

A STUDY OF DATA

by

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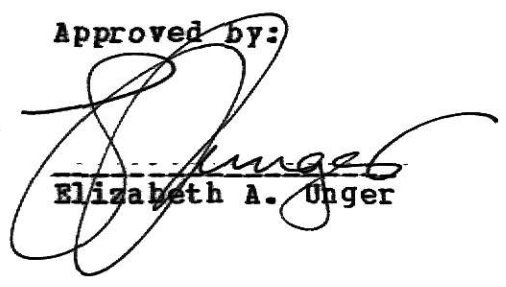
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**THIS BOOK
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CONTENTS

	<u>Page</u>
ACKNOWLEDGEMENTS	ii
CONTENTS	iii
FIGURES	v
Chapter 1 INTRODUCTION	1
Chapter 2 DATA MODELS	
2.1 File Data Model	9
2.2 Liskov's Data Model	10
2.3 The Unger Model	21
2.4 Algebraic Specification	22
Chapter 3 THE UNGER MODEL	32
3.1 Definition of Objects	34
3.2 Definition of Structures	40
3.3 Examples of Simple Objects	42
3.4 Examples of Structure	49
3.5 Control of Computation: Definition and Example. . .	52
Chapter 4 PROBLEMS AND EVALUATION OF THE UNGER MODEL	
4.1 Strengths of the Unger Model	
4.1.1 Data Abstraction	63
4.1.2 Control and Structured Programming	66
4.1.3 Concurrency	70
4.1.4 Others	72
4.2 Problems of the Unger Model	73

	<u>Page</u>
Chapter 5 INSIGHTS INTO SOME SOLUTIONS TO THE PROBLEMS	
5.1 Problem 1	77
5.2 Problem 2	83
5.3 Problem 3	89
5.4 Problem 4	102
5.5 Problem 5	106
Chapter 6 SUMMARY	
6.1 Evaluation of the Models Based on Five Criteria . . .	109
6.1.1 Evaluation on the Mealy's Model	111
6.1.2 Evaluation on the Liskov's Model	112
6.1.3 Evaluation on the Unger Model	114
6.1.4 Evaluation on the Algebraic Specification ..	115
6.2 The Role of Data Abstraction Played in Data Modelling	117
6.3 Future Work	118
BIBLIOGRAPHY	120

FIGURES

	<u>Page</u>
Figure 2.1 An Example of Procedure Taken from the Liskov's Paper	13
Figure 2.2 An Example of Cluster Taken from the Liskov's Paper	16
Figure 2.3 Stack Type in Algebraic Specification	23
Figure 2.4 Queue Type in Algebraic Specification	25
Figure 2.5 Binary Tree Type in Algebraic Specification ..	26
Figure 2.6 Binary Search Tree Type in Algebraic Specification	29
Figure 3.5-1 Ordering of An Action, Diffvar	56
Figure 3.5-2 A Construction of Diffvar from Requests for Other Actions	59
Figure 3.5-3 Examples of Stimulation	61
Figure 5.1 NEW FORM for Structure's Aggregation	87
Figure 5.2 An Example by Using NEW FORM for Aggregating A Structure	88
Figure 5.3 Sets of Longevity of A Structure Example Based on RULE 1	94
Figure 5.4 An Example of A Nested Structure on Case 2 by RULE 1	95
Figure 5.5 An Example of A Structure on Case 3 by Using NEW RULE	100

CHAPTER 1

INTRODUCTION

"We do not, it seems, have a very clear and commonly agreed upon set of notions about data -- either what they are, how they should be fed and cared for, or their relation to the design of programming languages and operating systems."

Mealy

Information in its real essence is probably too ambiguous and too subjective to be captured precisely by the deterministic and objective processes in a computer. The report is concerned with the question of how to model as much of reality as possible with computer representations of information. There are quite a number of structures available to represent information in computers such as file organization, indexed, hierarchical structures, network structures, and relational models. These structures give us a useful way to deal with information, but they do not always fit completely. Each has its strengths and weaknesses, or serves different purposes, or appeals to different users in different environments. No matter how we structure the "territory", the description is just another "map". Thus, is there such a natural model to articulate a slice of reality by constructs such as "entities (or objects)", "names", "relationships", and "attributes" to organize our cognition and discussion of information?