Learning Spaces
Moving Beyond the Confines of the "Classroom Walls"

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"Studies show that when classrooms and lecture halls are designed for the delivery of information, only 5% of that knowledge is retained. Conversely, when space is designed for learning, knowledge retention jumps to 85%" [1]

Lennie Scott Webber reminds us that instructional space is "*a place where both faculty members and students go to 'work' every day*".[2] As such it constitutes the physical environment within which universities carry out their main activity, learning. Learning, however takes on a variety of forms and involves a plethora of very distinct activities all of which need to be reflected and accommodated within such instructional spaces. In other words, we need to find ways of matching "*the physical environment with the intended behavior – whether it be knowledge delivery, application, creation, communication, or decision making*".[3] This is particularly important as it is widely recognized today that physical environment does affect intended behavior and thus the type of instructional space provided plays a critical role in the way in which students learn.[4]

The above achieves even greater significance when it is noted that not only should instructional space accommodate the needs of the learning experience, but that the very concepts of learning and "learning spaces" have also changed significantly during the last decade. Thus, if we referred to "learning spaces" at all in the past we invariably meant physical spaces (classrooms), with a long history and a multiplicity of renovations over the decades and even centuries in some cases, in which conventional learning and teaching (face to face) took place. Instructional technology and new pedagogic approaches, however, have dramatically expanded and transformed both concepts. As Brown and Lippincott argue

> *…the concept of the classroom is both expanding and evolving…as classrooms receive technology installations and so acquire new functionality. As the functionality expands, new learning activities become possible. But the concept of the classroom is evolving as well. New conceptions of the classroom are being introduced by the emergence of new methods of teaching and learning, made possible by the rapid evolution and adoption of information technology. Wireless networking, for example, makes real-time or synchronous interaction among students and between students and faculty a very real possibility…this is why the term classroom, at least in its traditional sense, can no longer encompass the teaching and learning options today.[5]*

In fact, substantial evidence from pedagogic research shows that more learning is taking place outside of the traditional classroom and that students make use of information technology to "learn" in a variety of spaces both on and off campus. Furthermore, as technology evolves even further, and the cost is reduced, virtual spaces for learning start to challenge tradition physical spaces as the sole reflection of current student behavior in education. Thus, it becomes imperative that all educational institutions must change rapidly their thinking about "learning spaces" in two important ways: "*first, we must think in terms of a variety of both real and virtual learning spaces…and we must think about all the support needed to make these learning spaces successful.*" [6] This of course implies a variety of new and costly activities for the conventional

university which include a variety of activities extending from faculty training and the development of new curricula to establishing effective help-desk support and an expanded IT maintenance structure. It is by far the most important challenge facing universities in the new millennium; how "…to create a seamless, technology-enabled learning environment for faculty and students".[7]

The key issue in meeting this challenge, of course, is how to formulate a strategy for evolving the conventional university without a major drain on resources (both human and financial). This requires both a vision, of how instructional technology will continue to transform technology-enable learning and teaching, as well as new forms of "flexibility" in physical design to allow for a multipurpose use of all the physical spaces available to a university (including classrooms, libraries, dormitories, coffee shops, etc.) Nevertheless, evidence suggests that most universities tend to approach this challenge by adopting a singular and linear pattern of thinking which tends to lead to them down the path of equipping both lecture halls and classrooms with IT. This, of course, is a most welcome first step but should be seen as being just that. What is needed instead, however, is a more comprehensive and all encompassing campus wide strategy to transform the conventional university into a dynamic, flexible and multidimensional "learning space". Thus, the challenge requires also a very different approach to planning. Whereas in the past universities could approach such problems from the perspective of planning and maintaining a "physical environment" only, in the millennium they have to integrate into such thinking the need for faculty training, development of new curricula, installation and maintenance of digital and analog equipment, networks, etc. In other words, in addition to lighting, carpeting, seating and decoration the strategy has to involve as part of an integrated whole a new layer of support requiring a wide range of technical and pedagogic skills.[8] As Brown and Lippincott argue

> *If you unpack the modern concept of a learning space, you discover a set of layers or components all of which must be on hand if the use of the learning spaces is to succeed…Our constituents* [faculty and students] *must be able to prepare materials to present in those classrooms and have the capability to use sophisticated software and hardware for their presentations. They require access to equipment and networks in good working order, and ready access to staff if problems arise.* [9]

As our approach to learning changes so must our thinking about physical space and its planning and maintenance. Modern "learning spaces"can no longer be perceived solely in physical terms and thus their evolution also requires more than just physical planning and maintenance. Students will not learn if we try to locate them in modern classrooms packed solid with technology which neither they or their faculty know how to use. Thus, developing an integrated approach to new "learning spaces" requires both a clear recognition of the centrality of environment in determining intended behavior and "new thinking" with respect to physical planning. This challenge, alas, has yet to be met in most colleges and universities.

Share with us your experiences by contributing to the New Chalk Talk series, or by simply sending comments/suggestions to aellozy@aucegypt.edu

Sources
[1] Society for College and University Planning (SCUP), *Webcast: Creating Environments for Learning and Exchange not just Delivery-Applying Research to Design*, http://www.scup.org/profdev/no travel/ard.html, 4/12/04.

[2] Op.cit

[3] Op.cit

[4] EDUCAUSE 2000, *Current Issues Roundtable: Electronic Classrooms and Buildings of the Future*.

[5] Brown, Malcolm and Joan Lippincott, "Learning Spaces: More than Meets the Eye", *EDUCAUSE QUARTERLY*, Number 1, 2003: 14.

[6] Op.cit

[7] Op cit, 15

[8] Op cit

[9] Op.cit, 16