

## EMERGING TECHNOLOGIES USED IN ELECTRONIC PUBLISHING

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# EMERGING TECHNOLOGIES USED IN ELECTRONIC PUBLISHING

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## Introduction

How do you coordinate a hundred authors from half a dozen countries writing and revising 70 chapters for four volumes in a book series on the use of computer mediated communication in primary and secondary schools -- and all in less than one year from the call for chapters to manuscripts delivered to the publisher? You use electronic mail, an electronic discussion group and a series of web-pages.

This paper will describe the processes used for the book series described above (known by its project name K12BOOK) and an earlier series of three books (the CMCBOOK project). While these particular projects involved books for publication, a similar format could be used for other kinds of collaborative writing and/or publishing efforts, in and out of educational settings, where authors/editors/students/instructors are dispersed and may only have access to electronic mail.

## The CMCBOOK Project

The editor's first efforts at using emerging technologies in the process of assembling and editing book chapters for publication resulted in the three volume series *Computer-mediated Communication and the Online Classroom* (Hampton Press, 1995), (referred to by its project title: CMCBOOK). CMCBOOK was conceived during a discussion on the relative merits of online education that took place on the Interpersonal Computing and Technology scholarly discussion group (IPCT-L@lists.georgetown.edu) during Spring 1992. The call for chapters was distributed electronically to IPCT-L and a number of other scholarly electronic discussion groups. The resulting hundred or so proposals were received and then circulated via electronic mail to the editorial committee, who met in July 1992, several for the first and only time face-to-face, to make the final decisions regarding the chapters to be accepted. Acceptances were sent to the principle authors via email and all the accepted authors' names were subscribed to an electronic mailing list.

For this project the editors assumed that only electronic mail programs running on mainframe computers would be available to the authors and that they would know, or would learn, how to use their site's electronic mail system, how to up and download text files and include them in their electronic mail messages. This very basic, least-common denominator approach meant the editors would not have to deal with the infinite variety of text and word processors, computer operating systems and mailing programs. It also meant that authors were not required to know or to use more than the most basic Internet tools.

The first messages to the discussion list welcomed the participants and invited them to introduce themselves. A set of 'Instructions to Authors' and a project timeline for drafts and revisions

were developed by the editors and distributed. After some discussion among the authors and the co-editors, some revisions were made to the "Instructions" and these were distributed to the list. Drafts of the first two chapters to be written, one defining and describing computer mediated communication (Santoro, 1995) and Collins' (1995) chapter explaining the common terms and terminology of the Internet were also distributed to everyone. This provided a common set of information to all authors so that they would not duplicate explanations in their chapters.

The discussion list was also used to answer questions sent to the editors where those answers were thought to be of general interest to the CMCBOOK community, for the occasional question raised by authors, and for several efforts (mostly unsuccessful) at arriving at common meanings for various technical terms being used. The list was also used to remind authors of upcoming deadlines for the receipt of drafts and the final hard copy and diskettes. Once the manuscripts were in the hands of the publisher, the list was used to keep the authors updated on the publication process.

All chapter drafts were sent as email to the editors, read and edited online and returned to the authors, sometimes just once, sometimes several times. Editorial comments and queries were inserted in CAPITAL LETTERS to distinguish them from the body of the text. Unfortunately, in electronic communication terms, this represents SHOUTING, and several authors, well used to seeing editorial commentary on paper drafts found themselves greatly upset by the "harshness" of the capital letters! Using electronic mail speed up considerably the flow of draft submissions and revisions. One chapter made the round trip from central Pennsylvania to Sydney, Australia six times in one 24 hour period! The editors worked individually with each author or set of co-authors on their chapter revisions. There was no formal mechanism set up to allow the authors to read each other's chapters and very few chapters were circulated among the authors.

The entire editorial process of the CMCBOOK project up to the receipt of page proofs, was conducted online and we found that to be both a time efficient and effective process, generally well accepted by our CMCBOOK authors. Authors were particularly pleased with the amount and speed of the information flow, which, they said, helped them significantly in drafting and revising their chapters and the ease of access to the editors. Almost 2000 electronic messages were exchanged among editors and authors during the course of the CMCBOOK project - a quantity and quality of information exchange that would have been impossible in terms of both expense and time, using traditional communications methods. Several authors did note they did not take as much advantage of the open communication channels as they could have done.

## The K12BOOK Project

When the CMCBOOK editors attended the Association for Curriculum and Development (ACSD) conference in San Francisco in March, 1995, they noticed a tremendous interest in computer-mediated communication (CMC) among these primary and secondary school teachers and administrators. When the call for chapters for the CMCBOOK series was issued in 1992, only a small handful of responses involved primary and secondary school projects, and there appeared to be very little CMC activity. The volumes in the CMCBOOK series had been well received in higher education and there now appeared to be a definite market for a similar set of books to meet the needs of K12 educators and teacher educators. This idea became *Wired Together: The Online Classroom in K-12* (the project title is simply “K12BOOK”).

On May 1, 1995, the call for chapters was sent to selected online discussion groups with a Kindergarten through Grade 12 (K-12) focus. A number of personal invitations for submissions were sent to people whose names were associated with CMC at primary and secondary levels. The closing date for proposals was June 30, 1995 and in those two months nearly 100 proposals were received. These were reviewed by an editorial panel of elementary, secondary and higher education faculty, and in July, 1995 acceptances were issued to the authors of 73 chapters. Of course, as with all such efforts, for a variety of reasons throughout the months following acceptance, several chapters were subsequently withdrawn from the editorial process. At the time, it appeared the content would sort rationally into 3 books. Rather than each of the editors reading all the chapters in all the books, (which was found to be a very time consuming process with CMCBOOK) each editor assumed primary responsibility for one book. Patricia Dieter Riedell, a middle school English teacher, was invited to edit the reading, writing and second language acquisition volume.

The editors decided to use the same electronic process as had been used for the CMCBOOK project. The first step was to set up the electronic discussion group and subscribe the authors and editors. The author guidelines from CMCBOOK were revised in light of the CMCBOOK experience and a new timeline set for submission deadlines for drafts and revisions. These distributed via email to all the authors, with revised drafts of the Santoro chapter defining CMC and Collins' explaining the common terms and terminology of the Internet. For the K12BOOK project authors were limited to approximately 3000 words, and authors were directed to refer to the Santoro or Collins chapters rather than ‘waste words’ redefine terms and concepts.

One editor had learned to annotate documents with Hypertext Markup Language (HTML) and felt that a series of Web pages would considerably ease electronic document management. A K12BOOK homepage was created and the Author Guidelines, and both the Santoro and the Collins chapters were linked to it. The URL for the K12BOOK home page was sent to the authors, via the electronic discussion list with text versions of everything on the Web pages for those who did not have Web access. An index page with authors and chapter titles was created for each of three books and as first drafts came in, they were linking to the appropriate entry. Each of the three books were initially divided into two sections and the authors were invited to

read the chapters in their section. Each author revised and adjusted his/her own from comments not only from the co-editors, but also from other authors. Additionally, references were made by authors to other chapters in the books that they read. One author actually contacted the others in his section and encouraged discussion of their particular content and issues.

First drafts were received from the authors via email during the fall of 1995. In several cases the authors put up their own Web pages, with links to those sites then made on the K12BOOK homepage. Editorial comments were emailed back to the authors and final drafts were received via email and linked to the index pages for each book through January, 1996. The glossary from CMCBOOK was sent via email to the authors and linked to the Web pages and revised as additions and suggestions pertinent to primary and secondary schools were received. When all the final drafts were received and after consultation with the publisher, the chapters were rearranged into the present four volumes.

The online working process was new to most of the authors, some of whom had not published book chapters before. Even for those authors who had previous publications, they were used to working only with an editor, and were often not aware of the other authors nor the contents of other chapters. During the CMCBOOK project authors reported that they appreciated this collaborative mode of working that also kept them updated on the status of their chapters, and the general progress of the books.

Using electronic mail, the electronic discussion group and the Web pages, the editors were able to go from an online call for chapters to their final delivery to the publisher in 10 months, an impossible feat had they been required to do it using conventional mail. While most of the authors were from the United States, authors also came from Canada, Australia, the United Kingdom, Israel, Germany, Russia, Singapore and India. It became obvious to the editors as chapters were read that using CMC in the classroom raises the same kinds of issues and is applied to similar pedagogical problems, regardless of the physical location of teachers and students.

### What the Authors Thought of the Process

The authors were asked to comment on the editorial process used in K12BOOK, especially how it compared to other authoring processes in which they had been involved. Several remarked about this being "somehow new." They couldn't articulate well what that "new" was but they used words like "access," "freedom," and "connectivity." Several authors, while seasoned computer-mediated communicators, noted that at first even they felt a little "clumsy." Again, hardly any of the authors felt they had taken the time or made the effort to interact with other authors to the extent this process would have allowed. There were expressions of regret at this in most cases.

K12BOOK authors expressed concern with the same kinds of limitations as had the CMCBOOK authors. They wished they had more time to take advantage of the flexibility and possibilities of this process, they regretted technical problems with sites going down, and lack of convenient access to email or websites. But overwhelmingly, authors found this process useful because of the ease and convenience in communication between themselves and the editors especially, and also between themselves and other authors. Authors commented that the regular updates from the editors were important in giving them a sense of "ownership" or "community" in this effort, compared with other edited works to which they had contributed.

The Web site, for those having convenient and low-cost access, allowed authors to judge such things as what terminology they need not duplicate, the writing style being used, and the scope of this work. Several authors commented that if nothing else, the review of others' work was reassuring--that they were using the appropriate style for the intended audience, that they were not using too much jargon--and that this access served to provide models of writing useful in producing their own contributions to K12BOOK.

The process has proved itself now with seven published volumes and the editors will continue to refine and elaborate the process as they implement this model of collaborative and interactive work, unbound by time and space, that computer mediated communication fosters so well. They feel this writing and publishing process can be applied within classrooms, schools, or businesses using internal, private web servers (intranets), or openly, in writing projects across the world.