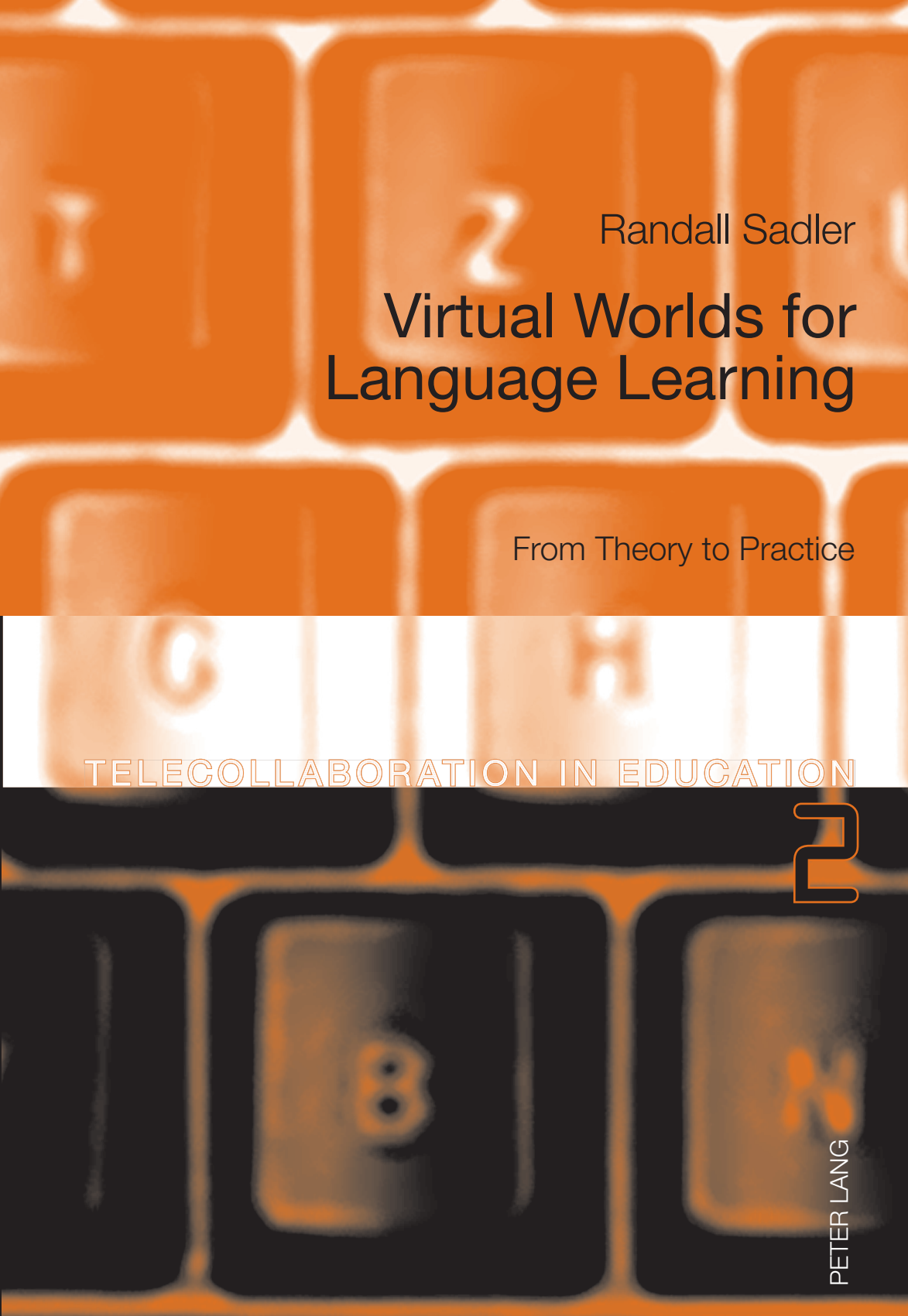
Randall Sadler
Virtual Worlds for Language Learning
From Theory to Practice
TELECOLLABORATION IN EDUCATION
2
PETER LANG

This book focuses on one area in the field of Computer-Mediated Communication that has recently exploded in popularity—Virtual Worlds. Virtual Worlds are online multiplayer three-dimensional environments where avatars represent their real world counterparts. In particular, this text explores the potential for these environments to be used for language learning and telecollaboration. After providing an introduction and history of the area, this volume examines learning theories—both old and new—that apply to the use of Virtual Worlds and language learning. The book also examines some of the most popular Virtual Worlds currently available, including a discussion of the strengths and weaknesses of each. The Virtual World of Second Life is explored in depth, including research examining how users of this world are using language there, and how they are using it to enhance their second language skills.

Randall Sadler is an Associate Professor of Linguistics at the University of Illinois at Urbana-Champaign, where he teaches courses on CMC and Language Learning (CMCLL), Virtual Worlds and Language Learning (VWLL) and Teaching of L2 Reading and Writing. His research focus covers these same areas. He is also the co-owner of the EduNation Islands, located in the Virtual World *Second Life*, where he may often be found in the guise of his avatar, Randall Renoir.

Virtual Worlds for Language Learning

TELECOLLABORATION IN EDUCATION

Vol. 2

Edited by
Melinda Dooly & Robert O'Dowd

PETER LANG
Bern · Berlin · Bruxelles · Frankfurt am Main · New York · Oxford · Wien

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Bibliographic information published by die Deutsche Nationalbibliothek
Die Deutsche Nationalbibliothek lists this publication in the Deutsche National-bibliografie; detailed bibliographic data is available on the Internet at ‹http://dnb.d-nb.de›.

British Library Cataloguing-in-Publication Data: A catalogue record for this book is available from The British Library, Great Britain

Library of Congress Cataloging-in-Publication Data

Sadler, Randall,
Virtual worlds for language learning : from theory to practice / Randall Sadler.
p. cm. – (Telecollaboration in education ; v. 2)
Includes bibliographical references.
ISBN 978-3-03-430573-0
1. Languages, Modern–Computer-assisted instruction. 2. Shared virtual environments.
3. Virtual reality in education. I. Title.
PB35.S23 2012
418.007–dc23

2012011750

ISBN 978-3-0343-0573-0 pb ISBN 978-3-0351-0406-6 eBook

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info@peterlang.com, www.peterlang.com

Printed in Switzerland

Contents

Series Editors' Preface

This series is dedicated to promoting a wider understanding of the activity of telecollaboration in educational settings. Telecollaboration refers to the pedagogical processes and outcomes of engaging learners in different geographical locations in virtual contact together, mediated through the application of online communication tools such as e-mail, synchronous chat and threaded discussion as well as the tools of Web 2.0 such as wikis, blogs, social networking and 3D virtual worlds. The application of such activity may include different subject areas (e.g. Foreign Language Education, History, Science) as well as different educational contexts, including but not limited to primary, secondary, university and adult education.

This second volume in our series looks at a key theme in the area of foreign language education in recent years: the potential of Virtual Worlds (VWs) for foreign language-based interaction and exchange. It is almost axiomatic to say that major forces of change are defying us to accommodate to new ideas of learning that leverage technologies and human capital in new ways. Teachers are facing challenges to adapt to new understandings of not only how learning takes place, but also new concepts of how and where learning occurs—in the 'real' world or in simulated worlds where learners are physically distributed across the globe but gathered together through 3D representations of selves.

Virtual worlds are already being touted as relevant foreign language learning environments because they are engaging and motivating for learners and, at the same time, a cost-effective means of bringing authentic elements into the learning process (albeit 'simulated authentic' but still closer to the 'real thing' than many language classrooms). Educators also put forth the benefits of virtual worlds for collaborative learning. Picking up on this theme, this book explores the potential for virtual worlds in telecollaborative language learning.

As Bruns (2008) points out, online networked culture has the potential to radically alter the ways in which people interact with the media—and one might add, with educational institutions. This interaction is captured in Brun's term of 'produsage': people working together to solve problems from ground up; traditional hierarchies are overturned for ad hoc meritocracies; small tasks are contributed by individuals to complete larger-scale activities and, eventually, the final outcome is shared for mutual benefits. These key concepts of interaction are evoked and exemplified by the author so that the reader can envision different possibilities for 'produsage' practices in teaching languages in virtual worlds that fit into the paradigm of socioconstructivist learning.

This book provides an indispensable introduction to the participatory culture of virtual worlds in language learning for teachers who are interested in exploring this potentially rich environment. It sets out the various affordances of virtual worlds (including gaming) for language learning and even those practitioners who are already engaged in VWs will find the book's content informative in its wide scope of described environments. There is ample discussion on how to conceptualise telecollaborative language learning, task design and assessment in virtual environments, sprinkled with informed anecdotes and case studies that help exemplify topics that would otherwise be quite abstract. This volume contributes insightful reflections on innovative aspects of online language pedagogy—based on telecollaboration in virtual worlds—that will be of interest now and in the future, as these 'new' worlds become more firmly entrenched in our everyday lives.

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12 November 2011

References:

Bruns, A. (2008). *Blogs, wikipedia, second life, and beyond: From production to produsage*. Bern: Peter Lang.

Acknowledgements

I would like to acknowledge the many individuals I have worked with both in Virtual Worlds like Second Life and also in the Real World who helped to make this book happen. When I was a noob in Second Life, wandering about virtually dazed and confused, there were many gracious avatars—both educators and other explorers—who took me under their wings and helped me to understand the potential of the many virtual spaces we now have available. While it is simply not possible to put together a complete list of those individuals (who number in the many hundreds), there are a few I would like to thank in particular.

First, Melinda Dooly (Melinda Aristocrat in Second Life) has been generous enough to bring groups of students into SL from the Universitat Autonòma de Barcelona (UAB) to work with my students at the University of Illinois at Urbana-Champaign. This interaction formed a basis for the creation of this book, and made me consider a number of pedagogical aspects of teaching in VWs that would never have occurred to me otherwise. She is an excellent education and research partner.

I'd also like to acknowledge the work of several individuals on the EduNation islands in Second Life, first Heike Philp (Gwen Gwasi in SL) and Carol Rainbow (Carolrb.roux in SL). Heike is the co-owner (with me) of the EduNation islands in SL—and a constant source of pedagogical inspiration. Carol has worked tirelessly to help make those islands the wonderful educational environment that they are today. Teaching opportunities in SL would be poorer without both of them! I'd also like to thank Graham Davies (Groovy Winkler), the head of the EUROCALL SIG for Virtual Worlds and the lead decorator for the joint EUROCALL/CALICO Headquarters in SL. His sense of humor and excellent knowledge always make the islands a great place to be.

Special thanks as well to my wife, Misumi, who puts up with my many hours spent online in SL. Her patience and understanding made this book possible.

Chapter 1: Introduction

> The matrix has its roots in primitive arcade games […] Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts […]. A graphic representation of data abstracted from banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding into the distance […]. (Gibson, *Neuromancer*, 1984)

What are Virtual Worlds?

When William Gibson coined the term cyberspace in his novel *Neuromancer* (1984), the Internet as we now know it did not yet exist. While some of the concepts discussed in that novel are still in the realm of fantasy, others, such as the "consensual hallucination" of Virtual Worlds, are now among the most popular activities available online.

Some might argue that a new technology hits the mainstream when Hollywood decides to make a movie about it. In the case of Virtual Worlds (VWs) the past few years have seen several blockbusters. In 2010, the movie *Avatar* became the best-selling movie of all time, telling the story of a man who used another body—his avatar—to exist in a new world. In 2009, *Surrogates*, starring Bruce Willis, told the story of a future world where the humans stayed home, and their idealized robot bodies (their surrogates, or avatars) went out into the world. Earlier, *The Matrix* (1999) told the story in reverse, with the humans existing as avatars in a Virtual World and not knowing it, only to discover the truth when freed from that virtual reality. For many of us, our first introduction to a VW may have been in *Star*

Trek: The Next Generation (1987), where the holodeck could take crew members to almost any world, whether "real" or imaginary. Of course, long before most of these, Jeff Bridges was pulled against his will into another Virtual World in *Tron* (1982), where he battled with programs who often resembled their real world creators. This world was revisited in 2010 (*Tron: Legacy*).

Long before VWs appeared on the screen in theaters or televisions, they were formed via the written word in novels and short stories. In 1935 Stanley Grauman Weinbaum wrote *Pygmalion's Spectacles* in which one of his characters—Professor Albert Ludwig—created a new type of movie that foresees the evolution of Virtual Worlds and Virtual Reality as they are experienced today. He describes this technology to Dan, the protagonist of the story:

> 'Listen! I'm Albert Ludwig—Professor Ludwig.' As Dan was silent, he continued, 'It means nothing to you, eh? But listen—a movie that gives one sight and sound. Suppose now that I add taste, smell, even touch, if your interest is taken by the story. Suppose I make it so that you are in the story, you speak to the shadows, and the shadows reply, and instead of being on a screen, the story is all about you, and you are in it. Would that be to make real a dream?'

This exploration of what we now think of as VWs continued in novels and stories like Victor Vinge's *True Names* (1981) William Gibson's *Neuromancer* (1984), and Neal Stephenson's *Snow Crash* (1992). Indeed, *Neuromancer* included a description of "the matrix" and "Zion" almost fifteen years before they appeared again in modified form in the movie starring Keanu Reeves. Interestingly, while all of these works are located solidly in the "science fiction" area of many local public libraries, one of the newest novels that examines life (and murder) in a VW—*Virtually Dead* (2010) by Peter May—was found in the "fiction" area of my local library instead. This book, which takes place within the existing virtual world of Second Life™, contains elements that would have most certainly been science fiction at the time of these earlier works; elements that have become reality today.

Virtual Worlds as we understand them today are three-dimensional (3-D) computer-based environments that can be used for a wide variety of purposes. One of the most familiar is WoW (World of Warcraft™), which is traditionally not used for education—unless your education is focused on swords, maiming, and killing elves and ogres (although this type of environment, as discussed in the next chapter, may certainly be used for educational purposes as well). However, other Virtual Worlds, such as Second Life, Habbo, Active Worlds, Club Penguin, etc. have a different philosophy. These worlds tend to exist primarily as social environments, with (at least in some) most of the content created by the very people who "live" there. This means that these worlds can have rich social environments with activities ranging from those similar to WoW, to VW-based language schools. At their most basic, as discussed by Rheingold (1991), Virtual Reality (VR) Systems have two fundamental requirements:

> The idea of immersion—using stereoscopy, gaze-tracking, and other technologies to create the illusion of being inside a computer-generated scene—is one of the two foundations of VR technology. The idea of navigation—creating a computer model of a molecule or a city and enabling the user to move around, as if inside it—is the other fundamental element. Nothing about either of these key elements requires that they be implemented in one specific kind of technology (pp. 112–113).

As opposed to full VR, Virtual Worlds focus more strongly on the second component of Rheingold's definition. All modern VWs consist of 3-D environments in which users interact with the environment and each other. Rather than relying on the more advanced technologies such as gaze-tracking, VRs typically utilize a keyboard/mouse interface though which users move their online persona or avatar.[1]

1 For easy access to any URLs mentioned in this book and for additional resources related to Virtual Worlds and Language Learning, visit the accompanying website for this book at: <http://www.eslweb.org/virtualworlds>.

Who is this Book Written for?

The book is intended for multiple audiences, including the simply curious, teachers who wish to use a VW for their own teaching, language learners, language teachers who are interested in integrating Virtual Worlds into their telecollaboration projects, professors teaching courses related to Virtual Worlds and/or CMC, for those doing research in VWs, and (as implied in the picture) anyone reading this book. However, it begins with several important assumptions:

Figure 1.1: Avatar in SL

Some of the readers of this book will have virtually no experience with Virtual Worlds. If the reader falls into this category they are most welcome! This book will make no assumptions that the readers have explored virtual worlds or indeed that they have extensive

knowledge about the use of Computer-Mediated Communication (CMC) in general.

Other readers of this book will already have extensive experience in VWs. This group will also benefit from this text since it will provide information on worlds they have not yet explored and insight into educational theories and pedagogical practices they may not be familiar with.

Finally, this book assumes a willingness on the part of the readers to actively explore in some of the VWs mentioned in the text. While the chapters outlined in the following section are an excellent starting point in understanding and using VWs for language learning or teaching, it is crucial that readers get their feet wet (or at least their virtual feet, virtually wet) as part of the process.

For those interested in using a VW in their own teaching, this book provides a firm foundation in several ways. First, it will familiarize you with the basic concepts and history of VWs. Second, it establishes a connection between VWs and language learning theory. Third, the book will provide opportunities for exploring the nexus between VWs and telecollaboration. Finally, this text connects theory to pedagogical practice. Following the information provided in this book should enable teachers to create their own educational telecollaborative environments in a VW such as Second Life. This book is also appropriate for use in either graduate or undergraduate courses designed for future language educators that focus on the use of technology in the language classroom. Indeed, the genesis for this book was my own need for a text that provided an in-depth examination of VWs in a way that I could not find in the existing literature on the topic.

This text, and the supplemental readings and websites mentioned within, will provide students with a detailed understanding of VWs and language learning theory. In addition, it will be of interest to scholars who wish to do research in the area of Virtual Worlds and Language Learning (VWLL) and Virtual Worlds and Telecollaboration (see the following chapter for a detailed discussion on telecollaboration. Finally, for those who are simply curious about Virtual

Worlds and Gaming, this text will either serve as an introduction to the topic or a richer understanding of the nuances of VWs.

How is this Book Organized?

This book is organized into six chapters, and it includes general information on VWs, the theory behind teaching in VWs, and the pedagogical applications of VWs. The first section of the book (chapters 1–3) provides an overview of Virtual Worlds and explores the theory behind using them for language learning and for their use in telecollaboration aimed at fostering language teaching and learning. In addition to the main content, each of the chapters discussed below also includes suggested additional readings and resources. Chapter 2 provides an overview and history of Virtual Worlds, including an examination of some of the current popular VWs and MMOGs, ranging from Second Life to World of Warcraft. In addition, this chapter traces the history of VWs, from MUDs to the present day. Chapter 3 explores the connections between existing educational theories and VWs, ranging from Dewey's Experiential Model (1916) to Long's Interaction Hypothesis (1981). Although these theories were not created with VWs in mind (Dewey's model long predates the computer!), this chapter will explore how such theoretical foundations can lead to strong pedagogical applications.

The second section of the book (chapters 4–6) investigates the pedagogical applications of VWs. Chapter 4 provides an in-depth overview of one of the Virtual Worlds heavily used for education—Second Life—and reports on the results of a survey conducted in that Virtual World on how languages are being used and learned in that environment. Among the questions answered are: What languages and nationalities are represented among SL users? How many SL users are participating in that VW in order to learn and/or improve