Contents

Introduction ......................................................... ix

Part 1
Definition and Conceptual Background

The Field and Its Definitions  1

The Definition of Educational Technology: A Summary ................. 3
  Association for Educational Communications and Technology

Educational Technology: Archetypes, Paradigms and Models ............ 15
  Ivor K. Davies

Is There a Field of Educational Communications
  and Technology? .................................................. 31
  Robert Heinich

Theory and Rationale  37

On the Design of Educational Systems ................................... 39
  C. West Churchman

A Walk on the Altered Side ........................................... 47
  J. D. Finn

A Systems Approach to Audio-Visual Communications .................... 57
  Charles F. Hoban

Educational Technology, Programed Learning, and
  Instructional Science ............................................. 65
  A. A. Lumsdaine
Part 2

Design and Development Functions

Design and Development 91

Learning Hierarchies .................................................. 93
  R. M. Gagné

Evaluation 109

Needs Assessments: Internal and External ....................... 111
  Roger Kaufman

Techniques for Evaluating Training Programs ................. 119
  Donald L. Kirkpatrick

The Countenance of Educational Evaluation .................... 143
  Robert E. Stake

New Dimensions in Curriculum Development .................... 161
  R. Tyler

Part 3

Delivery Options

Media 167

The “Cone of Experience” ............................................. 169
  E. Dale

Methods and Techniques 181

“Good-Bye, Teacher ...” .............................................. 183
  Fred S. Keller

The Science of Learning and the Art of Teaching .............. 199
  B. F. Skinner

Teaching Machines .................................................... 211
  B. F. Skinner
Contents

Part 4  
The Profession

Professions in the Audio-Visual Field  229

Professionalizing the Audio-Visual Field  231
  James D. Finn

Bibliography  243

Index  251