CIT Annual Report 2009-2010

The Center for Instructional Technology supports academic excellence at Duke University by promoting innovation in teaching and learning. CIT staff consult with instructors from all schools at Duke about a wide range of teaching and learning issues, and about the thoughtful application of technology to educational goals.

Overview of CIT’s work in 2009-2010

Promoting innovation in teaching at Duke

CIT awarded $21,400 in grants for 11 faculty projects to enhance teaching effectiveness and explore new technologies. Additionally, CIT supported 37 Faculty Fellows in Biology, Languages, and Physical Therapy who were exploring active learning strategies, team-based learning and best practices in distance education.

Supporting faculty and courses across campus

This year, CIT connected with over 1,300 Duke instructors, graduate students and academic support staff through inquiries, office visits, consultations and workshops. We also supported users of Blackboard in over 3,300 active course web sites.

Providing campus leadership in academic technology

CIT collaborated closely with partners in the Library, the Office of Information Technology, Arts and Sciences and other schools and administrative units on a variety of long-range planning efforts and initiatives including the eLearning Roadmap Committee and the Duke Digital Initiative. CIT staff worked directly with groups supporting Duke’s strategic initiatives in internationalization, interdisciplinarity, and knowledge in the service of society.

Expanding our reach

CIT identifies and promotes exemplary teaching practices and innovative and effective uses of technology at Duke and beyond, and shares this information with the campus community and peers in higher education. More than 100,000 visitors annually visit our web site, and 1,800 individuals have subscribed to our monthly newsletter. Our annual conference, the Instructional Technology Showcase, attracted 250 attendees this year. We routinely respond to inquiries from the media, other higher education institutions and government agencies about technology trends in higher education.
The CIT supports instructional technologies that can contribute to Duke’s academic excellence by increasing student engagement with course materials, supporting active learning strategies, better matching teaching and learning styles, fostering communication and collaboration, streamlining course administration and developing students’ skills for future learning and work. Through grant awards for faculty-initiated projects, CIT supported innovative teaching approaches in the sciences, social sciences and humanities.

**In 2009-2010, CIT awarded a total of $21,400 to 11 faculty projects**

- *iPad as a Global Health Fieldwork Research Tool (Global Health)*, Jen’nan Read, $7965
- *Teaching with Robots (Computer Science)*, Jeffrey Forbes, $2400
- *Developing mobile device-ready content for Marine Megafauna (Biology)*, David Johnston, $6000
- *Exploring the potential of online undergraduate courses in Summer 2010*
  - Civic engagement and creative non-fiction (English), Cathy Schuman, $1500
  - Issues and Innovation in American Classrooms (Education), Kristen Stephens, $1500
- *MemoryMiner as a Multimedia Teaching Tool (Music)*, Brenda Neece, $340
- *Creating physics problem-solving videos with a Pulse Smartpen (Physics)*, Kate Scholberg, $250
- *Travel awards for faculty pedagogical development activities related to teaching innovation*
  - "Multimedia Discussions Beyond Classroom Walls“ (April 2010 Conference Presentation on French 76 use of VoiceThread by Laura Florand, French), $250
  - "Incorporating Bioinformatics Research in Undergraduate Education", (March 2010 workshop attended by Alison Hill and Julie Reynolds, Biology, $500)
FACULTY FELLOWSHIPS

CIT Faculty Fellowships are learning communities which bring together cohorts of faculty to explore a teaching issue and to implement a project in their own courses, over the course of one to two semesters.

In 2009-2010, CIT supported 3 cohorts of faculty fellows with a total of 37 participants

Effective and efficient oral assignments in language courses
December 2009 – May 2010

14 participants, including faculty leader Laura Florand
The Fellowship supported language faculty interested in exploring with colleagues the most effective and efficient ways to increase students' oral production in the target language, in order to increase students' language learning.

"The CIT Fellows programs have provided an exceptional opportunity to work with colleagues and specialists about the ways instructional technology can best meet our pedagogical needs. The exchange of ideas facilitated by the program has been an invaluable benefit to my own teaching."
- Laura Florand, French

Integrating team-based learning in clinical education
December 2009 – December 2010

Doctor of Physical Therapy, 7 participants, including faculty leaders Kyle Covington and Cory Odom
The Student Team Experience in Practice (STEP) Fellowship will ultimately impact 240 first and second year students in six courses and 12-20 classroom faculty, clinical education faculty and clinical adjunct faculty.

Active learning and scientific teaching
January 2010 – December 2010

Biology, 16 faculty participants, including faculty leader Julie Reynolds
This Fellowship supports a major curriculum redesign project for the department's gateway courses and an ecology course to promote student engagement and active learning through student-centered teaching, ultimately impacting approximately 500 students taking first year Biology courses.

The Fellowship program has been very important in providing the inspiration, know-how and staff support for making significant changes in our biology courses. We have ushered in two new Biology Gateway courses this semester that incorporate a substantial amount of active learning and student assessment. CIT’s Fellowship has given us the confidence and support to move forward with these innovative changes.
- Alison Hill, Biology
CIT consultants and staff work daily with Duke instructors and others who support their courses. Through one-on-one consulting, training, Blackboard support, instructional design advice, digitization services and grants, CIT impacts hundreds of Duke faculty and courses annually. In 2009-10, CIT staff:

- Managed the process of creating Blackboard course web spaces for all active courses, of which 3,300 were used by instructors for course activities
- Served over 1,275 users in the East and West campus language labs
- Responded to over 800 inquiries and consultations as well as hundreds of additional complex Blackboard support requests from instructors requiring assistance beyond what the OIT Help Desk provides
- Hosted a wide range of events that were attended by over 500 Duke faculty and instructors, including a week-long series of instructional technology and pedagogy workshops in May 2010 attended by approximately 125 faculty, staff, post-docs and graduate students
- Provided 60 office visits (one-on-one 60-90 minute training sessions) to faculty and instructional support staff
- Digitized teaching materials to support 20 courses

Sample Inquiries and Consultation Topics from 2009-2010
- We need help creating a sharing space for students, not only to serve as a place of observation and reflection, but also to inform and recruit future students, for Duke’s new Global Semester Abroad program. Can you help?
- What kind of technologies does Duke have to support DukeEngage activities? Also, can you help us with training for faculty and students on how to use this equipment effectively in fieldwork?
- I am teaching an art history course and would like to develop a web-based visual mapping platform for students to use as part of an on-going, semester-long assignment.
- What ideas do you have for creative ways to provide feedback and grading on written assignments in a large enrollment course? I’m interested in voice grading programs and also peer grading strategies.
- How can my students publicly share their final presentations for my course online?
- In my social sciences course, I’m interested in having students create three-dimensional (i.e. with a time line) maps of changing city characteristics. Do you have software that would enable students to create this kind of assignment?
- I would like to arrange a presentation for our faculty in on a broad overview of ways to digitally capture our curriculum resources.
EXPANDING OUR REACH

Sharing expertise in and facilitating community around technological and pedagogical aspects of instructional technologies is a core element of CIT’s mission. CIT’s website received over 100,000 visitors last year, averaging 10,000 visits per month during the academic year. The home page, the CIT blog, and our calendar of events generate the most traffic. Our “Teaching and Learning Elements” resource section is another well used web resource. In addition, videos created and posted by CIT staff on YouTube were visited over 15,000 times in the spring 2010 semester alone. Over 1,800 faculty and staff at Duke and other institutions subscribe to CIT’s monthly newsletter. CIT’s activities in the past year included local, regional and national presentations, including the 2010 EDUCAUSE Learning Initiative Conference. The Center frequently responds to national and international inquiries from media outlets covering teaching and technology issues in higher education. CIT also routinely shares information with and hosts visits from institutions and organizations looking to learn from the success of Duke’s innovation in teaching and technology or to partner with Duke on new initiatives.

Teaching Spaces and Interdisciplinary Learning: Contributing to the Conversation

In August 2009, Andrea Novicki was invited to participate in the PKAL conference on Undergraduate Learning Spaces: From Audits to Assessment. During a breakout session entitled "Shaping and Renovating Learning Spaces: Accommodating information technologies - The perspective of the academic" Andrea was joined by Ed Gomes, Senior Dean, Trinity College and Erin Nettifee, OIT, Link Liaison for a panel discussion of how Duke faculty use the Link and how the design of this space specifically supports interdisciplinary learning.

Stay up to date with CIT!

Visit our website cit.duke.edu to see our complete calendar of events, request a personal consultation, browse examples of innovative teaching at Duke, and to get ideas for enhancing your course

Subscribe to our monthly e-newsletter at cit.duke.edu/news for upcoming event information, funding opportunities and highlights from our faculty projects, including guest posts by Duke faculty

August 2010
In this edition:

- Events: Special Collections Library open house
- Brief news on iPads at Duke and beyond
- Motivating your students
- Lecture or active learning for better education?
- YouTube releases a simple video editor
- Build your own mobile app
- Infographic: Duke Digital Initiative video equipment used over the past year

EVENTS

The Special Collections Library is offering an Open House for Duke faculty and instructors. Thursday, August 26, 2-4 pm in the Biddle Rare Book Room, Perkins Library.

Material will be on display and the librarians will discuss how the material has been, and could be, used in a classroom setting or to inform your own research.

[READ MORE]

NEWS
What’s hot?

Multimedia production and use continues to grow, with 1800 faculty and students checking out video equipment from DDI equipment pools in the Link for use in 480 courses across 77 subject areas.

Web 2.0 and cloud computing tools attract faculty and students who want tools that support easy access from anywhere, including handheld devices – Google apps, Facebook, Evernote, YouTube, and Flickr.

Geospatial tools such as Google maps, Google earth, and Everytrail continue to grow in popularity.

Assessment of student learning supported by e-portfolios, rubrics, and online testing is of interest to diverse faculty.

Still Warm

Blackboard and companion tools including Wimba Voice Tools, Blogs and Wikis, MediaSite lecture capture (for Pratt School of Engineering), WebAssign for online problem sets (in Chemistry)

Cooling Off?

Tablet PCs, Second Life and iPods are still important tools in some courses but have not been widely used across multiple subject areas this year. In some cases, the functions those tools served in the past have been filled by newer software or hardware.

On the Horizon for 2010-11

Sustainability – Connecting course content and teaching practices to Duke’s sustainability initiative

Alternative course models – Exploring ways to reduce in-class content delivery and increase active student learning through use of online curricular materials and new teaching strategies

Faculty IT Fellows – Continuing expansion of our successful Faculty Fellows program

iPads and e-readers – Exploring use of these devices in teaching and learning activities to determine where they are most valuable and what new opportunities they create
CIT takes a leading role in campus-wide initiatives to further Duke’s strategic goals. In 2009-10, CIT’s involvement was particularly evident in two areas: the Duke eLearning Roadmap Committee and the Duke Digital Initiative WordPress Pilot.

Duke’s Elearning Roadmap Committee was convened in 2009 charged with the ongoing assessment of the eLearning needs of the campus community and identifying the tools, support and infrastructure that should be centrally provided. Led by Ed Gomes, Senior Associate Dean, Trinity Technology Services, one goal of the committee is to deliver a specific recommendation about Duke’s learning management system when Duke’s existing Blackboard contract ends in spring 2012. CIT staff serve on the core team, tasked with ensuring the progress of this group, as well as on the larger committee. CIT’s work has included organizing focus groups and dozens of individual interviews with faculty across the entire university, bringing faculty from other institutions to give presentations and answer questions about alternative learning management systems, contributing to a public web site to provide regular updates to the campus on the process, and reporting to Duke’s senior leadership. CIT participants on this group in 2009-2010 included:

- Lynne O’Brien
- Neal Caidin
- Amy Campbell – Core Team 2010; Lead, Functional Analysis Working Group
- Yvonne Belanger – Core Team 2009; Lead, User Profiles Subgroup

The 2009-2010 WordPress Pilot was the cornerstone of this year’s Duke Digital Initiative. Led by CIT’s Shawn Miller and Amy Hendrix, this pilot embarked on a goal of exploring the potential of this flexible web publishing software. Over the course of one academic year, nearly 900 students and faculty participated in creating and using over 135 media-rich, collaborative web spaces. Using WordPress, faculty and students created course web sites that supplemented or were alternatives to sites in Blackboard and published blogs, student-led project websites, and student and faculty portfolios. Based on the success of these efforts, WordPress has been converted by CIT and OIT into an enterprise-wide service available to any Duke course for 2010-2011 called sites.duke.edu
MEET THE CIT STAFF

Like most units at Duke, CIT has reduced its size and increased its efficiency so as to continue providing excellent service to the campus and to innovate as part of a smaller Duke. CIT’s staff bring a wide range of talents and backgrounds as they work to enhance the teaching and learning experiences of Duke’s faculty and students. Some of the staff’s expertise and accomplishments in the past year are highlighted below; for more information, please visit our online staff bios (cit.duke.edu/about/bios).

Andrea Novicki, Ph.D.
Consultant for the Sciences

Current interests
- Active learning strategies
- Science communication and social networking
- Tablet PCs
- Geolocation

Major Projects in 2009-10
- Coordinated the Biology Faculty Fellows program focused on redesigning the department’s gateway course sequence for 375+ students in Fall 2010
- Served on library-wide Strategic Planning Task Force

Randy Riddle
Consultant for the Humanities

Current interests
- Social networking
- Online collaborative tools
- Video and multimedia
- Data visualization and mapping
- E-books, E-readers

Major Projects in 2009-10
- Assessed VoiceThread on campus
- Reviewed streaming video options
- Coordinated Faculty Fellows program

Shawn Miller, M.A.
Consultant for the Social Sciences

Current interests
- Digital culture
- Social media
- Team-based learning
- Assessment and e-portfolios

Major Projects in 2009-10
- Led exploratory pilot of WordPress flexible publishing platform and Chalk & Wire e-portfolio software
- Presented at national EDUCAUSE Learning Initiative Conference on Duke’s WordPress pilot and the use of Flip video cameras for teaching and learning

Haiyan Zhou, M.L.S., M.Ed.
Consultant for the Online Learning and Health Sciences

Current interests
- Collaboration tools
- Online learning
- Screen capture tools
- Internationalization in higher education

Major Projects in 2009-10
- Coordinated the Faculty Fellows program Student Team Experience in Practice (STEP) to redesign the Doctor of Physical Therapy clinical educational curriculums
- Supported student video projects in the School of Nursing
- Redesigned online learning modules for the Clinical Research Training Program
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<tr>
<th>Amy Hendrix</th>
<th>Current interests</th>
<th>Laura Atkinson</th>
<th>Current interests</th>
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| Instructional Technology Lab Coordinator | • Teaching with audio and video  
• Web 2.0 tools  
• Accessibility  
• Open-source software | Technical Coordinator | • Language acquisition theory  
• Negative impacts of new technologies  
• Environmentally responsible computing |

### Major Projects in 2009-10

- Co-lead of DDI pilot of WordPress flexible publishing platform
- In collaboration with the Office of Assessment and the Italian Language Program, implemented new proficiency testing programs in the language labs

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<th>Amy Campbell</th>
<th>Current interests</th>
<th>Neal Caidin</th>
<th>Current interests</th>
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| Assistant Director | • Course and program design  
• Curriculum mapping  
• E-textbooks and e-readers | Head, Applications Blackboard Program Manager | • Project management  
• Learning management systems and related technologies  
• Open educational resources and standards |

### Current interests

- Teaching with audio and video
- Web 2.0 tools
- Accessibility
- Open-source software

### Major Projects in 2009-10

- Changed the service models of the language labs in response to staffing reductions
- Chaired the search for new Languages Consultant
- Managed CIT exploratory equipment pool and DDI micro projector pilot project

### Major Projects in 2009-10

- Duke Digital Initiative Operations group co-leader
- E-learning Roadmap Group Core team member and Functional Group leader

### Major Projects in 2009-10

- Blackboard upgrade to fix issues and provide better support for more browsers and operating systems
- Investigated alternatives to Blackboard through E-learning Roadmap Group
| Yvonne Belanger, MS  
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<th>Head, Assessment &amp; Planning</th>
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<td><strong>Current interests</strong></td>
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<tr>
<td>• Evaluation capacity building</td>
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<td>• Research methods in social sciences</td>
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<td>• Library assessment</td>
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| Hugh Crumley, PhD  
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<th>Instructional Technology Specialist</th>
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<td><strong>Current interests</strong></td>
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<tr>
<td>• Visual communication</td>
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<td>• Preparing future faculty</td>
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<td>• Teaching Assistant development</td>
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<td>• Elearning Roadmap Core Group member (Summer-Fall 2009) and Head of User Profiles subgroup</td>
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<td>• Launched Assessment Core Team for Duke Libraries</td>
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<td>• Led User Studies Initiative</td>
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<td>• Conducted needs assessment for departmental TA training across Duke</td>
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<td>• Taught GS 301 and GS 305</td>
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<td>• Taught EDU 214 as adjunct faculty in Duke’s Program in Education</td>
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