BOOK REVIEW

Cases on Higher Education Spaces: Innovation, Collaboration and Technologies

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Cases on Higher Education Spaces: Innovation, Collaboration and Technologies

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Space is a natural constituent of our lives, whether we sit still, move, act in any way, work, or learn. Space is just a "given" in our everyday environment what makes it so hard to "see" familiar spaces with all their affordances and restrictions. This is also obvious for activities of teaching and learning, traditionally organized in spaces like classrooms, labs, and libraries for hundreds of years. Due to a rethinking process going on for at least a decade these classical formats are about to be broken up. Mobile communication, networking, and new Web-based systems enable quite different experiences with space not constrained by bricks and walls anymore. Thus Higher Education - as much as professional or school education - is challenged to provide new answers to the classical questions: What are the right learning spaces for the generation of networked learners? How can we rebuild spaces to be appropriate for students, faculty and other stakeholders in face of new digital technologies?

The complexity of the design task does not allow for a theoretical formula answering the challenge. *Cases on Higher Education Spaces – Innovation, Collaboration, and Technologies* instead provides 19 case studies with real and up-to-date examples.

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The book comprises five sections, namely:

- Section 1: Innovation in Higher Education Spaces
- Section 2: Challenges and Opportunities in Creating Space and Place
- Section 3: Innovative Models for Teaching and Learning Spaces
- Section 4: Fostering Innovation in Higher Education Spaces
- Section 5: Models for Cross-Disciplinary Collaboration and Space Design in Higher Education

The first two chapters in the book lay out the ground for the consideration of the dimension space in Higher education, building Section 1.

In chapter 1, Erica McWilliam, Charlie Sweet, and Hal Blythe reflect on the status quo of spaces in Higher Education and the challenges regarding innovative design. As "educational spaces across the world largely continue to be designed with little variance from the traditional industrial classroom model" (p.13) they argue for a revival of the classical coffee house environment.

Dana Gierdowski presents in chapter 2 a review of selected empirical studies of learning spaces, conducted primarily in the disciplines of science education and library sciences. She describes the effort of studies to include a multitude of targets and approaches, thereby employing and mixing traditional and innovative methods. The review covers qualitative as well as quantitative data analysis which is used to cover the broad range of study goals. Section 2 comprises five chapters, all but one aiming at the creation processes of spaces by presenting descriptive as well as reflective cases of space design. The first example in chapter 3 concentrates on the combination of communication support and space design for a writing center. Sohui Lee, Christine Alfano, and Russell G. Carpenter set out to explore how composition tasks for storyboards can be supported by studios with multimodal technology. They define three major elements for the consultation process in writing centers.

Chapter 4 by Ben Lauren also focuses on digital writing studios. The case study proposes a model for setting up media labs that aims at institutions with limited resources and small spaces. The model proposes a user-centered approach, promoting "design by stakeholders" combined with an assessment procedure that measures the achievement of goals.

The case in chapter 5 by Sara Littlejohn and Kimberly M. Cuny aims at current efforts to create a Digital Support Center on a mid-sized university campus. While the library wants to create a digital technology support service it turns out that deficits in initial goal-setting and lack of common understanding between stakeholders lead to confusion in the planning process. The chapter describes the resulting areas of tension and develops a broader perspective for a future solution to the needs of multiliteracy.

John Cusick presents in chapter 6 the case of creating a university space for students that is dedicated to the issue of sustainability. This "Sustainability Courtyard" is supposed to provide a venue for campus engagement on questions of teaching and learning complex subjects. The author discusses his experiences of two years working with this space and shows, against all odds of "organized chaos" in such an open space (p. 117), how important a focused space can be.

Chapter 7 by Emma Bond and Tim Goodchild explores the challenges of teaching in higher education by considering the relationship of technological advances and society. The study with 30 university lecturers considers the notion of space from a social, technological, and globalized angle. Their approach is informed by Latour's Actor-Network-Theory. The authors arrive at stating a hybrid "third space" (p.131) as a useful metaphor for the re-conceptualization of learning space.

Section 3 has three chapters, focusing on models of innovation for new spaces. In chapter 8 Connie Deighan Eaton, Kimberly A. Hennessey, and Cheryl Koester investigate new student and faculty needs for collaboration at a large university. Their solution bears the name "Collaborative Teaching Cluster", a computer lab that accommodates multiple activities in one space.

Chapter 9 by Beth Ingram, Maggie Jesse, Steve Fleagle, Jean Florman, and Sam Van Horne concentrates on factors that impact course delivery for undergraduate education. After a natural disaster, a flood destroying buildings, ideas about new library and classroom spaces needed to be implemented. In this case, the solution relied on a structured approach emphasizing the combination of administrative and faculty efforts. Jayne L. Violette, Christopher S. Daniel, Eric B. Meiners, and Jennifer L. Fairchild show in chapter 10 how a concerted effort by cross-disciplinary faculty and staff members at a university led to the implementation of an "Incubator Classroom" that served as a space for experimentation.

Section 4 comprises four chapters under the umbrella term of fostering innovation, geared at creating new virtual spaces in universities and university libraries. In chapter 11 by Heba Elsayed, Carlos Guevara, Rebecca Hoda-Kearse, Isabel Li, Kate Lyons, George Rosa, and Varun Sehgal, the improvement of literacy skills at a community college are in the focus. They describe how a trans-disciplinary personnel structure was created as part of the college, called the Information Learning Commons, expanded by a "Virtual Commons".

Chapter 12 by Marilyn McKinley Parrish and Greg Szczyrbak describes how an infrastructure upgrade to a university library building offered the opportunity for library faculty and staff to re-envision the library functions. The ongoing renovation project is guided by supporting the well-known concept of "communities of practice" and recreating the library as a "third place" in addition to home and study work.

Joan Petit and Thomas Bielavitz present in chapter 13 ideas and implementations for a renewed library in a space- and budget-constrained university environment. They are adopting the idea of the "information commons" for the library, extending the capabilities for collaboration and group learning. This

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process led to creating a small experimental lab, called "Sandbox.

Chapter 14, by Tomalee Doan and Melinda McGee, deals with the case of an academic library head and a designer partnering for the task of renovating a large library. The innovating momentum is derived from the insight that "students are not using textbooks to find and retrieve information; they are accessing websites, e-mailing, and truly using technology to its full extent" (p. 280). The authors then discuss their approach of bringing together different design agendas, their successes with flexible space adjustments and guided learning, and recurring challenges for library designers.

The five chapters in the final Section 5 concentrate on models for space design, specifically aimed at crossdisciplinary collaboration. Chapter 15 by Ellen Schendel, Julie Garrison, Patrick Johnson, and Lee Van Orsdel presents a case study that challenges the traditional assumptions about libraries and methods of learning. They aim at creating a space called "Knowledge Market", which does not only provide central student support but also activities like peer-topeer coaching and collaboration. The metaphor of a shopping mall is used to illustrate the far-reaching ideas for supporting active and collaborative learning in the new library.

Russell G. Carpenter, Leslie Valley, Trenia Napier, and Shawn Apostel present their ideas and requirements for innovative learning spaces in chapter 16. They develop criteria for a "Studio Pedagogy" model that serves "to accommodate multiple learning styles with open and fluid spaces" (p.317). In their elaborate model, functions of spatial arrangements and their pedagogical purpose are mapped and a variety of technologies from media walls to interactive television illustrates their factual implementation. The "Noel Studio" is presented as the vivid example of this integrated approach to learning space design.

Chapter 17 by Jennifer Butler Ellis, Timothy D. West, Angela Grimaldi, and Gerald Root presents the goal of preparing "students to be effective leaders and communicators", particularly in the field of accounting (p.330). They discuss the challenges deriving from the existence of physical and virtual spaces and develop a learning model that includes not only technical skills but emphasizes balance by including skill development for selfawareness and organizational awareness (p.340). The concluding discussion stresses the "information richness" of face-to-face encounters but also points to the mutual supplement of physical, virtual, and external spaces.

Chapter 18 presents the case of building an experiential learning lab at a mid-sized university college. Author Susan Schultz Kleine emphasizes flexibility in the lab design and enhancing the student's opportunities to adopt room features to their activities. Modular work tables, the lack of a "front", and small-group meeting areas are some of the elements, all "providing visual stimulation and reflecting an atmosphere of creativity" (p.362).

The book's final chapter 19 again bridges the wide gap from perceived needs for new learning spaces to a tangible project and from there to an example of implementation. The case described by Lauren Lemley about creating a collaborative lab called "Learning Studio" at a university exemplifies many of the design challenges and options for a contemporary learning environment. A variety of space designs for collaboration is presented, e.g. "digital diners", "screening rooms", and "idea rooms" (p.371).

Faculty, such as our selves, as well as institutional planners or university organizers will find *Cases on Higher Education Spaces – Innovation, Collaboration, and Technologies* a valuable source of ideas and solutions when it comes to adapting their institution to the changed expectations and pedagogi-

cal needs of the current generation of learners. The book helps the reader to look at seemingly familiar spaces with new eyes. It deals in a very practical sense with the challenges of redesigning information-rich and collaborative spaces in Higher Education and it does not avoid discussing obstacles. A host of in-depth examples, specifically for spaces like media labs, writing centers, and libraries, shows how to cope with difficulties in institutional design processes. In resume, the book is highly recommended for anyone involved in decision processes for the design of learning and teaching spaces, eminently persons in charge of learning labs and libraries.