![Duke CIT — Center for Instructional Technology at Duke University](logo)

Center for Instructional Technology Annual Report

Lynne O'Brien, Director of Instructional Technology
July 26, 2001

The Center for Instructional Technology ended its second full academic year with a daylong program of faculty project presentations, technology demonstrations and guest speakers discussing innovative uses of technology in teaching and learning. This showcase event capped an active year of offering educational programs, developing new services and assisting faculty with new uses of instructional technology.

A few highlights from the past year illustrate the range of the CIT's activities:

- CIT staff offered over 50 workshops, seminars and training events that were attended by faculty from all schools at Duke.

- Profiles of successful instructional technology projects on the CIT's website provide sound and video clips of Duke faculty discussing their innovative uses of technology in teaching.

- The CIT Advisory Board selected thirteen new faculty projects to support through our third round of instructional technology incentive grants.

- We supported over 500 courses in five schools using Blackboard software for development of online course materials and are moving forward with implementing an enterprise-wide version of the Blackboard software.

- The CIT established a streaming media server and supported faculty multimedia projects involving digital music, film and foreign language excerpts.

Prof. Thomas Witelski, Mathematics, demonstrates his CIT-funded project on "The Chalk-less Classroom" at the Instructional Technology Showcase.

- By obtaining donations of equipment and grants from Microsoft, Dell and Palm, we helped faculty experiment with uses of new technologies such as hand-held computers and videoconferencing.

- Through their participation in university-wide committees and school-based planning groups, the CIT staff helped formulate plans for instructional technology initiatives at Duke University.

- CIT staff met with colleagues at other schools, participated in professional organizations and gave presentations at national and international conferences.

Over the past two and a half years, the CIT has talked with hundreds of faculty members to develop an understanding of their needs and interests. With a small staff, the CIT has offered an ambitious set of events, programs and services. We are now preparing to greatly expand our activities as we help to implement the far-reaching technology goals in the University's new strategic plan.

This report provides detailed information about the past year's activities and goals for the coming year. Additional reports and information about the CIT are available on its website: http://cit.duke.edu.
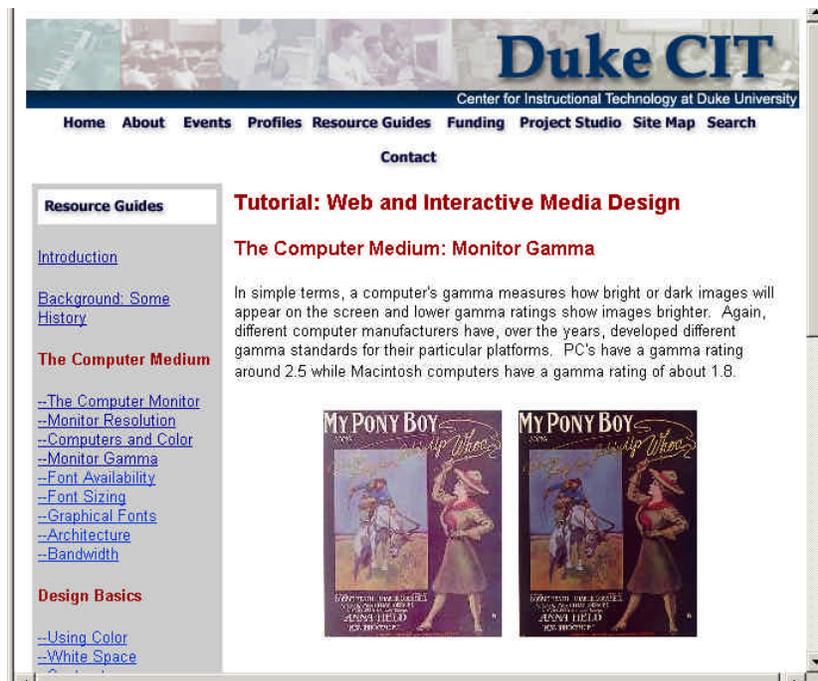
About the CIT

STAFF and LOCATION - The CIT is part of the Duke University Libraries and has office space and a project workroom within Perkins Library. This year the CIT had four full time staff members: a Director, two Academic Technology Consultants and a Senior Technical Specialist. Two other individuals share office space with the CIT and participate in CIT planning and activities -- the Director of Foreign Language Technology Services (funded through Arts & Sciences) and the Educational Technology Specialist for graduate students (funded through the Graduate School). See: http://cit.duke.edu/about/index.html

ADVISORY BOARD - The CIT Advisory Board meets monthly during the academic year and occasionally during the summer to review CIT activities and advise on future plans. That board consists of faculty representatives from each school, an undergraduate student and a graduate student, one representative each from the Office of Information Technology and the Library, and the Director of the Center for Teaching, Learning and Writing. See: http://cit.duke.edu/about/advisory-board.html

WEB SITE - The CIT's web page has seen dramatic increases in usage over the past year. During August 2000, the earliest date where figures are available, the web space received 5,300 page hits and averaged approximately 180 page hits per day. This figure has steadily increased to 508 page hits per day for a total of 15,255 page hits during the month of June 2001. (Our busiest month during the period was May 2001, with 16,557 page hits.) During any average month during the period, from 40 to 50 percent of our visitors are from Duke IP addresses.

The most requested pages in the CIT's web resource include our series of Resource Guides and Tutorials on a wide variety of instructional technology, our Profiles of faculty instructional technology projects, and information on the Project Studio. During April 2001, we had 2,776 requests for our pages concerning the Faculty Instructional Technology Showcase.

Resource Guides and Tutorials such as this one are among
the most visited sections of the CIT's web site.

CIT activities, July 1, 2000 – June 30, 2001

Goal 1: Develop faculty awareness of possible uses of technology in teaching and learning

EVENTS - Faculty and staff from all schools at Duke attended the 50 seminars, workshops or training sessions the CIT sponsored this year. Attendance ranged from 5 to 65 per session. The best-attended events were ones that focused on using multimedia elements in online course materials and creating interactive exercises on the web. Sample event titles are shown below. For other events, see http://cit.duke.edu/cgi-bin/event.pl

Introduction to Blackboard CourseInfo
Incorporating Multimedia in Blackboard CourseInfo
Planning, Funding and Evaluating a Successful IT Project
Videoconferencing with NetMeeting
Building a Large Digital Project: The Valley of the Shadow Project at the University of Virginia
Evaluating Student Web Projects
Teaching in the Chalk-less Classroom (with Digital Writing Tablets)
Using Interactive Web Exercises to Facilitate Learning
Graduate Student Instructors: Sharing and Responding to Texts Electronically
Lights, Camera, Learning! Making Desktop Movies for Courseware
Enhancing Teaching and Learning with Palm Pilots
Developing and Using Course Web Pages

CIT staff member Jim Bright teaches a faculty technology class.

SHOWCASE - Twenty-nine Duke faculty members demonstrated their projects at the CIT's Instructional Technology Showcase on April 27, 2001. The day featured workshops, speakers, a reception recognizing grant recipients and a poster session of faculty projects. Over 150 Duke faculty, staff and students attended this event, as did visitors from several nearby universities and colleges. See: http://cit.duke.edu/showcase/index.html

SUCCESSFUL PROJECT PROFILES - The CIT's website now includes 17 profiles of successful instructional technology projects with sound and video clips of Duke faculty discussing their innovative uses of technology in teaching. These profiles extend the usefulness of the faculty presentations during the year and provide work samples faculty project leaders can show at conferences and other events. See: http://cit.duke.edu/cgi-bin/profile.pl

CUSTOMIZED WORKSHOPS - CIT staff provided customized, discipline-specific workshops on uses of instructional technology for Biology, Religion, History, Public Policy, Psychology, Foreign Language departments and other groups. The new Educational Technology Specialist for the Graduate School, who shares his time between the CIT and the Center for Teaching, Learning and Writing, has begun offering workshops tailored to graduate student instructors.

CIT staff member Randy Riddle helps a student worker with a project.

CONSULTATION - Much of our educational outreach and training takes place through consultation with individual faculty throughout the year. These consultations range from brief introductions to new technology tools, to assistance with technology grant proposals, to extended planning for distance education programs.

INFORMATION UPDATES - The CIT disseminates information to faculty through presentations at the new faculty orientation, through email newsletters about instructional technology topics and through advertisements of services and events in publications such as the *Chronicle* and *Dialogue*.

The CIT created profiles to share information broadly about successful instructional technology projects and to recognize those faculty who have done innovative work.

Goal 2: Launch innovations in instructional technology and support faculty experimentation with new technologies

BLACKBOARD COURSE MANAGEMENT SOFTWARE - For a second year, the CIT supported Blackboard's CourseInfo (Level 1, version 4) as a tool for developing course web sites and creating online course activities. In conjunction with the OIT help desk and IT staff in the schools, the CIT offered training, problem solving and consulting in support of over 500 courses in five schools using Blackboard software. Faculty and student reaction to Blackboard has been very positive, as evidenced by the growing number of individuals using the software and positive evaluations in end-of-year surveys. A CIT-convened task force with representatives from each school recommended moving toward a more secure and robust version of Blackboard software. In May, the Provost approved plans and funding for implementing an enterprise-wide version of the Blackboard software. See: http://courseinfo.duke.edu/

RESOURCE GUIDES – The CIT has expanded its collection of web-based resource guides on topics requested by faculty, such as *The Web and Interactive Media* and *Protecting your Online Materials*. See: http://cit.duke.edu/resource-guides/index.html

MULTIMEDIA SUPPORT - In response to a growing faculty interest in uses of multimedia, the CIT established a streaming media server and supported pilot projects by faculty in Music, Film and Video and several foreign language departments. We upgraded our Project Studio in room 223a of Perkins Library with specialized hardware and software to support creation of high quality scanned images and digital sound and video segments. See: http://cit.duke.edu/project-studio/index.html

INCENTIVE GRANTS and PROJECT SUPPORT - Eighteen faculty developed new instructional technology projects during the 2000-01 academic year with funding, consultation and training provided by CIT staff and CIT student workers. The CIT offered a third round of incentive grant funding and received twenty-seven proposals requesting a total of over $327,000 for instructional technology projects. The CIT Advisory Board reviewed the proposals and recommended supporting 13 new projects for a total of $148,830. All projects which received over $5,000 in direct funding had some kind of matching support from the instructor's school or department. This brings the total number of projects funded through CIT grants to forty-six, with many projects involving more than one

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faculty member and more than one course. This year's projects include creating digital archives of specialized resources, using specialized software in science lab courses, creating online learning modules and experimenting with laptop computers and course websites in departments that have had little use of technology in the past. See: http://cit.duke.edu/funding/incentive-grants/grants-2001.html

STUDENT TRAINING - Our staff offered in-class technical training for students in classes involving CIT-supported projects and developed online materials that could be used by students in any course. At the same time, we worked with OIT staff and Dean Thompson to propose a broader student training program for commonly used software. Initial funding for the new student training program, to be coordinated through OIT, has been approved.

Goal 3: Form partnerships with private industry, foundations and other educational institutions to leverage resources and encourage exchange of information around technology trends and strategies

GE FUND GRANT - Several staff members offered training and consulting in connection with the second year of the GE Fund grant to the Markets and Management program. CIT receives $30,000 over three years from total grant of $313,000 over three years.

DELL STAR GRANT - Dell Computer, Inc. provided $25,000 for a second year of the CIT's FAST-start program (Faculty and Student Technology Teams). Through this program, we supported six faculty projects and provided technology training and mentoring to eight Duke students during the 2000-01 academic year. We have selected 6 additional projects and hired several new student partners for the coming school year. See: http://cit.duke.edu/funding/fast-start/index.html

MICROSOFT RESEARCH DONATION - A Microsoft Research donation to the CIT of hardware, software and training books allowed us to support a faculty project involving use of hand-held computers and Geographic Information System software in Environmental Studies courses.

Funding

CIT Incentive Grants
Dell FAST-start
--Information & Application
--Projects: 2000-2001
--Archives
Applicant Resources
Project Planning
External Funding

Dell FAST-start: 2000-2001 Projects

Engineering Computer Software Knowledge Database

Fall, 2000 - Spring 2001
Faculty Partner: Michael R. Gustafson, II, Pratt School of Engineering
Student Partner: Samuel Hummel, '03 (Fall 2000); Annie Adams, '03 (Spring 2001)

Project Proposal: PDF format

Project Web Site: http://kepler.egr.duke.edu/Eng/

Description: The student will be creating a web site that will be used by Engineering faculty to teach various software packages to students and will be used as a reference by students in the Engineering School.

Progress Report: During the Fall, 2000 semester, Sam worked closely with Professor Gustafson to create a web site to house tutorial materials on various

PALM DONATION - The CIT obtained a donation of 50 color Palm devices for use in medical education at Duke.

ACADEMIC COMPUTING GROUPS - CIT Director Lynne O'Brien met with the Ivy Plus Academic Computing Directors and with representatives from the Common Solutions Group (20 Research I Universities) to discuss instructional technology planning.

TECHNOLOGY EXPERTS FROM OTHER UNIVERSITIES - In collaboration with the History Department and the Master of Arts in Liberal Studies Program, the CIT brought Dr. Edward Ayers of the University of Virginia to campus for meetings and public talks in October, 2000. Ayers is Hugh P. Kelley Professor of History at the University of Virginia, a nationally recognized a pioneer in the use of technology in humanities research and teaching.

Dr. Michael Rappa, Alan T. Dickson Distinguished University Professor of Technology Management at North Carolina State University, was a featured speaker for an audience of 60 faculty and staff at our April 27, 2001 showcase event. See: http://cit.duke.edu/showcase/index.html

VENDOR PRESENTATIONS - Several hardware and software vendors offered demonstrations of new technologies relevant to higher education and teaching.

PROFESSIONAL NETWORKING - CIT staff are actively involved in professional development and participate in regional, national and international groups involved with instructional technology. A few examples of their activities:

Lynne O'Brien gave presentations at the Nercomp (New England Computing Association) conference on E-learning: Enhancing Education In and Out of the Classroom and at the Venice International University conference on Distance Learning: Methodologies and Experiences. She attended the Blackboard conference in Georgetown, MD and the Educause Conference in Nashville, TN.

Randy Riddle attended the Mid-South Instructional Technology Conference at Tennessee State University and the Educause Conference in Nashville, TN. He is a member of and web designer for the Committee on Lesbian/Gay History for the American Historical Association and a member of the Triangle Digital Library Initiative.

*Jim Brigh*t attended the Blackboard Summit on Education in Washington, DC and the Building Sustainable Online Learning Environments Conference in Washington, DC.

Jim Coble attended the Educause Conference in Nashville, TN and moderated a session at the American Society for Information Science & Technology Annual Meeting. He was a member of the University Broadbanding Implementation Team (through August 2000) and is currently active in Students, Administrators, and Faculty for Equality on Campus (SAFE on Campus), the Triangle Digital Library Initiative and the NC LIVE Technical Advisory Committee.

Samantha Earp is Editor-In-Chief of the IALL Journal of Language Learning Technologies. She hosted at Duke the annual conference of the Mid-Atlantic Association for Language Learning Technology and gave presentations and workshops at the Blackboard Conference in Washington, DC, the National SCOLA conference at Washington and Lee University and the Association for Language Learning Technology at Rice University.

Goal 4: Promote coordination of effort and collaborative planning across units responsible for technology support at Duke

TECHNOLOGY PLANNING GROUPS - CIT staff are members of ongoing planning groups at Duke, including:

CIT Advisory Board

Information Science and Information Studies Committee

Medical Educational Media committee in School of Medicine

Clinical Research Training Program's distance education planning group

Arts and Sciences Interactive Computer Classroom planning group

Steering Committee for Technical Training, a group established by Tallman Trask to improve coordination and planning for technical training across Duke University

JOINT CIT, CTLW and GRADUATE SCHOOL PROGRAM - The CIT Director collaborated with Dean Lewis Siegel and Joe Harris from the Center for Teaching, Learning and Writing to develop a program for teaching graduate students to use instructional technology in their current and future academic roles and hired Patrick Murphy to implement that plan. The workshop program will be a requirement for all graduate students matriculating in the Fall of 2001.

JOINT PLANNING WITH OFFICE OF INFORMATION TECHNOLOGY - CIT staff meet regularly with OIT staff to define how academic needs influence OIT services, e.g., adding software to clusters to meet class needs; providing help desk services for CourseInfo; planning server space for course web projects

FOCAL POINT FOR EXPLORING NEW TECHNOLOGIES - Based on emerging needs identified through discussions with faculty and project support activities, CIT staff have convened university-wide working groups on

streaming media, digital media database systems and course management software. The CIT has taken a leadership role in bringing together faculty and IT staff from every school and have encouraged sharing of expertise and cooperative efforts in exploring cutting edge technologies.

Goal 5: Assess CIT initiatives to ensure that efforts are focused on effective and sustainable projects

ASSESSMENT OF FACULTY IT PROJECTS - To ensure that faculty include evaluation plans in instructional technology projects, CIT staff offered a four-part workshop series on Planning, Implementing and Evaluating and Instructional Technology Project. CIT staff also consulted with faculty on the evaluation component of technology grant proposals in History and Engineering. See: http://cit.duke.edu/funding/workshops-planning.html.

CIT staff continued to participate in a variety of assessment activities for the GE Fund project in the Markets and Management program including faculty needs assessment around instructional technology and development of a student technology skills survey

BLACKBOARD ASSESSMENT - To assess faculty and student reactions to Blackboard CourseInfo, CIT staff collected survey data and met with key groups of faculty and technical staff to evaluate usefulness of Blackboard CourseInfo. A report on the second year of Blackboard CourseInfo implementation will be posted from the Blackboard at Duke homepage: http://courseinfo.duke.edu. See also: http://cit.duke.edu/about/advisory-board-meetings-9-28-00-course-management-sw.pdf and http://cit.duke.edu/about/advisory-board-meetings-9-28-00-course-management-sw-task-group-10-26-00.pdf

GRANT PROGRAM ASSESSMENT – We conducted mid-year interviews with faculty who received CIT incentive grants and collected end-of-year assessment reports from project leaders. A summary report of projects that ended in June 2000 is available at: http://cit.duke.edu/funding/incentive-grants/grants-1999-evaluation.html. A report on the grants completed during the 2000-01 year will be available in August, 2001. One conclusion we have drawn from the last two years' grant programs is that faculty do not have the time or expertise to do the kinds of web development projects they propose. The CIT is responding to that information by hiring a Web Designer to work with faculty and student workers on web projects, web templates and web training.

REPORTS TO THE UNIVERSITY COMMUNITY - The CIT reports on its activities at the University's Information Technology Advisory Committee meetings and posts reports and publications about CIT activities on its website. See: http://cit.duke.edu/about/reports.html

Prof. Susan Rodger, Computer Science, demonstrates how she and her colleagues use interactive applets in their classes. All CIT-funded projects include an evaluation component.

CIT Plans for 2001-02

Goal 1: Develop faculty awareness of possible uses of IT to support teaching and learning

Showcase innovative faculty at Duke who are using technology in teaching

Offer training, speakers, and workshops that highlight uses of technology in teaching

Provide discipline-specific examples of IT use

Help individual faculty identify ways technology can be useful in their teaching

Promote Duke's CITIE project (Computer and Information Technology Intensive Environment) by sharing information broadly with faculty and seeking their input on ways to implement CITIE

Goal 2: Launch innovations in IT and support faculty experimentation with new technologies

Identify technology tools of broad interest to faculty and students and support their use of these tools

Provide grants and support services to encourage faculty to try innovative projects

Develop models and pilot projects for using wireless, mobile computers in curriculum in conjunction with CITIE project

Implement Blackboard Level 3, Version 5.5, as a first step in a comprehensive program to support expanded use of course websites and online course activities

In conjunction with Graduate School, develop proposal for graduate student technology TAs

Develop plans for migrating successful innovations into general computing environment

Goal 3: Form partnerships with private industry, foundations and other educational institutions to leverage resources and encourage exchange of information around IT trends and strategies

Serve as knowledgeable source of information about new trends in IT

Conduct pilot projects with new technologies to develop awareness of potential at Duke and issues related to introduction of new technologies

Take advantage of technical expertise outside Duke University (vendors, research organizations, other universities)

Leverage internal resources through grants and donations

Ensure that CIT staff have current knowledge and skills

Goal 4: Promote coordination of effort and collaborative planning across units responsible for technology support at Duke

Contribute to IT planning efforts through participation in committee work and special planning groups

Facilitate faculty and pedagogical support initiatives related to CITIE projects

Conduct joint projects with other IT organizations

Share information across IT groups

Convene task forces and evaluation groups around new technologies

Goal 5: Assess CIT initiatives to ensure that efforts are focused on effective and sustainable projects.

Evaluate all CIT activities

Provide summary reports and recommendations to Duke administration, IT groups and faculty

Use evaluation data to modify CIT goals and activities and to offer input to other IT planning groups

Consult with individual faculty on assessment plans for their instructional technology projects

To accomplish the goals we have outlined for the coming year, the CIT will expand its staff. We have added a Web Designer position to assist the many faculty who have contacted the CIT for help with instructional web-development projects. The new web designer should arrive in August or September. Two new positions will be added to support the expanded use of Blackboard and other academic technology tools: Senior Academic Technology Specialist (serving as project manager for Blackboard and other large-scale instructional technology projects) and Applications Manager (serving as a technical integration specialist for academic tools). Funding for these positions has been approved through the Blackboard course management system project, and we are actively recruiting candidates to fill the positions. Finally, we will be searching for a replacement for one of our current positions as a result of Jim Bright leaving in June, 2001 to take a teaching position.

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