

Book Review

George Pullman and Baotong Gu

Designing Web-Based Applications for 21st Century Writing Classrooms—Reviewed by
ANGELA PETIT**Index Terms**—Content-management systems (CMS), web applications, writing instruction.

George Pullman and Baotong Gu's edited collection *Designing Web-Based Applications for 21st Century Writing Classrooms* is grounded in two assumptions stated in their Introduction. The first assumption serves as the editors' opening sentence: "if you want something done right when it comes to information technology and writing instruction and research, you have to do it yourself" [p. 1]. Few college writing instructors or researchers would doubt the truth of this comment, an exception being those who enjoy excellent technical support on their campuses. The second assumption also appears early in the Introduction, when Pullman and Gu describe "software" or, more broadly, any technology as a "web of interconnecting workflows that amount to a social and intellectual environment; a place that influences the creation and exchange of ideas" [p. 1].

These two assumptions perform an important function in Pullman and Gu's compilation of 14 chapter essays. They indicate the relatively high level of technical knowledge that writing instructors are expected to bring to the text, and they emphasize beliefs about technology that shape the way chapter authors integrate technology into the teaching of writing. For writing instructors who bring this technical expertise to the text and who share its assumption about technology and environment, this book is an important new resource. It provides an overview of web-based application design that is technologically sound and pedagogically cohesive.

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From a technical point of view, Pullman and Gu have gathered 14 case studies that will help tech-savvy writing instructors identify similar opportunities for developing web-based applications for their own writing instruction. The cases are noteworthy for the variety of writing courses and programs covered and for the variety of web-based applications explored. The courses range from first-year composition and undergraduate technical and professional communication to graduate-level composition and technical and professional communication. Also represented are applications suited to broader program-wide use (e.g., assessment) as well as applications that cross institutional borders to attract writing students and instructors from across the globe.

For these courses and programs, the book's chapter authors have developed an impressive array of web-based applications. The book's editors have divided these applications into three categories: (1) writing environments; (2) individual, standalone applications; and (3) open-source modifications. In Writing Environments (Part 1), Michael McLeod, William Hart-Davidson, and Jeffrey Grabill begin the collection by arguing "for broader acknowledgment of the role of rhetoric and writing theory in the design and implementation of writing software" [p. 8]. McLeod, Hart-Davidson, and Grabill's essay is an excellent choice for Chapter 1. Like so many of the later chapters, the initial essay seamlessly links its authors' interests in technology and writing instruction. In Chapter 1, these interests are a rhetorically based peer review of student writing, user-centered design, and development of the Writing in Digital Environments (WIDE) research center and Eli, a web application the authors developed to support the "coordination and assessment of writing review" [p. 13].

The remaining chapters in Part 1 echo the first chapter's balance of rhetoric and writing concerns with software and technology. Thus, in Chapter 2,

Ron Balthazor, Christy Desmet, Alexis Hart, Sara Steger, and Robin Wharton discuss <emma>, the Electronic Markup and Management Application for the University of Georgia's First-year Composition Program [p. 19]. Chapter 3 moves from Georgia to Texas Tech University and that institution's transformation of 1990s-era software TTOPIC into the .NET-based Raider Writer, which the authors describe as "a program both technically and pedagogically flexible and scalable" [p. 48]. Meanwhile, Chapter 4's Mike Palmquist details the 20 years of work that have led to Writing@CSU, the popular, all-purpose writing resource that combines instructional content, writing studio, and course-management system [p. 51]. Completing Part 1 is Matt Penniman and Michael Wojcik's discussion of their community development website Our Michigan Avenue and the multimodal Speech Made Visible, both created using the iterative methods of Agile Development that, according to the authors, are "strikingly similar to a lot of what we teach in the writing classroom . . . drafts, invention, peer groups, revision, and editing" [p. 69].

Part 2 of Pullman and Gu's collection focuses on Individual, Standalone Applications, including Brian J. McNely and Paul Gestwicki's "knowledge work" with Google Wave (Chapter 6) and David Fisher and Joe Williams' Web application "Article-The Game," which allows students to "dramatize scholarly conversations" [p. 108] through a gaming environment as they enter a new university, new major, or graduate education (Chapter 7). In Chapter 8, David Chapman describes his extensive efforts to develop a "novel, custom-built Web-based application" [p. 125] for his undergraduate technical communication class rather than use an off-the-shelf content-management system (CMS). In Chapter 9, Suguru Ishizaki, Stacie Rohrbach, and Laura Scott discuss the interactive self-learning document design tutorial they developed to supplement visual communication instruction in a professional writing service course. Finally, Part 2 concludes with Chapter 10, Stephen A. Bernhardt's account of his work with a major publisher of instructional materials to create *Writer's Help*, an "XML-based, Web-served handbook" that helps students make sense of, in Bernhardt's elegant description, "language about language—essentially metalinguistic abstractions about a highly abstract symbol system" [p. 155].

For Part 3 of their text, Pullman and Gu have collected chapters on Open-Source Modifications. Chapter topics include The PIT Core Publishing

Collective's (Chapter 11) use of the open-source Drupal CMS to create "a peer-review platform" to publish the *Pit Journal*, a journal of undergraduate scholarship [p. 177] developed at the University of North Carolina at Chapel Hill. Following the PIT Collective's essay, Chapter 12's Steven D. Krause offers Wordpress, more commonly known as blogging software, as a robust and freely available alternative to traditional CMSs [p. 195]. To end the collection, the final two chapters highlight wikis, specifically Karl Stolley's use of WikkaWiki to build accessible and sustainable course websites (Chapter 13) and Steven T. Benninghoff's modifications to PmWiki to create courses that are more knowledge communities than spaces where students passively receive information (Chapter 14).

In its entirety, Pullman and Gu's *Designing Web-Based Applications for 21st Century Writing Classrooms* holds together as a solid collection whose authors share an active, hands-on interest in technology and college writing instruction. The book has few drawbacks, and several admirable strengths. On the one hand, the organization of the book is not as clear as it perhaps could be. Chapters are grouped into one of three "parts": Writing Environments; Individual, Standalone Applications; and Open-Source Modifications. At times, it is difficult to understand why, for example, a chapter on creating the electronic writing space <emma> has been grouped under Writing Environments while a chapter on creating the gaming space "Article-The Game" has been grouped under Individual, Standalone Applications. In their Introduction, the editors do not explain their categories in detail, nor do they provide separate introductions to each of the three parts. Still, perceived problems in organization could spring not from the text but from gaps in this reviewer's technical knowledge. Readers with a firmer grasp of application development may easily differentiate among writing environments, stand-alone applications, and open-source modifications. In contrast, those with less background may find it more difficult to discern the editors' reasons for placing specific chapters into one of the book's three sections.

This issue of technical knowledge brings up another potential concern about the book. In their opening sentence, Pullman and Gu state an important assumption grounding their text: "if you want something done right when it comes to information technology and writing instruction and research, you have to do it yourself" [p. 1]. Nevertheless, at 250 pages, Pullman and Gu's collection is

relatively slim and, thus, readers should not expect a detailed, do-it-yourself manual for developing web-based applications. To be fair, Pullman and Gu never promise an in-depth DIY guide, and their book works much better as an overview of web-based applications for contemporary writing courses. The collection covers an impressive number of homemade applications created by writing instructors who saw pedagogical issues they wanted to address through the best technical means possible. Thus, the collection is less a manual than a heuristic that does not show “how to” create web applications but demonstrates what writing instructors can do with these applications. Readers are meant to survey the web-based options available and then to invent ways that they, too, can teach writing in the 21st Century environments where they and their students now almost inevitably interact.

Knowing this, readers should approach this text with some caution. The book’s editors and authors are clearly either skilled in application development or willing to plunge into unknown technologies and learn them or seek out technical expertise. In that sense, after Chapman explains in Chapter 8 that he used HTML, CSS, JavaScript, PHP, MySQL, and phpMyAdmin to create a web application for his technical communication courses, he offers good advice when he states that “implementation of a Web-based application is best completed using technologies that are familiar to the implementer” [p. 138]. Similarly, writing instructors already busy with the many demands of their positions will appreciate Stolley’s comment in Chapter 13 that

since releasing his work on GitHub, he can now detail the considerable time he spends working on his sites for tenure and promotion committees and deans who can support his work in material ways [p. 229].

Despite these cautions, writing instructors willing to invest time in reading about or learning to design web-based applications will be rewarded for their efforts. Not only is this book technologically interesting, but it is coherent from a pedagogical point of view. Pullman and Gu base their collection on the assumption that technology is a “web of interconnecting workflows that amount to a social and intellectual environment; a place that influences the creation and exchange of ideas” [p. 1]. Certainly, the book’s chapter authors agree, and the assumption that writing is a social event that takes place in idea-driven environments winds like a thread throughout the collection. Examples of this assumption are too numerous to list. However, in the book’s final chapter, Benninghoff sums up this view well when he argues that “tools,” whether writing courses or web-based applications, are “constructive of their contexts” and are “meant not simply to perform the existing tasks but to enable the imagining of new adaptations, new possibilities, and their creation” [p. 231]. Benninghoff’s comments encapsulate Pullman and Gu’s collection, which balances writing and technology, the intellect and the instrumental, the web’s shared environment, and stand-alone tools into a whole that helps writing instructors glimpse at exciting possibilities for college writing instruction.