

# **CIT Annual Report 2005-2006**

<b><u>CIT GRANTS AND CONSULTING</u></b>	<b>2</b>
<b>CONSULTING AND FACILITIES USE, 2005-06</b>	<b>2</b>
CIT CONSULTING 2005-06	2
USE OF CIT FACILITIES FOR CONSULTING AND PROJECT SUPPORT	2
<b>GRANTS AND FELLOWS, 2005-2006</b>	<b>2</b>
CIT INCENTIVE GRANTS	2
CIT JUMP START GRANTS	2
FACULTY INSTRUCTIONAL TECHNOLOGY FELLOWS	3
COURSE DESIGN GRANTS	3
<b>CONSULTING AND GRANTS PLANS FOR 2006-07</b>	<b>3</b>
FACULTY LEARNING COMMUNITY	3
<b><u>ACADEMIC TOOLS EXPLORATION AND SUPPORT</u></b>	<b>4</b>
<b>ACADEMIC TOOLS SUMMARY, 2005-2006</b>	<b>4</b>
BLACKBOARD AND RELATED TOOLS	4
<b>ACADEMIC TOOLS PLANS FOR 2006-2007</b>	<b>5</b>
ENHANCING BLACKBOARD	5
PROVIDING BLACKBOARD ORGANIZATION SITES FOR GROUP COLLABORATION AND TRAINING	5
PROMOTING DISCUSSION OF LMS POLICIES AND TRENDS	5
MONITORING THE CHANGING LMS MARKET	6
EXPLORATIONS OF TOOLS FOR CREATING AND USING DIGITAL MEDIA	6
<b><u>THE DUKE DIGITAL INITIATIVE</u></b>	<b>6</b>
<b>KEY ACTIVITIES IN THIS YEAR'S DUKE DIGITAL INITIATIVE</b>	<b>6</b>
MAJOR DDI SUCCESSES THIS YEAR	6
DDI CHALLENGES THIS YEAR	7
<b>DDI PLANS FOR 2006-2007</b>	<b>7</b>
<b><u>APPENDIX A: SAMPLE CONSULTING REQUESTS FROM DUKE FACULTY</u></b>	<b>8</b>
<b><u>APPENDIX B: JUMP START GRANTS 2005-2006</u></b>	<b>10</b>

## **CIT Grants and Consulting**

### ***Consulting and Facilities Use, 2005-06***

#### **CIT Consulting 2005-06**

CIT consulted on over 750 requests, questions or projects, ranging from single questions with quick answers, to queries requiring several hours of research, to semester- or year-long projects. We received requests via telephone, email and web forms. We responded to questions from faculty, staff and students in all Duke schools, as well as faculty, staff and students from schools outside of Duke. Some sample requests are listed in Appendix A.

#### **Use of CIT Facilities for consulting and project support**

CIT provided several dozen consulting and individual training sessions on digital materials development in the Center for Instructional Technology lab. The large majority of these requests were from faculty or instructors, although we also provided support to IT and library staff. The language lab facilities hosted over 500 class sessions during 2005-06 academic year as well as placement tests for different departments. The language lab also handled over 100 equipment loans to faculty during this time period.

### ***Grants and Fellows, 2005-2006***

The CIT offered a variety of programs to encourage and support faculty who were integrating technology into their courses in new ways. Those programs included the **CIT Incentive Grants** program for projects lasting one or two years and having significant impact on a program or group of courses, the **CIT Jump Start Grants** program, which provides small amounts of funding and support to assist faculty in piloting or experimenting with new technologies, and the **Faculty Instructional Technology Fellows** program, which works with groups of faculty around a theme for one semester or a year. Examples of Grants and Fellows are in Appendix A.

#### **CIT Incentive Grants**

The CIT Incentive Grants program awarded one grant to a School of Medicine project entitled *Scientific Writing Workshop Using Online Instructional Technology* in April 2005, but the majority of the work on this grant was accomplished in 2005-06. This project is in its final stages, looking at the effectiveness of an online collaborative manuscript writing software in helping writers become expert.

#### **CIT Jump Start Grants**

The CIT Jump Start Grants program, which provides small amounts of funding and support to assist faculty in piloting or experimenting with new technologies in their courses, funded 9 grants (out of 12 applicants) at a total cost of \$12,500. Samples of these grants include:

- Engineering professor received funding to videotape his students' presentations, to determine usefulness of video review to student learning.
- A&S faculty received funding to assist with materials digitization, production of foreign language teaching materials, capture of interviews & development of course materials for Duke-Durham Public Schools partnership initiatives, and programming of a Duke version of a social networking tool.

- Nursing faculty received funding to support development of a video tutorial about performing physical exams.
- CIT sponsored a guest speaker on uses of tablet PCs in teaching and learning.

More information about these grants is included in Appendix B.

### **Faculty Instructional Technology Fellows**

CIT supported two groups of **Faculty Instructional Technology Fellows** during 2005-06, for a total cost of \$27,000. Nine faculty and one graduate student representing 4 Duke schools participated in a semester-long program focused on instructional technologies that could support teaching and learning in large classes. Another six faculty from the Law School were provided with a year-long group program to study the best uses of video in their clinical law teaching. Both groups participated in an orientation and monthly meetings focused on topics chosen by the faculty and aimed at accomplishing goals established for the Fellows program at the outset. Feedback from the semester program on large classes indicated that the Fellows appreciated opportunities for discussion with their colleagues, valued interaction with CIT consultants, and found the chance to learn about instructional technologies useful. Encouragement from the Fellows to provide even more guidance and instruction to faculty focused on technologies helped shape some of our CIT offerings for next year.

### **Course Design Grants**

New course design grants were offered for the first time in May 2006; work on these grants is continuing in 2006-07. Six courses were awarded \$5000 grants providing consulting and a faculty stipend in exchange for faculty following a systematic course design process in developing new courses using technology for academic year 2006-07, and then evaluating the impact of the design process and the effectiveness of the delivered course. Most of the faculty awardees are teaching their new courses in the fall; CIT will evaluate and modify the grants program based on feedback from faculty participants and our consultants.

### ***Consulting and Grants Plans for 2006-07***

In addition to the new Course Design Grant program described above, other changes to CIT's consulting and grants programs are planned for 2006-2007. **CIT Jump Start grant program** will be revised and expanded into a full suite of mini grants: Jump Start, materials preparation, invited speaker and conference travel. The purpose of the change is to make our services and offerings clearer to faculty, and to allow CIT to support the grants we do provide in a more standard way. CIT will continue to offer **Faculty Instructional Technology Fellows** programs to groups of faculty, and to provide consulting upon request to faculty and departments.

### **Faculty Learning Community**

In spring 2007 CIT will pilot a **Faculty Learning Community**, a semester-long program to provide faculty with opportunity and support for conducting research on, learning about and trying new teaching techniques in their own courses.

***More information on consulting and grants***  
CIT funding and grants programs information  
<http://cit.duke.edu/help/funding/funding.do>  
Sample projects  
<http://cit.duke.edu/ideas/examples.do>

This program will be similar in nature to CIT's former individual Fellows programs, but will be more faculty-driven. Results from Fellows and Faculty Learning Communities will be disseminated to the Duke community.

## Academic Tools Exploration and Support

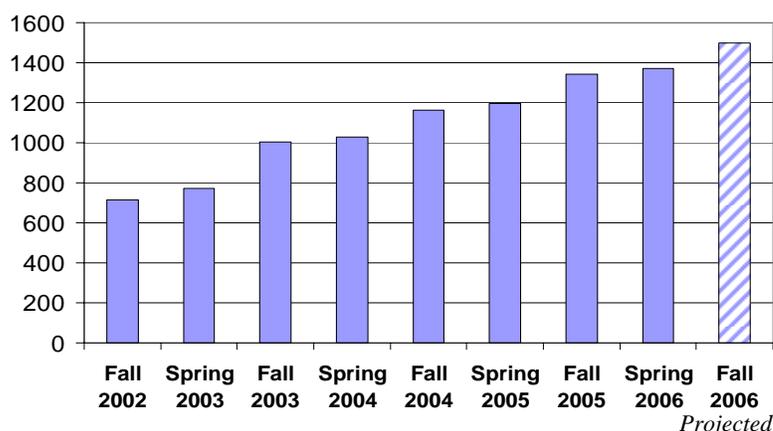
### *Academic Tools Summary, 2005-2006*

#### Blackboard and related tools

**Blackboard usage increased 15% over the last year** (based on number of Blackboard course web sites that instructors made available to students) from 1197 in spring 2005 to 1370 course web sites in spring 2006. Over half of all automatically created Blackboard course shells are made available to students by the instructor. Blackboard was a key support option for Duke Digital Initiative content as Duke continues to explore and develop alternative infrastructure to support capture and distribution of media files. Based on monitoring system performance and considering user needs for more intensive use of media files in class activities, we increased the maximum file size that can be uploaded to Blackboard from 5 MB to 25 MB per file.

Blackboard is jointly managed by CIT and OIT, with input from the Blackboard Advisory Group.

**Available Blackboard Course Sites**



In response to the need for greater support of group activities for class assignments we've **piloted a blog-like and wiki-like tool in Blackboard**. Initial response to these tools has been positive, so we are continuing to provide these options. In addition, the CIT is involved in a group to explore implementing blog-like and wiki-like tools that reside outside our Learning Management System, recognizing that in some cases having a blog or wiki that is limited to the class and instructor is an advantage for privacy and a safe space to explore, and in other cases there can be advantages to having the journals or collaboratively-built wiki-based web sites publicly accessible in order to engage a broader community of peers and experts.

**Brownstone EDU Campus is an online homework and assessment tool**, providing Web-based facilities for question authoring, assignment construction, quiz delivery, and automated scoring. EDU has a variety of

#### ***More Information on Blackboard at Duke***

Blackboard website

<http://blackboard.duke.edu/home.do>

Blackboard Advisory Group

<http://blackboard.duke.edu/about/advisory.do>

Includes minutes for issues discussed within the last year

question types, including algorithmic and formula-based, which make it particularly attractive for disciplines involving science and math. Based on faculty interest, we have been providing trial use of Brownstone EDU. There may be a viable option for integrating the Brownstone EDU tool with the Blackboard system in the near future. CIT is monitoring the situation for this opportunity.

### ***Academic Tools Plans for 2006-2007***

In 2006-7, CIT's work with academic tools will focus on the following plans and policy issues:

#### **Enhancing Blackboard**

Blackboard has recently been upgraded to version 6.3, which offers new functionality. CIT will provide training and consulting to help faculty make good use of these new features. Starting in Fall 2006, Blackboard will be integrated with Lectopia, a tool supported by the Office of Information Technology (OIT) for capturing and disseminating lectures and classroom events. Links for Lectopia recordings will be automatically added to Blackboard course sites.

#### **Providing Blackboard organization sites for group collaboration and training**

Demand for collaborative work tools and work space is increasing across campus. A wide variety of non-class groups such as research groups, planning committees, student government groups, social groups, study abroad programs, service learning, interdisciplinary groups, lifelong learning programs, and Duke staff professional development are seeking collaborative online spaces to facilitate their activities. Since there is at present no widely available and well-supported tool for web collaboration, CIT has provided a trial use of the Organization feature of Blackboard. CIT is exploring support models to manage this expanded use of Blackboard, because the activities are outside CIT's scope of supporting faculty and instructors in effective use of technology in teaching and learning. These new uses of Blackboard may also strain support systems outside CIT by increase the number of people needing training and consulting and require custom assistance with each organization site, in comparison with automated strategies for creating and supporting course sites.

#### **Promoting discussion of LMS policies and trends**

CIT proposed a course retention policy which was discussed by various campus advisory groups. The rationale for considering such a policy is mostly for performance considerations for our LMS (Blackboard) in supporting the productive use of the tool by faculty and students. On the other hand, there are reasons for retaining courses for as long as possible including the potential of archiving how classes have evolved in their use of digital technology; as a portfolio and history for the instructor; and an additional study resource for students, to name a few. Related to this challenge is understanding what it means to archive a course when more and more of the content resides in external systems, only linked to by the course web site. Examples of linked resources that reside external to the LMS include e-reserves and streaming media, as well as links to external web sites. Questions of retention are inevitably going to surface as more enterprise systems become extant to support the more intensive use of digital media and other digital resources. Having a simple, consistent, and well-reasoned policy will be in the Duke community's best interest.

### Monitoring the changing LMS market

The two largest commercial players in the LMS space, Blackboard and WebCT have merged. And Blackboard, Inc. has acquired a patent that covers key LMS technology and is enforcing the patent by suing a remaining competitor. Now is the time to start exploring alternative and open source solutions for academic tools as a learning process. As a research and educational institution, it is important that we protect our autonomy to make real choices that will best meet the Duke community's technology needs. Blackboard has met, and in the near term is likely to continue to meet many of our needs, but we must proactive in planning ahead to insure that our needs are met independent of any one company's strategies.

### Explorations of tools for creating and using digital media

CIT staff will continue to review and test hardware devices and software tools as faculty made increasing use of digital media associated with CIT projects and activities in the Duke Digital Initiative.

## The Duke Digital Initiative

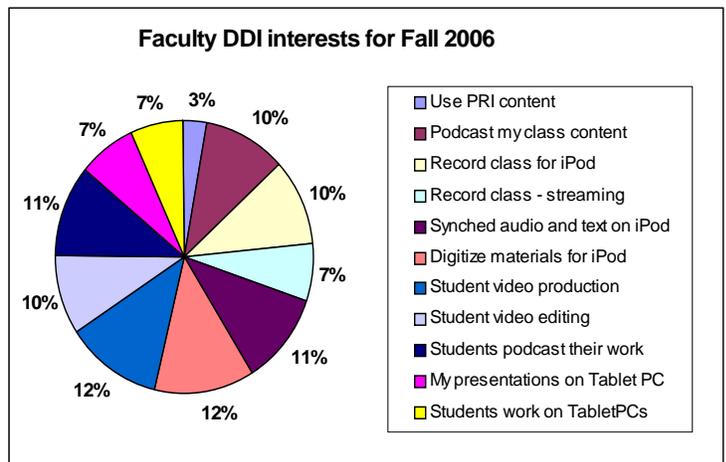
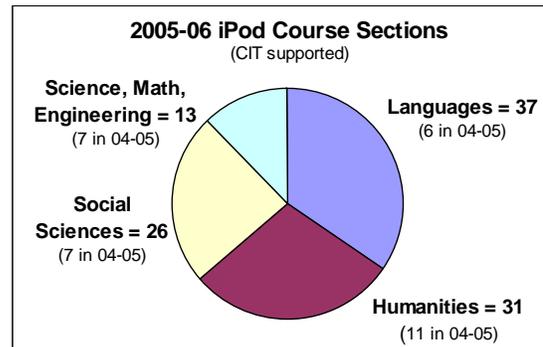
CIT was a key partner in the Duke Digital initiative for 2005-06 along with the Office of Information Technology and other groups. DDI goals were to further the use of digital technologies at Duke for innovative and effective teaching, curriculum enhancement, infrastructure development, and knowledge sharing about best practices and successful teaching models.

### Key activities in this year's Duke Digital Initiative

- continued use of iPods for audio capture and playback of digital audio (see chart at right)
- experimentation with portable playback of digital images, video, and multimedia learning materials
- hiring a scholarly communications expert to help in navigating issues of intellectual property, copyright and fair use
- exploration of tablet PCs as a tool for increasing lecture and lab integration in the sciences and engineering
- use of hand-held computers for data capture as part of student research assignments
- pilot of the Lectopia component of the DukeCapture classroom recording service
- course support for student-created podcasts and student video production

### Major DDI successes this year

- growing number of courses involving multimedia production activities
- faculty and student feedback on educational technology used to plan new facilities in the Library and other parts of campus



- broadening faculty interest in the use of digital technologies
- active collaborations with businesses, universities and other organizations including partnerships with the University of Western Australia (Lectopia), Apple (iTunes U), Public Radio International (digital audio content), and a Duke-hosted academic Podcasting Symposium
- CIT support for over 100 courses using iPods
- Successful pilot of iTunesU in 7 courses with over 200 students in Spring '06; launch of Fuqua on iTunesU in June '06
- participation of over 230 faculty, staff, and visitors to Duke at the Duke Podcasting Symposium

### **DDI challenges this year**

- difficulty obtaining multimedia content for courses
- rapid and unpredictable evolution of consumer technologies and associated disruption of course plans
- demand for video capture of classroom presentations exceeding classroom capabilities

### ***DDI Plans for 2006-2007***

- support of classes using 5<sup>th</sup> gen iPods and new type microphones
- broadened use of the iTunes U content distribution tool
- migration of the Lectopia service from pilot to production
- expansion of tablet PC pilots in engineering and chemistry
- launch of a new DukeCast podcasting tool and web collaboration tool
- expanded pilot of video production in courses

#### **More information on DDI**

DDI program information website

<http://www.duke.edu/ddi/>

Report on DDI 2005-06:

[http://www.duke.edu/ddi/pdf/ddi\\_exec\\_report\\_05\\_06.pdf](http://www.duke.edu/ddi/pdf/ddi_exec_report_05_06.pdf)

## **Appendix A: Sample Consulting Requests from Duke Faculty**

Faculty from several departments have requested help for their classes, on creating online electronic portfolios.

### ***Humanities***

Music department staff asked for support digitally recording piano accompaniments for standard vocal pieces in various keys.

Language faculty received consulting on the best practices for blending iPod-based instructional activities to the existing technology-facilitated activities already in the curricula.

Language faculty participating in service learning courses and initiatives received consulting on how to develop technology-enhanced activities to facilitate student research and engagement with community partners.

### ***Social Sciences***

Economics faculty requested accounts for participation in the Brownstone EDU trial.

Public policy faculty received consulting on selecting the best tool for online surveys related to her course and was guided through the process of selecting ViewsFlash or the Blackboard survey tool.

Education faculty received consulting and support on the use of blogs in several courses.

### ***Sciences & Engineering***

Biology faculty would like support to create a collection of digitized images from the Duke Herbarium.

Biological Anthropology and Anatomy faculty looked for an effective way to allow students to collect data on their food intake throughout the day for 4 weeks and later to analyze this data.

Computer Science professor wanted support to develop a Duke version of an open source social networking software, which keeps track of what a group of people listen to on their iPods to find "neighbors" (those with similar musical tastes).

Mathematics faculty member developing an online open-source textbook asked for consulting on licensing and technical help with development of the text.

Engineering faculty researched options to provide a collaborative engineering design tool analogous to a wiki, to allow engineers to collaborate in real time on a design using standard design methods/tools.

### ***Professional Schools***

Divinity faculty requested support and consulting for developing a DiVE module to display 3D tour of biblical sites, as well as using PRS and wiki in her class.

A Nursing faculty member sought guidance about how to convert a physical course-related board game into an online version.

NSOEES faculty requested help finding online source of visual design and presentation training for graduate students.

Law School faculty received consulting on best practices for using video in their teaching, including policies and practical suggestions for implementing their ideas.

Medical School faculty and others sought effective video tagging and searching to assist with managing large batches of video content. One group is currently experimenting with StudioCode for this purpose (<http://www.studiocodegroup.com/sbg/studiocode-education.html>).

## Appendix B: Jump Start Grants 2005-2006

PI name	Dept	School	Title	Submission Date	Approved?	Consultant	Other support
Korstad, Robert	Public Policy	A&S	Locating and adapting course materials for iPod course use	8/1/2005	Yes	Gardzina	
Bohs, Laurence	Biomedical Engineering	Pratt	Videotaping student presentations for review	9/14/2005	Yes	O'Brien	
Lee, Linda	CRTP	Medicine	Help creating blog for use by students studying in Costa Rica	9/28/2005	Yes	Zhou/Coble	created blog on CIT blog server
Glander, Kenneth	BAA	A&S	Assistance securing equipment and facility use for new course	12/21/2005	No	Campbell/Riddle	consult, referred to course design grants
Forbes, Jeffrey	Comp. Science	A&S	Travel grant for Tablet PC speaker	2/10/2006	Yes	Campbell	
Heid, David	Music	A&S	Digitize piano accompaniments for voice students	2/22/2006	Withdrawn	Riddle	
Denman, Susan	Nursing	Nursing	Create video tutorial for physical exam	3/7/2006	Yes	Zhou	consulting, student
Nadeau, Joseph	Civil & Envir. Engin.	Pratt	Request to purchase tablet PC	3/26/2006	No	Campbell	referred to tablet loaner program
Clifford, Joan	Romance Studies	A&S	Creation of video materials for Spanish LEAP program	4/5/2006	Yes	Earp	Assistance with materials creation
Vaishnava, Premlata	AALL	A&S	Video course materials production in Hindi	4/5/2006	Yes	Earp	Assistance with materials creation
Reeves, Martha	Sociology	A&S	Digitizing important primary sociology resources	4/11/2006	Yes	Riddle	consulting
Forbes, Jeffrey	Comp. Science	A&S	Create Duke version of AudioScrobbler social networking software	5/15/2006	Yes	Novicki	20 audio iPod loans for workshop
Bray, Clark*	Math	A&S	Consulting and student help to create online math text	5/18/2006	Yes	Novicki	
Portier-Young,* Anathea	Divinity	Divinity	Use of PRS, wiki and DiVE in theology class	5/24/2006	Yes	Riddle	consulting, PRS, wiki, DiVE

\* Note: These projects were submitted in May 2006 but did not begin until the next fiscal year (after July 1, 2006).