Keywords in Design Thinking

A Lexical Primer for Technical Communicators & Designers

Edited by Jason C. K. Tham

Foundations and Innovations in Technical and Professional Communication

KEYWORDS IN DESIGN THINKING

A LEXICAL PRIMER FOR TECHNICAL COMMUNICATORS & DESIGNERS

Foundations and Innovations in Technical and Professional Communication

Series Editor: Lisa Melonçon

Series Associate Editors: Kristin Marie Bivens and Sherena Huntsman

The Foundations and Innovations in Technical and Professional Communication series publishes work that is necessary as a base for the field of technical and professional communication (TPC), addresses areas of central importance within the field, and engages with innovative ideas and approaches to TPC. The series focuses on presenting the intersection of theory and application/practice within TPC and is intended to include both monographs and co-authored works, edited collections, digitally enhanced work, and innovative works that may not fit traditional formats (such as works that are longer than a journal article but shorter than a book).

The WAC Clearinghouse and University Press of Colorado are collaborating so that these books will be widely available through free digital distribution and low-cost print editions. The publishers and the series editors are committed to the principle that knowledge should freely circulate and have embraced the use of technology to support open access to scholarly work.

Other Books in the Series

Kate Crane and Kelli Cargile Cook (Eds.), *User Experience as Innovative Academic Practice* (2022)

Joanna Schreiber and Lisa Melonçon (Eds.), *Assembling Critical Components: A Framework for Sustaining Technical and Professional Communication* (2022)

Michael J. Klein (Ed.), *Effective Teaching of Technical Communication: Theory, Practice, and Application* (2021).

KEYWORDS IN DESIGN THINKING

A LEXICAL PRIMER FOR TECHNICAL COMMUNICATORS & DESIGNERS

Edited by Jason C. K. Tham

The WAC Clearinghouse
wac.colostate.edu
Fort Collins, Colorado

University Press of Colorado
upcolorado.com
Boulder, Colorado

The WAC Clearinghouse, Fort Collins, Colorado 80523

University Press of Colorado, Denver, Colorado 80202

© 2022 by Jason C. K. Tham. This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International.

ISBN 978-1-64215-172-5 (PDF) | 978-1-64215-173-2 (ePub) | 978-1-64642-394-1 (pbk.)

DOI 10.37514/TPC-B.2022.1725

Produced in the United States of America

Library of Congress Cataloging-in-Publication Data

Names: Tham, Jason Chew Kit, 1990- editor.
Title: Keywords in design thinking : a lexical primer for technical communicators & designers / edited by Jason C.K. Tham.
Description: Fort Collins, Colorado : The WAC Clearinghouse ; Boulder, Colorado : University Press of Colorado, [2022] | Series: Foundations and innovations in technical and professional communication | Includes bibliographical references.
Identifiers: LCCN 2022059676 (print) | LCCN 2022059677 (ebook) | ISBN 9781646423941 (paperback) | ISBN 9781642151725 (adobe pdf) | ISBN 9781642151732 (epub)
Subjects: LCSH: Problem solving. | Creative thinking. | Communication of technical information.
Classification: LCC BF449 .K47 2022 (print) | LCC BF449 (ebook) | DDC 153.4/3--dc23/eng/20230222
LC record available at https://lccn.loc.gov/2022059676
LC ebook record available at https://lccn.loc.gov/2022059677

Copyeditor: Meg Vezzu
Designer: Mike Palmquist
Series Editor: Lisa Melonçon
Series Associate Editors: Kristin Marie Bivens and Sherena Huntsman

The WAC Clearinghouse supports teachers of writing across the disciplines. Hosted by Colorado State University, it brings together scholarly journals and book series as well as resources for teachers who use writing in their courses. This book is available in digital formats for free download at wac.colostate.edu.

Founded in 1965, the University Press of Colorado is a nonprofit cooperative publishing enterprise supported, in part, by Adams State University, Colorado State University, Fort Lewis College, Metropolitan State University of Denver, University of Alaska Fairbanks, University of Colorado, University of Denver, University of Northern Colorado, University of Wyoming, Utah State University, and Western Colorado University. For more information, visit upcolorado.com.

Land Acknowledgment. The Colorado State University Land Acknowledgment can be found at https://landacknowledgment.colostate.edu.

Contents

Acknowledgments . . . . . **vii**

Introduction to Design Thinking & *Keywords* 3
Jason Tham and Luke Thominet

Part 1: The Design Thinking Phases 19

1. Empathy 21
Scott Wible

2. Problem Definition 25
Scott Wible

3. Ideation 31
Jennifer Sano-Franchini

4. Rapid Prototyping 37
Krys Gollihue

5. Testing 41
Bradley Dilger

6. Iteration 45
Emma J. Rose and Cody Reimer

Part 2: Concepts and Applications 49

7. Affordances 51
Devon Cook

8. Collaboration 55
Matthew A. Vetter

9. Constraints 59
Jeff Naftzinger

10. Contextual Inquiry 63
Thomas M. Geary

11. Creativity 67
Emily Wierszewski

12. Critical Making 73
Shannon Butts

13. Design Ethics 79
Rachael Sullivan

14. Digital Fabrication 85
Emily F. Brooks

15. Edge Cases 91
Mary E. Caulfield

16. Entrepreneurship 95
Jason Luther

17. Equity 101
Ashanka Kumari

18. Failing 105
Stephanie West-Puckett and Zarah C. Moeggenberg

19. Human Factors and Ergonomics 111
Jack T. Labriola

20. Inclusion 115
Zarah C. Moeggenberg

21. Innovation 119
Andrew Kulak

22. Modularity 125
Adam Strantz

23. Participatory Design 129
Ian R. Weaver

24. Social Design 135
Liz Lane

25. Social Justice 139
April L. O'Brien

26. Tacit Knowledge 143
Kristen R. Moore

27. Usability 147
Emma J. Rose

28. User-Centered Design 151
Jason Tham

29. Wicked Problems 155
Lauren Garskie

Contributors 161