

## Chapter 8

# Collaborative Teaching Clusters at Carnegie Mellon University

**Connie Deighan Eaton**  
*Carnegie Mellon University, USA*

**Kimberly A. Hennessey**  
*Carnegie Mellon University, USA*

**Cheryl Koester**  
*Carnegie Mellon University, USA*

### EXECUTIVE SUMMARY

*Student and faculty needs for computer labs at Carnegie Mellon University have changed significantly in recent years to include collaborative workspace and support for multiple instructional activities during class times. The Collaborative Teaching Cluster (CTC) uses technology, furnishings, and a novel physical layout to meet these evolving needs. The CTC accommodates multiple kinds of instructional activities in one space and fosters interactions between faculty and students, group collaboration, and sharing student work.*

DOI: 10.4018/978-1-4666-2673-7.ch008

## **ORGANIZATION BACKGROUND**

Carnegie Mellon University is a global research university with more than 11,000 students, 86,500 alumni, and 4,000 faculty and staff. Recognized for its world-class arts and technology programs, collaboration across disciplines, and innovative leadership in education, Carnegie Mellon is consistently a top-ranked university: (Carnegie Mellon University, 2011a)

*Carnegie Mellon University has been a birthplace of innovation throughout its 111-year history. Today, we are a global leader bringing groundbreaking ideas to market and creating successful startup businesses. Our award-winning faculty members are renowned for working closely with students to solve major scientific, technological and societal challenges. We put a strong emphasis on creating things—from art to robots. (Carnegie Mellon University, 2011b)*

Carnegie Mellon University has a centralized information technology (IT) division, called Computing Services, and embedded IT departments or staff in individual colleges, schools, and departments. Computing Services is subdivided into several entities, including Academic Technologies Services (ATS) and Cluster Services. The term *clusters* may refer to both the computer labs on Carnegie Mellon's campus and the department that runs them.

Carnegie Mellon University's Computing Services group seeks to support this spirit of innovation and creativity by developing unique and useful services and spaces for campus. They often partner with the embedded IT groups in academic and administrative departments to support departmental needs while bringing improved service to the entire campus.

## **SETTING THE STAGE**

### **Before the Redefinition of Clusters Program**

In early 2007, at the inception of the Redefinition of Clusters (ROC) project, Computing Services provided seventeen public cluster, or computer lab, spaces in seven buildings across the Pittsburgh campus. At that time, fifteen of these cluster spaces could be reserved for academic classes. The remaining two spaces were dedicated learning spaces, open to students, faculty, and staff with no reservations. Computing Services also supported Linux timeshare servers available for remote access.

22 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/collaborative-teaching-clusters-carnegie-mellon/72675](http://www.igi-global.com/chapter/collaborative-teaching-clusters-carnegie-mellon/72675)

## Related Content

---

### Designing Online Pedagogical Techniques for Student Learning Outcomes

Kay MacKeogh, Seamus Fox, Francesca Lorenziand Elaine Walsh (2010). *Critical Design and Effective Tools for E-Learning in Higher Education: Theory into Practice* (pp. 22-38).

[www.irma-international.org/chapter/designing-online-pedagogical-techniques-student/44458](http://www.irma-international.org/chapter/designing-online-pedagogical-techniques-student/44458)

### Integrating Mobile Technologies in Multicultural Multilingual Multimedia Projects

Melda N. Yildizand Kristine Scharaldi (2015). *Advancing Higher Education with Mobile Learning Technologies: Cases, Trends, and Inquiry-Based Methods* (pp. 254-277).

[www.irma-international.org/chapter/integrating-mobile-technologies-in-multicultural-multilingual-multimedia-projects/114271](http://www.irma-international.org/chapter/integrating-mobile-technologies-in-multicultural-multilingual-multimedia-projects/114271)

### A Research Contribution to the Analysis of Mobile Devices in Higher Education from Medical Students' Point of View

Laura Briz-Ponce, Juan Antonio Juanes-Méndezand Francisco José García-Peñalvo (2016). *Handbook of Research on Mobile Devices and Applications in Higher Education Settings* (pp. 196-221).

[www.irma-international.org/chapter/a-research-contribution-to-the-analysis-of-mobile-devices-in-higher-education-from-medical-students-point-of-view/159376](http://www.irma-international.org/chapter/a-research-contribution-to-the-analysis-of-mobile-devices-in-higher-education-from-medical-students-point-of-view/159376)

### E-Mentors: A Case Study in Effecting Cultural Change

Barbara Macfarlanand Richard Everett (2010). *Critical Design and Effective Tools for E-Learning in Higher Education: Theory into Practice* (pp. 244-261).

[www.irma-international.org/chapter/mentors-case-study-effecting-cultural/44471](http://www.irma-international.org/chapter/mentors-case-study-effecting-cultural/44471)

### Creating an Authentic Learning Environment in Economics for MBA Studies

Greg Parryand Clive Reynoldson (2006). *Authentic Learning Environments in Higher Education* (pp. 76-87).

[www.irma-international.org/chapter/creating-authentic-learning-environment-economics/5424](http://www.irma-international.org/chapter/creating-authentic-learning-environment-economics/5424)