



ROUTLEDGE
HANDBOOKS

The Routledge Handbook of Language Learning and Technology

Edited by Fiona Farr and Liam Murray

The Routledge Handbook of Language Learning and Technology

The exponential growth and development of modern technologies in all sectors has made it increasingly difficult for students, teachers and teacher educators to know which technologies to employ and how best to take advantage of them.

The Routledge Handbook of Language Learning and Technology brings together experts in a number of key areas of development and change, and opens the field of language learning by exploring the pedagogical importance of technological innovation. The handbook is structured around six themes:

- historical and conceptual contexts
- core issues
- interactive and collaborative technologies for language learning
- corpora and data-driven learning
- gaming and language learning
- purpose designed language learning resources.

Led by fundamental concepts, theories and frameworks from language learning and teaching research rather than by specific technologies, this handbook is the essential reference for all teachers, researchers and advanced students of Language Learning, Language Teacher Education, TESOL and Applied Linguistics.

Fiona Farr is senior lecturer in TESOL at the University of Limerick. She is author of *The Discourse of Teaching Practice Feedback* (2011) and *Practice in TESOL* (2015).

Liam Murray lectures in French and language technologies at the University of Limerick. He is the co-editor of *Quality Issues in ICT Integration: Third Level Disciplines and Learning Contexts* (with T. Hourigan and E. Riordan, 2011).

Routledge Handbooks in Applied Linguistics

Routledge Handbooks in Applied Linguistics provide comprehensive overviews of the key topics in applied linguistics. All entries for the handbooks are specially commissioned and written by leading scholars in the field. Clear, accessible and carefully edited *Routledge Handbooks in Applied Linguistics* are the ideal resource for both advanced undergraduates and postgraduate students.

The Routledge Handbook of English for Academic Purposes

Edited by Ken Hyland and Philip Shaw

The Routledge Handbook of Language and Digital Communication

Edited by Alexandra Georgakopoulou and Tereza Spilioti

The Routledge Handbook of Literacy Studies

Edited by Jennifer Rowsell and Kate Pahl

The Routledge Handbook of Interpreting

Edited by Holly Mikkelsen and Renée Jourdenais

The Routledge Handbook of Hispanic Applied Linguistics

Edited by Manel Lacorte

The Routledge Handbook of Educational Linguistics

Edited by Martha Bigelow and Johanna Ennser-Kananen

The Routledge Handbook of Forensic Linguistics

Edited by Malcolm Coulthard and Alison Johnson

The Routledge Handbook of Corpus Linguistics

Edited by Anne O'Keeffe and Mike McCarthy

The Routledge Handbook of World Englishes

Edited by Andy Kirkpatrick

The Routledge Handbook of Applied Linguistics

Edited by James Simpson

The Routledge Handbook of Discourse Analysis

Edited by James Paul Gee and Michael Handford

The Routledge Handbook of Second Language Acquisition

Edited by Susan Gass and Alison Mackey

The Routledge Handbook of Language and Intercultural Communication

Edited by Jane Jackson

The Routledge Handbook of Language Testing

Edited by Glenn Fulcher and Fred Davidson

The Routledge Handbook of Multilingualism

Edited by Marilyn Martin-Jones, Adrian Blackledge and Angela Creese

The Routledge Handbook of Translation Studies

Edited by Carmen Millán-Varela and Francesca Bartrina

The Routledge Handbook of Language and Health Communication

Edited by Heidi E. Hamilton and Wen-ying Sylvia Chou

The Routledge Handbook of Language and Professional Communication

Edited by Stephen Bremner and Vijay Bhatia

This page intentionally left blank

The Routledge Handbook of Language Learning and Technology

Edited by Fiona Farr and Liam Murray

 Routledge
Taylor & Francis Group
LONDON AND NEW YORK

First published 2016
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2016 Fiona Farr and Liam Murray

The right of Fiona Farr and Liam Murray to be identified as the authors of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data

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

Library of Congress Cataloging-in-Publication Data

Names: Farr, Fiona, 1971- editor. | Murray, Liam.

Title: The Routledge Handbook of language learning and technology / edited by
Fiona Farr and Liam Murray.

Description: Milton Park, Abingdon, Oxon ; New York, NY : Routledge, [2016] | Series:

Routledge Handbooks in Applied Linguistics | Includes bibliographical references and index.

Identifiers: LCCN 2015039257 | ISBN 9780415837873 (hbk) | ISBN 9781315657899 (ebk)

Subjects: LCSH: Language and languages—Study and teaching—Technological innovations. |

Language and languages—Study and teaching—Data processing. | Web-based instruction. |

Curriculum development—Technological innovations. | Educational technology.

Classification: LCC P53.855 .R68 2016 | DDC 418.0078—dc23

LC record available at <http://lcn.loc.gov/2015039257>

ISBN: 978-0-415-83787-3 (hbk)

ISBN: 978-1-315-65789-9 (ebk)

Typeset in Bembo
by Apex CoVantage, LLC

Contents

<i>List of figures</i>	<i>xi</i>
<i>List of tables</i>	<i>xiii</i>
<i>Acknowledgements</i>	<i>xiv</i>
<i>Permissions</i>	<i>xv</i>
<i>List of acronyms</i>	<i>xvi</i>
<i>List of contributors</i>	<i>xix</i>

Introduction: Language learning and technology <i>Fiona Farr and Liam Murray</i>	1
-------------------------------------------------------------------------------------	---

PART I

Historical and conceptual contexts **7**

1 Language learning and technology: Past, present and future <i>Deborah Healey</i>	9
2 Theory in computer-assisted language learning research and practice <i>Philip Hubbard and Mike Levy</i>	24
3 Towards an 'ecological' CALL theory: Theoretical perspectives and their instantiation in CALL research and practice <i>Françoise Blin</i>	39

PART II

Core issues	55
4 Technology standards for language teacher preparation <i>Greg Kessler</i>	57
5 Researching participatory literacy and positioning in online learning communities <i>Mirjam Hauck, Rebecca Galley and Sylvia Warnecke</i>	71
6 Language materials development in a digital age <i>Gary Motteram</i>	88
7 Researching in language learning and technology <i>Mike Levy</i>	101
8 Literacies, technology and language teaching <i>Gavin Dudeney and Nicky Hockly</i>	115
9 Evaluation in CALL: Tools, interactions, outcomes <i>Catherine Caws and Trude Heift</i>	127
10 Language testing and technology <i>James Dean Brown</i>	141
11 From age and gender to identity in technology-mediated language learning <i>Elisabeth (Hayes) Gee and Yoonhee N. Lee</i>	160
12 Culture, language learning and technology <i>Robert Godwin-Jones</i>	173
13 Language learning and technology in varied technology contexts <i>Hyun Gyung Lee and Joy Egbert</i>	185
14 Limitations and boundaries in language learning and technology <i>Richard Kern and Dave Malinowski</i>	197
15 Teacher education and technology <i>Elizabeth Hanson-Smith</i>	210
16 Sustainable CALL development <i>Françoise Blin, Juha Jalkanen and Peppi Taalas</i>	223

PART III	
Interactive and collaborative technologies for language learning	239
17 Telecollaboration and language learning <i>Francesca Helm and Sarah Guth</i>	241
18 Social networking and language learning <i>Lara Lomicka and Gillian Lord</i>	255
19 Computer supported collaborative writing and language learning <i>Muriel Grosbois</i>	269
20 Interactive whiteboards and language learning <i>Euline Cutrim Schmid</i>	281
21 Mobile language learning <i>Glenn Stockwell</i>	296
22 Virtual worlds and language learning: An analysis of research <i>Mark Peterson</i>	308
23 Online and blended language learning <i>Pete Sharma and Kevin Westbrook</i>	320
PART IV	
Corpora and data-driven learning	335
24 Introduction to data-driven learning <i>Martin Warren</i>	337
25 Spoken language corpora and pedagogical applications <i>Andrew Caines, Michael McCarthy and Anne O’Keeffe</i>	348
26 Written language corpora and pedagogical applications <i>Angela Chambers</i>	362
27 Learner corpora and pedagogical applications <i>Fanny Meunier</i>	376
28 Corpus types and uses <i>Bróna Murphy and Elaine Riordan</i>	388

29	Designing and building corpora for language learning <i>Randi Reppen</i>	404
----	-----------------------------------------------------------------------------	-----

PART V

Gaming and language learning 413

30	Metaphors for digital games and language learning <i>Jonathon Reinhardt and Steven Thorne</i>	415
----	--------------------------------------------------------------------------------------------------	-----

31	Mini-games for language learning <i>Frederik Cornillie and Piet Desmet</i>	431
----	-------------------------------------------------------------------------------	-----

32	Gaming and young language learners <i>Pia Sundqvist</i>	446
----	------------------------------------------------------------	-----

PART VI

Purpose designed language learning resources 459

33	CALL tools for lexico-grammatical acquisition <i>Li Li</i>	461
----	---------------------------------------------------------------	-----

34	CALL tools for reading and writing <i>Hsien-Chin Liou</i>	478
----	--------------------------------------------------------------	-----

35	CALL tools for listening and speaking <i>Úna Clancy and Liam Murray</i>	491
----	----------------------------------------------------------------------------	-----

36	Multimodality and CALL <i>Nicolas Guichon and Cathy Cohen</i>	509
----	------------------------------------------------------------------	-----

37	Intelligent CALL and written language <i>Cornelia Tschichold and Mathias Schulze</i>	522
----	-----------------------------------------------------------------------------------------	-----

38	Translation and technology: The case of translation games for language learning <i>Pierrette Bouillon, Cristiana Cervini and Manny Rayner</i>	536
----	-----------------------------------------------------------------------------------------------------------------------------------------------------	-----

	<i>Index</i>	550
--	--------------	-----

Figures

1.1	Interaction from <i>London Adventure</i>	10
1.2	Entrance to SchMOOze University	16
3.1	Illustration of Bronfenbrenner's (1979) nested ecosystems	43
3.2	Representation of a CALL activity system	45
3.3	Nested affordances in CALL ecosystems	49
5.1	Glogster poster 1, Malgorzata – Tuesday, 17 January 2012, 06:44 PM	74
5.2	Glogster poster 2, Maria – Monday, 23 January 2012, 12:58 AM	75
5.3	Community Indicators Framework by Galley et al. (2011)	82
5.4	Revised CIF	84
6.1	A sociocultural representation of a teacher's materials creation domain, showing its complexity	93
9.1	Life cycle of the tool development and implementation	130
14.1	Kaleidoscope analogy	202
15.1	Communities of practice in relationship to networks, communities and groups	218
16.1	Two models for sustainable development	224
16.2	SpeakApps sustainability roadmap	230
16.3	The four pillars of sustainable CALL	235
17.1	The UNICollaboration platform homepage	251
19.1	Abstract of text produced as a result of collaborative practice	270
19.2	Chat exchange preparing for common text (displayed in Figure 19.1)	272
19.3	Chat excerpt about attention to form	273
20.1	Classroom interactive display penetration	283
23.1	Blended learning: Synchronous and asynchronous communication	321
26.1	Verbs following <i>thesis</i> in Lextutor	365
26.2	Phrases including <i>thesis</i> in Lextutor	365
26.3	The use of <i>we</i> in statements of purpose	367
26.4	<i>Permettre</i> in <i>Le Monde</i> in 1998	368
26.5	The use of <i>nous</i> (<i>we, us</i>) in single-authored research articles in French	370
29.1	WordSmith 6.0 plot showing position of <i>however</i> in texts	409
29.2	Examples from the KWIC of <i>however</i> using WordSmith 6.0	409
31.1	Mini-game <i>Article Wolf</i> , providing focused practice of English articles in the meaningful context of a story	437
31.2	Mini-game <i>Johnny Grammar's Word Challenge</i> , providing practice of vocabulary and grammar with time pressure	438

Figures

33.1	A screenshot of Vsee used to provide immediate corrective feedback, with short transcription of included text	471
33.2	Concordance for <i>suggest</i>	472
35.1	Common audio icon	502
35.2	Common audio icon with IPA transcription and spell options	502
35.3	Audio icon option showing individual syllables	503
38.1	Screenshot of CALL-SLT interface for version used in experiments at University of Bologna	541
38.2	Screenshot of multimodal version of CALL-SLT	542

Tables

1.1	Roles of teacher, learner and technology	15
4.1	Basic and advanced skills for classroom teachers	64
5.1	Training programme overview	73
5.2	Swan's (2002) adaptation of the Social Presence template developed by Rourke et al. (1999)	76
6.1	Materials design flow chart	92
7.1	Summary of benefits and limitations of interactionist theory for CALL	105
10.1	Acronyms used in this chapter for current computer-based tests and testing systems	142
10.2	What we have learned about language testing and technology	143
10.3	Drawbacks of using computers in language testing	147
10.4	Benefits of using computers in language testing	151
14.1	Examples of technology both creating and transcending limits and boundaries	201
16.1	Examples of SpeakApps sustainability indicators	231
17.1	Framework for the goals of telecollaboration proposed by Helm and Guth (2010)	244
18.1	Representative SNS	261
22.1	Significant findings on the use of virtual worlds in CALL	316
23.1	Test results, general English courses, Level B2, January 2014	330
25.1	Highly frequent second person interrogative zero auxiliary patterns in the spoken section of the BNC	356
31.1	Examples of DGBLL according to two dimensions	435
31.2	Linguistic-pedagogical attributes of mini-games	436
31.3	Game attributes of mini-games	437
32.1	Categorisation of <i>WoW</i> and <i>The Sims</i> according to three models	453
36.1	Modes and media in different temporalities	510
36.2	Semio-pedagogical competence	518

Acknowledgements

An undertaking on the scale of a 38-chapter volume is always going to be a very collaborative endeavour, as this one was. We are extremely grateful to a number of people for their support and involvement in the making of this handbook. First, a strong word of appreciation to all of the contributors and reviewers for their participation – working with such esteemed colleagues has been a pleasure, and we thank you for your patience during the process, and your patience with us as we worked through it. We would like to express our thanks to Louisa Semlyen, Rosemary Baron, Sophie Jaques, Laura Sandford and all of the team at Routledge, who were always available and incredibly responsive. Finally, we would like to acknowledge the support of friends and colleagues at the Centre for Teaching and Learning, and the School of Modern Languages and Applied Linguistics at the University of Limerick.

Permissions

The publishers, editors and relevant authors would like to thank the following for permission to reproduce previously published material:

Figure 1.2: From SchMOOze University (<http://schmooze.hunter.cuny.edu/>)

Figure 15.1: From Vance Stevens (<http://www.slideshare.net/vances/the-webheads-and-distributed-communities-of-practice>)

Figure 20.1: From Futuresource Consulting

Figure 31.1: From Biscuit Software Ltd

Figure 31.2: From the British Council

Every effort has been made to contact copyright holders. Please advise the publisher of any errors or omissions, and these will be corrected in subsequent editions.

Acronyms

AES	automatic essay scoring
AI	artificial intelligence
ANC	American National Corpus
BASE	British Academic Spoken English Corpus
BAWE	British Academic Written English Corpus
BL	blended learning
BNC	British National Corpus
BoE	Bank of English
CALL	computer-assisted language learning
CALL-IS	Computer-Assisted Language Learning Interest Section of the TESOL professional organisation
CANBEC	Cambridge and Nottingham Business English Corpus
CANCODE	Cambridge and Nottingham Corpus of Discourse in English
CANELC	Cambridge and Nottingham E-Language Corpus
CCLE	Cambridge Corpus of Legal English
CCTFC	Contemporary Chinese Translated Fiction Corpus
CEEC	Corpus of Early English Correspondence
CEEM	Corpus of Early English Medical Writing
CEFR	Common European Framework of Reference
CMC	computer-mediated communication
COCA	Corpus of Contemporary American English
<i>CoD</i>	<i>Call of Duty</i>
COHA	Corpus of Historical American English
COIL	collaborative online international learning
COLT	Corpus of London Teenage English
CoP	community of practice
CORIS	Corpus di Italiano Scritto
COTS games	commercial-off-the-shelf games
CS	<i>Counter-Strike</i>
CSCW	computer supported collaborative writing
CSPAЕ	Corpus of Spoken Professional American English
EAP	English for academic purposes
EFL	English as a foreign language
ELDA	Evaluations and Language Resources Distribution Agency
ELFA	English as a Lingua Franca in Academic Settings Corpus

ELLiE Project	Early Language Learning in Europe Project
ELT	English language teaching
ENPC	English–Norwegian Parallel Corpus
ENSIC	English Native Speaker Interview Corpus
ESP	English for specific purposes
ESPC	English–Swedish Parallel Corpus
EVO	Electronic Village Online
F2F	face-to-face
FLOB	Freiberg London–Oslo/Bergen Corpus
FROWN	Freiberg Brown Corpus of American English
<i>GTA</i>	<i>Grand Theft Auto</i>
IATEFL	International Association of Teachers of English as a Foreign Language
ICALL	Intelligent CALL
ICC	intercultural communicative competence
ICE	International Corpus of English
ICFLE	Internet-mediated intercultural foreign language education
ICLE	International Corpus of Learner English
ICT	information and communications technologies
IM	instant messaging
ITS	intelligent tutoring systems
IWB	interactive whiteboard
L1	first language
L2	second and foreign language
LCMC	Lancaster Corpus of Mandarin Chinese
LEP	LearnEnglish Pathways
LINDSEI	Louvain International Database of Spoken English Interlanguage
LMS	learner management system
LOB	London–Oslo/Bergen Corpus
<i>LoL</i>	<i>League of Legends</i>
LTSIG	Learning Technology Special Interest Group of the IATEFL professional association
MALL	mobile-assisted language learning
MATESOL	Master of Arts in Teaching English to Speakers of Other Languages
MERLOT	Multimedia Educational Resource for Learning and Teaching Online, California State University System
MICASE	Michigan Corpus of Academic Spoken English
MICUSP	Michigan Corpus of Upper-level Student Papers
M-learning	mobile learning
MMORPG	massively multiplayer online role-playing game
MMO games	massively multiplayer online games
MOOC	massive open online course
NBLT	network-based language teaching
NLP	natural language processing
NNMC	Nottingham Multimodal Corpus
OER	open educational resource
OIE	online intercultural exchange
OL	online learning

Acronyms

OLPC	one laptop per child
OMC	Oslo Multilingual Corpus
OPUS	Open Parallel Corpus
PC	personal computer
PLE	personal learning environment
PLN	personal learning network
RPG	role-playing game
RSS	really simple syndication
SACODEYL	System Aided Compilation and Open Distribution of European Youth Language
SBCSAE	Santa Barbara Corpus of Spoken American English
SCMC	synchronous communication chat
SEN	special educational needs
SLA	second language acquisition
SOLE	self-organised learning environment
SSI Model	Scale of Social Interaction Model
TEC	Translational English Corpus
TESOL	Teachers of English to Speakers of Other Languages professional association, or Teaching English to Speakers of Other Languages
TNC	Turkish National Corpus
VLE	virtual learning environment
VOICE	Vienna-Oxford International Corpus of English
VSL	Virtual Software Library, Diigo, sponsored by the TESOL CALL-IS
WiA	Webheads in Action
<i>WōW</i>	<i>World of Warcraft</i>
ZPD	zone of proximal development

Contributors

Françoise Blin is senior lecturer in the School of Applied Language and Intercultural Studies at Dublin City University (Ireland). She is co-editor of *ReCALL* and the current president of the European Association for Computer Assisted Language Learning (EUROCALL). Her more recent work focuses on the applications of ecological and activity theoretical approaches to CALL research, design and practice.

Pierrette Bouillon is ordinary professor and vice dean at Geneva University's Faculty of Translation and Interpretation. She has coordinated various projects in the fields of machine translation and speech technology (in particular the European project ACCEPT 'Automated Community Content Editing PorTal', 2011–2014 and the Swiss project CALL-SLT, 'A generic platform for CALL based on speech translation', 2009–2012) and has numerous publications in natural language processing.

James Dean Brown is professor in the Department of Second Language Studies at the University of Hawai'i at Mānoa and director of the National Foreign Languages Resource Center in Hawai'i. He has spoken and taught courses in places ranging from Brazil to Yugoslavia, and has published numerous articles and books on language testing, curriculum design, programme evaluation and research methods.

Andrew Caines is a postdoctoral researcher in the Institute for Research in Automated Language Teaching and Assessment at the University of Cambridge. He has published research on the effect of document length and the effect of topic on language features in learner corpora. His doctoral dissertation was on zero auxiliaries in spoken British English.

Catherine Caws is an associate professor of French applied linguistics at the University of Victoria, Canada. Her research focuses on the nature and effects of electronic learning environments on second language learners, in particular on task-tool-learner interactions.

Cristiana Cervini has a PhD in educational linguistics and teaches 'Foreign language teaching and learning' at the Lingue, Letterature e Culture Moderne (LILEC) Dep. (University of Bologna). Her present studies focus on assessment and evaluation and on CALL systems for hybrid and self-learning. She is currently in charge of the *Système d'évaluation en Langues à visée formative (SELF)* research and development actions in the frame of the *Initiatives d'Excellence en Formations Innovantes (IDEFI)* *Innovalangues* project (*Langues pour Spécialistes d'Autres Disciplines*, Grenoble 3).

Angela Chambers is professor emerita of applied languages at the University of Limerick. Her research interests focus on the use of corpora in language learning, with particular reference to French. She has published extensively in this area, as well as creating two corpora in French, of journalistic discourse and research articles. These are available through the Oxford Text Archive.

Úna Clancy is currently a research fellow in the School of Modern Languages and Applied Linguistics at the University of Limerick, Ireland. Her research area is the acoustic aspect of spoken language and the bearing this has on early language acquisition, specifically during the prenatal period of development. She holds an MA in TESOL and has been teaching in the field since 2007.

Cathy Cohen obtained her PhD in linguistics in 2011. She has been an associate professor at the teacher training college at Lyon 1 University France since 2012, where she gives courses to trainee teachers on language pedagogy and bilingualism. She is a member of the ICAR research laboratory (*Interactions, Corpus, Apprentissages, Représentations*) and her research interests include language pedagogy, teacher education, computer-mediated communication and bilingual acquisition in children and young learners.

Frederik Cornillie, PhD, is a senior researcher in applied linguistics (computer-assisted language learning) at KU Leuven (University of Leuven) and iMinds, Belgium. His research is situated at the intersection of tutorial CALL, second language acquisition and digital games, and he takes a particular interest in corrective feedback, skill acquisition and individual differences. He was guest editor of the special issue of *ReCALL* on digital game-based language learning.

Euline Cutrim Schmid is full professor of TEFL and applied linguistics at the University of Education Schwäbisch Gmünd in Germany. She teaches at undergraduate and postgraduate levels on a variety of topics including: CALL, applied linguistics, and qualitative research methodologies.

Piet Desmet is full professor of French and applied linguistics and computer-assisted language learning at KU Leuven and KU Leuven KULAK, Belgium. He coordinates the iMinds research team ITEC (Interactive Technologies), focusing on domain-specific educational technology with a main interest in language learning and technology. He leads a range of research projects devoted amongst others to serious gaming and to the effectiveness of adaptive and personalised learning environments.

Gavin Dudeney and Nicky Hockly co-run the award-winning educational consultancy 'The Consultants-E' (<http://www.theconsultants-e.com>), specialising in teacher training in the application of technologies in the classroom. They have also co-written a number of books about technology in ELT.

Joy Egbert is professor of ESL and Education Technology at Washington State University, USA. She has published and presented widely in the areas of CALL, teacher education and education technology. Her interests are engagement and differentiation.

Fiona Farr is senior lecturer in TESOL at the University of Limerick. She has published in journals such as *ReCALL*, *TESOL Quarterly*, *Language Awareness*, *Language Teaching* and *Classroom*

Discourse. She is author of *The Discourse of Teaching Practice Feedback* (2011) and *Practice in TESOL* (2015). Her research interests include language teacher education, technology, reflective practice and applied corpus linguistics.

Rebecca Galley leads the learning design team in the Institute of Education Technology at the Open University, UK. She is interested in how collaborative spaces – face-to-face and online – can be used to promote innovation in learning and teaching, and lead to changes in pedagogical practice. Rebecca has been teaching since 1995 and her broader background is in professional development and training, and informal learning and assessment.

Elisabeth (Hayes) Gee is Delbert & Jewell Lewis Chair in Reading and Literacy and associate director, Center for Games and Impact at Mary Lou Fulton Teachers College, Arizona State University. Recent publications include *Language and Learning in a Digital Age* (with J. Gee, 2011) and *Learning in Game-Based Affinity Spaces* (co-edited with S. Duncan, 2012).

Robert Godwin-Jones is professor of world languages and international studies at Virginia Commonwealth University. His research is principally in applied linguistics, in the areas of language learning and technology, and intercultural communication. He has published four books, multiple articles and book chapters, and writes a regular column for *Language Learning & Technology* on emerging technologies.

Muriel Grosbois is an associate professor in applied linguistics at the School of Education of the University Paris–Sorbonne, France. She is head of the Centre for Digital Resources in Languages and Cultures. Her research and teaching focus on L2 learning in a technology-enhanced context.

Nicolas Guichon is a professor in language sciences at the University of Lyon 2 and belongs to the ICAR (*Interactions, Corpus, Apprentissages, Représentations*) research team. His research interests include teacher education in computer-assisted language learning (CALL), the study of online interaction and materials design.

Sarah Guth teaches English language at the University of Padova and is a consultant for the State University of New York (SUNY) COIL Center. She has extensive experience in telecollaborative practice and teacher training and has presented and published internationally. Her current research focuses on curricular internationalisation.

Elizabeth Hanson-Smith has been an educator of international teachers for over twenty-five years, working in China, Sri Lanka, Belize, Russia and Egypt, as well as providing online courses for the US Department of State and the University of Oregon. Formerly head of the California State University, Sacramento TESOL Program, she offers free ESL/EFL resources at her website: <http://webpages.csus.edu/~hansonsm>. Recent publications include *TESOL Technology Standards* (Alexandria, VA: TESOL, 2008).

Mirjam Hauck is a senior lecturer in the Faculty of Education and Language Studies at the Open University, UK. She has written numerous articles and book chapters on the use of technologies for the learning and teaching of languages and cultures covering aspects such as task design, tutor role and training, and digital literacy skills. She is the associate editor of the *CALL* journal and an editorial board member of *ReCALL*.

Deborah Healey teaches online and face-to-face teacher education courses at the University of Oregon's American English Institute and Gabon Oregon Center. She is a member of the board of directors of TESOL International. She writes and presents extensively internationally on appropriate use of technology in language teaching. Her doctorate is in computers in education.

Trude Heift is professor of linguistics at Simon Fraser University, Canada. Her main research areas combine aspects of SLA and ICALL with a focus on the design as well as the evaluation of CALL systems.

Francesca Helm is a researcher and English teacher at the Department of Political Science at the University of Padova, Italy. She has extensive experience in online education and telecollaboration. Her research focuses on language and intercultural learning, telecollaboration and most recently on internationalisation policy in higher education.

Philip Hubbard is senior lecturer in linguistics and director of English for foreign students at the Stanford University Language Center. His CALL work includes courseware authoring and publications in software development and evaluation, technology and listening, teacher education, learner training, research, and theory. He edited the four-volume series *Computer Assisted Language Learning: Critical Concepts in Linguistics* (Routledge, 2009) and was on the team of six that produced the TESOL Technology Standards (TESOL, 2008). He is an associate editor of *Language Learning & Technology* and *Computer Assisted Language Learning*, and serves on the editorial boards of the *CALICO Journal* and *ReCALL*.

Juha Jalkanen, MA, works as a lecturer at the University of Jyväskylä Language Centre in Finland. His research interests include organisational learning in educational contexts and co-design of language learning and teaching practices. His doctoral research addresses pedagogical development in technology-rich environments for language teaching and learning. He has experience with national and international research and development projects.

Richard Kern is professor of French and director of the Berkeley Language Center at the University of California, Berkeley. He teaches courses in French linguistics, applied linguistics and foreign language pedagogy. His research interests include second language acquisition, reading, writing and technology. He is associate editor of the journal *Language Learning & Technology*, recently released the book *Language, Literacy, and Technology* (Cambridge University Press, 2015) and is currently co-editing a book on screens and representations in videoconferencing.

Greg Kessler is director of the Language Resource Centre and associate professor of CALL at Ohio University. He is currently editor of the Action Research Column for the journal *Language Learning & Technology*. He co-authored the TESOL Technology Standards.

Hyun Gyung Lee is a postdoctoral researcher at Washington State University, where she earned her PhD in 2012. Her major research interests are L2 learner engagement, CALL, and ESL/EFL curriculum development. She has published and presented on these topics in a number of international forums.

Yoonhee N. Lee earned her PhD in curriculum and instruction in the language and literacy concentration and teaches at Arizona State University. Her research interests centre on

improving the understanding, design and implementation of learning practices with technology in English Language Learning (ELL) education in and out of the classroom. She envisions technology will greatly enhance second language acquisition and ELL education.

Mike Levy is professor of second language studies and director of the Brisbane Universities Language Alliance (BULA) in the School of Languages and Comparative Cultural Studies at the University of Queensland, Brisbane, Australia. His research work includes studies on the distinctive role of technology in mediating language learning, mobile language learning, online cultures and culture as concept, teacher education and learner training. His publications include *WorldCALL* (Routledge, 2011), *CALL Dimensions* (with Glenn Stockwell, Routledge, 2006) and *Teacher Education in CALL* (with Philip Hubbard, Benjamins, 2006). He served as chair of the steering committee for the WorldCALL 2013 Conference (<http://www.worldcall2013.org/>).

Li Li is senior lecturer and director of the MEd in TESOL in the Graduate School of Education, University of Exeter. Her main research interests include new technologies in language education, language teacher cognitions, developing thinking skills and classroom interaction.

Hsien-Chin Liou is a professor in the Department of Foreign Languages and Literature, Feng Chia University (Taiwan ROC), and has conducted research on CALL over the past twenty-five years. Her interests include corpus applications, Web 2.0 technologies and CALL for writing, reading and vocabulary learning.

Lara Lomicka is professor of French at the University of South Carolina, where she currently serves as Graduate Director for Languages. She has received the Language Instruction Using Technology award from ACTFL/Cengage Publishers and was recently honoured as a Chevalier dans l'Ordre des Palmes académiques. Her research interests include teacher education, intercultural learning, social media, study abroad and CALL/MALL.

Gillian Lord is associate professor of Spanish and linguistics at the University of Florida, where she is also chair of the Department of Spanish and Portuguese Studies. Her research focuses on language teaching and learning in both the classroom and immersion settings, focusing primarily on the acquisition of foreign language sound systems as well as on the role of technology in language acquisition and education.

Dave Malinowski is language technology and research specialist with the Center for Language Study at Yale University. His research explores the effects and consequences of technology and place in mediating intercultural understanding and subjectivity in second language learning contexts. He holds a PhD in education from the University of California, Berkeley.

Michael McCarthy is emeritus professor of applied linguistics at the University of Nottingham, UK. He is author/editor and co-author/co-editor of more than 50 books, including *The Routledge Handbook of Corpus Linguistics* (Routledge, 2010), and more than 100 articles on language teaching and on vocabulary, grammar, spoken discourse and spoken corpus linguistics.

Fanny Meunier is a professor of English language, linguistics and didactics at the University of Louvain (UCL, Belgium). She has been involved in learner corpus research for over twenty

sample content of The Routledge Handbook of Language Learning and Technology (Routledge Handbooks in Applied Linguistics)

- [download The Vital Illusion](#)
- [Buried on Avenue B pdf, azw \(kindle\), epub, doc, mobi](#)
- [download online The Equations: Icons of Knowledge pdf, azw \(kindle\), epub](#)
- [click Einstein's Relativity: The Ultimate Key to the Cosmos online](#)
- [download Murder under the Kissing Bough \(Auguste Didier, Book 6\) here](#)

- <http://wind-in-herleshausen.de/?freebooks/La-guerre-germano-sovi--tique.pdf>
- <http://dadhoc.com/lib/Buried-on-Avenue-B.pdf>
- <http://www.experienceolvera.co.uk/library/Varmint-Rifles-and-Cartridges--A-Comprehensive-Evaluation-of-Select-Guns-and-Loads.pdf>
- <http://rodrigocaporal.com/library/The-Complete-Chile-Pepper-Book--A-Gardener-s-Guide-to-Choosing--Growing--Preserving--and-Cooking.pdf>
- <http://test.markblaustein.com/library/Murder-under-the-Kissing-Bough--Auguste-Didier--Book-6-.pdf>