

ATAB Summary 2007-2008

1. ATAB carried out its role as a committee of the Office of the Provost based upon its Charge and Structure.

The ATAB, a committee of the Office of the Provost, is the voice of the faculty in all matters related to academic technology. Toward that end, the ATAB will develop strategic plans for instructional and academic needs, ATAB will address concerns raised by the faculty and the ATAB will provide funding via the Academic Technology Fund for creative/innovative uses of technology by faculty. To implement this charge, the ATAB will partner with ITS and other technology providers to plan, implement, and evaluate academic technology initiatives.

2. ATAB Membership as of September 2007.
 - Michael Connolly (Slavic/Eastern Languages and FMRC)
 - Evan Kantrowitz (Chemistry, Chair)
 - Mary Ann Neary (Law School)
 - Michael O'Leary (CSOM)
 - Peter Olivieri (CSOM)
 - Rita Owens (Office of the Provost)
 - Mike Russell (LSOE)
 - Edward Tallent (Libraries)
 - Barbara Viechnicki (College of Arts and Sciences)
 - Quingwen Xu (GSSW)

3. Subcommittees for 2007-2008

(a) The *Research Data Resource Policy Committee* was formed to deal with issues related to Research Data Storage and Backup. Requested by ITS (Barry Schaudt).

- Bob Gerrity (Library)
- Ernesto Liivon-Grossman (Spanish Language and Literature)
- Gabor Marth (Bioinformatics)
- Mike Russell (LSOE)
- Maya Tamir (Psychology)

(b) The *High Performance Computing Committee* was formed to deal with issues related to the University Research Computer Cluster. Requested by ITS (Barry Schaudt).

- Jeffrey Chuang (Biology)
- Patricia Doherty (Institute of Science Research)
- Evan Kantrowitz (Chemistry)
- David Martin (Computer Science)
- Shannon Seitz (Economics)

(c) An ATAB subcommittee to consider possible changes to TC Organization in A&S. Requested by ITS (Mary Corcoran)

- Michael Connolly (ATAB)
- Mary Corcoran (consulting)
- Mary Durr (consulting)
- Evan Kantrowitz (ATAB)
- Joyce Light (Director of Administration, Physics Department)
- Rita Owens (consulting)
- Bill Petri (A&S Dean's Office)
- Natasha Sarkovian (FTC, Sociology)
- Barbara Viechnicki (A&S Dean's Office, and ATAB)

(d) *Faculty Technology Contacts* (FTCs). Under the leadership of Michael Connolly, an ATAB subcommittee, composed of FTCs, has monthly meetings to help provide communications between ATAB and the academic units. This subcommittee was very useful for ATAB, by providing information about problem issues in the academic units and providing academic units with updated IT information.

4. ATAB put out a call in early September for the first round of Academic Technology Innovation Grants (ATIG) with a due date of Oct. 15, 2007. This call resulted in 19 proposals. Of these, 7 were considered appropriate.

5. Reorganization of the TCs.

In order to provide better support for faculty, ATAB and an ATAB subcommittee (chaired by Barbara Viechnicki) worked on this project throughout the year at the request of ITS. At the Sept. 14 meeting, Mary Corcoran summarized the ongoing evaluation by ITS of how TC organizations at other Universities operate.

Arts and Sciences, which has the largest number of TC's at BC was selected for an in depth study. Progress Reports from the subcommittee to ATAB were provided throughout the Fall. The committee's final report was submitted as part of the December meeting. The major recommendations include:

- A&S TCs support only A&S
- Clustering of A&S TCs is a desirable goal
- Establish a virtual science TC cluster
- ITS should promulgate operating principles/service definition for the IT Help Desk and set up a separate Faculty/Staff help line.
- The Vice-Provost for Research should address the need for TC support for centers and institutes.
- A separate review of hard sciences technology support needs should be conducted.
- A general lack of dedicated web support across A&S needs to be addressed as soon as possible
- The use of technology in classrooms needs to be as seamless as possible.
- There is a need for a University-wide database with an inventory of software licenses.
- There is a need to clarify the definition of "university-owned" vs. "personal technology devices".

5. Backup of Faculty and Staff Computers

The backup solution for Windows computers was rolled out by ITS and is now running using Iron Mountain as the provider. However, as of yet no backup solution for Macintosh computers has been implemented. This has been in part due to a lack of providers of enterprise level systems for Macs. The FTCs under Michael Connolly investigated the issues. As of the last ATAB meeting, ITS was doing additional research as new providers have become available. Unfortunately, no solution was implemented this year.

6. During the year we heard reports and were asked for comments on:

- The Core Systems Project
- The BC Web Portal
- Virtual Computing
- Storage of Research Data
- Classroom technology

9. Improved Communications with ITS

ATAB believes that its communications with ITS over this year have improved significantly. ITS has met with the executive committee of ATAB before each meeting to develop the agenda. Marian Moore has attended a number of meetings and provided valuable input.

10. Based upon the Charge and Structure Document for ATAB the committee membership for 2008-2009 will be:

- ***Stephanie Berzin (GSSW)****
- Michael Connolly (Slavic/Eastern Languages and FMRC)
- Evan Kantrowitz (Chemistry, Chair)
- Mary Ann Neary (Law School)
- ***Clare O'Connor (Biology)****
- Michael O'Leary (CSOM)
- Peter Olivieri (CSOM)
- Rita Owens (Office of the Provost)
- ***Alex Peck (LSOE)****
- Edward Tallent (Libraries)
- Barbara Viechnicki (College of Arts and Sciences)
- ***Robin Wood (CSO)****

* New members of the committee, serving a three-year term.

11. Schedule for 2008-2009

ATAB will meet on the following Tuesdays in Gasson 006 at 3 pm. Sept. 9, Oct. 7, Nov. 11, Dec. 9, 2008, and Jan. 13, Feb. 10, Mar. 10, Apr. 14, May 12, 2009.

Academic Technology Innovation Grant

Fall 2007

Mike Barnett – Lynch School of Education

Interdisciplinary and Innovative Technology Tools Designed to Enhance Learning

Working with consultants at the educational software company Simbiotic and faculty members Dr. Kate McNeill and Dr. Eric Strauss. The proposal is to develop and implement a series of innovative simulations and animations to support students at Boston College in learning how to use technology to solve and interpret problems across disciplines. Catherine Ives consulted with Mike Barnett and a contract has been drawn up and signed with Simbiotic for this project.

Stephen Brunner – Chemistry

Centralized Storage and Dissemination of Scientific Data

Developing a system for the easy storage, retrieval and annotation of primary scientific data generated by department equipment such as, but not limited to, mass spectrometers (MS), nuclear magnetic resonance spectrometers (NMR), X-ray crystallography detectors, and chromatography systems.

Amy Frappier - Geology

A Wireless BC Weather Station for Teaching and Outreach

Currently, set up the Dell PC Web Server in Devlin 307 whose ultimate location will be Devlin 209 and which will run the two 46-inch LCD Monitors that will be installed in the second floor wall to be: Weather Station display located above the Seismic Display.

- **The way the system now works:**
 - The Weather Station mounted on O'Neill Library Roof collects rain, at 0.01 inch intervals using a tipping bucket, UV radiation data and solar radiation data, and wind speed and wind direction data, and temperature outside, temperature inside, a heat index on hot days, and a wind chill index on cold windy days, dew-point, and humidity data. We hope to soon have the weather station lightning-proofed. (This has been approved and the protection ordered 7/10/2008).
 - Weather station updates data at the following intervals:
 - Wind speed/direction: 2.5 to 3 seconds
 - Accumulated rainfall/rain rate 10 to 12 seconds
 - Outside temperature: 10 to 12 seconds
 - Outside humidity: 50 seconds to 1 minute
 - Ultraviolet radiation: 50 seconds to 1 minute
 - Solar radiation: 50 seconds to 1 minute

Currently, a weather summary web site generated through Davis of current weather is available at: <http://weatherlink.com/user/bcweather1/>

Sheila Gallagher – Fine Arts

Creating Opportunities to Support the Development and Exhibition of Video Art and Web Based Media in the Fine Arts Classroom and Museum Environment

This spring and early summer the technology procured by the ATIG grant has continued to be used by a number of different groups on campus for a variety of creative projects.

The large screen monitors have been in particularly high demand with the theater department using the largest screen as the centerpiece of the stage design of the spring musical, "Urinetown," and the Fine Art department displaying video and film works for the senior majors exhibition. The Art Club used the medium sized screen as well as the laptops in the student show, "3 Dots," an extremely well-attended exhibition at the Bapst Student Gallery in May. The McMullen Museum has reserved two of the monitors for their fall exhibition.

Distribution and installation of the Adobe CS3 software packages to faculty and offices around Devlin went well thanks to our TC, Robert Herbstzuber. Staff at the McMullen Museum have been using the software to create the exhibition catalog for the upcoming Rouault exhibition and other graphic design assignments. Students in Fine Arts have been using the software installed in the Digital Imaging Lab (Devlin 417) almost daily for their own creative projects. I personally have been laying out a catalog of my past exhibitions using InDesign, a magazine layout program that came with CS3.

The Flip video cameras have also played an important role in incorporating new technology into the practice of studio art at Boston College. Students in my Art and Alternative Media class used the simple cameras to create short collaborative animations, many of which were projected during the Arts Festival. This summer Professor Tavarelli and I will be interviewing candidates to teach a Spring 2009 class, Introduction to Video Art, which will be taught using the Flip cameras.

I have also been in conversation with George Fifield, director of the Boston CyberArts Festival about exhibiting new video art at BC next spring as part of the festival. This will be the first time that Boston College has been involved in this significant showcase of digital media.

Later this summer members of the teaching office, the McMullen Museum, the Fine Arts department and others involved in the Becker Collection will be meeting to begin planning the interactive media components of the Fall 2008 exhibition, "Firsthand: Civil War Era Drawings from the Becker Collection."

Note from a student in regards to the flat screens and flip cameras made available to fine arts students by the ATIG and were used during the the Three Dots Student Art Exhibit that took place at the Bapst Student Art Gallery this past spring on behalf of Prof. Sheila Gallagher of the Fine Arts Department. At the show, multimedia artwork was an integral element of the show as is increasingly the case with contemporary art making techniques. In addition, flip cameras were actively used to create artwork that was projected on the exterior wall of O'Neill Library during ArtsFest.

Seung-A Jin – Communications

Experimenting with Socially Interactive Robots and Creating Human-Robot-Interaction Interfaces for Social Science Research and Teaching

This project aims to implement a “learning by doing” strategy for teaching in new media. Students will get valuable learning experience about (1) designing and conducting experimental research; (2) applying various theories to real research settings; and (3) building valid and reliable measures in social and psychological research. The ultimate goal is to relate to the strategic initiative of Boston College. Adopting and diffusing cutting-edge technological innovations, surveying people’s evaluation of those innovations, examining people’s interaction with social robots, experimenting psychological effects of social robots on people’s social cognition, and discussing cultural and social impacts of diffusion of such innovations will add a meaningful contribution to Boston College’s strategic planning initiatives. Obtaining these innovative technologies will be an important step toward taking a leading role in teaching and researching in new media.

Evan Kantrowtiz – Chemistry

3D Visualization for Teaching and Research

This proposal was to acquire autostereoscopic equipment for teaching and research in biochemistry, chemical biology and structural biology. Autostereoscopic flat panel displays use an innovative technology which allow a group of students or researchers to view three-dimensional (3D) images. This new innovative technology provides the opportunity for small learning groups or a number of researchers to collaborate on trying to understand how the complex molecules in the cell function.

The two autostereoscopic displays have been purchased from these ATIG funds. Both are being used and will be used for both teaching and research. After setup of the displays to existing computers the software necessary for their use was acquired and installed. A series of instructional demonstrations were setup in the Spring and additional course related exercises are being setup this summer to be used in conjunction with the course CH561 (Introduction to Biochemistry) in the Fall semester. Groups of students will first have the equipment demonstrated either during office hours or during their regularly scheduled discussion time. After the students are familiar with the equipment they will be invited to use it during specific time periods where a teaching assistant is available.

Robin Wood – Connell School of Nursing

Using Virtual Reality Simulation to Enhance Critical Thinking in the Nursing Laboratory

In December 2007, we received welcome notification of \$77,000 funding for CSON ATIG *Using Virtual Reality Simulation to Enhance Critical Thinking in the Nursing Laboratory*. The timing of the funding was ideal as I was beginning a sabbatical semester and was well positioned to give the project my full attention. At this time, we are on-track for beginning the high-fidelity simulation programs in five CSON courses beginning Fall '08.

Work began in January '08 when we established an ad-hoc CSON Simulation Technology Committee made up of faculty and administrative staff to advise us on the project. The committee met several times and decisions were made including space reconstruction needs for a SimRoom in the Kennedy Resource Center (KRC) Media Center, identification of specific faculty with intent to use high-fidelity technology in courses, and faculty manikin and equipment preferences. Throughout the semester, I consulted with high-fidelity nursing technology experts through on-site observational visits at several other universities across the country including Stanford, San Jose State and University of Tennessee/Chattanooga. I also attended the Drexel University Technologic Innovations in Nursing Education Conference. The purpose of these trips was to observe best practices in the field as a first step in mentoring high-quality nursing scenarios across the CSON curriculum. A one-day CSON Planning Day was held on March 4, 2008 with consultants from Medical Simulation Design. Key CSON stakeholders, including faculty members who will immediately use the manikins, and administrative staff who will be trained to assemble and run the equipment, attended the workshop.

The Planning Day generated enlightening discussions regarding some of the operational realities of program development, implementation and sustainability. Renovation of space was decided for a new SimRoom with Control Room and Student Debriefing Area, including networking to the main Simulation Laboratory where most lab teaching occurs. CSON administrators, Associate Dean Cathy Toran and Jeanie Foley, subsequently submitted an A&R request to Space Planning. They have met and discussed details with Architectural Designer for Capital Planning Ned Greene, AV Project Manager Jim Clements, A&R Project Planner Marise Fallon, and BC electricians. We have been assured that renovation of the space will begin after Commencement and be completed by August '08.

Three reputable dealer bids were solicited and tracked by Technical Manager Jeanie Foley. Laerdal was identified as the vendor of choice by faculty consensus and consultants because they produce cutting-edge technology and offer the best technical support in the New England area. We negotiated very competitive pricing with them for two manikins, SimMan and SimBaby. Thus, we will have appropriate manikins for launching the new technology across our curriculum in both adult and pediatric programs. The manikins were delivered in May and three project personnel are scheduled to attend Laerdal Programming and Assembly Training at their New York labs over the next three weeks. Those personnel are Assistant Director of Learning Labs Maureen Connolly, RN, NP, KRC Technical Manager Jeanie Foley, and myself. On June 23-24, Laerdal personnel will hold a two-day CSON on-site training program for the eight faculty/staff at CSON who will be immediately using the manikins. Those trained will be designing scenarios and practicing with the models throughout the summer and will begin simulation programs with students beginning Fall '08. Courses targeted for teaching students using simulation are three Adult Health undergraduate clinical laboratory courses, one pediatric undergraduate clinical course, and graduate Nurse Anesthesia courses. As these faculty members become proficient at running student scenarios, the technology will be showcased in-house and trained faculty will become trainers for other interested faculty.

**Academic Technology Innovation Grant
Funded Projects
Spring 2008**

Kathy Lee – Romance Language

Spanish Language and Culture Proficiency via the InterLangua Videoconferencing Program

One of the goals of a world language course is to provide a curriculum and supplementary learning resources to assist learners in attaining higher linguistic proficiency and a broader insight into the culture of the country/countries where the target language is spoken. Providing students opportunities outside of the classroom to participate in real-life conversations with native speakers is essential to the realization of proficiency goals. Through the use of new communications technology, the proposed project represents such an opportunity. In twelve, one-hour InterLangua sessions over twelve weeks, students enrolled in three Spanish language courses, as well as School of Nursing students learning medical Spanish in preparation for a service trip to Nicaragua, will speak with, see and hear over the Internet in a full-motion video conference a personal tutor living and working in Guatemala. (See InterLangua website: <http://www.interlangua.com/university-college.html>) The content of these lessons will be determined by Boston College faculty responsible for integrating the tutoring sessions into the curricula of the courses, monitoring several of the sessions, assessing the efficacy of the InterLangua program in furthering the proficiency goals of each course, and in comparing the outcomes for students who participate in the tutoring sessions with those in sections of the same course who do not. By interacting with InterLangua tutors on a weekly basis throughout a semester's or longer course of study, it is anticipated that Boston College students will attain higher levels of linguistic proficiency in Spanish while broadening their insight into the culture of Central America.

Ernesto Livon-Grosman – Romance Language

Recording History and Popular Culture: The Case of Social Banditry

The main objective of this long-term project is to produce video recordings of popular culture in South America in order to include them into the courses I teach on contemporary Latin American culture in the Department of Romance Languages and Literatures. Video recording not only constitutes a way of collecting data for my research but also in itself it is one of the formats in which I publish and distribute the results of my research. Another integral part of the project is to include students in the editing process as part of the film courses I have been teaching at Boston College. My current project focuses on the relationship between banditry and politics in the mid-nineteen sixties in Argentina. The goal is to reconstruct, through interviews and archival materials the life of Isidro Velázquez, an Argentine bandit who, following the likes of Robin Hood, for almost a decade robbed and extorted money from the wealthy landowners of the Northeast of Argentina in order to redistribute it among the poorest peasants in the region.