

INFORMED LEARNING APPLICATIONS

ADVANCES IN LIBRARIANSHIP

Editors:

Paul T. Jaeger, University of Maryland, Series Editor

Caitlin Hesser, University of Maryland, Series Managing Editor

Editorial Board:

Denise E. Agosto, Drexel University

Wade Bishop, University of Tennessee Knoxville

John Buschman, Seton Hall University

Michelle Caswell, University of California Los Angeles

Sandra Hughes-Hassell, University of North Carolina at Chapel Hill

R. David Lankes, University of South Carolina

Don Latham, Florida State University

Ricardo L. Punzalan, University of Maryland

Lynn Westbrook, University of Texas

ADVANCES IN LIBRARIANSHIP VOLUME 46

INFORMED LEARNING APPLICATIONS: INSIGHTS FROM RESEARCH AND PRACTICE

EDITED BY

KIM L. RANGER

Grand Valley State University, USA



United Kingdom – North America – Japan
India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2019

Copyright © 2019 Emerald Publishing Limited

Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-78769-062-2 (Print)

ISBN: 978-1-78769-061-5 (Online)

ISBN: 978-1-78769-063-9 (Epub)

ISSN: 0065-2830 (Series)



ISOQAR certified
Management System,
awarded to Emerald
for adherence to
Environmental
standard
ISO 14001:2004.

Certificate Number 1985
ISO 14001



INVESTOR IN PEOPLE

CONTENTS

Acknowledgments	vii
Figures and Tables	ix
About the Contributors	xi
Preface <i>Christine Bruce</i>	xv
Introduction <i>Kim L. Ranger</i>	1
Chapter 1 The Six Frames in Schools: Practices from Taiwan <i>Lin Ching Chen and Yaw-Huei Chen</i>	5
Chapter 2 Simultaneous Learning about Research and Filmmaking: Informed Learning and Research Guides <i>Shelley Woods and Kathleen Cummins</i>	23
Chapter 3 Beyond Information Literacy: Rethinking Approaches to the College Public Speaking Curriculum <i>Danielle R. Leek and Carl J. Brown</i>	37
Chapter 4 Ways of Learning of Information Professionals: Concepts, Roles, and Strategies <i>Virginia M. Tucker</i>	51
Chapter 5 Relational Liaising to Integrate Informed Learning into the Disciplinary Classroom <i>Kim L. Ranger</i>	67
Chapter 6 Academic Librarians as Informed Learning Developers <i>Rachel Fundator and Clarence Maybee</i>	81

Chapter 7 Information Literacy (IL) “Without Borders”: The Future of IL Education <i>Veronica Cunningham</i>	95
Chapter 8 Power and Resistance in Informed Learning <i>Lee Webster and Andrew Whitworth</i>	115
 Index	 133

ACKNOWLEDGMENTS

Thanks go to all of the following:

Grand Valley State University for sabbatical leave; University Libraries for their financial and collegial support; the Center for Scholarly and Creative Excellence for their Catalyst grant and the Pew Faculty Teaching and Learning Center for their Teaching Innovation grant; Mr Matt Ruen for his advice on the publishing contract.

Queensland University of Technology, School of Information Systems for providing workspace, equipment, and Wi-Fi; Information Science colleagues in Y7 for their gracious welcome, generosity, conversations, and sharing their knowledge and ideas; Dr Christine Bruce, formerly of Queensland University of Technology's School of Information Systems, Information Science, for her constant encouragement and mentorship; Dr Ian Stoodley for his wise counsel on several drafts of my chapters and for many genial chats; Dr Elham Sayyad Abdi for her generous hospitality, advice, and allowing me to guest lecture in IFN 616; Dr Andrew Demasson for many amiable chats and sharing his knowledge of phenomenography, Aussie literature, and everything else; Dr Linh Nguyen for his kindness and allowing me to guest lecture in IFN 617; Dr Sharmistha Dey for her friendliness and allowing me to guest lecture in IFN 615; Ms Pamela Hoyte, PhD student, for loaning a fellow musician an instrument to play; Mr Syed Rehan Abbas Zaidi, PhD student, for our philosophical conversations.

Amy Ranger for her love, support, and advice – I could not have done this without her.

And all those whom I haven't named: may your light continue to shine.

This page intentionally left blank

FIGURES AND TABLES

FIGURES

1.1	Framework for the Integrated Information Literacy Curriculum.	8
1.2	Maple Tree Identification Cards.	16
1.3	The Best Proposal Poster Titled “Fish Squad.”	17
1.4	The Class Aquarium.	18
3.1	Data Analysis Map: Public Speaking Materials.	40
5.1	Adapted from Bruce’s (2008) Definitions of Information, Learning, and Informed Learning.	68
5.2	Expression/Dissemination.	71
5.3	Cross-disciplinary Model of Building Informed Learning Content (Relational Liaising).	74
5.4	Assessment/Evaluation.	75
5.5	Previous and New Library Subject Guides Restructured to Reflect Disciplinary Concepts.	78
7.1	Common Ground Model of Conceptions of IL (Cunningham 2017).	101

TABLES

1.1	Key Aspects of Inquiry Projects.	10
4.1	Threshold Concepts: Considerations Tied to Key Points for Course Design.	59
6.1.	Key Aspects of the Work of Educational Developers.	85
6.2	Key Aspects of the Work of Informed Learning Developers.	87
7.1	Comparative Analysis of Conceptions of IL.	102
7.2	IL “Without Borders” Model: A Blended Strategic Approach to Advancing INFL/ILE.	109
8.1	Overview of Assessed Discussion Board Activities.	120

This page intentionally left blank

ABOUT THE CONTRIBUTORS

Dr Carl J. Brown is an Assistant Professor of Communication Studies and the Executive Director of the Speech Lab at Grand Valley State University. He teaches sections of public speaking, communication theory, and communication research methods. As Speech Lab Director, he trains and mentors staff, directs various student research projects, and produces his own award winning communication center research. His other research interests include public speaking empowerment and the exploration of learning styles. He earned his PhD in Communication Studies while serving as the Coordinator of the Speaking Center at The University of Southern Mississippi. His dissertation, titled *Instructor-Student Classroom Interactions: An Experimental Study of Language, Sex Differences, and Student Perceptions of Instructors*, examined instructor use of slang in the classroom. Previously, he earned both his Master of Arts and Bachelors degrees from East Tennessee State University in Johnson City, Tennessee.

Dr Lin Ching Chen is a Professor in the Department of E-learning Design & Management at the National Chiayi University, Taiwan. She teaches courses and conducts research on information literacy, information technology, and information problem solving. She likes to work with teachers in various levels to investigate real problems in the fields, especially in integrating information literacy into different curricula. She earned her BA from National Taiwan University in Taiwan, and her MEd from the University of Arizona and her EdD in educational technology from the University of Florida. She has published in *Malaysian Journal of Library & Information Science*, *Journal of Educational Media & Library Sciences*, *Knowledge Management E-Learning: An International Journal*, etc.

Dr Yaw-Huei Chen is an Associate Professor in the Department of Computer Science and Information Engineering at the National Chiayi University, Chiayi, Taiwan. His research interests are in the areas of machine learning, natural language processing, Bayesian data analysis, and databases. Recently he is involved in several digital reading projects. He received the BS degree in electrical engineering from the National Taiwan University, Taipei, Taiwan, the MS degree in electrical and computer engineering from the University of Arizona, Tucson, and the PhD degree in computer and information sciences from the University of Florida, Gainesville. He has published in *Maejo International Journal of Science and Technology*, *Malaysian Journal of Library & Information Science*, *The International Journal of Computational Linguistics*, and *Chinese Language Processing*, etc.

Dr Kathleen Cummins is a Professor of Film, Television and Journalism at Sheridan College. She has a BA in Film Studies, an MFA in Film Production,

and a PhD in Women's and Gender Studies. She has written on a diverse range of topics related to cinema and filmmaking. As a filmmaker, she has received funding from the Ontario Arts Council, Telefilm-Canada, the Harold Greenberg Screenwriting Fund, the National Film Board of Canada, and the CBC, and her films have been screened and broadcast internationally. Kathleen is passionate about teaching, making, and writing about film.

Dr Veronica Cunningham, Library Development and Information Literacy Education Consultant, International Baccalaureate (IB) Theory of Knowledge Teacher, and Founder of Cunningham Education, Norway, provides creative information literacy education (ILE) solutions to international school communities and libraries. She has held senior positions in the library, curriculum development, assessment, and strategic planning areas, and has designed and implemented ILE initiatives relevant to the IB Diploma and Primary Years Programmes. In addition to her consultancy services she works as an IB Theory of Knowledge teacher and has previously worked as an Associate Lecturer in the social sciences and as peer-to-peer trainer regarding approaches to teaching critical analysis for the Open University. Understanding IL from multiple stakeholder groups perspectives formed the focus of her doctorate research the findings from which point to the need for a re-calibration of the ways we understand IL to proactively inform ILE in the twenty-first century.

Ms Rachel Fundator is an Information Literacy Instructional Designer at Purdue University's Libraries and School of Information Studies. She works with subject faculty on pedagogical decisions and disciplinary uses of information to support student learning within a large-scale course redesign program. Her research interests include informed learning and active learning environments. She has published in *The Journal of Academic Librarianship* and *Library & Information Science Research*.

Dr Danielle R. Leek is Director of Academic Innovation & Distance Education at Bunker Hill Community College in Boston, Massachusetts. She is also an Instructor in the MA in the communication program at Johns Hopkins University. Prior to joining Campus Compact, Danielle was Associate Professor of Communications at Grand Valley State University where she also served as the Executive Director of the award-winning campus Communication Center. She holds a PhD in Communication from the University of Iowa. Her research focuses on civic agency, civic education, and political communication. She also holds an MBA from Grand Valley State University, an MA in Communication from the University of Iowa, and a BS in Speech Communication from Eastern Michigan University.

Dr Clarence Maybee is an Associate Professor at Purdue University's Libraries and School of Information Studies. His research on information literacy in theoretical and applied contexts is published in highly ranked information science and higher education journals. He is one of the leaders of a national program

hosted by the Association of College and Research Libraries to develop librarians' teaching expertise. He is the Series Editor of the information literacy handbook series published by Purdue University Press. In 2018, he authored the book, *IMPACT Learning: Librarians at the Forefront of Change in Higher Education*, published by Chandos Publishing.

Ms Kim L. Ranger has been a Faculty Librarian at Grand Valley State University since 1990. She holds a Master of Information and Library Studies from the University of Michigan and a BA in Anthropology/Sociology from Western Michigan University. Formerly a Government Documents and Reference librarian, then Information Literacy Coordinator, she spent both her 1999 and 2017 sabbaticals studying information literacy at the Queensland University of Technology in Brisbane, Australia. Since 2006, she has been Liaison Librarian to the School of Communications, Music, Theatre, and Dance, Photography, and Film and Video Production. In 2016, she produced a peer-reviewed, open access book titled *Seventh-day Quaker: A Spiritual Memoir*. She is passionate about teaching and learning, reading, the outdoors, music and the arts, LGBT advocacy, and issues affecting indigenous peoples. She is fascinated by languages, especially Spanish, quantum physics, and ethics in autonomous robots.

Dr Virginia Tucker is Assistant Professor at the School of Information at San José State University, where she teaches and coordinates curriculum for courses in information retrieval system design, advanced search, and information architecture, and serves as Associate Coordinator of the Gateway PhD Program. She was previously Product Architect and Client Training Manager at Dialog/Thomson (now ProQuest), the Physics Librarian at Stanford University, and a Public Law Librarian. Her current research interests include search behavior, information structures, online learning, and information experience. She has a PhD in information systems from Queensland University of Technology; MLS from University of California at Berkeley; and BA in music composition from Stanford University.

Dr Lee Webster is a Lecturer in Enterprise in the Alliance Manchester Business School at the University of Manchester, UK. He joined Manchester Enterprise Centre as an Enterprise Fellow in 2002 before taking up the post of Enterprise Academic in 2004. He holds a PhD in physical chemistry awarded by Salford University in 1996. Before joining MEC he worked as a research and development chemist. He has been actively involved in technology transfer and innovation from universities to both small companies and multinational corporations.

Dr Andrew Whitworth is Director of Teaching and Learning Strategy at the Manchester Institute of Education, University of Manchester, UK. He has published two single-authored books on *Digital and Information Literacy: Information Obesity* (2009) and *Radical Information Literacy* (2014). He was one of the authors of the 2012 Moscow Declaration on Media and Information Literacy and in 2017 was Keynote Speaker at the European Conference on Information Literacy.

Ms Shelley Woods is the Faculty of Animation, Arts and Design Liaison Librarian and User Education Coordinator at Sheridan College. Prior to working at Sheridan, she taught Early Childhood Education and English as a Second Language. Her career in libraries has spanned Brock, Harvard, McGill University and Boston Public Library. She holds a Master of Library and Information Studies, Graduate Certificate of Inclusive Education and Bachelor of Elementary Education from McGill University, and Museum Studies Graduate Certificate from Harvard University. When she is not helping students, she enjoys collaborating with faculty on interesting projects.

PREFACE

The core idea underpinning informed learning is very simple. It is about peoples' experiences of using information to learn, and how, as educators, we might usher learners into as wide a range of those experiences as possible. Informed learning is about information literacy and information literacy education, considered from the phenomenographic position that learning is about coming to experience things in new and more powerful ways. Informed learning develops and explores the notion that using information to learn involves simultaneous attention to both information use and the content of learning in many contexts.

In this volume, Kim Ranger has brought together a wide range of applications of, and advances to, informed learning by colleagues around the world. The chapters represent learning at many levels, and in diverse cultures. Extensively described examples of curriculum, approaches to academic development, organizational strategies, new insights into people's experiences, and theoretical developments are included. Kim's own work, inspiring the idea of relational liaising is a special feature. Clearly, this is a volume that will serve as an inspiration well into the future.

As we continue to advance informed learning through organizational and developmental strategies, bringing informed learning into curriculum continues to be a cornerstone of our work. We need to continue to ask questions of curriculum, such as:

How can the relation between information use and content learning be strengthened?

Which information and learning experiences are represented (e.g., Seven faces) and how can a wider balance be achieved?

Which frames for informed learning have been adopted, and how can a wider balance be achieved?

Where can reflection on information use and learning be built into learning design?

How can emphasis on community and workplace contexts be built into the learning design?

How can relevant information user research inform the learning design?

As we journey in our informed learning work we need to keep in mind that being an informed learner is about being able to maximize the potential of the information environment available in any context. Being an informed learner enables not only productivity and capability, but also innovation and creativity. Informed learners are empowered to help others learn. When being informed, people are being energized, activated to become something new, and bring important changes to our world.

Information has the potential to be transformational. As future professionals and leaders, informed learners will be empowered to work to solve problems of poverty, hunger, homelessness, drug addiction, and injustice as well as to help people live and enjoy their lives. Their awareness of information and learning experiences will help them to have influence across social and cultural contexts, digital and physical information environments, as well as commercial and political spaces.

As we make informed learning possible, we need to do so wisely and with a view to the futures that our day-to-day focus may bring about. The contents of this book contain many examples of how that work is already happening.

ACKNOWLEDGMENTS

The questions for critiquing learning design and thoughts about informed learners toward the end of this preface are adapted from ideas developed during a visit to Hong Kong Polytechnic University Library in November 2016.

Christine Bruce
Dean, Graduate Research
James Cook University, Australia
Web: www.christinebruce.com.au
Eprints: <https://research.jcu.edu.au/portfolio/christine.bruce/>

INTRODUCTION

Kim L. Ranger

I met Christine Bruce in 1999 during my first sabbatical to learn about information literacy while at Queensland University of Technology. While there, I read *The Seven Faces of Information Literacy* (1997) and had questions about putting the ideas into practice. After our appointment, I followed her subsequent work as well as that of related information literacy scholars. In 2016, I had been putting *Informed Learning* (2008) ideas into practice but lacked knowledge about the particular qualitative research method called phenomenography. I queried Dr Bruce about the possibility of doing a project under her mentorship. While there was not time for a phenomenographic study in a single semester, she urged me to write a book about my work and suggested inviting others to contribute chapters. The project formed the basis for my 2017 sabbatical in the Information Science area of Queensland University of Technology's College of Science and Engineering, School of Information Systems.

Informed learning is “using information, creatively and reflectively, in order to learn” (Bruce 2008, p. viii), an approach to information literacy with a focus on learning disciplinary content while engaging reflectively with information, in academic, professional, or community contexts. Informed learning is the absorption of field-distinctive subject matter while at the same time using information successfully (Bruce, 2008, p. 4).

Informed learning is still relatively new. Although a number of articles extend or address aspects of informed learning since Bruce's 2008 book of that title, there are currently only a handful of books that do so. Recent work includes *Information Experience: Approaches to Theory and Practice* (Bruce, Davis, Hughes, Partridge, & Stoodley, 2014), Andrew Whitworth's *Radical Information Literacy: Reclaiming the Political Heart of the IL Movement* (2014), *Information Literacy in the Workplace* by Marc Forster (2017), and Clarence Maybee's *IMPACT Learning: Librarians at the Forefront of Change in Higher Education* (2018). This book, which illustrates collaboration by librarians and academic faculty to improve student learning, will contribute to the broader, global

educational and library and information science discourse. The description of practice of informed learning within different disciplines fills a gap for educators from elementary to postgraduate levels. From classroom teachers to professors in higher education, instructors embrace collaborating with librarians to guide student learning in the disciplines. Teachers and librarians may come to understand the various forms of information in their fields, select and provide access to disciplinary information, guide and study information creation and meaning, facilitate the process of creating learning outcomes and goals, assess outcomes, and map information literacy across the curricula. Together we must give students authentic learning experiences that allow them to shape their lives, their professions, and their societies by becoming active citizens who negotiate for and maintain their intellectual and creative rights when they take their place in the workforce. Disseminating the results of these cross-disciplinary partnerships will help others improve their approaches to teaching and learning.

Each chapter is meant to create a clear connection to informed learning, define and emphasize a particular aspect of it, be suited to a practitioner audience, and be written with a tone that is professional and includes a mix of theory and practice. The authors use examples from Norway, Taiwan, USA, and the UK. They represent educational partnerships from the elementary/primary school level to postgraduate higher education. Australia's representative and inspiration for the book, Bruce, emphasizes the significance of informed learning applications in her "Preface."

Chen and Chen lead the eight chapters with examples that combine the Big6 model, inquiry-based learning, and Bruce's informed learning approach in "The Six Frames in Schools: Practices from Taiwan." They have been using these in an instruction program for grades 1–6 to advance information literacy in a Taiwanese school. The Chens present student projects as they report on several years of collaboration with classroom teachers.

In "Simultaneous Learning about Research and Filmmaking: Informed Learning and Research Guides," Woods and Cummins collaborate to teach information literacy for a specific disciplinary course in higher education. They apply universal design for learning as they scaffold student-centered learning activities. Woods and Cummins describe using the subject guide aligned with informed learning principles to help undergraduate student filmmakers create well-researched documentaries.

Leek and Brown's chapter, in addition to Tucker's, address curriculum design. Tucker investigates postgraduate students' experiences of using information in "Ways of Learning of Information Professionals: Concepts, Roles, and Strategies." She blends informed learning with Meyer and Land's threshold concepts to redesign master's courses, and uses information experience to assess students' transformed learning experiences and relationships with information.

Via "Beyond Information Literacy: Rethinking Approaches to the College Public Speaking Curriculum," Leek and Brown stress the value of the deliberative dimension of informed learning experience in oral communication. They highlight the need to shift away from teaching sequential information skills to incorporating cyclical student reflections about how the students use information

in order to learn about themselves as speakers, about their audience, or about the topic of their speech. Leek and Brown focus on communication curricula and speech centers, peer tutors, speech instructors, and librarians.

Ranger creates a new model, relational liaising, by applying Bakhtinian leadership principles to academic librarianship. Her examples primarily focus on communication-related library instruction combining informed learning and scholarly communication. Ranger builds upon Maybee's work to describe specific activities and closes by calling for library and classroom faculty to collaborate in guiding students to transformative ways of thinking.

From Purdue University, Fundator and Maybee describe transforming the role of librarians in higher education to one similar to the educational developer. By partnering with teachers, academic librarians are able to shape student education by acting as "informed learning developers." Fundator and Maybee give insights into ways librarians collaborate with instructors, applying scholarly literature to pedagogy, designing contextual learning experiences, and inviting faculty to reflect on goals and results.

The final two chapters are more theoretical. Cunningham examines selected findings from her recent phenomenographic study that capture the understanding of information literacy held across multiple stakeholder groups in an international school community. Using these findings, she revisits Bruce's (2008) RACER framework as a compass to champion informed learning throughout an organization. The outcome is to offer a new blended approach to guide practitioners leading sustainable and future-focused information literacy education that represents stakeholders' information literacy conceptions and perceptions of their information context. Cunningham uses this blended "beyond borders" strategic approach to advance information literacy education for learners of all ages within the international education context and beyond.

"Power and Resistance in Informed Learning" focuses on the political sphere of learning. Webster and Whitworth find that postgraduate educational technology students' resistance to power changes their information practices. Students push back against having their conversation observed in the traditional academic fashion within a course management system. By moving their discussion elsewhere, students exemplify transformed thinking about their information landscapes and authority; this informs how faculty design future learning activities.

I believe there is plenty of room for additional material, not only on this topic, but also in applying informed learning to library collections management, learning study, the growing impact of robotics on daily life, and most importantly, creating globally sustainable development and existence.