

# Chapter XV

## Designing University Techscapes

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### ABSTRACT

*This chapter presents and analyzes the scholarly basis and empirical work that resulted in the development of Techscape, the application of collaborative technology use as one approach to achieving the larger aims of Civilscape. Civilscape, a loosely networked collaborative university-wide effort on a state-supported university campus in the United States, is designed to achieve two major goals: (a) to advance equivalent opportunity for full participation as a civil right for all qualified students; and (b) to expand the reach and benefits of the university for the advancement of healthy, safe, moral, equitable, and socially responsible societies in which universities exist. Technology, because of its omnipotence and potency, provides an important vehicle through which collaborative participation in education, research and technology transfer can occur. We first present the theoretical and empirical background for the project and then discuss and illustrate it. We conclude with a summary and important points for future consideration.*

### INTRODUCTION

“An institution of higher education is a community dedicated to the pursuit and dissemination of knowledge, to the study and clarification of values, and to the advancement of the society it

serves”(Middle States Commission on Higher Education, 2002, p. iv).

Universities are both civilized and uncivilized organizations. By civilized, we refer to environments that embody and practice socially responsible, humane, moral, and fair principles that

are applied equivalently to actual and potential members of that environment and those affected by it (DePoy & Gilson, 2007). And while administrators, faculty, students, and others employed by or governing university environments ostensibly aim for the collective goals of intellectual development, an educated, moral, and socially responsible citizenry, and advancement of civil societies (Colby, Ehrlich, Beaumont, & Stephens, 2003), practices both intentional and unintentional are often exclusionary and thus create “uncivil” conditions in our university communities. In concert with the definition of higher education advanced by the Middle States Commission on Higher Education (2002), this chapter presents and analyzes the scholarly basis and empirical work that resulted in the development of the University Civilscape model. The Middle States Commission on Higher Education is the unit of the Middle States Association of Colleges and Schools of the United States that accredits degree-granting colleges and universities in the Middle States region of the United States, specific US Territories, and several international locations. The Middle States Commission on Higher Education is a voluntary, nongovernmental, membership association.

In this chapter, we focus our discussion of Techscape, the application of collaborative technology use, as one approach to achieving Civilscape aims. Civilscape, a loosely networked collaborative university-wide effort on a state-supported university campus in the United States, is designed achieve two major goals: (a) to advance equivalent opportunity for full participation as a civil right for all qualified students; and (b) to expand the reach and benefits of the university for the advancement of healthy, safe, moral, equitable, and socially responsible societies in which universities exist. Technology, because of its omnipotence and potency provides an important vehicle through which collaborative participation in education, research, and technology transfer can occur.

We begin the chapter with a summary, critical discussion, brief synthesis, and application of the following substantive bodies of literature that informed the total University Civilscape model:

- Contemporary design theory and its application to university organizations and technology environments (Eames in An-nink & Schwartz, 2003; Lidwell, Holden, & Butler, 2003);
- Universal access theory and principles and beyond (DePoy & Gilson, 2005/2006; Preiser & Ostroff, 2001; Scott, Loewen, & Funcjes, 2003);
- Organizational change theory relevant to public universities as complex organizations (Medina, 2007; Slaughter & Rhoades, 2004).

To inform Techscape we then review theory and knowledge relevant to technology development, transfer, and use in higher education (Burgstahler, 2003; DePoy & Gilson, 2005/2006; Stephanidis, 2001).

We then overview a study which ascertained awareness of universal access principles and faculty practices with a specific focus on use of technology to promote full student participation in didactic, laboratory, and experiential education, and then move to an illustration of the model through a visual matrix and discussion of initiatives that emerged from the theoretical framework and the findings from our study. The chapter concludes with an evaluative and critical discussion of the model and its desired outcomes.

## **BACKGROUND**

### **What is Design and How Does it Apply?**

In our work, we delimit our discussion of design to human activity or properties that occur as

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