Chapter 12
From Barriers to Beginnings: New Media as Assistive Technology

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ABSTRACT

The ubiquity of new media in the lives of young people with high-incidence disabilities raises two important questions: how can new media be used as Assistive Technology (AT) and what can new media offer that other technologies may not? This chapter attempts to answer these questions by discussing the shifting and dynamic barriers to making this transition while also illuminating convergences between the goals of new media and AT. While this chapter explicitly concentrates on opportunities within the classroom, educators can also employ the guidelines provided herein generally in out-of-school contexts. Barriers to be discussed include electronic curb cuts and aggressive Internet filters. After discussing such barriers, solutions, including some classroom protocols and a list of resources, are shared to help educators evaluate new media as well as in the integration of new and old media as AT.

INTRODUCTION

There are at least half a dozen books, book chapters, and articles from the last ten years that predict advances in or the future of assistive technologies (AT) for people with disabilities in schools (Abbott, 2002; Birnbaum, 2005; Dove, 2012). In the world of AT, a future orientation exists in parallel to the push for cloud computing and new media generally in the technology sector. The term “new media” has become a buzzword to describe almost anything related to technology. Manovich (2001), for instance, describes it in terms of categories of technology that are commonly cited in the popular press, to include the Internet, websites, multimedia, video games, CD-ROMs and DVDs, and virtual reality. Schools from around the U.S. and other parts of the world continue to invest in technology and access. Many U.S. schools are

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upgrading their infrastructure in order to support broadband and wireless speeds; they are introducing mobile technologies to include the integration and promotion of mobile applications (apps); and offering conferences that discuss how to use mobile tablet devices for instruction and remediation. While advancements such as these are encouraging, how can new media be seen as AT for students with high-incidence disabilities? Where and when does it work? And for what?

New media, because of its broad definition, is almost any technology where computers are the center of “production, distribution, and communication,” including old media like television and film produced using digital means (Manovich, 2001). Although such a broad definition allows for the incorporation of many technologies, it also unfortunately fails to help teachers, and not to mention young people with high-incidence disabilities, fully grasp what is new about new media and whether such technology is even useful and usable in their specific contexts. Web-based technologies have enjoyed a long history of proclaiming inclusivity for people with disabilities while leaving them out. Debating competing definitions of the term “new media” is beyond the scope of this chapter. Instead, this chapter looks at new media with a critical approach to accessibility.

In the context of this focus, the use of new media as AT can lead to two positive outcomes: greater social connectivity and inclusion of people with disabilities and the possibility of higher educational attainment and improved life conditions (Bouck, Maeda, & Flanagan, 2012; Maor, Currie, & Drewry, 2011). New media also has the opportunity to increase the ease of differentiating within inclusive settings by providing different applications to different students and by suggesting unique combinations of applications and web-based social networks for students.

An obvious criticism of this approach is that providing technology at all is differentiating for students with high-incidence disabilities. For example, students with high incidence disabilities, especially those with language-based learning disabilities, typically have or need access to computers to complete their writing. Since many of these students have other co-morbid conditions, like attention deficit disorder (ADD) and attention deficit hyperactivity disorder (ADHD), access to a computer and word processing program may not be substantial enough to truly support independent learning. They may also need a distraction-free computer environment with timed tasks, to-do lists, schedules, and organizational tools as well. This becomes increasingly complex in inclusive classes because the adaptations and focus may not be intuitive for or acceptable to general educators because they go beyond the usual cognitive supports provided. New media solves this through applications like digital timers and distraction-free writing software that should be considered when aiding those with special needs in the inclusive classroom.

In this chapter, the reader is acquainted with common barriers to access along with new beginnings for special educators to think more creatively about the use of ubiquitous and well-liked media with their students. Specific examples of new media are presented which can be accessed across different platforms or devices, that are low-cost or free, complement older technologies, assist students without increasing stigma, and connect students with each other across able/disabled status.

**WHAT BARRIERS PREVENT NEW MEDIA FROM PROLIFERATING IN SCHOOLS?**

**Unfamiliarity with New Media and Assistive Technologies**

The sad reality is special educators and those responsible for AT oftentimes end up guessing at which technologies are appropriate or accessible to students in schools. Special educators rarely
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