Executive Information Systems
Introduction to Mini-Track

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Information systems for management support have included management information systems (MIS), decision support systems (DSS), and executive information systems (EIS). MIS are based on theories of accounting control and focus on internal variance reporting. DSS draw on theories of decision making and choice and center around the use of sensitivity analysis and construction of decision models. Although the core concepts that characterize EIS are still emerging, an important focus is on the enhancement of executive effectiveness in identifying and diagnosing strategic problems and opportunities. Consequently, an EIS must facilitate both monitoring of the firm's current status and scanning of the external environment, for trends and events important to its future. In fact, the need for this capability is captured in a new acronym sometimes used to refer to EIS: BIS, or Business Intelligence Systems.

Features typically found in an EIS include the ability to "drill-down" to successive levels of information detail; exception reporting; on-line access to external information utilities; graphical user interfaces; graphical data display; and electronic mail. Integration of data from financial models and organizational databases is commonplace. Text, video, and audio data are often provided.

This marks the seventh year that HICSS has included a mini-track focusing on EIS. The volume of published research on EIS continues to increase. EIS articles have appeared in such journals as MIS Quarterly, Information Systems Research, the Journal of Management Information Systems, and Decisions Support Systems. Several books, both academic and practitioner oriented, have been published on the subject.

This year the EIS mini-track consists of two sessions. In the first session three papers dealing with a variety of EIS issues will be presented. The first paper is "Managers' Information Search Behavior using Executive Information Systems" by Hans P. Borgman. The objective of the study described in this paper was to understand "the factors and relations that link different aspects of information search behavior to aspects of outcome quality." The author developed a model of information search behavior that was tested in a laboratory study involving 50 managers. Subjects used to an EIS containing over 960 data graphs to prepare a situation analysis for the new CEO of a fictional company. The software tracked the process followed by the subjects as they used the information provided by the EIS. An interesting finding of the study is that a "breadth first" strategy lead to the most successful outcomes. This suggests that the design of EIS should encourage this kind of search behavior.

The second paper, "Executive Information Systems in Australia: Current Status and Some Historical Comparisons" by G.P. Pevan and R. Phua. The authors describe the results of a large scale survey of EIS use in Australia. Sixty (60) EIS
managers responded to a questionnaire mailed to the 300 largest Australian firms. The questionnaire dealt with a comprehensive set of issues including EIS development strategies, reasons for needing an EIS, and impact of EIS on executive attitudes. In general, findings were similar to those of previous studies. One note of interest is that the growth of EIS in Australia is not as rapid as might have been expected.

The final paper in the first session is entitled “Data Warehouse for EIS: Some Issues and Impacts” by Fred R. McFadden. According to one reviewer, this paper “provides an excellent overview of data warehouse issues and implementation strategies.” The author also proposes a research framework for studying a data warehouse development.

In the second session, a panel of practitioners will discuss “Integrating DSS into EIS.” Our purpose in including practitioners in the mini-track is to encourage research efforts which can be of direct benefit to the business community. We believe that interaction between academics and practitioners is useful in that it provides an opportunity for researchers to learn more about the practical problems faced by EIS users and developers, and to receive feedback on their ideas from the “real world”. Hugh Watson will chair the panel which will consist of David King of Comshare, Ronald Swift of the 4-2-1 Group, and Lloyd Belcher of Conoco.