
Contents

| | |
|--|-----|
| Preface | vii |
| Introduction | xi |
| Chapter 1. Fab Labs: Observations on a Topical Phenomenon | 1 |
| 1.1. Origins and an attempt at a definition | 1 |
| 1.1.1. The origins: a concept from MIT | 1 |
| 1.1.2. Definition of a Fab Lab | 4 |
| 1.2. Current state of distribution | 12 |
| 1.2.1. Deployment in industrialized countries | 13 |
| 1.2.2. Deployment in developing countries | 18 |
| 1.3. Constitution and operation of a Fab Lab | 19 |
| 1.3.1. Varied user profiles | 20 |
| 1.3.2. The main equipment in a Fab Lab. | 23 |
| 1.3.3. From the creative idea to prototyping: a collaborative process | 26 |
| 1.4. Factors of success and sustainability of a Fab Lab. | 30 |
| 1.4.1. Members' motivation | 32 |
| 1.4.2. The relationship to innovation | 33 |
| 1.4.3. Constitution of self-learning communities | 41 |
| 1.5. A moving community: the makers | 49 |

| | |
|--|-----|
| Chapter 2. The Emergence of the New Production System of Personal Fabrication | 51 |
| 2.1. A new time for digital revolution | 52 |
| 2.1.1. From the 19th Century revolution of the invention... | 54 |
| 2.1.2. ... to the 21st Century inventor-entrepreneur | 56 |
| 2.1.3. The revolution in personal production | 58 |
| 2.2. The rise of a new economic model | 64 |
| 2.2.1. Links with the previous model, the centralized industrial economy | 66 |
| 2.2.2. Breaking with the old model of centralized industrial economy | 72 |
| 2.3. Innovation by the user | 79 |
| 2.3.1. The distinctive identity of the user | 80 |
| 2.3.2. The principled substrate of the new innovation model | 85 |
| 2.4. The challenged economic system | 92 |
| 2.4.1. Are owners still needed? | 92 |
| 2.4.2. How can polluting emissions be reduced effectively? | 93 |
| 2.4.3. Employment is dead, long live work! | 95 |
| 2.4.4. From the vertical public to horizontal community | 97 |
| 2.5. Conclusion: everything needs to be reinvented | 101 |
| 2.5.1. The issue of ownership | 101 |
| 2.5.2. The issue of subordination | 103 |
| 2.5.3. The issue of measurement | 103 |
| Conclusion | 107 |
| Bibliography | 109 |
| Index | 121 |