CONTENTS

Foreword by Donald H Taylor xi Foreword by Shelly Sanchez Terrell xiii Acknowledgements xv

Introduction: setting the scene 1

Inertia and impetus 1 Exponential change 3 Counting the cost? 4 Reading this book 6

01 Learning and change 9

The true nature of learning 9 Important questions about learning 11 Learning, unlearning and relearning 12 Unlearning in organizations 14 Creative destruction 14 Turn and face the strange 17 Bad disruption 18 Good disruption 19 Psychological event horizon 22 Case Study 1.1: Fallen giants 22 Winds of change 23 Sustaining innovation 25 Case Study 1.2: Sustaining vs disruptive innovation 27 Learning and disruption 28 Breaking the mould 29 Key Points 30 Notes 30

O2 Disrupting workplace learning 31

Learning transfer 32 Case Study 2.1: North Carolina 33 Authentic learning 34 Case Study 2.2: Authentic learning and smartphones 36

Employee engagement 37

The knowmads 38

Positive deviants 39

Trojan mice 41

Case Study 2.3: Deviating from the norm 42

Monkey business 43

Prosumers 44

Case Study 2.4: Prosumer behaviour 46

User-generated content 47

Opening up learning and development 48

Being open 49

Case Study 2.5: Unity Technologies 51

Five key trends 52

The promise and the threat 54

Key Points 55

Notes 55

O3 A brief history of learning technology 57

Our history, our future 57

A personal journey 58

Classroom technologies 59

The moving image 60

Television 61

Film 61

The impact of technology 62

Computers 63

Case Study 3.1: Computer assisted learning (CAL) 64

Networked technology 65

Looking above 66

Century of the moving image 68

Enter the Web 69

Key Points 70

Note 70

O4 Change in context 71

Change agency 72

Case Study 4.1: Ownership of ideas 73

Handy tools 74

At the end of our tethers 76
Motivation for adopting change 78
Winning hearts and minds 78
Looking through the holes 80
Bringing it all home 81
Integrating technology 81
Case Study 4.2: Fosway Group 84
Here comes the SAMR 86
Case Study 4.3: Integrating technology 88
Key Points 90

O5 Personalizing learning 91

Learning architects 92
Desire lines 93
Case Study 5.1: Local authority 94
Personal learning environments 95
Personal learning networks 97
Bring Your Own Device 100
Personal affordances 101
Key Points 103

O6 Hyper-connected communities of practice 105

Case Study 6.1: International perspectives 106
We're better together 108
Motivation and engagement 110
Freeloading 111
Learning at the edge 113
Legitimate peripheral participants 114
Social beings 117
Case Study 6.2: Sea Salt Learning 118
Key Points 120

07 Knowledge networks 121

Changing views on knowledge 122
The problem with knowledge 124
Types of knowing 125
Knowledge on demand 126
New knowledge ecologies 127

The power of participatory media 128 Giants will fall 129 The people's encyclopaedia 130 Wikipedia: a dialectic 132 Breaking down the silos 134 Knowledge as performance 135 Who let the blogs out? 137 The wild, wild Web 139 Truth and fiction 140 Key Points 142

80 Digital readiness 145

Notes 142

The architecture of participation 146 Connected 147 Case Study 8.1: Mr Bruff 148 Digital readiness 150 Things ain't what they used to be 150 Literacies as cultural interpretation 151 Digital literacies at work 154 A model for digital literacies 155 Remixing content 158 Self-broadcasting and publishing 159 Lie detection 161 Social networking 162 Transliteracy 164 Staying competitive in a digital world 166 Case Study 8.2: Activate Learning Solutions 166 Kev Points 167 Notes 168

09 **Connection and disruption** 169

Twitter 170 Case Study 9.1: You are what you tweet 172 Convivial technology 173 Learning 2.0 176 Next generation learning 180 Key Points 182 Notes 182

10 State of play 183

Game-based learning 183

Case Study 10.1: Sponge 185

Learning through failure 186

Learning with games 187

Simulation and simulators 190

Case Study 10.2: NHS critical incident simulation 191

Case Study 10.3: DTE Energy 192

The games we play 193

Gamification and game mechanics 194

In the flow 196

Key Points 198

Notes 198

11 How we shape our futures 201

Trends and trajectories 202

That was the future... 203

Pervasive technology 205

Big data 207

Artificial intelligence 208

Testing the machine 209

Chatbots 210

Case Study 11.1: Jill Watson 211

Human vs machine 213

A damn good thrashing 214

Threats and promises 215

Artilects 218

Non-touch interfaces 219

Future learning 220

Immersive technologies 221

Case Study 11.2: Royal Mail 223

Augmented and virtual reality 224

The future now 227

Human 2.0 228

When human and machine combine 230

Case Study 11.3: Tanya Vlach, eye-borg 231

The future of relationships 231

Enhancing the human 233

Universal devices 234

The future of knowledge 235 And finally... 236 Key Points 238 Notes 238

References 239 Index 249