

# **LEADING AND MANAGING CHANGE IN THE AGE OF DISRUPTION AND ARTIFICIAL INTELLIGENCE**

## **Praise for Leading and Managing Change in the Age of Disruption and Artificial Intelligence**

With *Leading and Managing Change in the Age of Disruption and Artificial Intelligence* Mat Donald has provided us with a much-needed management primer for the new economy. He effectively updates much of traditional management logic for a world that is characterized by dramatic change. A must read!

**Leonard Schlesinger**, Baker Foundation Professor, Harvard Business School and President Emeritus, Babson College

We are beginning to understand change dynamics in fairly stable environments, but these principles break down in disruptive environments. Along comes Donald to provide the critical information needed to extend our understanding about how to effectively bring about change in disruptive environments, which are increasingly what organizations face in today's global society.

**Eric B. Dent**, Ph.D., Uncommon Friend Endowed Chair Professor, Florida Gulf Coast University

This is an impressive and well-written book that is both thought-proving and eminently practical. We live in an age of disruption and, whether you lead or study organisations, this book will help you to understand its implications and how to manage the challenges it poses.

**Bernard Burnes**, Chair of Organisational Change, Stirling Management School, University of Stirling

This book adapts organisational management and leadership to the modern age, where change is constant and affecting the way organisations operate. This book will be of benefit to anyone wanting to consider the future of organisational management and change.

**Jens Mueller**, Professor of Management Practice, Massey University

We are living in a VUCA world; volatile, uncertain, complex and ambiguous. A time in which we may see and feel a shift of paradigms. This book describes global transitions which are influencing our businesses worldwide. Mat Donald points out global issues such as EU destabilization, rebalancing world powers, financial trade barriers and the influence of technology. These changes cannot be managed in a traditional and linear 'cause and effect' manner. Leadership in the new age requires skills that are more holistic, dialogic and take a systems and design thinking approach where the left and right brains act together. This book is excellent for students, managers, leaders and management consultants who work, or are starting to work, in an international business environment and want to understand 'a world that is on the move'.

**Jos Pieterse**, Ph.D., Institute of Business Management, Education and Technology, Hogeschool Fontys

# LEADING AND MANAGING CHANGE IN THE AGE OF DISRUPTION AND ARTIFICIAL INTELLIGENCE

BY

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INVESTOR IN PEOPLE

*With thanks to my family that have supported and encouraged me to complete this journey, being that of my wife, Louanne, and my sister, Kathryn Donnelly. Special recognition to my beloved Grandmother, Beryl Castledine, remembered as one that encouraged my academic thirst for knowledge from the youngest of age.*

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# Abbreviations

- Australian Securities Exchange (ASX)
- Australian Institute of Project Management (AIPM)
- Security Exchange Commission (SEC)
- Artificial Intelligence (AI)
- Business to Business (B2B)
- Business to Customer (B2C)
- Change Management Tool (CMT)
- Chief Information Officer (CIO)
- Compact Disk (CD)
- Confirmatory Factor Analysis (CFA)
- Corporate Social Responsibility (CSR)
- Disruption Event Monitoring Table (DEMT)
- Electronic Funds Transfers (EFT)
- Enterprise Resource Programmes (ERP)
- European Union (EU)
- Exploratory Factor Analysis (EFA)
- Global Financial Crisis (GFC)
- Global Positioning Systems (GPS)
- Group of Seven (G7)
- Human Resource Management (HRM)
- Information Technology (IT)
- Intellectual Property (IP)
- Just in Time (JIT)
- Key Performance Indicator (KPI)
- Kaiser-Meyer-Olkin Measure of Sampling (KMO)
- Leadership Qualities Assessment Table (LQAT)
- Net Present Value (NPV)
- New Age Function (NAF)
- New Age Stakeholder Assessment Table (NSAT)
- New Idea Generation (NIGF)
- Non-Government Organisations (NGO)
- North American Free Trade Agreement (NAFTA)
- North Atlantic Treaty Organization (NATO)

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- Programmable Logic Controller (PLC)
- Project Management Office (PMO)
- Resistance to Change (RTC)
- Trans-Pacific Partnership (TPP)
- United States Dollars (USD)
- Universal Serial Bus (USB)

## About the Author

The author, Dr. Mat Donald, has over 30 years of business experience, commencing in chartered accounting performing audit and company accounting, advisory work. Once leaving chartered accounting, the author's career moved into industry where he has worked in a number of large multinationals in Fast Moving Consumer Goods, Construction, Services, Electricity generation and Mining. He has held various senior management roles including Divisional Accounting Manager, Commercial Manager and Financial Controller in a variety of listed ASX and SEC organisations amongst others. Whilst well experienced in the multinational, the author also has experience in small privately owned organisations, thus providing unique insight into large and small organisations.

The breadth of the author's experience provides a unique insight into organisational operations that will be relevant to a wide variety of readers, irrespective of their functional background or experience level. The author completed a Bachelor of Economics (Major Accounting) at Macquarie University in Australia and has qualified as a Fellow of CPA Australia. The author has significant interest in improving organisations in both an operational and academic context. In 2010, the author has completed a Master of Project Management (Distinction Average) at The University of Adelaide, where he has since qualified as a Member of the Australian Institute of Project Management. In 2018, the author received a Ph.D. (Business) at Western Sydney University, researching leadership, management and organisational change.

Since completing the Ph.D. (Business), the author has emerged as an academic, qualifying to teach at three Australian Universities, including subjects of management, leadership, accounting, business strategy and international business. In 2018, the author taught Management with Charles Sturt University and in 2017 tutored in accounting at Macquarie University. The author has presented at IQPC conferences, more recently presenting conference papers to the Australian Institute of Project Management (Donald, 2014, 2016). The author is a regular contributor in LinkedIn online forums, also having an article published with *The Conversation* (Donald, 2018). The topics that the author regularly promotes are related to organisational change, Management, Leadership, discrimination and ageism, where he is regularly available for key note and other speaking opportunities.

The author's experience in organisational change has included mergers, acquisitions, computer implementations, process, large projects and business improvement. The Ph.D. research of the author included in-depth interviews with senior

change managers that confirmed his held belief that change is generally still not delivered in an optimal way. There are many published guides and now elaborate qualifications towards change; yet, all too often, the change is either unsuccessful or damages staff relations in the rush to complete. It is clear to the author that a new age of change is ahead, where more thought and understanding is required on the topic.

# Preface

Whilst there has been considerable change to organisations in the last 30 years, a new age of change is ahead. It is now evident that the resulting change will be faster, more complex and less predictable than in the past. The dynamic of organisational change will have implications for the way leaders build organisations, teams and business plans, as the change ahead will be assisted by globalisation. Managers will need to manage change in a time when the future is less predictable, speed is increasing and information is more available in large quantities. Whilst the artificial intelligence (AI) may replace many workers the roles, the reduction in staff ratios will likely pose new challenges to the traditional manager. As leadership and management are critical factors to organisational change success (Donald, 2014, 2016), the new age of disruption and the AI has the potential to disrupt organisational systems, structures and management practices.

This is a broad-based book for those in leadership and management roles of the future, where the issues ahead will be immediate and broad. The book is written in way that is relevant to managing and leading irrespective of one's technical or functional background. This book will be useful to those in a variety of management roles of many functions including medicine, operations, engineering, finance or many other backgrounds. Some industries may be more exposed to the AI than disruption, especially where the roles are repeatable, labour intensive or require precision and fast knowledge. Disruption is emerging from a number of broad sources that the manager of the future may need to consider in order to prevent chaos or failure in their organisations. This book provides modern insights into emerging issues and provides critical thinking about options and directions.

The breadth of this book will be useful for a wide range of professionals, be they experienced or not, wishing to understand how roles may change in the modern age ahead. The topics covered by this book will be useful for students studying management, leadership, change, economics, accounting, engineering, human resources and many others. Future and current organisational leadership and management will benefit from the appreciation and critique of modern events in this book, where critical thinking is included. Organisations will likely be impacted by disruption and the AI in the future, where preparation and appreciation of these phenomena are relevant to organisational survival irrespective of organisational type or size.

The change in the new age will require managers, leaders, professionals and students to appreciate that the challenges ahead will likely be varied, fast moving and difficult to solve. Organisations that fail to change at an appropriate speed

in a suitable manner may be vulnerable to error or even failure. The industrial revolution of the nineteenth century saw whole industries evaporated in just a few decades, where change of the future may even be much faster. The forecast is not all negative, as opportunities will present for those able to identify and take advantage. Whilst some practices may need to change in the future there is still much of the past 70 years of research and knowledge on the topics that remain relevant.

Disruption events are explored in this book so as to expose and inform business owners, leaders, managers and entrepreneurs of future issues to consider. Changes of the new age may increase the type and speed over time, creating changes to organisational responsibilities of those in governing positions and on boards. A higher degree of oversight may be required as management will be required to be abreast of big data, information and change, where fast uninformed or ill thought decisions may likely diminish value and organisational success. It will be important for governance and boards to ensure that authority delegations are appropriate and clear, whilst ensuring that processes are not slow, bureaucratic of hinder prompt decision making. The controls in the new age will need to increase accountability, provide appropriate rewards for outcomes rather than promises.

This book commences with a discussion of disruption, which is far broader topic than merely new computers or technology. Chapter 3 explores how the AI is emerging and may lead to large scale loss of jobs, occupation and even whole industries. Those with leadership or management experience will find this book refreshing through its exploration of current organisational dilemmas. The book is useful for the experienced manager, business owner or the student wishing to understand current topics in organisational change, leadership and management. This book does not prescribe simple solutions for the new age as likely the future forward will include thought provoking critical thinking as the predominant tool for the future. The use of critical thinking will enable the practitioner and student to identify alternatives, evaluate and choose rational decisions. Solutions and directions of the future will likely be limited by fast-paced time constraints, varying reliability of information and limited resources. These restrictions to decision making will ensure that any one strategy is unlikely will be unique, optimisable, stable or be long lived.

This book is unique on the market as it provides the broad knowledge of leadership and management topics in the context of organisational change in the new age. Included herein are tools, tables and analysis that may assist the student and the experienced manager prepare organisations for the future. There is unlikely to be a clear path forward for any organisation as the change ahead is complex and fast, aided by the interconnectivity of globalisation and new communication forms. Organisations may require new skills and more focus on the external or political environment than ever before, where an introspective approach may not be sustainable in the new age.

# Chapter 1

## Introduction

Organisational change: the future must be performed differently to the past.

—Mathew Donald

This book is specifically written for those that seek modern information and knowledge regarding leadership and management in a modern organisational context, be they a student or an experienced manager. The speed, size and volatility of organisational change are increasing (Burnes, 2009; Burnes & Jackson, 2011), where increased scope, variety and speed of change have occurred with world events (Taylor & Cooper, 1988a). It is possible that the speed of organisational change is now so fast that people may not be able to cope (Bruckman, 2008; Toffler, 1970), where the interconnectedness of organisations may result in a change being impossible to avoid (Shah, 2010).

The new age of disruption and artificial intelligence (AI) will see a change emerging differently and faster than ever before; thus, this book is relevant to a wide variety of reader, be they involved in profit, non-profit or government sectors. The new age will cause organisations to reconsider organisational structures, processes, market analysis and decision making. This first chapter clarifies the new age scope, key definitions and why it is important, irrespective of the market or organisational type.

Disruption, in the context of this book, is broader than those normally presented in a learning text for management and leadership topics. Disruption dimensions are not unique (Golightly & Dadashi, 2017) being included here not as fortune telling, but more as examples and possibilities. Technology change is not merely disruption in the context of this book, where the topic may include geopolitical changes, financial markets and other global events. Globalisation has influenced corporations around the world (Choo, Halim, & Keng-Howe, 2010) by increasing the interconnectivity and interdependence of trade. A single organisation, even if dominant or global and irrespective of size or market, may not have sufficient direct influence or power to prevent change in the new age.

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AI is already emerging, where its influence may also be unavoidable and it will likely have more effects than merely the replacing of humans with machines. The nature of AI is likely to be so significant that it may lead to adjustments in organisational structures, processes and staff relations will be amongst many. The emergent AI will require special attention in order for organisations to survive, where both management and leadership roles of the future may require additional skills in order to optimise any emerging organisational risks and opportunities.

The terms of management and leadership are often defined colloquially as interchangeable. This book recognises that the functions of leadership and management are distinctly separate, despite any overlapping elements. Recent research has indicated that organisational change may be linked to leadership and management (Donald, 2016, 2017). It is quite possible for organisational managers to be a poor leader, or for a leader to be a poor manager; yet, those implementing organisational change may be required to hold both skills.

Apart from the management and leadership practices, the new age will likely require alternate organisational systems and structures. In Chapter 6, the changing nature of the organisation is explored, rather than prescribed. Finally, Chapter 7 explores recent research on organisational change, potential solutions and change factor interactions, where these may have implications for organisational governance and responsibilities of the future to improve chances for success and avoid failure.

Critical thinking is encouraged in association with themes and solutions discussed in this book, as critical thinking may be essential skill for any future decision makers. Sound decision-making skills have been linked to critical thinking skills (Heisler, 2014). The new age of disruption and AI is one where the exact future cannot be predicted with any level of certainty. Whilst management skills may be prescribed and developed (Law, 2016), higher levels of skill may be required for those managing in this new age. The author encourages readers to consider, discuss and even critique ideas presented in this book. The very nature of disruption and AI may mean that topics in this book may evolve over time, where the deeper value of this book may lie in the thought provocation and critical thinking, rather than any specific predictions.

Managers may already hold skills of value creation, problem solving and option evaluation, yet these may be insufficient for this new age. Organisational change has been linked to employee engagement (Donald, 2017), thus management styles that are autocratic or lack inclusion may fail to change. It may be tempting for some to utilise past experience, industry norms or historical data in decision making, where the lack of critical thinking and thought may increase risk. Critical thinking skills will likely encourage fact verification, logic, collaboration, data analysis and scenario development.

The remainder of Chapter 1 explores and defined the terms of disruption and AI as there is little point in using the terms without appreciation of their meaning and scope. The reader is encouraged to critique the definitions by considering the what, how and why questions in an effort to understand the topics. Early exploration of the terms may later assist critical thinking, where

alternatives and evaluation will be required. Finally, this Chapter 1 will discuss the importance of disruption and AI as key influencers of organisational behaviour in the future.

## **What is Disruption?**

This section of Chapter 1 explores the term disruption, thus articulating why organisational governance, leaders and managers should formally consider disruption as a key topic of the new age. Organisational change is not a new phenomenon as change is already increasing in speed, size and volatility (Burnes, 2009; Burnes & Jackson, 2011). The change is not isolated or limited to a specific organisation, where major world events have resulted in increased scope, variety and speed of change (Taylor & Cooper, 1988b). It may even be that the pace of change may have increased to a speed where people may not be able to cope (Bruckman, 2008; Toffler, 1970), or that all business is so inextricably linked and involved in change that it may be unavoidable (Shah, 2010).

Organisations emerged from the twentieth century after great upheaval and societal change that included two World Wars, the Great Depression and a Cold War. The first half of the twentieth century included the emergence of significant new technology for the masses, including electricity generation, automation, motor vehicles, aeroplanes and refrigeration, amongst others. These new items changed organisational interactions, structures and work practices. The second half of the twentieth century delivered space travel, satellites, television, mobile phones and computers that consequentially led to changes in communications, travel, trade and even globalisation. By the year 2000, organisations were no longer structured, processed or traded in the same way as those in the year 1900, where the resulting globalisation emerged as an environment that was international and tempestuous (Scott, 2000).

Despite industrialisation and invention associated with the Industrial Revolution of the nineteenth century, a great amount of work was manual and time consuming at the beginning of the twentieth century, especially in the home. In the year 1900, household tasks were still very manual, such as hand washing clothes, travel by horse and no electric refrigeration. Organisations were relatively simple and smaller than of today being associated with strong or autocratic styles that is but one of the five potential structures (Henry Mintzberg, 1980). These early organisations were thought to be the part of systems, where equilibrium and optimisation were possible (Lewin, 1945). In the early part of the twentieth century, there change was evolving into unions, worker's rights, communism and fascism, women's rights and voting, and rapid and turbulent political changes, where significant changes in inequality emerged (Goldin & Katz, 2018). Organisations adapted to the twentieth century changes that assisted the acceleration of aviation, automotive and other new industries.

A key driver of change after World War II was that of consumerism, where these consumerist values may further change in the twenty-first century in the pursuit of contentment (Brown & Vergragt, 2016). Change has been described as being essential for organisations and the future of humankind (Benn, Dunphy, &

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Griffiths, 2014; Burnes, 2011; Kanter, 2008; Sackmann, Eggenhofer-Rehart, & Friesl, 2009), where the pace has accelerated in the past 20 years. Organisational survival may even be dependent upon change (Burnes & Jackson, 2011; Company, 2008), where competitive advantage may be lost if the organisation does not change (Kotter, 1996). Organisational change sources are varied, derived from market forces as well as corporate rationalisation, operational efficiency or deregulation (Bennett & Durkin, 2000).

Disruption has emerged as a new type and pace of organisational change, where some have perceived it as merely a type of pure technology and three measures (Rosenstand, Gertsen, & Vesti, 2018). In recent times, the term 'disruption' has broadened beyond mere technology, where it is now associated with economic variation (Krug & Reinmoeller, 2003), supply randomness (Fahimnia, Jabbarzadeh, & Sabouhi, 2017), product innovation (Teece, 2017), as well as politics and distrust (Kallianos, 2018). There is great potential for disruption to evolve further in this world of globalisation (Bordo, 2017), where it will be aided by high interconnectivity.

The term disruption is now commonly used in media and has emerged into the research literature in the last few years, often linked exclusively to technology change. Disruption, when related to occupations, does not appear to have a fixed definition, appearing to relate generically to change more broadly (Nizzero, Cote, & Cramm, 2017). The disruption innovation term is defined more specifically as being a complete change that has potential to change the competition fundamentally (Lourdes, Victor, & Jesus, 2017). Disruption has also been linked to divergent globalisation experiences, with a potential to form anti-globalisation movements (Gustafsson & Skohg, 2017). Whilst globalisation has produced benefits across many countries, it may have reduced the identity of borders, thus altering risk and security (Wright, 2017).

Disruption may be totally unpredictable with little or no planning, or one that is predictable, where some level of mitigation planning is possible (Zhao & Tang, 2010). When disruption is in the unpredictable form, it will not be possible to predict the change in terms of its nature, time or place, thus creating issues for the governance boards, leaders and managers. The nature of the unpredictable disruption could be one of war, earthquake, flood, government policy, political instability or unforeseen product emergence or technology. This book adopts the wider definition of disruption, where it can be either predictable or unpredictable, where the Leader and Manager of the future will need to include disruption as an additional factor to include in their roles.

Organisations will likely already have plans around some of the more likely disruption factors. Predictable disruption factors may already be planned for, including those of safety, environmental, product quality and media incidents. Organisations of the new age will need to prepare beyond the most likely events, as the more remote disruptive events will circulate faster and be more transformational than previous types. For instance, historically a coffee shop may have prepared for unusual events like the coffee machine breaking down or an alternate supply, if their cakes are not supplied. The coffee shop of the future need to broaden their disruption preparations, including actions required should rapid

and large-scale changes emerge. Organisations in a state of disruption maturity may even create calculation models to assess the robustness of plans in light of the potential risk ranges (Lusby, Larsen, & Bull, 2018).

Disruption was originally defined as being simply a technology change (Christensen & Bower, 1996), where, more recently, it has been defined with two dimensions that are distinguished by a differing scale and effect (Schuelke-Leech, 2017). The first of the two disruptive dimensions is limited to having organisation or market effects, whereas the second dimension is one characterised by its broader effects with impacts to the broader society, industries or government policy (Schuelke-Leech, 2017). In the first disruptive dimension, it may be possible for organisations to identify scenarios and build advanced reactive strategies with detailed mitigation actions. The unknown nature of the second disruptive dimension that has significantly more impact on society and industry; yet, this dimension will be significantly harder to predict and harder to develop advanced mitigation strategies. Organisations are likely to develop mitigation strategies, rather than avoidance or elimination, as no single organisation is likely to control disruption in the new age.

This new change of the twenty-first century is already variable, fast and less predictable combined with great shifts in politics and world power occurring. Those seeking to lead and manage organisations of the future will need to be cognisant of the past change as there may still be relevant comparisons and learnings from study of the Industrial Revolution or other changes in the twentieth century. As has been the case in the past, there will be winners and losers during this change ahead, where organisational success may depend on abilities to understand change, set strategy and implement. Organisations that move too slowly or choose the wrong direction may fail or lose value more quickly than in the past.

In the last 20 years, change has been swift, where even just the simple introduction of electronic email as a communication source has resulted in the loss of many thousands of secretarial positions worldwide. Job losses from the introduction of email came about as managers and employees adopted typing as a skill that once was for typing pools and secretaries. Postal services have recently become loss makers in many countries due to physical mail being replaced by electronic mail. Email was widely adopted once it was perceived as being a faster tool, involving self-editing being simpler than dictating or drafting memos, faster than facsimile. Despite secretarial positions holding faster typing speeds and faster dictation speeds, managers and staff embraced typing emails themselves. The change towards emails was far reaching, as it also resulted in reduction in tradespeople that once repaired facsimiles and typewriters and the elimination of typing supplies and ribbons. In just the last 20 or so years, millions of typewriters have been made redundant, sent to the scrap recyclers and waste stations. Opportunity presented itself as typing changed to email, where the Internet fostered new accessories, including routers, computers, printers and faster communication lines.

Each form of new technology can result in a far-reaching flow on effects, be that through an organisation, an industry, or a country and across the world.

When the Internet emerged, it was not clear that it would later be a platform for social media, payments systems, currency, information or even movies. The Internet has transformed lives around the world, where even the previously profitable print and television media industry was transformed with thousands of jobs lost in a few years. It is the hidden effects of technology that should be considered by those leading and managing organisations in the future, as each change in technology may have the potential to transform work places or eliminate organisations and whole industries.

Less than 15 years ago, investment in a video store may have yielded good profits as it invaded the movie theatre industry. Yet, the video shop industry has almost been eliminated in the last few years as movies moved onto the Internet, where the past video shop may now be close to worthless. In similar changes that have occurred with relative speed diskette and the compact disk (CD) manufacturers have been eliminated upon the introduction of the universal serial bus (USB). Today, most new computers and laptops do not even include ports for diskettes or CD. Of course, each of the changes in technology involved secondary effect reductions for those involved in related service, repairs and supply and transport industries. The emergence of modern rapid changes should be concerning to many, including employees, business owners, leaders and managers as rapid job losses and organisational redundancy may be characteristic extended unemployment and social dislocation. Politicians and economists may promote global trade and benefits; yet, there is high potential for social upheaval and dislocation that may result from increased unemployment in regions adversely affected by the changes.

Organisational change can be internally generated or from external forces (Williams, McWilliams, & Lawrence, 2016), where it may occur in a controlled or reactive way. Leaders and managers design and implement organisational change, where the change may be for market reasons, risks or opportunities or innovation or many other reasons. The external forces that may influence organisational change include those of the market, government changes, globalisation and even changes in world power. There will be a great diversity in the way organisations change, some preferring to use change managers, others may hire new staff or use consultants. Those designing and implementing change need to be conscious that most organisational change fails, where the failure rate may be as high as 70% (Burnes & Jackson, 2011; Senturia, Flees, & Maceda, 2008).

The dilemma of all Leaders and Managers is to choose the most appropriate options for business success, where some risk is likely associated with all options. In the new age of disruption and AI, changes may occur faster with less predictability than in the past, thus introducing more risk and uncertainty. Organisations acting in this new age may require a level of critical thinking and facts in order to make good decisions. Disruption definitions range from being limited and tightly defined, through to one that is broad, including world events, politics, power, technology, trends and organisational behaviours. For the purposes of this book, disruption is defined as change events that are sudden and fast paced and may impact organisations, industries or society.

## Why is Disruption Important?

Disruption events have the potential to create new opportunities and risk in short time frames that may affect a wide variety of organisations. Those responsible for organisational value creation will need to be wary and cognisant of disruption, as underlying events may lie far outside the normal environment (Williams et al., 2016). Organisations that seek out and discover disruption early will more likely have time to build scenarios ready for its occurrence, where those that fail to identify a disruption may suffer losses in value or earnings. As disruption may occur with little or no probability, organisations may benefit if they are prepared for change and ready to react in a rational, logical and prompt ways.

As disruption will be difficult to predict, the changing environment and the commensurate change in organisational directions may result in strains and breaks in relationships with shareholders, financiers and employees. The sudden changes in organisational decision making will likely be difficult for many stakeholders that may prefer certainty and clarity. Disruption is likely to require changes to the speed or direction of organisational systems, their structures and processes. In the need for speed and change, compromise and change will be required to governance processes, consultation and normal communication. Any sudden changes in corporate direction may lead to loss in confidence in management as shareholders or financiers may prefer certainty and returns as expected. The market traditionally rewards organisations that can deliver on target or to plan, yet that principle will increasingly be more difficult to achieve in the new age.

Government policy that is not clear and predictable can affect organisational decision making and financial outcomes. If government policy is difficult to interpret, some organisations may choose to not invest at all. An example of government disruption is that of the US Carbon tax policy, where the United States signed the Paris agreement on carbon under President Obama's administration only to later remove itself under the President Trump (Tollefson, 2017). The electricity generation provider may now be confused on how to invest as the values to be invested are large, requiring payback periods of 25 years or more. One can only imagine the chaos and dysfunction if a government introduced a carbon tax without notice just days after an organisation committed funds towards a new coal fired power plant.

Organisational investment requires overview and approval of many stakeholders, including financiers, shareholders and staff, where any sudden government changes may create difficulties and embarrassment for management. Changes of the new age that emerge suddenly will likely require management to gain additional approvals from stakeholders, where the re-approval process may include consultations, explanations and analysis. If stakeholders, or the market, do not understand any sudden changes originating from government policy, they may withdraw their support and market value may diminish. To avoid losses associated with sudden change, organisations may need to proactively identify and treat any potential threats and opportunities from, or face value losses.

The choice for management or leadership is either to ignore disruption and take the risk, or to prepare and plan for events that may not yet be apparent. The risk associated in the choice to act or not will likely need to be communicated with stakeholders and governance bodies in particular; otherwise, trust in the organisation may diminish. Organisations of this new age will need to consider how best to communicate risk and disruption without losing support. Additionally, governance bodies may need to consider how the new age will affect their role and current systems. Further consideration of governance in the new age is discussed later at Chapter 7 of this book.

Decision making in the initial phases of new disruptions may appear confusing to various stakeholders, as they may be characterised with lack of information and lack of analysis. Those organisations with advanced disruption planning may be better able to share the preparations with stakeholders and be in a position to source funds at a lower premium, also more likely to attract leading candidates. It is also likely that the absence of disruption planning may increase employee stress or increase customer and supplier tensions due to the lack of prompt and clear reaction pathways.

Unlike past changes, disruption will not be identified merely from market industry bodies, customer feedback or employee information, as globalisation will now transmit change through alternate paths. Identification of disruption may arise from social media, the Internet, email, websites or messaging, where potential consequences of wars, protests, terrorist events or political change may flow around the world before any mainstream media has investigated the matter. The issue for the organisation is whether to rely upon early notification of disruption events and whether there is sufficient information to decide and react.

There are a number of immediate, probable and possible disruptive events occurring now that should be considered by leadership and management of today. Chapter 2 explores a range of probable and possible disruption events, where they are presented here as a means of discovery and consideration rather than being a prediction for the future. Readers of this book are encouraged to identify additional disruption, listing any effects and appropriate actions. It is the method of appreciation and critical thinking about disruption that will improve organisational preparedness, not necessarily the specificity of predictions.

There will be winners and losers in this process of disruption discovery, as some will be rewarded for success, whilst others who merely foretelling events without critical thinking paradigms may be accused of being wrong, harlequins or even subversive thereby limiting career success. It is important that those foretelling disruption supply risk analysis, a range of possibilities and a range of actions and plans. Those in disruptive planning and analysis roles will need to communicate what they are doing and why, they should not position themselves as being predictors of the future as disruption by nature may be hard to fully predict. It will be the preparedness for a wide range of events and consequences that will enable a modern organisation to be best positioned for the future.