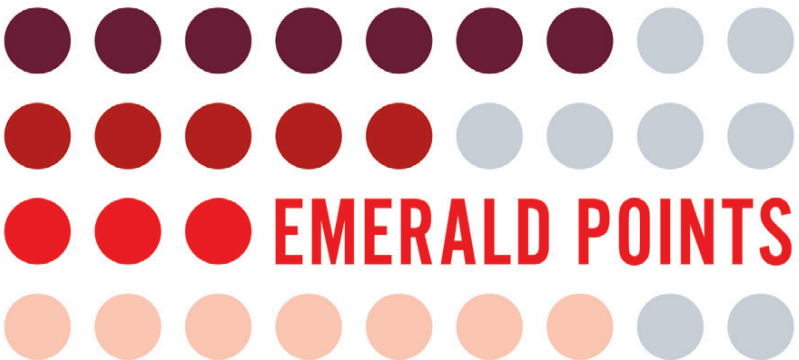


ACCELERATING ORGANISATION CULTURE CHANGE

Innovation Through Digital Tools

Dr. Jaclyn Lee



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CHANGE

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Innovation through Digital
Tools

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INVESTOR IN PEOPLE

To my husband, Moon Chong, and my children, Michael,
Amy, and Matthew.

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CONTENTS

<i>List of Figures</i>	<i>xiii</i>
<i>List of Tables</i>	<i>xvii</i>
<i>Preface</i>	<i>xix</i>
<i>Acknowledgments</i>	<i>xxi</i>
1. Change in the Digital Age	1
1.1 Importance of Culture in Digital Transformation	2
1.2 My Research Work in the Area of Digital Tools for Culture Change	4
1.3 Rapid Digitization and Advent of Industry 4.0	5
1.4 Future of Jobs	9
1.5 Workforce Planning	13
1.6 Role of Leaders in Digital Transformation	18
1.6.1 A Visionary Mindset and Change Management Capability	19
1.6.2 Capabilities to Manage Multi-disciplinary Teams	19
1.6.3 Ability to Manage and Communicate in Various Media Forms	20
1.6.4 Ability to Develop Computational Thinking Capabilities	20
1.6.5 Harnessing Innovative and Adaptive Thinking	21
1.7 Culture as the Catalyst for Change	21

2.	Organisational Culture and Change Management	23
2.1	Definition of Organisational Culture	23
2.2	Cultural Alignment	25
2.3	Organisational Change Management	26
2.4	Barriers to Culture Change	30
2.5	Managing Culture Change in Major Transitions Using the Eight-step Model: The Certis CISCO Story	37
2.6	Culture Instruments	42
2.6.1	The Competing Values Framework	43
3.	Accelerate Culture Change Through Digital Tools	45
3.1	Introduction to Digital Tools for Culture Change	45
3.2	Collaboration and Culture Conversations	47
3.3	Digital Tools Used for Collaborative Decision Making	48
3.4	Structured Process in the Use of Digital Tools	49
3.5	Features of a Culture Brainstorming Tool	51
4.	A Digital Toolkit for Culture Acceleration: CATM	53
4.1	Introduction to CATM	53
4.2	Competing Values Framework and OCAI	55
4.2.1	The Competing Values Framework	57
4.2.2	The Organisational Culture Assessment Instrument	60
4.2.3	The Six Dimensions of Culture	61
4.2.4	How Is OCAI Used?	61
4.3	Group Decision Support System (Digital Brainstorming)	62
4.4	How Does GDSS Work?	68
4.4.1	Decision Rooms	68
4.4.2	Usability	71
4.4.3	Effective Utilization of the GDSS	72
4.4.4	Facilitators and Group Systems Support	72

4.4.5	Current GDSS Technologies	73
4.5	Design Principles of CATM	73
4.5.1	Introduction to Design Theories Underpinning CATM	75
4.5.2	Action Research	78
4.5.3	Design Science	80
4.5.4	Overlap of AR and DR	87
4.5.5	Action Design Research Methodology	88
4.5.6	Key Features and Capabilities of CATM	91
4.5.7	Framework of CATM Using ADR	94
4.5.8	Design Iterations	98
4.5.9	Prototype Evaluation	114
4.5.10	Digital Tool Evaluation Methods	115
5.	Developing a Culture of Innovation: The Singapore University of Technology and Design Story	119
5.1	Background	119
5.2	Phase 1 of the Culture Project	125
5.2.1	Problems Observed	126
5.3	Deployment of CATM in SUTD	128
5.4	Screenshots of CATM	129
5.5	Response and Profile of Survey Participants	130
5.5.1	Participation Rates	131
5.5.2	Participant Profiles	132
5.6	Results on Efficiency of CATM versus Manual Method	133
5.7	Description of Data about Culture Change Using CATM	134
5.7.1	Validity and Reliability of the OCAI Instrument Used in the SUTD Culture Project	135
5.8	Results of Organisation-wide OCAI Scores	136
5.8.1	Results of Each Stakeholder Group	137

5.8.2	Diagrammatic View of Perceived Current Culture by All Stakeholder Groups	142
5.8.3	Diagrammatic View of Desired Culture by All Stakeholder Groups	143
5.8.4	Perception of Culture by Regions	144
5.8.5	Results on Four Orthogonal Cultural Dimensions	145
5.8.6	Perceptions of Each of the Six Dimension of Culture	146
5.9	Description of Culture Change Using CATM	150
5.9.1	Session 1: Pilot Testing with the Senior Management Team (22 Participants)	151
5.9.2	Session 2: Pilot Testing with Staff Members	152
5.9.3	Session 3: Pilot Testing with Faculty	153
5.10	Validation of CATM	153
5.11	Implementation Outcomes of Ideas Generated from CATM	155
5.12	Success from 2014 to 2019	159
6.	Managing Culture Change in a Technology Set-up Using CATM	163
6.1	Introduction of Mr Tan Tse Yong, the Accidental Entrepreneur	163
6.2	Interview with Mr Tan Tse Yong on the Effectiveness of CATM	166
6.3	Results of Using the CATM Tool in a Tech Startup	168
6.3.1	Digital Brainstorming Sessions	168
7.	Future of Digital Tools in Change Management	173
7.1	Digital Platforms for Change Management	173
7.2	Future State of Work	174
7.3	Future of Collaborative Tools	176
7.4	Putting the Human Back into Employee Communications	178

7.4.1 Interview with Dr Jovina Ang, Managing Director of Communications	179
7.5 Other Thoughts from Digital Leaders	181
7.6 What's Next in the Future of Culture Change	182
<i>References</i>	<i>187</i>
<i>Index</i>	<i>203</i>

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LIST OF FIGURES

Figure 1.1	The Future of Jobs.	10
Figure 1.2	What Is Really Happening.	11
Figure 1.3	Ranking of Singapore in the Automation Readiness Index.	12
Figure 2.1	The Eight Steps to Culture Change.	27
Figure 4.1	Architecture of CATM.	54
Figure 4.2	Competing Values Framework (CVF).	59
Figure 4.3	The Action Design Research Model.	90
Figure 4.4	Organisation-dominant BIE in the CATM Project.	98
Figure 4.5	Design Iterations.	99
Figure 4.6	Process Flow for Enabling Group Discussion on Culture Change Using CATM.	113
Figure 5.1	Entire Process Flow of the OCAI Survey.	129
Figure 5.2	The Initial Message from the First and Founding President of SUTD.	130

Figure 5.3	Process Flow for Enabling Group Discussion on Culture Change Using CATM.	131
Figure 5.4	Participation Rates.	131
Figure 5.5	Total Number of Participants.	132
Figure 5.6	Results of Organisational-wide OCAI.	136
Figure 5.7	OCAI Graph for Senior Management Group.	138
Figure 5.8	Results of OCAI Graph for Staff Group.	139
Figure 5.9	Results of the OCAI Survey for Faculty.	140
Figure 5.10	Results of the OCAI Survey for Students.	141
Figure 5.11	Estimated Mean Scores of Each Category on Current Culture.	142
Figure 5.12	Estimated Mean Scores of Each Category on Desired Culture.	143
Figure 5.13	Estimated Means Score of Each Region on Current Culture.	144
Figure 5.14	Estimated Means Scores of Each Region on Desired Culture.	145
Figure 5.15	Usefulness of CATM.	154
Figure 5.16	Ease of Use of CATM.	154
Figure 5.17	Ease of Learning CATM.	154
Figure 5.18	Overall Satisfaction with the CATM.	155
Figure 5.19	Balloons Adorning Family Day 2019.	160
Figure 5.20	Miss Evelin Tay – Associate at ASD Pillar.	161

Figure 6.1	Mr Tan Tse Yong.	163
Figure 6.2	Results of Overall Culture Survey for FITLION	169
Figure 6.3	Results of Digital Brainstorming Session 1.	170
Figure 6.4	Results of Digital Brainstorming Session 2.	171
Figure 7.1	Talent Market and Work Arrangements.	176
Figure 7.2	Dr Jovina Ang.	179
Figure 7.3	The Four Key Values of Digital Culture.	184

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LIST OF TABLES

Table 1.1	Algorithm Wave, Augmentation Wave, and Autonomy Wave.	7
Table 1.2	In Demand Skills in AI, Automation and Technology as of 2019.	14
Table 4.1	Group Process Losses.	63
Table 4.2	Key Findings from Group Processes (Intervention Studies).	74
Table 4.3	Components of a Design Theory for Managing Risk as Illustrated in Software Development.	84
Table 4.4	Summary of the ADR Process in the Culture Acceleration Tool and Methodology (CATM).	95
Table 4.5	Methodology for Software User Testing.	115
Table 5.1	The Vision and Design of SUTD Contrasted with Those of Traditional Universities.	122
Table 5.2	Percentage Distribution of Nationality of Participants.	132
Table 5.3	Length of Service of Participants.	133
Table 5.4	Results with Respect to Efficiency.	133

Table 5.5	Reliability Results.	136
Table 5.6	OCAI Numerical Results for Overall Culture.	137
Table 5.7	OCAI Scores for Senior Management Group.	138
Table 5.8	OCAI Results for Staff Group.	139
Table 5.9	OCAI Results for Faculty.	141
Table 5.10	OCAI Scores for Students.	142
Table 5.11	Summary of Current Cultural Dimension as Perceived by Different Stakeholder Groups.	145
Table 5.12	Summary Table Outlining the Desired Cultural Dimension for Different Stakeholder Groups.	146
Table 5.13	The Six Dimensions of Culture.	147
Table 5.14	Perceptions of the Six Dimensions of Culture by Different Stakeholder Groups.	149
Table 5.15	Table of Change Ideas from Staff (In Verbatim).	152
Table 5.16	Table of Change Ideas from Faculty.	153
Table 6.1	Dimensions of Culture.	169

PREFACE

After completing my PhD in 2015, I wondered what was next for me. Should I just place the Doctoral Certificate on a shelf and dust it off every few years? I knew that was not what I wanted. After a few months of deliberation, I decided I should use my knowledge to help make a difference to the industry and to the profession in which I work.

I started writing columns on LinkedIn and also began sharing the results of my PhD work at conferences. The more I wrote, the more people gravitated toward my words and my sharing. Soon, my LinkedIn followers increased substantially and many Human Resource (HR) professionals, students, and mid-career professionals began approaching me seeking advice on their careers, as well as professional advice in the areas of HR, Data Analytics, Organizational Development (OD), and Culture. I also began working with many Small to Medium Enterprise (SME) owners to help with their culture transformation journeys.

A full four years after my Doctorate on Digital Culture Change, I've garnered many new experiences from these interactions and decided to put my ideas together with my research into a new book called *Accelerating Organisation Culture Change*.

This book contains elements of my research as well as experiences I've gained along the way, together with

interviews and insights from CEOs and other seasoned professionals with whom I've interacted over the years.

I hope you will find this an inspiration, and the sharing will help you in your culture transformation journey.

ACKNOWLEDGMENTS

This book is the result of my research and work in the area of digital tools for culture change. Many people made this research and book possible and I would like to acknowledge and thank them for their guidance, coaching, support, and wisdom in the process.

Firstly, I would like to thank Professor Kuldeep Kumar who has been my inspiration in doing this work. He spent tireless evenings working with me and guiding me in my research and I learnt so much from him. Professor Jos Hillengersberg, who is my other promoter, is someone I am forever grateful for giving me the opportunity to enroll in the University of Twente as a PhD candidate and for teaching me all I need to know about ADR.

Others who have made this book possible are my HR team at SUTD, particularly Adeline Wang and Sharon Yeo, who worked tirelessly with me throughout the years to test out the digital toolkit and made it work.

Lastly, my grateful thanks to Professor Thomas Magnanti, President Emeritus of SUTD, who gave me support for this research and Professor Chong Tow Chong, my current President, who encouraged and gave me the room to experiment within SUTD.

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CHANGE IN THE DIGITAL AGE

The world seems to be moving at a greater speed than ever before. Change is a constant in the twenty-first century due to technological disruptions that are happening at an accelerated pace. In this age, change management will have to take on a different meaning as companies reinvent and adapt their organisational strategies to cope with this digital revolution. Changes in this digital age will include looking at digital talent, digital leadership, and digital transformation.

Among all, digital transformation is probably the most important and disruptive organisational change to happen in recent times. It is the process of integrating digital technology into all areas of businesses and its processes, thus changing how you operate and deliver value to customers. One of the key critical elements in this process is culture change, which requires an organisation to continually innovate and transform the mindsets of employees to cope with Industry 4.0.

1.1 IMPORTANCE OF CULTURE IN DIGITAL TRANSFORMATION

Many organisational leaders I have met opined that technological barriers were far easier to overcome than barriers relating to organisational culture. However, for those organisations that were successful in digital transformation, they were also able to transform their culture and help their employees align to the organisation's realigned values and purposes throughout the transformation journey. Culture is, thus, a vital component in the facilitation of organisational transformation. Leaders will need to help their workers change mindsets so they are ready for the future of work. Professor Namgyoo K. Park (2019), in his article on the cultural impact of automation, shares that the impact on corporate culture brought on by Industry 4.0 are great. They include looking at corporate governance, company communications, organisational structure, working conditions, and HR practices. In another article by Josh Bersin, entitled, "The New Organisation: Different by Design" (Bersin, 2016), he states, "One of the biggest drivers and facilitators of the 'new organisation' is the need to drive culture, employee engagement, learning and feedback throughout the company. Millennials are looking for mission and values at work, and when they work in small teams, they need a shared culture to ensure that strategies, programs, and compliance takes place in a consistent way."

In yet another study, "Culture for a Digital Age¹" (Goran, LaBerge, & Srinivasan, 2017), the authors share that shortcomings in organisational culture are one of the main barriers

1 <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/culture-for-a-digital-age>.

to a company's success in the digital age. The survey emphasized three digital culture deficiencies present today. These three deficiencies are:

1. Functional and departmental silos;
2. Fear of taking risks;
3. Difficulty forming and acting on a single view of the customer.

The research also shows that cultural obstacles correlate with negative economic performance. In view of this, executives will need to be proactive in shaping and measuring culture, and approach it with the same rigor with which they tackle operational transformations. Alyson Clarke (2018) shares that digital transformation will demand changes to strategy, technology, processes, and structure – and culture is the glue that brings it all together. Cultural transformation is one of the biggest barriers to digital transformation, and digital leaders must seed cultural changes to start shifting their organisation toward a digital culture that is customer focused, empathetic, agile, experimental, and collaborative.²

In view of the need to accelerate culture transformation, Park (2019) says that collaboration platforms for brainstorming, idea generation, and open communication in which ideas can be shared in real-time are vital components of success. They allow for faster and more efficient collaboration – one of the key ingredients to successful culture transformations.

2 <https://go.forrester.com/blogs/prioritize-culture-change-to-accelerate-digital-transformation/>.

1.2 MY RESEARCH WORK IN THE AREA OF DIGITAL TOOLS FOR CULTURE CHANGE

In moving organisation culture in today's world, digital tools are a great way to facilitate change and a means of bringing communities together. Innovative and low-cost platforms can be easily integrated to start building a digital culture in a non-threatening manner. This book is a culmination of my research in the area of developing digital tools for culture transformation through a robust design methodology.

In my earlier days of working as a Human Resources Leader, I often had to lead culture transformation projects with thousands of employees. These change projects took a long time as we often had to conduct communication and feedback sessions manually. In addition, not everyone had the chance to voice their opinions or views as there was limited time. The sessions were also subject to process losses due to group dynamics which compromised the integrity of the change project.

I began to look for ways in which I could work on culture transformation projects using digital tools that can speed up the change process and improve its effectiveness in an objective manner. In 2009, I started working as Director of HR in the Singapore University of Technology and Design (SUTD), a new university set up by the Singapore government, to develop technically grounded leaders who will make a difference to the world through Design. While there, I had the opportunity to work with the senior leadership team to build and develop an innovative culture necessary for the success of SUTD. I began to explore the idea of using technology for culture transformation. This began my PhD work in developing digital tools and its associated methodology for change in a new university. In conjunction with a commercial company in the Netherlands who sponsored

their software platform for the project, and through the use of an openly available culture tool, I developed the architecture and platform for the digital tool and tested it with the university population of faculty, staff, and students to validate the methodology and the results. Many positive outcomes came out of the tool, which continues to help facilitate the success of SUTD today. In this book, I will share the developmental process and methodology of the digital tool, called the “Culture Acceleration Tool and Methodology (CATM),” and its successful outcomes through the case study of two organisations. There will be explanations of the concepts underpinning the design and configuration of CATM and its associated culture tool. We will also discuss, in detail, the use of group decision support systems as a platform in which CATM was built.

Before we move on to the topic of CATM, we will talk about Industry 4.0, the future of jobs, workforce planning, and digital leadership. These are necessary preambles to the topic of culture transformation. Next, we will touch on the theoretical concepts underpinning organisation culture and change management before moving on to the use of digital tools for culture acceleration.

1.3 RAPID DIGITIZATION AND ADVENT OF INDUSTRY 4.0

Industry 4.0 is here, today. When we trace through history, starting with the development of the steam engine in the 1800s to where we are now, in 2019, we have actually moved from the “First Industrial Revolution” to what is now called the “Fourth Industrial Revolution.” This is a period ushered by rapid digital transformation where end-to-end digital and intelligent systems, artificial intelligence (AI), internet of things

(IoT), robotics, and data analytics dominate the world. We have shifted from what we call “mechanization” to what is now deemed the period of “autonomy.”

As depicted by Hawksworth, Berriman, and Goel (2018), the three waves of digital automation are described as the Algorithm Wave, Augmentation Wave, and Autonomy Wave (see [Table 1.1](#)).

Following this autonomy wave, we see six megatrends taking place today.³ These megatrends are as follows:

1. People and the Internet. This is where wearable and implantable technologies are changing how people connect and interact with the world around them.
2. AI and Big Data. This is the ability of software to learn and evolve, thus building on big data for effective decision making.
3. Sharing Economy and Distributed Trust. This is where disruptive technologies that can enable new efficiencies and business models arise. In this ecosystem, assets can be shared, replacing third-party suppliers to provide trust for financial, contract, and service activities.
4. Computing, Communications, and Storage Everywhere. There will be a rapid decline in the size, power, and cost of technology, which will lead to ubiquitous computing and connectivity anywhere and anytime
5. Digitization of Matter. In this scenario, 3D printing will revolutionize industries, ranging from manufacturing to human health, as well as transplantable organs in the future

³ Taken from WEF Global Agenda Council on the Future of Software & Society. Survey Report, *Deep Shift: 21 Ways software will transform global society*, November 2015.

Table 1.1. Algorithm Wave, Augmentation Wave, and Autonomy Wave.

Phase	Description	Tasks Affected	Industries Affected
Algorithm wave	Automation of simple computational tasks and analysis of structured data, affecting data-driven sectors (e.g., financial services)	Manually conducting mathematical calculations or using basic software packages and Internet searches. Despite increasingly sophisticated machine learning algorithms becoming available and commoditized, more fundamental computational job tasks will be most affected first	Data-driven sectors (e.g., financial and insurance, information and communication and professional, scientific and technical services)
Augmentation wave	Dynamic interaction with technology for clerical support and decision making, including robotic tasks in semi-controlled environments (e.g., moving objects in warehouses)	Routine tasks that include the physical transfer of information (e.g., filling out forms and exchanging information). A decreased need for many programming languages is also likely, as repeatable programmable tasks are increasingly automated and machines themselves build and redesign learning algorithms	Financial and insurance sectors, along with other sectors with a higher proportion of clerical support (e.g., public and administration, manufacturing and transport and storage)

Table 1.1. (Continued)

Phase	Description	Tasks Affected	Industries Affected
Autonomy wave	Automation of physical labor and manual dexterity and of problem solving in dynamic real-world situations that require responsive actions (e.g., transport and manufacturing)	Artificial intelligence and robotics will further automate routine tasks and tasks that involve physical labor or manual dexterity, including the simulation of adaptive behavior by autonomous agents	Construction, water, sewage and waste management and, with the advent of fully autonomous vehicles and robots, transportation and storage

Source: Hawksworth et al. (2018).
