PERSPECTIVES in DEDUCTIVE DATABASES

by

Jack Minker

Department of Computer Science
and
Institute for Advanced Computer Studies
University of Maryland
College Park, Maryland 20742

ABSTRACT

I will discuss my experiences, some of the work that I have done and related work that influenced me, concerning deductive databases over the last 30 years It will be convenient to divide this time period into roughly three equal parts, 1957 - 1968, 1969 - 1978, 1979 - present For the first portion I will describe how my interest started in deductive databases in 1957, at a time when not even the field of databases existed I will describe work in the beginning years, leading to the start of deductive databases in about 1968 with the work of Cordell Green and Bertram Raphael

The second period saw a great deal of work in theorem proving as well as the introduction of logic programming The existence and importance of deductive databases as a formal and viable discipline received its impetus at a workshop held in Toulouse, France, in 1977, which culminated in the book, **Logic and Data Bases** The relationship of deductive databases and logic programming was recognized at that time During the third and most recent period we have seen formal theories of databases come about as an outgrowth of that work, and the recognition that artificial intelligence and deductive databases are closely related, at least through the so-called expert database systems I expect that the relationships between techniques from formal logic, databases, logic programming, and artificial intelligence will continue to be explored and the field of deductive databases will become a more prominent area of computer science in coming years