

# Lecture Notes in Computer Science

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Henry Ledgard  
Andrew Singer  
John Whiteside

Directions in Human Factors  
for Interactive Systems

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W. Brauer P. Brinch Hansen D. Gries C. Moler G. Seegmüller  
J. Stoer N. Wirth

### **Authors**

Henry Ledgard  
Dept. of Computer and Information Science  
University of Massachusetts  
Amherst, USA

Andrew Singer  
E and L Instruments Corporation  
Derby, Connecticut, 06418 USA

John Whiteside  
Digital Equipment Corporation  
Maynard, Massachusetts, USA

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# Preface

This monograph contains a series of articles on a common theme, human factors for interactive systems. There is no question that this area, somewhat neglected in the past, is emerging as a vital need in the development of computer technology. We are committed to the belief that there are giant strides to be made in tailoring software to the human user.

This monograph is organized in two major parts. The first part, Chapters 1 through 4, discusses issues in the design of interactive systems. By “interactive” we mean any system where the user and a computer engage in a dialogue. The second part, Chapter 5 through 8, discusses the design of experiments. Ultimately, validation of any design principle requires that it be tested, and experimentation is beginning to play an important role in computer science.

Knowledge of human factors for computer systems is clearly in its infancy. As such, the work discussed here presents some first steps.

Much of this work mentions the use of text editors. This particular application is incidental to our intent. We believe that with a few exceptions, many of the ideas presented here generalize to the design of any interactive system. There has been a tendency in the past to view results from a particular application, text editing for example, as being relevant only to that area. For this work we can only say that text editing is simply one application of the principles we discuss.

Four references are particularly germane to this work. Ramsey and Atwood [1979] present a comprehensive annotated bibliography of computer science work related to human factors in software. Schneiderman [1980] provides a text in the area of software psychology. Gilb and Weinberg [1977] present a model human factors guide for the design of keyed data input systems. Andrew Singer’s thesis [1979] forms the foundation of much that is written here.

## IV

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Henry Ledgard  
Andrew Singer  
John Whiteside

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