A Nomadic Pedagogy about Technology

Teaching the Ongoing Process of Becoming Ethnotechnologically Literate

Ву

John R. Dakers



LEIDEN | BOSTON

Contents

Preface	ΧI		
Acknowle	edgem	ents	XIV
List of Fig	ures	XV	

- 1 Introduction: Setting the Scene
 - 1 A Brief Outline of the Chapters 5
- 2 What Is Meant by Technology, Technique, Technological Knowledge and Ethnotechnological Literacy? 9
 - 1 Introduction c
 - 2 So, What Is Technology? 11
 - 3 So, What Is Technique? 18
 - 4 Carl Mitcham's Four Concepts of Knowledge Relating to Technology and Technique 22
 - My Translation of Technological Literacy into Becoming Ethnotechnological Literacy 25
- 3 What Are the Characteristics of (Much) of Current Technology Education That Causes It to Fail in the Delivery of Ethnotechnological Literacy? 32
 - 1 Introduction 32
 - The Old Is Dying and the New Cannot Be Born 34
 - 3 Conceptual Issues That Are Lacking in Craft-Based Technology Education 35
 - 4 The Industrial Revolution 36
 - 5 The Problems Encountered with Technology Education's Reformation 38
 - 6 A New Age for Ethnotechnological Literacy 51
 - 7 Concluding Remarks on This Chapter 55
- What Are the Philosophical Foundations for a New Nomadic Pedagogy? 60
 - 1 Gilbert Simondon 61
 - 2 Friedrich Nietzsche 64
 - 3 Van Riessen 65
 - 4 Bernard Stiegler 68

CONTENTS VIII

> The Concept of Assemblages or Multiplicities Simondon and the Concept of Individuation

The Becoming of Being 78

5

6

8

9

5

6

7

Freinet 173

Deleuze, Guattari and Simondon on the Concept of Becoming

The Relationship between Individuation and Its Associated

	Milieu 93
10	The Associated Milieu 93
11	The Pre-Individual State 95
Is B	eing Human Becoming Technological or Is Being Technological
Bec	oming Human? 100
1	Introduction 100
2	Is Being Human Becoming Machine? 101
3	Exosomatic Evolution 115
4	From Being Human to Becoming Cyborg? 120
Phil	osophical Concepts Related to Teaching about Technology:
Intr	oducing the Concepts of Nomadism, Transversality, the Virtual,
the	Fold and Subjectivity, as Crucial Aspects in Teaching and Learnin
the	Ongoing Process of Becoming Ethnotechnologically Literate 12.
1	Becoming Proactive and Progressive v. Being Reactive and
	Regressive 126
2	Introducing the Concept of Bildung 126
3	The Importance of Young People Having Voice 129
4	The Concept of Transversality 134
5	Deleuze and Guattari's Concept of Nomadism 138
6	Virtuality and the Fold 141
7	The Concept of Subjectivity 143
8	Pedagogies for Learning Ethnotechnological Literacy 145
9	Moby Dick and the Lorax 147
Wha	at Are the Characteristics of a Nomadic Pedagogy for Teaching
abou	ıt Technology? 150
1	A Nomadic Pedagogy of Education (Bildung) about
	Technology 156
2	Becoming Nomad in Education about Technology 161
3	A Nomadic Pedagogy for Education about Technology 164
4	Célestine Freinet (An Unwitting Educational Nomadologist) 171
5	Teaching Nomadic Education about Technology à la

CONTENTS

8 Concluding Remarks and a Final Argument for a Progressive Education 178

References 185 Index 201