton, England	IBM 370/195 Rutherford Lab Chilton, England
FREEDOM Nils Barricelli	University of Oslo Blindern, Norway	CDC Cyber 74 Kjeller, Norway
TELL Johann Joss	Eidgenossische Technische Hochschule Zurich, Switzerland	HP2115 or HP2100 Zurich or Stockholm

♦ On leave at Israel Inst. of Technology Haifa, Israel.