**Abstract**

The Adoption of WebCT at The American University in Cairo three years ago marked a milestone in the usage of technology in teaching & learning, transforming the technology landscape from scattered experiments and joint projects with departments in different disciplines, to a more unified environment that is simple to use, yet powerful enough to support different expectations and needs among faculty. Support staff at Academic Computing Services (ACS) were confronted with the challenge of providing support to faculty to ensure a widespread and successful adoption of WebCT, with the main goal of enhancing teaching and learning in a systemic way, rather than providing support in converting a few courses into an online format.

A multi-directional approach was chosen in which an intensive training program and a comprehensive support initiative played a major role. However, it is the concept of holding an annual 'WebCT Day' that we intend to focus on in this paper, describing the event and its methodology, and detailing its contribution to the evolving usage of WebCT@AUC. We shall describe how it has served as the platform for the launch of many value-added services introduced over the past period, and how it has provided a forum for the discussion and resolution of prevalent issues and perceived obstacles.

In this paper we shall present a detailed description of the techniques and technologies employed to maximize the usage of technology in teaching and learning effectively. Two case studies will be described to illustrate how the event succeeded in bringing about change, and sped up the propagation of WebCT @ AUC.

**Background**

First attempts at introducing technology in education at the American University in Cairo, were conducted by Academic Computing Services (ACS) technical staff in collaboration with a few ‘early adopters’ among faculty members. These experiments, although regarded as successful at the time, were few and scattered, on a piece-meal basis, and depended largely on specific tasks at hand. There was no initiative for a uniform approach to spread information technology usage across campus, and faculty were certainly in need for support and training to adopt what seemed to be a widely divergent and difficult set of tools.

Leveraging technology in education grew however, as ACS actively attempted to implement a new strategy for technology enabled teaching and learning. It was first initiated through conducting seminars, awareness campaigns, and events that demonstrate the usage of technology in teaching & Learning through a global perspective that embraces both pedagogical and technological aspects.
At this stage more research was conducted at ACS resulting in a conceptual framework that would enable faculty to conceive the link between the usage of technology and pedagogy. This framework was based on published research illustrating how the Seven Principles of Good Practice in Undergraduate Education leverages the use of technology in education.[3,4]

With the progress in technology, Internet and web-based applications started to propagate introducing standardized instructional technology tools designed to fulfill particular tasks within the academic curricula. Eventually, after a comparative study by ACS, it was decided that WebCT was the most appropriate Learning Management System (LMS) for our environment at AUC. Once WebCT was adopted however, it became evident that a concentrated effort would have to be made to propagate, and to support its widespread use across campus. A strategy was formulated to embark upon this new initiative, and included comprehensive feasibility tests in an attempt to acquire a full adaptation of the system to meet faculty needs and expectations, training sessions to demonstrate to faculty its main features and its support for in-class instruction, along with a specialized WebCT website, training CDs and handouts, brochures and a WebCT Newsletter. To gain a full perspective of all aspects of the application of WebCT @ AUC, and to provide an exposure outlet for its development and maturing usage, WebCT Day was conceived, bringing together the academic community in what has become annually a tradition.

**Evolution of WebCT Day**

WebCT Day proved to be an important communication & propagation forum, which gradually evolved from being a ‘WebCT Corner’ in the more comprehensive ACS Annual Technology Fair, to an event that would help to unfold the continuing and maturing usage of WebCT @ AUC. It is unique in that it draws input and support from a broad spectrum of participants, including faculty members from different departments, technical support staff, WebCT regional representatives, and scholars from other Educational Institutions and Research Centers. The event itself has changed over the past three years, developing from a showcase of tools and value-added services offered by ACS, to one that includes participation from the user community. Real issues are tackled, negative impressions and perceived obstacles resolved, and at the same time, the event provides a forum for the presentation of new approaches, innovative usage of existing tools and the sharing of expertise & ideas within the community. This pattern is a reflection of the growing usage of WebCT @ AUC, and is evidence of the increasing success of the effort to propagate it.

**WebCT Day Set-up**

WebCT Day is an annual day-long event which is sponsored by the Provost and the Libraries & Learning Technologies Dean, who provide important backing, sponsorship, and leadership. Opening remarks encourage faculty participation and communicate a firm resolve on the part of the administration to further the usage of Information Technology at AUC.
Prior to the event, ACS organizes a lively campaign to market the event, and letters of invitation are sent out to full time and part time faculty, academic department heads, and selected scholars from other universities and research establishments, as well as distinguished guests. The event therefore provides a great opportunity for ACS to communicate with users from a variety of backgrounds.

The exhibit is organized around the concept of a 'booth', with each presenting a particular service, tool or specialized software. A technical support person is in charge of each booth, to answer questions, conduct demonstrations, and provide users with documentation and demo CDs. This one-on-one interaction with a knowledgeable source of information is of great value to users, and is for some, their first experience with WebCT. Specially designed prominent art-work (poster) at each booth gives a visual cue as to its subject matter, and is of great assistance to users in finding out more about a particular area of interest.

A Seminar Series is another important component of WebCT Day, and provides a great opportunity for the sharing of expertise and new approaches, and for question & answer sessions. ACS technical staff, faculty members and guest speakers all participate in the series, and give a live flavor as how WebCT is being used in different disciplines.

During the last event, the idea of using a Panel discussion, formed from members of the same department, was implemented, and was greatly successful in bringing forth the points of view, and different approaches used by faculty in the adoption of WebCT, even within the same department. Ideas for the formation of Panels from different groups can perhaps be further explored in the future.

Finally, it is worth a mention that during opening remarks, the ACS Director presents a wrap-up talk of the status of WebCT @ AUC to date.

**ACS Role & Contributions to WebCT Day**

ACS makes the most of WebCT day to promote the wide variety of services provided in support of WebCT, and to gather input and feedback from users as to their needs and expectations. The interaction with our users during the day is one most important facets of the day, and we maintain communication after the event via feedback forms, one-to-one meetings and of course through email.

**Training & Self Study Facilities**

WebCT Day provides an ideal opportunity to familiarize Faculty and TAs with the comprehensive training program that ACS has in place for WebCT. The program addresses different aspects of WebCT usage, and makes available different tracks to suit different levels of expertise. Emphasis is not only on the technical workings of WebCT as a tool, but also on ideas for course design, distribution of course materials, and methods to effectively attract students to use technology in their day-to-day activities. Schedules & pamphlets about the training are distributed to interested faculty, and a sign-up sheet is made available for immediate enrollment.
Faculty members who are unable to attend regularly scheduled classes can take advantage of specially prepared Self-Study Facilities which include CDs for a self-running training module, a demo which addresses how to create a simple course in WebCT, and a portfolio of 'How To' documents. All three CDs are widely distributed during the day, and there is usually great demand for the CDs immediately after the event. A specially designed online website also makes available a wealth of information, and support staff highlight its content and distribute its URL.

The self-running training module is also played throughout the day in a special area dedicated to this purpose.

**Power Links**

*WebCT* Day has been instrumental in the adoption and usage of third-party software that is easily integrated with *WebCT* as Powerlinks. These add-on tools enhance and extend the functionality and performance of the *WebCT* platform, and allow faculty to introduce new technologies and methods into their courses.

A typical scenario that takes place is that ACS obtains a demo version of the software, acquires the necessary expertise in its usage, and then propagates its usage via *WebCT* Day. Faculty reaction and responses are carefully noted by the technical team, and it usually indicates categorically whether there is a need for its purchase and integration. These steps are somewhat necessary especially with expensive software, and ensure that all Powerlinks are actually put to use by faculty.

**Usage of Multimedia Tools & Graphics with WebCT**

The potential for the usage of multimedia with *WebCT* is overwhelming, and guidance in the choice of an appropriate tool and context can be somewhat daunting for faculty members. ACS has therefore extensively investigated the issue, and has provided demonstrations of multimedia tools in audio, video, and flash formats. Typical applications of the technology could be integrated for example into Language Teaching (audio & interactive flash), in Engineering to demonstrate concepts difficult to visualize (video displays), and in Chemistry to demonstrate difficult or dangerous experiments (flash animations). As a result of this effort, multimedia tools were extensively used by several departments in the development of courses, and these were subsequently presented during *WebCT* Day. [2]

The use of Graphic Templates with *WebCT* was also launched during *WebCT* Day, and initiated great interest and response. Graphic templates took the idea of customized colors and templates already available in *WebCT* a bit further, and developed it into the concept of a template based upon a particular discipline or subject matter. For example, to demonstrate the possibilities, templates were developed for the Mathematics, Chemistry, Engineering and Accounting departments, and generated great interest and admiration. Plans are in process for the design for further templates in coordination with more departments.
Accessibility, Adaptive Technology and WebCT

Ensuring that all learning materials meet accessibility standards, and cater to the needs of students with special needs, in particular the visually impaired, has been a cause important to ACS for a number of years [1]. Under the guidance of ACS, two adaptive technology corners were established on campus, and include special equipment and software that enable blind and visually impaired scholars to access the Internet, and to use common productivity tools such as word. For example, ACS has provided students with visual impairment at AUC with advanced screen readers and software specifically tailored to their needs, in addition to being compatible with the current version of WebCT in use at AUC.

This was taken a step further by the development of a pioneering course which aimed at testing the accessibility of WebCT with regards to ease of use of its interface and content. Three blind scholars from different universities were enrolled in the course, and were invited to attend WebCT day, conducting demonstrations and talks to faculty. They discussed the challenges they faced at the beginning of the course, and yet also detailed their success stories in accessing certain WebCT tools, and their ability in sending email and assignment files. [3]

WebCT Statistics

WebCT usage statistics are presented every year during WebCT Day to demonstrate the growth of usage, and shows patterns regarding faculty, courses and departments.

WebCT Adoption by Departments

As mentioned earlier in this paper, ACS has always kept administrators and academic heads well informed on all developments regarding WebCT as they happen, and always made sure to have as many as possible attend all events related to WebCT, and in particular WebCT Day.

Although this cannot be solely attributed to the effect of WebCT Day, many department heads after attending the event have taken active steps to propagate WebCT usage by faculty within their respective departments. It is generally acknowledged that ‘seeing is believing’, and seeing first hand the benefits, and the
availability of support, and related services, especially training, was certainly encouraging.

ACS was approached on several occasions by department heads to provide WebCT courses for all faculty in their departments, and afterwards made the usage of WebCT in courses mandatory, at least with a minimum set of tools.

In one of our case studies to be presented later, we shall present the approach taken by one department in adopting WebCT, and describe both the challenges they faced and their success stories.

Sharing of ACS Expertise

Finally, WebCT Day makes possible an important interaction between ACS technical support staff and users. There is a great opportunity to exchange ideas, brainstorm on tricky issues, and simply guide users to resources and services that they might be unaware of. Certainly WebCT provides an excellent forum for communication that is perhaps difficult to accomplish on such a scale often during the academic year.

User Contributions

As mentioned earlier, the participation of faculty members and guest speakers in WebCT Day contributes a great deal to its success, and lends a realistic and supportive atmosphere to WebCT Day.

Faculty who participate by presenting ideas, new approaches and technical information through seminars, short poster presentations or panels, not only share their experiences with the rest of the community, but also encourage other faculty members to ‘climb on board’ WebCT, following their example.

Faculty feedback and commentary also provides a mechanism whereby ACS can obtain user requirements, expectations, and learn about perceived problems or obstacles and negative impressions. Often a lack of expertise can lead to misuse or an inability to perform certain tasks, and WebCT provides an ideal venue for airing out such concerns.

Faculty and users also provide important clues to ACS about certain administrative and technical issues, for example a sense of whether or not to upgrade, whether to adopt a certain tool or not, (which is covered more fully in the Powerlinks section), and to indicate issues that need investigation or solutions that need to be developed.

Seminars

Perhaps the most popular form of participation in WebCT Day chosen by faculty members is the seminar format. This is usually a 20 minute presentation on a topic of their choosing, followed by a question and answer session, and open discussion on related issues. In the past, seminars have tended to follow certain trends as follows:

- Presentations that demonstrated the learning curve before and after using WebCT; discussion of how they organized their course materials, the
effectiveness of particular tools in encouraging student participation, and the techniques used to help them develop into active learners.

- Presentations that showcased the flexibility of WebCT in integrating with Multimedia. Demonstrations on the use of audio, video and animation that helped with student motivation, comprehension and activity. Ideas that were difficult to present in the traditional classroom became easier to conceive and experience, especially in the case where experiments were impossible to reproduce or downright dangerous.

- Other presentations focused on statistics of usage and instructor-student communication, and performance in class and beyond, before and after using WebCT. This showed that WebCT was effective in reducing frequency of students' questions regarding assignment submissions and exam dates, since everything is posted in their course calendar and updated daily by the professor; It also showed the reduction of students' hard copy paper submissions especially after using WebCT online assignment tool; most professors use online grading in WebCT where students can easily track their progress throughout the semester, and this has noticeably reduced students' complaints after posting the final grades.

- Furthermore, it struck a balance in the usage of faculty time, with time saved on administrative tasks allocated more usefully to maintaining their course events, materials and assignments.

**Poster Presentations**

Poster presentations were another option that faculty could choose to participate with in WebCT Day. These were usually short 10 min presentations on a particular tool, specific idea or new approach, and utilized a large poster to represent the concept to the audience. ACS provides support in both the design and production of the poster in collaboration with the faculty member.

Topics covered in the past have included

- Use of WebCT tips tools in new & innovative ways
- Challenges of using WebCT
- The Importance of WebCT in the accreditation process.

**Panel Discussions**

A panel discussion was the final format that faculty and departments could choose to participate with in WebCT Day. This was an hour long talk in which different faculty members from the same department took part. Questions were encouraged throughout, and it was interesting to see the dynamics of audience interaction with the panel members, as more and more issues were aired and discussed. ACS technical staff were also able to contribute during the panel, clarifying and providing explanations where necessary.

**Case Studies**

We had great difficulty in selecting just two case studies from a multitude of interesting scenarios and success stories, but ultimately decided on two that perhaps reflected two different approaches to WebCT among the academic community.
The first case study showcases the use of WebCT by the Writing Program, who were the very first users of WebCT, and in fact participated in a pilot project with ACS which initiated WebCT @ AUC.

The second case study recounts how a professor in the Journalism and Mass Communication Department adopted WebCT, detailing the challenges he faced and also his successes.

**The Writing Program**

The Writing Program followed what at the time was a unique approach in that it made WebCT usage mandatory for all English teachers, albeit on a very narrow scale. However, for example, all teachers had to submit grades through WebCT. Although some teachers showed resistance at the beginning, and were not enchanted with being forced to use WebCT, with time a great majority began to see the benefits, and began to explore the program further.

Comprehensive training sessions were conducted by ACS for the department, to help instructors to cope and to start implementing new methodologies.

At the first lecture series on WebCT, the program assistant director gave a short presentation and highlighted the benefits accrued from WebCT. The Writing Program is perhaps unique in the large number of students enrolled, and the posting of the grades through WebCT was a major success, avoiding distressing scenes from students who did not necessarily like their grade.

The next stage in furthering the departments' usage of WebCT was the development of departmental templates, with a minimal set of tools, allowing in addition to the posting of grades, the posting of course outlines, class materials, links to external websites, and communication with students both in and out of class. This encouraged more instructors to explore further, and innovative ideas began appearing on how to use WebCT to a greater benefit in class and in activities out of class.

A great deal of collaboration between instructors was also implemented when a common student account allowed all instructors access to all sections, thereby sharing ideas and approaches among one another.

Finally, to illustrate the maturity of usage, many instructors now no longer depend upon the course templates initially created for them, and are now building their own courses.

Through out the last three years, representatives from The Writing Program have participated in WebCT day, with seminars and poster presentations, and were also the first department to hold a panel discussion in the last WebCT Day. Four language instructors participated, bringing forth their experience, novel approaches to tools and most importantly, displaying a great deal of coordination with, and collaboration among one another, that was most admirable. It is hoped that many departments will be inspired to adopt WebCT is the same dedicated manner, and to experience the same benefits.
**Professor in the Journalism and Mass Communication Department**

This second case study clearly illustrates the success of WebCT Day as a communication forum, providing an outlet for professors to share their stories.

A professor in the Journalism and Mass Communication Department submitted an entry at the last WebCT day entitled "My Love/Hate Relationship with WebCT". Needless to say, all ACS technical staff and the audience were intrigued by the title, and were very interested in what the professor had to say.

The presentation dealt with a number of issues, namely accessibility, book keeping functions, reliability, and training.

The presentation was an excellent opportunity for the technical staff at ACS to deal with misconceptions and negative impressions, and were able to illustrate that some of the problems that appeared to be huge obstacles, were in fact easily solved, and that there were other solutions that the professor could adopt to save time and effort.

After WebCT day, a technical staff member from ACS communicated with the professor and was able to solve all his problems. This illustrates the importance of communication, and the availability of a forum such as WebCT Day.

**Closure**

ACS will continue research in this area, with a target of accommodating all professors and courses at AUC. Accordingly, seminars, workshops, WebCT Day will continue to be held, deploying and enabling more mature usage as the technology and environment develop.

For more information regarding our events and publications, please visit: [http://acs.aucegypt.edu](http://acs.aucegypt.edu)
References


[3] Mona Kaddah, Maha Amer, Maha Elkoshairi, Marwa Mansour, "From Paving the Way to Establishing WebCT @ AUC: A Retrospective View", e-learning Conference, January 2004