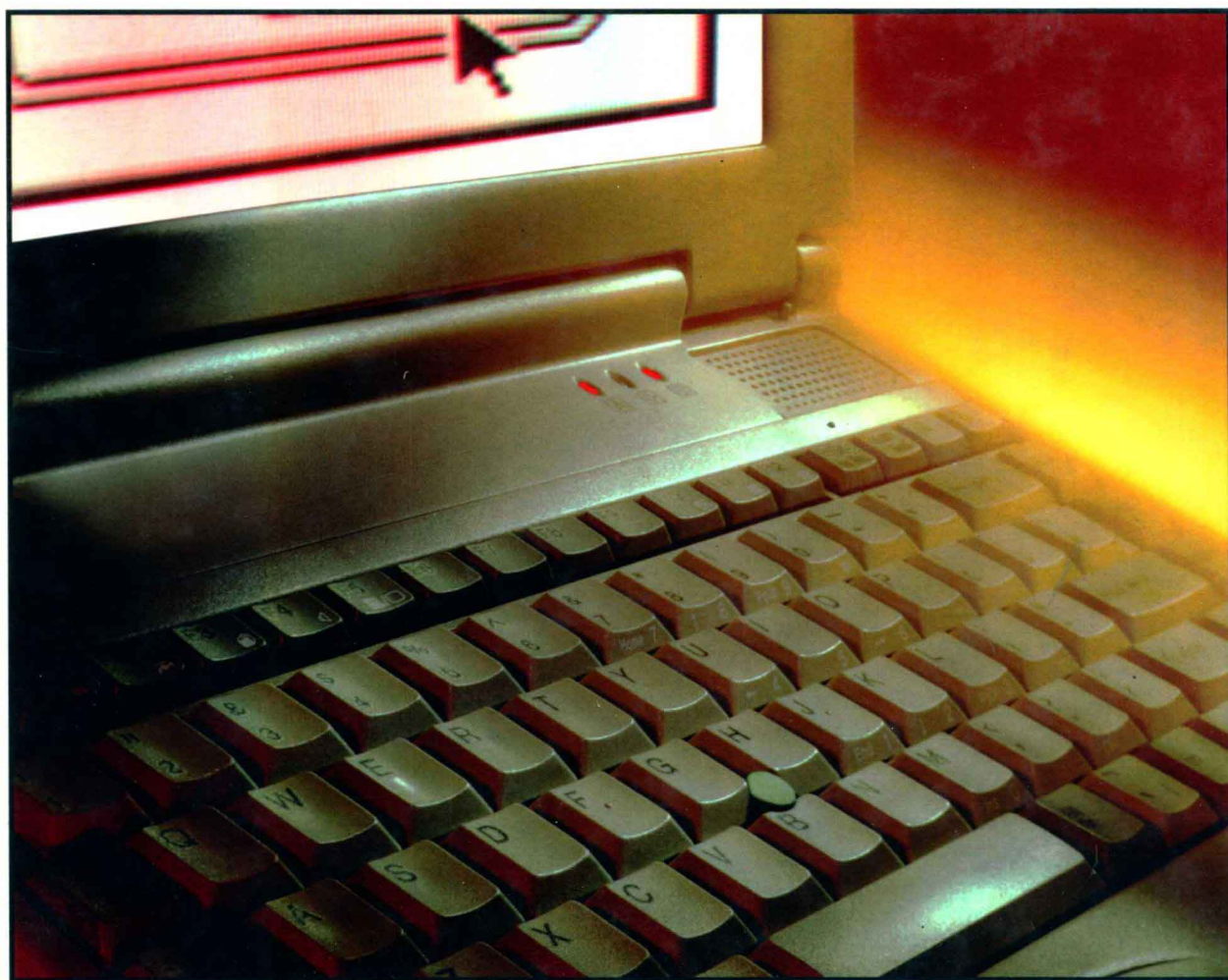


HANDBOOK OF RESEARCH ON

Web 2.0 and Second Language Learning



Handbook of Research on Web 2.0 and Second Language Learning

Michael Thomas

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Information Science

REFERENCE

INFORMATION SCIENCE REFERENCE

Hershey • New York

Director of Editorial Content: Kristin Klinger
Director of Production: Jennifer Neidig
Managing Editor: Jamie Snavely
Assistant Managing Editor: Carole Coulson
Typesetter: Sean Woznicki
Cover Design: Lisa Tosheff
Printed at: Yurchak Printing Inc.

Published in the United States of America by
Information Science Reference (an imprint of IGI Global)
701 E. Chocolate Avenue, Suite 200
Hershey PA 17033
Tel: 717-533-8845
Fax: 717-533-8661
E-mail: cust@igi-global.com
Web site: <http://www.igi-global.com>

and in the United Kingdom by
Information Science Reference (an imprint of IGI Global)
3 Henrietta Street
Covent Garden
London WC2E 8LU
Tel: 44 20 7240 0856
Fax: 44 20 7379 0609
Web site: <http://www.eurospanbookstore.com>

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Library of Congress Cataloging-in-Publication Data

Handbook of research on Web 2.0 and second language learning / Michael Thomas, editor.
p. cm.

Includes bibliographical references and index.

Summary: "This book investigates how those involved in education can respond to the opportunities offered by the Web 2.0 technology"--
Provided by publisher.

ISBN 978-1-60566-190-2 (hardcover) -- ISBN 978-1-60566-191-9 (ebook)

1. Language and languages--Computer-assisted instruction. 2. Second language acquisition--Computer-assisted instruction. 3. Internet in education. I. Thomas, Michael, 1969-

P53.28.H368 2009
418.0078'5--dc22

2008035144

British Cataloguing in Publication Data

A Cataloguing in Publication record for this book is available from the British Library.

All work contributed to this book set is original material. The views expressed in this book are those of the authors, but not necessarily of the publisher.

If a library purchased a print copy of this publication, please go to <http://www.igi-global.com/agreement> for information on activating the library's complimentary electronic access to this publication.

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Foreword

When I first used the Internet in the early 1990s, I was immediately impressed with its exciting potential for second language learning and teaching. By the mid-1990s, a number of us were writing books about this potential, organizing conferences, conducting research, forging online communities, and otherwise working to promote new ways of learning languages through networked communication. For the first time since its inception in the 1970s, the field of computer-assisted language learning had expanded beyond the purview of a narrow group of specialists and was attracting the attention of a large numbers of educators.

At the same time, the Internet was still in its infancy. Only a small percentage of the world's population had access to the Internet in the 1990s, and often through slow and unreliable dial-up connections. Publishing information online required specialized commercial software or knowledge of complex code. And online material existed for the most part in isolated information silos, rather than in interactive community-generated well-indexed sites. The Web was thus developing more as a tool for accessing information created by small numbers of people, rather than for creativity and collaboration on content contributed by the broad public.

A decade later, the situation has changed dramatically. Today, Internet access is nearly ubiquitous in developed countries and increasingly commonplace in developing countries. Most people now connect to the Internet through direct high-speed connections, often wirelessly. Desktop and laptop computers have fallen in price, and the Internet can also be accessed through a variety of handheld devices such as mobile phones. At the same time, barriers to online publishing, collaboration, and creative production have fallen dramatically. Widely available software and sites allow computer users of all types to interact through blogs, collaborate through Wikis, play multiplayer games, publish podcasts and video, build relationships through social network sites, and otherwise shape the content of the Web through feedback and evaluation mechanisms.

The technical definition of Web 2.0 has been the subject of debate, but the social significance of this next generation of the Internet is clear. Whereas the first generation of the Web linked information, this next generation links people, and does so in ways never before possible. Those of us who were excited before about the potential of the Internet for language learning and teaching thus have even more to be excited about today. And learners, teachers, publishers and others are already showing great creativity in exploiting this potential. However, efforts to do so are so dispersed and localized that it is hard to keep track of basic information about this fast-breaking field, much less gather critical, reflective analyses.

Fortunately, this Handbook brings together a wealth of thought-provoking material about the field. A wide range of important Web 2.0 topics are covered, from blogging to podcasting, to social networking and learning with mobile technologies. Perspectives of theory, research, and practice are artfully combined within the individual chapters and across the book. The editor has done a superb job of bringing together cutting-edge work on this topic. Though I have been investigating technology and language

learning for some 15 years, and authored a major review article on Web 2.0 and applied linguistics a year ago¹, many of the projects described in this book are so recent that I had not been aware of them before reading it.

Yet while this book is forward looking, it is not dreamy-eyed. Complex cognitive, social, and technological phenomena are critically addressed throughout. Web 2.0 is not viewed as a magic bullet to solve educational problems, but rather as a powerful tool that can have both positive and negative impact, and that must be carefully exploited in line with learner needs, teacher capacity, and local social contexts. The relationship of Web 2.0 to language learning is considered in all its breadth, from its use to promote diverse skills (e.g., listening, speaking, reading, writing) to its relationship with an array of cognitive and social processes (e.g., identity formation, critical literacy, information overload). Contributions to understanding Web 2.0 in higher education settings are particularly valuable, though many of the topics will be of value to those interested in K-12 education as well.

I was fortunate to have authored and edited several of the books that helped spark interest in the use of the Internet for language teaching in the 1990s. Some of these, such as *E-Mail for English Teaching*, *Internet for English Teaching*, and *Virtual Connections*, brought together practical ideas for language teachers. Others, such as *Telecollaboration in Foreign Language Learning*, *Network-Based Language Teaching*, and *Electronic Literacies* focused on research and theory. Today, this Handbook brings together in a single volume about Web 2.0 much of what I tried to accomplish in multiple books about Web 1.0, providing a valuable overview of research, theory, and practice related to the current iteration of educational technology. The Handbook will be of value to a wide range of teachers, administrators, policy makers, and researchers concerned with technology-enhanced learning and will contribute greatly to timely debates affecting language education around the world.

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ENDNOTE

- ¹ Warschauer, M., & Grimes, D. (2007). Audience, authorship, and artifact: The emergent semiotics of Web 2.0. *Annual Review of Applied Linguistics*, 27, 1-23.

Mark Warschauer is a professor in the Department of Education and the Department of Informatics at the University of California, Irvine. He is director of UCI's PhD in education program, and founding director of its Digital Learning Lab. Dr. Warschauer's research focuses on the integration of information and communication technologies (ICT) in schools and community centers; the impact of ICT on language and literacy practices; and the relationship of ICT to institutional reform, democracy, and social development. His most recent book, *Laptops and Literacy: Learning in the Wireless Classroom*, was published by Teachers College Press in 2006. His previous books have focused on the development of new electronic literacies among culturally and linguistically diverse students; on technology, equity, and social inclusion; and on the role of ICT in second language learning and teaching. Dr. Warschauer is former editor of the *Language Learning & Technology* journal.

Preface

The *Handbook of Research on Web 2.0 and Second Language Learning* is one of the first collections of scholarly essays, empirical research, and case studies to grapple with the pedagogical implications of Web 2.0 technologies. Moreover, it is perhaps the first sustained study to do so with relation to second language learning, one of the most active and dynamic interdisciplinary areas, which draws on theories of teaching and learning from a wide range of disciplines in the humanities and social sciences. The book is a timely study in that Web 2.0 has emerged as the latest in a long line of developments to catch the imagination of educators interested in the use of instructional technology in the classroom.

The application of Web 2.0 to education has changed rapidly over the last two years, with many new developments and applications emerging at an ever increasingly rapid pace. One of the dangers of such emergent technologies is that a significant number of teachers will be left behind, with only a few in a position to apply these new ideas in the classroom. The risks involved are not to be underestimated, and the history of educational technology tells us that teacher development and meaningful teacher training have often been neglected and marginalized by the drive to install new hardware and software without a proper rationale. With these deficiencies in mind there has been a need to consider the role of Web 2.0 in teacher training and how the application of these tools and associated theories of teaching and learning can become a part of teachers' continuing professional development. While those involved in educational technology often assume that their pursuits are central to what is happening in their institution, the reality is that a rather limited percentage of any given group of educators, either in the school or university sector, consistently integrate technology to any great effect. Web 2.0 technologies signal the need to move toward a greater emphasis on digital literacy skills, but one that applies to teachers as well as to students, the latter often being more familiar with the opportunities presented by the technologies than the teachers themselves.

This book has its origins in a number of recent conference events that I have organized at Nagoya University of Commerce and Business in Japan examining Web 2.0 and the application of tools such as blogs, Wikis, podcasting, video and photo-sharing, to the field of second language learning. The first conference, *Wireless Ready: Podcasting Education and Mobile Assisted Language Learning*, took place in March 2007. The second event, *Wireless Ready: Interactivity, Collaboration and Feedback in Language Learning Technologies*, occurred a year later, in March 2008. Both events attracted an interested and intrigued audience as well as a sizeable group of presenters for this relatively new area. In the spirit of innovation, both events took advantage of the facilities on the Second Life island of EduNation to offer selected presentations, either by audio or streaming video, direct to a virtual audience from around the world. A number of presenters from both events have refined and developed their work and it is included here. The organization of a further international event, the JALT CALL Annual Conference in June 2008 at my university, also included an increasing number of presentations and workshops on Web

2.0 technologies, indicating just how far these new tools have become a part of teaching and learning in the second language classroom, within a relatively short period of time.

Clearly Web 2.0 tools have generated a great deal of interest, not just from teachers and learners around the world, as millions of people have started a blog, accessed information from a Wiki, or listened to a podcast. The aim of this collection has been to gather together a representative selection of projects and research currently under way around the world, and to provide a snapshot of work-in-progress. It is hoped that the collection will represent the need to progress to a second stage in the use of Web 2.0 technologies in the field of education and second language learning, moving beyond the opportunities apparently presented by these tools, to more of a rigorous engagement with actual research and pedagogical contexts. We know these tools are of great interest to students in their lives outside of the classroom. What effect can they have on the enhancement of teaching and learning in the classroom and in the changing spaces of learning in a global and networked world?

THE SECOND GENERATION INTERNET

The cover page of *Time* magazine in December 2006 famously announced that the person of the year was YOU. To prove the point, a computer screen containing a mirror allowed readers to see their own image reflected; simultaneously the reader occupied two positions, becoming at once both a consumer and a *prosumer* in the publishing process, and deconstructing the frontiers between reading and writing. Ironically for a traditional print publication, *Time* magazine's point was that we are witnessing the emergence of new forms of participatory publishing on the Web, based on sharing, collaboration, feedback, enhanced interactivity and evaluation.

The emergence of “user-generated content” on the “participatory Web” (O'Reilly, 2006, n.p.) is embodied in the term Web 2.0. As opposed to the “read-only” or “first generation Web” which precedes it in chronological time but only in fact came to prominence after Web 2.0 was identified, the second generation of the Web rests on one main transformation. Whereas Web 1.0 connected *information* together and led to the development of search engines, Web 2.0 connects *people*, and thus underpins fundamental changes in the way the millions of people who use blogs, Wikis, and podcasts, communicate and access their information and mediate their world through digital technologies on a daily basis. With the advent of Web 2.0, a whole series of entrepreneurial Web-based applications have been developed that no longer travel with a person's laptop computer. Rather these new applications are accessible wherever and whenever users have a fixed or increasingly wireless Internet connection. A number of key terms have been devised to map this new area — blogosphere and cyberspace being two of the main ones — the central point being that information no longer exists in self-contained spaces but rather inhabits shared spaces or ubiquitous and ambient networks.

Whereas the 1980s and 1990s were greeted with a wave of optimism from teachers who wanted to use computers to enhance learning in their classrooms and lecture halls, the mood could not be sustained due to the limitations presented by the equipment or lack of it on the ground. Within 10 to 15 years, however, increased rates of Internet usage and access to hardware and software around the world are negotiating a new position and importance for the role of Information and Communication Technologies (ICT) in society and especially in the educational field.

While still less than half of the world's global population has access to Internet technology, there has been a dramatic improvement on the situation that existed some ten years ago. Indeed, access to ICT and the spread of information literacy is set to increase more with the widespread use of portable telecommunications devices such as mobile phones and laptop computers, the latter due to such initiatives as

the MIT sponsored One Laptop Per Child Foundation (OLPC, 2008). As Warschauer and Grimes (2007) argue in a research article on Web 2.0:

The new Web's architecture allows more interactive forms of publishing (of textual and multimedia content), participation, and networking through blogs, wikis, and social networking sites. These participatory sites enable and rely on user-generated tagging of content, which itself can be aggregated into a user-generated taxonomy known as a folksonomy. Sites such as Flickr, Napster, and Wikipedia thus allow users to generate, link, evaluate, and share a wide variety of online content. (p. 1)

This understanding of Web 2.0 as signifying a change in the way people publish, communicate and collaborate is precisely the point at which these developments become important for educators, linguists and language learners. As Warschauer and Grimes continue:

The way that both information and people are linked on Web 2.0 has deep significance for the field of applied linguistics. In particular, the types of interaction on Web 2.0 raise questions about what it means to exercise authorship, communicate with an audience, and produce a text or multimodal artifact. (pp. 1-2)

In the first major research article on the subject of Web 2.0 and applied linguistics, Warschauer and Grimes define Web 2.0 not so much in terms of “a new version of Web technology” as a development that promotes “changes in the communicative uses of the underlying Web platform” (p. 2).

Consequently, the use of Web 2.0 tools in education has been one of the most appealing to date. In their book on *Web 2.0: New Tools, New Schools*, Solomon and Schrum (2007) capture this optimistic vision:

The shift to Web 2.0 tools can have a profound effect on schools and learning, causing a transformation in thinking. This will happen because the tools promote creativity, collaboration, and communication, and they dovetail with learning methods in which these skills play a part. For example, when students collaborate on a project and present what they've learned, they've honed their thinking and organizational skills. ... The old way of doing things is presentation-driven; information is delivered and tested. This approach prepares students for jobs that require simply following directions and rote skills. The new way is collaborative, with information shared, discussed, refined with others, and understood deeply. It prepares students to become part of a nimble workforce that makes decisions and keeps learning as the workplace changes. What makes the difference is preparing students with 21st-century skills using a flexible approach rather than teaching just what will be tested. (Solomon & Schrum, 2007, p. 21)

In place of the transmission mode of learning in which information is passed from teachers to students, Web 2.0 is largely based on a social constructivist framework which is not oriented solely towards examination results and testing. Students are challenged to engage in collaborative work that better allows them to express themselves in a mode of self-discovery. Web 2.0 tools are concerned with challenging the assumptions of existing educational curricula which will bring them more in line with learning methodologies appropriate for students entering the knowledge economy and promote task- and project-based learning. Indeed, many of the chapters of this handbook discuss the implications of a constructivist framework or related approaches such as connectivism (Siemens, 2004).

Following in the footsteps of Merriam Webster's dictionary and the Oxford American English Dictionary, which declared blogging and podcasting words of the year, *Time*'s reflecting mirror identified a new

generation of “Internet everyman” who blogged on the Web, sent iReports via camera phone to CNN, shared digital photos on Flickr, videos on YouTube and bookmarks on Del.icio.us. Inside the cover, Lev Grossman wrote about the wider socio-cultural trends indicative of these technological developments. What was happening was a re-narration of history, a decentralization of authority in which technology was playing a central role:

But look at 2006 through a different lens and you'll see another story, one that isn't about conflict or great men. It's a story about community and collaboration on a scale never seen before. It's about the cosmic compendium of knowledge Wikipedia and the million-channel people's network YouTube and the online metropolis MySpace. It's about the many wresting power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes. ... The new Web is ... a tool for bringing together the small contributions of millions of people and making them matter. Silicon Valley consultants call it Web 2.0, as if it were a new version of some old software. But it's really a revolution. (Grossman, 2006, n.p.)

Time's cover page then, signaled nothing short of a dramatic transformation in the way information is created, shared and disseminated — the movement from a closed, proprietary space, to a more democratic, ubiquitous network in which anybody could contribute user-generated content. Solomon and Schrum (2007) apply this vision to education, arguing that Web 2.0 offers to “revolutionize” and “transform” education as most teachers and students have understood it for over a century. The authors sum up their vision neatly near the beginning, where they argue that students:

can now write directly online in a blog and get immediate feedback from peers and others who could be anywhere. They can collaborate with peers near and far — in a wiki, also directly online. They can post photos, videos, podcasts, and other items online. The difference is that they can do the posting. They control the tools of production and publication. There are no more gatekeepers. (p. 2)

Advocates of the transformative potential of Web 2.0, however, have taken up the challenge with much the same sense of conviction that led previous generations to champion the cause of talking movies, radio, television, and microcomputers: “Each of these highly touted electronic marvels went through a cycle of high expectations for reforming schools, rich promotional rhetoric, and new policies that encouraged broad availability of the machines, yet resulted in limited classroom use” (Cuban, 2001, p. 137). As Cuban reminds us then, previous rounds of excitement about new technologies have shown that words of caution must always temper the often extravagant claims made about them, lest they remain readily available but underused. While for a number of commentators on technology and society, Web 2.0 is a term still very much under erasure, all of the authors in this book emphasize its potential to enhance collaboration, participation and community building. One of the main questions of this book is to what extent Web 2.0 is able to transform learning and learning environments. Many of the studies included here indicate that while it is still too early to provide definitive answers to such questions, Web 2.0 tools have a tremendous potential that must be properly contextualized and developed in relation to curricula.

OVERVIEW OF THE HANDBOOK

The Handbook of Research on Web 2.0 and Second Language Learning approaches many of the preoccupations mentioned above in three sections.

Section I: Network Communities and Second Language Learning. This section provides an overview of some of the broader contextualizing factors behind the implementation of ICT strategies in language education. It includes chapters dealing with a diverse range of subject areas including ICT policy guidelines in a Web 2.0 era; the implications of multiliteracies on online learning environments; strategies to combat the dangers of information overload in an age of syndicated information flows; the protocols of online communities; tandem exchange projects using online communities and discussion forums; and an assessment of the ICT skills and competences of students and teachers.

Section II: The Read/Write Web and Second Language Learning. The second part of the handbook focuses on a number of practical examples of Web 2.0 tools, principally weblogs, podcasting, social networking sites and the use of video. A number of chapters focus on blogging in foreign language education with popular sites such as Mixi and Blogger. Others provide an introduction to podcasting and a range of case studies dealing with actual classroom projects, as well as attempting to move towards a framework for evaluating their usefulness.

Section III: Pedagogy 2.0 and Second Language Learning. The final section examines some of the broader pedagogical aspects of Web 2.0. Like the previous section, the focus is on practical examples including the implications of reading online; corpus linguistics in a Web 2.0 era; language teacher education; mobile learning; personal learning environments; and interactive whiteboards.

Being able at this point in time to assemble 28 individual chapters on the evolving phenomenon of Web 2.0 is indicative of the experimental projects and case studies that are now being done around the world. The contributors to the handbook come from over 15 different countries, from Asia, Australia, Europe and North America, and present a truly international perspective on the trends powering Web 2.0. It is too early to judge the fate of Web 2.0 in the second language classroom, whether it will go the way of talking movies, radio, or instructional television, but it is hoped that this handbook will make a valuable contribution to the ongoing conversation about its merits and its place in our classrooms and learning environments around the world.

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Acknowledgment

I would like to thank all of the authors, reviewers and editorial board who contributed to this project, and whose promptness and professionalism kept it on schedule. At IGI Global, I am especially grateful to Julia Mosemann (Development Editor) and Kristin Klinger (Director of Editorial Content), for their helpful and professional support at every stage during the editing of this handbook.

The idea for the book developed initially from two international symposia on Web 2.0 technologies held at Nagoya University of Commerce & Business in Japan in 2007 and 2008. I am indebted to the University for its support of these events and for arranging a research day, which made the editing process possible.

Finally, I would like to thank my family for their support and my two young children, William and Hannah, for having allowed me to invest so much time in the editing of this book. I dedicate this book to them.

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Nagoya, Japan
June 2008*

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