# Chapter 11
# Women and Technology, Upon Reflection:
## Linking Global Women's Issues to the Digital Gender Divide in Urban Social Studies Education

**Judith Cramer**
*Columbia University, USA*

**Margaret Smith Crocco**
*Columbia University, USA*

## ABSTRACT

*Two collaborating urban university educators document their evolving understanding of the ways in which technology, gender and social studies intersect to challenge traditional assumptions in teacher education. The "male" culture of computing, notoriously unfriendly to girls in schools, is part of a well-documented digital gender gap. Though teacher preparation curricula often make little reference to gender, most American education students are female, and are taught by females in a profession often referred to (derogatively) as "feminized." Through their efforts to infuse technology in a course on global women's issues, and in the surrounding pre-service master's degree program, the authors learned to see the role of digital technology in new ways. Joining the subject of female empowerment worldwide to issues of technology access, use, and culture in schools, they used research on the digital gender divide to expand technology's role in their curriculum from mere method to essential course content.*

## INTRODUCTION

What makes software good for education?

- It costs less than a hundred dollars.
- You can learn it in less than half an hour. And
- (pause here for effect) it delivers a lot of bang for the buck.

With this definition of digital excellence, we welcomed our students to a new Technology Seminar at Teachers College, Columbia University, at the beginning of the 21st century. Like most teacher educators, when we began our collaborative work on

DOI: 10.4018/978-1-61520-897-5.ch011

technology infusion we regarded digital technology simply as a tool to support course content, the (intellectual) "bang." Early on in the process, we discovered that "less is more," especially when it comes to preparing student teachers for under-resourced urban schools.

Eight years later, we see digital technology both as content and tool in social studies education. Our experience infusing technology into a pre-service social studies program has changed our perspective. Reflecting on our work now, we see that at its heart has been finding ways to infuse technology into social studies curricula that pay attention to the digital divide of gender. The strategies we have developed for technology integration reflect our evolving understanding of several complexities:

- The relative silence on the subject of gender in teacher education, despite the fact that gender issues exist in education generally and in social studies education particularly;[1]
- The challenges and opportunities afforded by the effort to infuse technology, itself a gendered subject, into a course focused on gender issues; and
- The dynamic state of digital technology, manifested recently in the shift from desktop to cloud computing, and the proliferation of social networking sites.

We offer this chapter to provide useful models and adaptable examples to teacher educators who may be confronting the same complexities or paradoxes. We want to share a few of the curriculum projects we devised for our students, and, with reflection, were able to improve. At each stage of our work we sought student input and critique, through class discussion, journal entries, individual and group interviews and end-of-course surveys. Our own reflective practice took the form of writing, which often incorporated students' responses to various technology initiatives. The discipline of writing, and especially writing collaboratively, proved a goad to intellectual clarity, rigorous assessment, and, eventually, to contextualizing our work through research at the intersection of technology, gender and social studies.

Throughout this chapter we cite our experiences and the reflections on these experiences that took the form of published articles, in order to indicate how reflection helped us improve our practice. In addition, we describe in detail the evolution of our approach to technology infusion in one course designed for pre-service students: Women of the World: Issues in Teaching. While changes in technology afforded new possibilities, at the same time, our own understanding of the relationship of digital technology to women's empowerment became more sophisticated. Our original philosophy of "less is more" remains in place, and remains appropriate to the range of situations our graduates encounter in their student teaching placements, where technology equipment, support, and internet access may all be problematic. However, we now know how to use our simple tools in more profound ways. We still use the concept-mapping software *Inspiration*, for example, the first digital tool we adopted, but instead of relying on it for a whole project, now we integrate it with online learning activities such as (a) building an archive of sites on *delicious.com* for (b) creating a *WebQuest* about women.

Ultimately we came to understand, through our encounters with a series of digital divides, based not just on the factors of race, class and economics in our city, but on gender in the socially constructed "male" world of computing, and on pedagogic hierarchies in the disciplinary subcultures of schooling, how technology not only could be, but should be, more than mere tool. Our predominantly female graduates would likely encounter mandated curriculum (and textbooks) that give women in history and women's social issues little attention, if any, as well as a school computer culture notoriously unfriendly to girls. Yet, by looking at technology from the perspective