

# Navigating A Complex World

A Simple Guide for Public Officers

---

Edited by Peter Ho and Sheila Pakir



ISBN: 978-981-14-2642-1 (pbk)

ISBN: 978-981-14-2709-1 (ebk)

©2019 Civil Service College, Singapore

All rights reserved. No part of this publication may be reproduced, modified, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission from the Civil Service College, Singapore.

### **Civil Service College**

31 North Buona Vista Road, Singapore 275983

🌐 [www.csc.gov.sg](http://www.csc.gov.sg)    ✉ [cscollege@cscollege.gov.sg](mailto:cscollege@cscollege.gov.sg)

### **About the Civil Service College**

The Civil Service College, Singapore is a statutory board under the Public Service Division with a mission to develop people for a first class Public Service. As the public sector's core institution for training, learning, research and staff development, the College builds strategic capacity in governance, leadership, public administration and management for a networked government in Singapore.

### **National Library Board, Singapore Cataloguing-in-Publication Data**

Name(s): Ho, Peter (Peter Hak Ean), editor. | Pakir, Sheila, editor. |

Civil Service College, Singapore, publisher.

Title: Navigating a complex world : a simple guide for public officers / edited by Peter Ho and Sheila Pakir.

Description: Singapore : Civil Service College, [2019]

Identifier(s): OCN 1111534972 | ISBN 978-981-14-2642-1 (paperback)

Subject(s): LCSH: Civil service--Singapore. |

Public administration--Singapore.

Classification: DDC 351.5957--dc23

# Introduction

In a January 2000 interview, physicist Stephen Hawking said, “I think the next century will be the century of complexity”.<sup>1</sup> Governments in the 21st century operate in an environment growing more complex due to factors such as urbanisation, globalisation, technological change, and the rise of social media. There are never any easy answers to policy problems in a complex environment. Instead, there is more ambiguity, uncertainty and conflict of opinion on how to move forward. Good governance in this century of complexity calls for new methods and new tools.

The purpose of this book is to illustrate tools and frameworks that can help public officers better navigate the complex world in which we live. The book focuses on Singapore, but many of these ideas may be transferable to other contexts.

**Chapter 1** explains the characteristics of complex systems and why governments need to understand complexity in order to survive and thrive. It introduces readers to David Snowden’s Cynefin Framework and Adam Kahane’s three dimensions of complexity, concepts offering guidance to readers on how to better approach the complex issues they might be dealing with.

To understand where we are headed, we need to look at where we have been. **Chapter 2** gives readers a history of scenario planning in Singapore,

which has been a key tool in dealing with complexity, and brings us up-to-date with the other tools employed by the Centre for Strategic Futures and other foresight units within government to test the resilience of our existing policies.

**Chapter 3** explains why bottom-up tools like agent-based modelling are essential components of the public policy toolkit, and gives three local applications of the tool. Similarly, **Chapter 4** on complexity in social policy introduces readers to two policy tools that have proven useful in dealing with social complexity, namely design thinking and collaborative governance. Three case studies are used to illustrate use of the tools and offer suggestions on how the Public Service can better incorporate complexity-based approaches in its policy toolkit.

Finally, **Chapter 5** explores how Singapore's foray into complexity thinking and its applications can be extended and enhanced in the future.

The core purpose of this book is to illustrate tools and frameworks that can help public officers better navigate our complex world. The contributors to this book hope that a better understanding of complexity and the methods to navigate it will help public officers be clearer on our challenges, and—most importantly—feel more empowered to deal with them.

---

## Note

1. Stephen Hawking, "'Unified Theory' Is Getting Closer, Hawking Predicts," interview in *San Jose Mercury News*, January 23, 2000, 29A. Answer quoted in Ashok Sengupta, ed., *Chaos, Nonlinearity, Complexity: The Dynamical Paradigm of Nature* (Berlin, Heidelberg: Springer-Verlag, 2006), vii.