## **Preface**

Approaches to education continuously evolve as educators harness the ever-growing number of available technologies in an effort to meet the changing needs of students. It is a process in which today's instructors are continually adjusting their teaching methods to accommodate new modes of communication available to their students. As quickly as new technologies arise, educators must design approaches and pedagogical techniques to take advantage of their potential for education. At the same time, they need to address issues and problems the technology may introduce. The result is a complex balancing act between that which is known and that which is new.

In today's classrooms and libraries, computer-mediated communication (CMC) is the norm. With rare exceptions, students are digital natives: individuals who have grown up immersed in online media and who are well-adapted to CMC. For this generation of students, communicating with smart phones, laptops, and other Internet devices is almost as natural as breathing, and as a result, they have mastered the use of applications such as SMS, social networking, e-mail, and video calling. Educators must therefore seek ways in which to enrich their teaching to keep pace with the daily lives of contemporary students. It is through interacting with students as digital peers that effective discussions and debates can take place and education can meet the needs and expectations of the 21st century.

New technologies, complemented by a greater amount of educational material available to a wider audience than ever before, introduce new avenues of communication. The Internet and its related technologies offer instructional designers, educators, and librarians opportunities to develop learning environments that are conducive to instruction for today's students. As Dumova puts forth in her chapter in this collection, new technologies "promise to create learning environments that could transform many aspects of the traditional relationships between instructors and their students, including the presentation of course content, learning activities, student-teacher and student-to-student interactions, as well as assessment." Computer-mediated communication is the current mode of delivery for many instructional activities, and the number of technologies available is often inspiring, and is, at times, overwhelming.

However, approached correctly, new technologies for computer-mediated communication have the potential to generate effective approaches to education by quickly integrating themselves into mainstream instruction in context where teachers and students alike swiftly adopt new communication techniques. The developments emerging from such situations bring about benefits and challenges, and these factors affect education in a myriad of ways. As an integral part of technology, CMC is a vital topic to research and explore as it relates to education, and each new technological development brings with it new facets of CMC to explore and research in relation to their potential use in educational contexts.

Computer-Mediated Communication: Issues and Approaches in Education highlights current concepts, issues, and emerging trends relating computer-mediated communication and its issues in, and approaches to, education. To this end, this volume contains eighteen thematically organized chapters that

highlight best practices, strategies, approaches, technologies, case studies, testing, trends, information literacy, examples, and models for using computer-mediated communication technologies in different educational settings. In order to provide readers with an understanding how CMC affects issues of and approaches to education this book

- 1. Introduces readers to a variety of technologies that facilitate computer-mediated communication in educational settings
- 2. Provides case studies and research regarding these topics
- 3. Discusses theoretical frameworks for studying CMC

A large and important component to this collection is the introduction and review of communication technologies used to mediate and facilitate education. Blogs, mini-blogs, virtual worlds, video conferencing, ePortfolios, and course management systems are just a few of the ways in which educators are using computers to communicate with their students. Thus, the collection's first section, "Overview of Technologies and Current Trends / Fundamental Concepts" includes six chapters that introduce, review, and provide ideas for integrating current technologies into educational practices. To do so, the chapters in this first section provide readers with an in-depth look at various CMC technologies. In so doing, the authors of these chapters provide analyses and recommendations for the strategic uses of such technologies in a variety of educational settings. Now, more than ever, educators must teach about the numerous tools available online, and how students can find, use, and evaluate information. The entries in this section offer an initial set of ideas readers can use to achieve these objectives.

Jenna Ryan's chapter, "Meeting Them Halfway: Using Social Networking to Connect with Students," examines several popular technologies and their possibilities for use in higher education. From the simple-to-use and popular social networking tools, such as Facebook and Twitter, to the more complicated CMC technologies like virtual worlds, Ryan reviews the technologies and related literature. She also makes recommendations for the uses of such technologies in a way that would enhance the use of CMC in educational settings.

Ryan's chapter is followed by another discussing the use of virtual worlds in the educational setting. Specifically, Stoerger puts forth a case study of the use of Second Life in several courses, including the use of Voice over Internet Protocol (VoIP) with Second Life. Martin and Hesseldenz, in turn, discuss the approaches to online information taken in academic libraries. Dumova's chapter presents results of a much-needed survey that determined how students perceive the usability of online testing in Blackboard. These findings bring to light several ways in which educators can make better use of online testing by using teaching strategies that utilize different pedagogical tools than face to face environments for better assessment practices. Next, Rice's chapter suggests ways in which educators can employ ePortfolios, and Whitehair and Tally's chapter examines how web conferencing has brought about significant changes to the ways in which educators are able to communicate with their distant students. The overall section then concludes with Rusnak's chapter that discusses the implications of online setting for visual arts, a discipline traditionally set in the classroom.

Just as educators must adapt to the changing technological landscape, so must they prepare their students for working in a world where understanding CMC is critical to professional success. Moreover, today's student must be prepared to work in a global society where communicating with worldwide teams via online media is commonplace. "Social Implications" – the second section in this collection – contains chapters that address the new global nature of society created by the international proliferation of CMC.

This section uses case studies and models that can inform educational practices and help educators who strive to prepare their students for participation in the modern global economy.

The section begins with Henry and Lima's presentation of a critical instance case study that describes a collaborative project between grade schools in the rural United States and in Rio de Janeiro, Brazil. Students involved in the collaboration learn to communicate through blogs as well as learn about the differences and similarities in each other's cultures and daily life. Through this use of CMC, students develop a sense of global citizenship, a vital trait to teach in today's society. The following chapter by Boehm and Aniola-Jedrzejek describe a similar kind of collaboration among college-aged students. The chapter again emphasizes the importance of students to develop a global perspective in order to be successful in today's economy. Thus, the students are assigned to partake in a collaborative cross-global team effort. It is a context that requires them to work as part of a globally-distributed team in which fellow students from another country and of a different culture interact via CMC technologies.

In the section's third chapter, Picherit-Duthler describes international collaboration as well in terms of how students' perceive working on global virtual teams. Next, Liberati suggests a framework that would enable physically disparate team members to pool resources and complete projects: for example, scientific experiments, without traveling. The paradigm he presents could allow experiments to be executed by scientists and science educators working apart from each other.

Assessing and evaluating online communication at any level can be challenging. In an environment that often lacks the cues available in face-to-face communication, conveying meaning can sometimes be more difficult. Hart suggests using speech codes theory, which is grounded in the ethnography of communication, as a framework by which to evaluate and analyze computer-mediated communication. Specifically, she suggests that is has the potential to shed light on CMC in educational settings. Xia's chapter, in turn, examines student opinions of online vs. on-site classes and reveals what factors can affect student perceptions of what makes an online class more, as, or less successful than an on-site one.

Section three, entitled "Case Studies" presents case studies and models relating to CMC in educational settings. Gunn and Kraemer, for example, discuss several models to integrate information literacy across a university's curriculum. According to these authors, information is communicated in the classroom and online through numerous technologies. As a result, it is more important than ever for students to know how to find, evaluate, and use information. Information literacy is often a focus of a university library's mission, and Kraemer and Gunn present ways in which librarians can integrate information literacy into courses across the curriculum.

Next, Eckstein's chapter presents a course project in which the students are required to make a public service announcement (PSA) video and share it by using Web 2.0 technology. According to Eckstein, Web 2.0 technology has turned the web from a passive tool to a contributive environment, with students contributing to the web by posting on YouTube, Facebook, blogs, and other 2.0 platforms. Studying how students interact with information is thus a vital component to understand the issues of CMC in education. In examining this idea, Eckstien presents an approach for teaching students how to harness the possibilities of CMC to effect social change.

Section Four – "Online Collaboration / Online Communities" – contains chapters that analyze how online communities form and how CMC affects them. Salam's chapter, for example, points out how applying activity theory to analyze online discussion transcripts can assist educators in understanding participation and knowledge construction in an online environment. Similarly, Tanner and Amato's chapter examines online discussions and provides research-based suggestions to improve participation

among students. Then, Valentino's chapter analyzes more than two hundred online discussions among students, and uses the results to deduce what types of instructor facilitation encourage the best discussions.

CMC is an ever-changing and growing phenomenon that will continue to shape and be shaped by educational practices. These technologies offer educators incredible potential for transforming how they communicate with and teach students. The chapters in the book offer educators a foundation to understand some of the issues related to CMC and education, and tools and frameworks to apply theories to teaching. The editors hope readers will build upon this foundation to create new pedagogical approaches and generate original research that can facilitate the understanding of and uses of such technologies in a range of educational situations.

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