

Preface

I was privileged to have witnessed the evolution of medical informatics in the United States during its first six decades. Donald A. B. Lindberg, Director of the National Library of Medicine, advised me that documenting this history would be a worthy project since during this period the country moved into a new information era, and it was obvious that computers were having a major influence on all of medicine.

In this book I address history as a chronological accounting of what I considered to be significant events. To attempt to preserve historical accuracy and minimize any personal biases, I have relied entirely on published documents; and since long-term memory can allow history to be mellowed or enhanced, and may blur fact with fantasy, I did not conduct any personal interviews. I recognize that innovators rarely publish accounts of their failures; but if they learn from their failures and publish their successes, then other innovators can build on their successes and advance the technology. This book is primarily a history of how people applied computers, so it is not a history about the people themselves. When people are mentioned, their associations and contributions are described, and they are usually referenced from their own publications.

Although the evolution of computer applications to medical care, to biomedical research, and to medical education are all related the rates of diffusion of medical informatics were different in each of these three fields. Since I was primarily involved in computer applications to patient care and to clinical research, the history of medical informatics for direct patient care in the hospital and in the medical office was presented in Book I, *A History of Medical Informatics in the United States; 1959–1990* (M.Collen 1995). This present book describes the historical evolution of medical digital databases; and it omits the computer processing of digital images (for radiology), of photographs (for dermatology), and of analog signals (for electrocardiograms). The technical aspects of computer hardware, software, and communications are limited to what I judged to be necessary to explain how the technology was applied to the development and uses of medical databases. At the end of each chapter is a brief summary and commentary of my personal view on the chapter's contents.

The medical informatics literature in the United States for these six decades has been so voluminous that it was not possible for this historical review to be completely comprehensive. Undoubtedly I have overlooked some important contributions worthy of historical reference, especially of those never published. It is hoped that the sampling of the historical material herein presented will be considered by readers to be reasonably representative, and will serve as a useful bridge between medical informatics from the past into the future. The concurrent evolution of medical informatics in Canada, Europe, and Japan certainly influenced this field in the United States; however, the scope of this book is limited to the development of medical informatics in the United States.

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