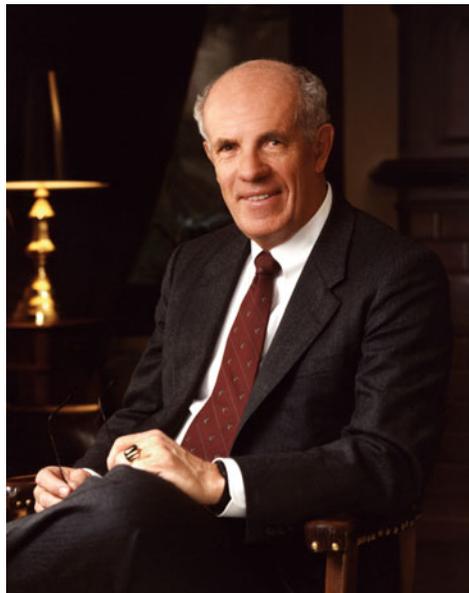Dedicated to Homer R. Warner, MD, PhD, FACMI
   A Principal Founder of the Field of Biomedical Informatics
   1922–2012

The Fourth Edition of *Biomedical Informatics*: *Computer Applications in Health Care and Biomedicine* is dedicated to the memory and professional contributions of Homer R. Warner. Homer was not only a pioneer in biomedical informatics but a sustained contributor who is truly one of the founders of the field that mourned his loss in November of 2012. Homer's publications on the use of computers in health care span 50 years, from 1963 to 2012, but he can claim an additional decade of informatics research that predated digital computer use, including the use of analog computers and mathematical models ranging from details of cardiac function all the way up to medical diagnosis.[1]

   He is best known for his development of the Health Evaluation through Logical Processing (HELP) system, which was revolutionary in its own right as a hospital information system, but was truly visionary in its inclusion of the logical modules for generating alerts and reminders. The HELP system,
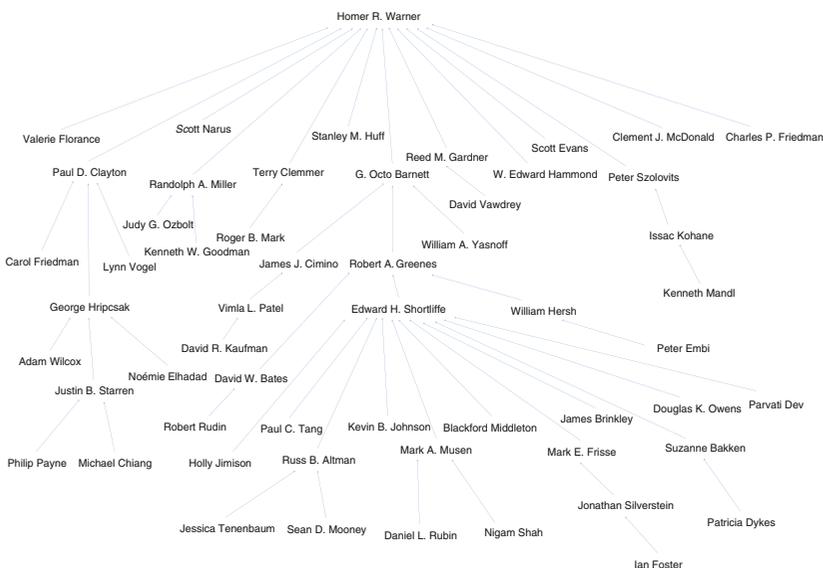
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[1] Warner, H. R., Toronto, A. F., Veasey, L. G., & Stephenson, R. 1961. A mathematical approach to medical diagnosis. Application to congenital heart disease. *JAMA: The Journal of the American Medical Association, 177*, 177–183.

begun in 1968, is still running today at the LDS Hospital in Salt Lake City; innovations are continually added while commercial systems struggle to replicate functions that HELP has had for almost half a century. Homer's other contributions are far too numerous to recount here, but you will find them described in no less than six different chapters of this book.

Homer's contributions go far beyond merely the scientific foundation of biomedical informatics. He also provided extensive leadership to define informatics as a separate academic field. He accomplished this in many settings; locally by founding the first degree-granting informatics department at the University of Utah, nationally as the President of the American College of Medical Informatics, and internationally as the founding editor of the well-known and influential journal *Computers and Biomedical Research* (now the *Journal of Biomedical Informatics*). But perhaps his greatest impact is the generations of researchers and trainees that he personally inspired who have gone on to mentor additional researchers and trainees who together are the life blood of biomedical informatics. Homer's true influence on the field is therefore incalculable. Just consider the convenience sample of this book's 60 chapter co-authors: the following diagram shows his lineage of professional influence on 52 of us.[2]

Both of us were privileged to have many professional and personal interactions with Homer and we were always struck by his enthusiasm, energy, humor, generosity, and integrity. In 1994, Homer received the American College of Medical Informatics' highest honor, the Morris F Collen Award of Excellence. We are proud to have this opportunity to add to the recognition of Homer's life and career with this dedication.

James J. Cimino
Edward H. Shortliffe

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[2] Paul Clayton and Peter Szolovits provide important connections between Homer Warner and ten coauthors but, while they are informatics leaders in their own right, they are not contributors to this edition of this book.