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Introduction

F. WILFRID LANCASTER

THE PLANNING of this issue proved much more difficult than I expected when I first accepted the assignment. The major problem was to arrive at some meaningful subdivision of the field of systems analysis and design as it relates to libraries. A division by type of library—public, academic, special—did not seem particularly useful, nor did a division by type of library activity studied—acquisitions, circulation, serial control, and so on. Instead I have tried to gather contributions representing a roughly evolutionary approach to systems analysis and design in libraries, and also representing the subject from various viewpoints. Systems analysis in this issue is treated as a management tool in its own right and not merely as a necessary prerequisite to a program for library automation. This broad concept of systems analysis involves, as Mackenzie puts it later in the issue, "seeking out the fundamentals of a situation, and applying to their study rigorous scientific methods, with the aim of finding an optimal solution to the problems facing the manager."

Fasana defines systems analysis and discusses its components, uses and limitations in library applications. Chapman discusses the subject from the viewpoint of the library director and is primarily concerned with the tasks involved in planning a systems study, including the problems of appointing staff to such a study. Mackenzie's viewpoint is also that of the library director, but his emphasis is on the use of systems analysis in the decision-making process. Special reference is made to the use of models of library activities in the overall systems analysis program. Mackenzie's interpretation of the scope of systems analysis is much broader than that of many of the other contributors; he regards it as essentially indistinguishable from operations research.

Carter approaches the topic from the viewpoint of the systems ana-

F. Wilfrid Lancaster is Professor, Graduate School of Library Science, University of Illinois, Urbana-Champaign, Illinois.

lyst who is also a librarian (a somewhat rare and valuable combination!), and her contribution specifically relates to the use of systems analysis as a prelude to automation. Heinritz goes beyond analysis as such into the *evaluation* of library procedures, with special reference to the tools of "scientific management."

The next three contributions deal more directly with design of new systems rather than analysis of existing systems. Corey and Bellomy discuss requirements for a new system (i.e., the requirements analysis phase of a complete program), while Minder describes procedures for designing a system to meet specified requirements, and Griffin deals with problems involved in implementing a new system.

Leimkuhler and Duchesne tackle special aspects of analysis, the former dealing with the analysis of libraries as large scale systems, and the latter with the analysis of library costs and performance. Duchesne proposes a library management information system which provides "budget, cost and performance data for planning and control purposes in addition to conventional financial and statistical statements."

A certain amount of overlap and repetition appears inevitable in a collection of this kind, but I have tried to keep duplication to a minimum. The contributors are quite varied in their backgrounds and experience, and they represent a number of different points of view. They all agree, however, that a systematic approach is essential in the analysis and evaluation of existing services and the planning, design and implementation of services in the future.