

Innovation

Emerging Trends in Instructional Technology Education

<http://www.drexel.edu/irt>

VOLUME 2

FALL 2009



Drexel in Sacramento:

Eleven proven graduate programs focused on the region's economic future.



How Sacramento is Changing Drexel University

There is no question that the launch of the Sacramento Center for Graduate Studies (CGS) on January 5, 2009 was a remarkable achievement that will have a long-lasting impact on Drexel's Main Campus. Among the changes that the new CGS has fostered on Drexel's Main Campus are the use of technology that embodies the Drexel Green Initiative, and state-of-the-art technology in classrooms and breakout rooms.

When the Sacramento CGS was fast-tracked by Drexel's leadership team, the Office of Information Resources and Technology (IRT) worked quickly to enhance and expand the technology at the Korman Computing Center, where IRT is housed, beyond its already-substantial infrastructure. With technology ahead of its time, a new type of classroom in Korman called the "mirror classroom" was equipped with high-definition video conferencing technology. This room provides the same technology as classrooms in the CGS, which is over

2500 miles away in Sacramento. Class, meetings, and other events can now be held not just in Philadelphia, but simultaneously in Sacramento and Philadelphia. For instructors utilizing the technology, these "mirrors" have redefined the virtual classroom. Distance is no longer an impediment to the learning environment; classes on one side of the country can engage with classes held thousands of miles away, and impersonal online experiences have become a remnant of the past. Both campuses can now participate in a collaborative exchange that enhances both communities.

The Sacramento (CGS) encouraged many departments at Drexel's Philadelphia campus to think in innovative ways. When the CGS opened, planners were focused on helping the Main Campus keep pace with the innovations at its high-tech Sacramento campus. Funds and other

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What's In, What's Out? By John A. Bielec, Ph.D.



John A. Bielec,
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of the Office of
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**The Sacramento
CGS represents
a leap forward
in innovation for
Drexel.**

At the beginning of the new school year, we challenge conventional and incremental thinking. We ask, "How will technology impact What's In and What's Out over the next twelve months?"

What does the future hold for new technologies such as Twitter, now a household name? A Neilson Company

Report states that, contrary to belief, "Teens Don't Tweet; Twitters Growth Not Fueled By Youth" (*The Chronicle of Higher Education*, August 12, 2009).

Twitter may be out for the next generation of college bound students but other changes may be in. An excellent article by Anya Kamenetz directed at the very foundations of traditional higher education delivery, titled "How Web-Savvy Edupunks are Transforming American Higher Education" (at *Fastcompany.com*, September 1, 2009) makes a number of observations detailed below:

*The edupunks are on the march.
From VC-funded startups to the ivied*

walls of Harvard, new experiments and business models are springing up from entrepreneurs, professors, and students alike. Want a class that's structured like a role-playing game? An accredited bachelor's degree for a few thousand dollars? A free, peer-to-peer Wiki university? These all exist today, the overture to a complete educational remix.

The first foray was at MIT in 2001, when the school agreed to put coursework online for free. Today, you can find the full syllabi, lecture notes, class exercises, tests, and some video and audio for every course MIT offers, from physics to art history. This trove has been accessed by 56 million current and prospective students, alumni, professors, and armchair enthusiasts around the world.

Bob Mendenhall, president of the online Western Governors University, is proudest of his college's innovation in the third, hardest-to-crack dimension of education: accreditation and assessment. WGU was formed in the late 1990s, when the governors of 19 western states decided to take advantage of the newfangled Internet and create an online university to expand access to students in rural communities across their region. Today, it's an all-online university with 12,000 students in all 50 states. It's a private not-for-profit, like Harvard; the only state money was an initial \$100,000 stake from each founding state. WGU runs entirely on tuition: \$2,890 for a six-month term.

"We said, 'Let's create a university that actually measures learning,' " Mendenhall says. "We do not have credit hours, we do not have grades. We simply have a series of



assessments that measure competencies, and on that basis, award the degree."

The complete article can be found at: <http://www.fastcompany.com/magazine/138/who-needs-harvard.html>.

Similar trends are detailed by Marc Parry in the August 27th Chronicle article "New Tuition-Free 'University of the People' Tries to Democratize Higher Ed." Parry describes the University of the People, the latest experiment in peer-to-peer education – a new institution in which students will learn in virtual communities using tuition free, online materials and social-networking tools.

"The idea is to reach the hundreds of millions of people who graduate high school, have all the ability and the right to study in an academic institution, but cannot do it either because they don't have the money or because there aren't enough institutions," said Shai Reshef, an Israeli entrepreneur who founded the project. "In quite a few countries in the world, the demand is much more than the supply."

University of the People students will be clustered into groups of 15 to 20 people all taking the same online course. They'll be expected to digest course materials and discuss them based on prepared questions. If they have problems their classmates can't answer, they can click into a forum where they can seek help from volunteer professors and others – and even request an "office hour."

The University of the People (registered in California) still faces the accreditation hurdle.

So What's In and What's Out? In November 2008, America voted for "change." Stimulus money is on the table. Will higher education admissions, course delivery, assessment, accreditation, and funding be transformed and suddenly leap-frog ahead like Facebook, YouTube, and Twitter? Is a free, peer-to-peer Wiki university the next "In". You be the judge!



A rainy day reflected in the new Millennium Hall.

Lamppost denoting Drexel's Lancaster Walk, Main Campus.



Sacramento Changes Continued from page 1...



The Sacramento CGS contains a "mirror classroom" equipped with high-definition video conferencing equipment.

resources were redirected as necessary for the required technological infrastructure. The initiative gave Drexel's Main Campus a new focus and elevated its institutional standing in the higher education community.

Sacramento and the new "mirror classrooms" also play a key role in the Drexel Green Initiative. In these classrooms, video conferencing technology allows for a greener means of communication than in standard classrooms. The advent of Drexel's new high-definition

video conferencing classroom has not only allowed professors and students to communicate and collaborate in a unique learning environment, but has also allowed staff and administrators from both campuses to hold important meetings without the need for business travel. The reduction in travel and travel-related costs helps to minimize Drexel's carbon footprint while avoiding the interruptions that travel necessitates.

For more on video conferencing, see page 7

LinkEdu: New Email Accounts

LinkEdu is a unique partnership between universities and two well-known organizations: Microsoft and Google. Through LinkEdu, students can receive new, university-branded email accounts at no cost. These email accounts provide users with even more options for storage and collaboration!

Drexel currently offers students both Google and Microsoft Exchange Labs email accounts. When students leave the University, they can take these email accounts with them to use indefinitely. Besides offering students more storage, both accounts also offer unique calendar and collaboration features,

including Google Docs for Google accounts and Office Live Workspace for Microsoft accounts.

More information about Microsoft Exchange Labs can be found at <http://my.liveatedu.com/>.

More information about Google's Gmail can be found at <http://mail.google.com/mail/help/intl/en/about.html>.

The signature puzzle pieces of Drexel's LinkEdu partnership.



Blue + Gold = GREEN

Drexel Green: Committed to Sustainability

In 2008, the Drexel Green Initiative was created by students, faculty, and staff who are dedicated to transforming Drexel into a leader in sustainability. The Initiative covers all aspects of operations, buildings, academic initiatives, and student life at the University, and is responsible for the 2008/09 Action Plan to further the sustainable practices and policies that are already in place at Drexel.

The Drexel Green Initiative is led by the Sustainability Task Force. Comprised of members of the Drexel community, the Task Force steers University-wide committees, focusing on academics, research, building design, operations, student life, community, and communications. The Task Force meets regularly with the Sustainability Council of Administra-

tors and Staff as well as University-wide committee representatives to review progress on their sustainable/environmental initiatives. Each committee has at least one co-chair from the student, faculty, and staff populations on campus.

Included in the Drexel Green Initiative are a multitude of campus projects, such as the construction of a new residence hall, a recreation center, an integrated sciences building, the Drexel Smart House, and Drexel Park, which was completed on September 30, 2008 and contains walking paths, lighting, and more than 45 trees.



Students at Drexel help form part of the Task Force for sustainability.

What's Drexel Doing to Stay Green?

There are some things you might not know about the Drexel Green Initiative and the projects that Drexel has implemented to help develop a greener and healthier community.

Currently, Drexel recycles 300 tons of waste annually, Drexel's shuttle fleet uses biodiesel (soy blend) fuel, three-fourths of buildings use the Building Automation System to control temperature and lighting among other equipment, and solar trash bins have been installed around campus. Green construction projects include the Smart House, Drexel Park, and new buildings

such as a residence hall and an integrated sciences building.

Additionally, Drexel has become one of the first universities to purchase wind power.

Learn more about Drexel Green and the University's commitment to green technology at <http://www.drexel.edu/green/>.



As part of the Drexel Green Initiative, the University is committed to greening all aspects of its operations.

Greening the Workplace



Greening the workplace can be simple. Here are a few easy things you can do to increase energy efficiency:

First, make sure that the power settings for your computer are set properly and enable hibernation or sleep when you are away from your computer. If you leave the room or office for an extended period of time, you can save energy by shutting down the computer and turning off the monitor.

Second, be green when purchasing

computer supplies. For example, consider buying recycled paper and other recycled products. Also, purchase recycled ink and toner cartridges to save your department some green (money), and keep plastic out of the environment and out of landfills.

Third, think twice about printing emails and other electronic documents. Editing documents electronically will save you the need to print one or more drafts of the document.

Did You Know...

Drexel's new wireless signal, named DragonFly3, now offers the University community access to the new "n" standard. D3 is faster, more secure, and uses WPA encryption instead of the less secure WEP encryption for better protection of transferred data.

Virtual Machines and Drexel Green

When it comes to using computers, the amount of electrical power they consume and the amount of heat they generate can be problematic. Something can be said for reducing paper waste in the workplace, but what about reducing the electricity that replaced the paper?

Virtual Machines (VMs) can help make a green initiative even greener. VMs are software platforms that mimic the

functions of actual computer hardware. Use of VMs can reduce energy costs and consumption by up to 80%. Without using any kind of virtualization, many computers, including both servers and desktops, are only used a mere 5-15% of the time they are powered on, and yet most of a computer's hardware consumes 60-90% of the normal workload power, even when the computer is idle.

Pharos and Green Printing



In July 2008, the Korman Computing Center began using Pharos, a print management system designed to reduce paper waste and provide organizations with a means of recouping printing costs.

In the past, students were not required to pay for blank pages that were printed unintentionally. With Pharos, all pages are included in the print

job and will be released for printing -- even the blank ones. Students can avoid paying for blank or unnecessary pages by previewing the print job and selecting only the pages that they truly need. Pharos' pay-to-print feature encourages students to be more mindful of their printing, resulting in a significant decrease in paper consumption and a greener way of life.

Rich Media Innovations

Video Conferencing Technology

High-definition video conferencing (HD VC) is a highly effective method of communication that brings people together in a virtual setting.

IRT has expanded the built-in VC capabilities of its facilities and publicized the expansion throughout the Drexel community. A pair of classrooms in the Korman Computing Center already have VC capability. The newest set-up was HD while the second became HD-capable this past summer.

Additionally, a rollabout HD VC cart is available for deployment in any of the Korman classrooms, conference rooms, and offices. A rollabout provides cost-effective flexibility by bring-

ing on-demand VC sessions to any setting that is available and/or appropriate for a given VC session.

Plans and budget proposals are in place to equip all Korman classrooms with HD VC capability. Further, to allow the VC system to handle more endpoints on more simultaneous VC calls, the central hub, or "bridge," is being significantly expanded.

As videoconferencing continues to grow in popularity and usage, IRT is positioned to handle the increasing interest in and adoption of this green technology.



A sunny profile of Mario the Magnificent, the bronze statue of Drexel's mascot on Main Campus.

Did You Know...

Amazon is releasing a new, larger format of the Kindle! The new Kindle will be designed to appeal to textbook publishers in hopes that students will be able to load textbooks onto their Kindles in a more portable format. Some universities have already considered providing Kindles preloaded with the textbooks they will need for their major.

DragonDrop: Media Publication Made Simple

What is DragonDrop? DragonDrop (formerly known as the Rich Media Conversion Project or RMCP) is a home-grown, internally-developed Drexel software project that dates back to 2004. The first Web-based version of the project became available in 2006, and the following year DragonDrop was recognized by Campus Technology magazine in its annual Innovator's issue, in which it was presented as a case study.

DragonDrop was developed to minimize the staff-handling time necessary to encode and publish rich media destined for Web delivery. It was also intended to make Drexel's repository of Web-based, on-demand

rich media as accessible as possible.

While DragonDrop simplifies syndication and podcasting by publishing media and metadata to the Web, those are not its only capabilities. DragonDrop also enables users to author content directly in their browsers, upload pre-existing content from their computers, and convert it to a variety of formats, create custom aggregations of content, and allow access to that content from anywhere on the Web.



DragonDrop and Camtasia Relay



Cabrini College in Radnor, Pennsylvania, one of Drexel's partner schools.

Did You Know...

Drexel has purchased Drexel Island in Second Life! There, professors can hold online classes, make class documents available, and demonstrate scientific concepts in an interactive and engaging virtual environment. The next time you log in, check out the library!

Through Drexel's partnership with TechSmith, the creator of Camtasia Studio, DragonDrop users can now capture their screen using Camtasia Relay's

innovative video software, and immediately publish those captures via DragonDrop. Drexel University is one of only a handful of schools that worked closely with TechSmith developers to integrate Camtasia Relay into a rich media system like DragonDrop.

DragonDrop and Partner Schools

Access to DragonDrop is changing dramatically. Until recently, DragonDrop was exclusive to Drexel University faculty and staff. Then, in December 2008, users at Medaille College were given access to DragonDrop via their academic portal, MedailleOne. Similarly, in March 2009, Cabrini College users were granted access to DragonDrop. In the near future, look for further growth in the DragonDrop user base as Drexel continues to expand its innovative offerings in the Web application and rich media sector.

DragonDrop and Flash

Boasting an adoption rate of over 90% worldwide, Adobe's Flash Player is relied upon by a number of Web-centric technologies. While DragonDrop's development team has been aggressively pursuing a variety of new technologies, tools, and frameworks, it has come to embrace Flash for important system components. Using Adobe's Flash Media Server, DragonDrop is now streaming all of its Flash video on demand, building on the system's previous capacity to stream Real Media and Windows Media content.

Other examples of Flash technology within DragonDrop include the Capture application, which connects to a user's camera and microphone, thereby allowing quick and easy

desktop capture. DragonDrop administrators can leverage this Flash-based Capture application to completely record and stream Drexel events via Flash Media Server (the 2009 Commencement ceremonies were streamed live using this technology). Additionally, DragonDrop enables users to encode their existing media files in Flash video format as well as a variety of other Web-ready formats.

In the future, DragonDrop content authors can look forward to video annotation using another integrated Flash application that will allow creators to mark up and add comments to existing Flash video files. IRT is also developing an in-house video conferencing application that will be integrated into DragonDrop.



Introducing DrexelView

DrexelView is making its debut as a video showcase for all things related to Drexel. In digest format, it announces special events, lectures, and other scholarly events that enhance Drexel's academic mission.

Videos selected for publication often pertain to scholarly interests in the Arts, Humanities, Sciences, Business,

Technology, and other emerging and prevalent fields of study.



The Edmund D. Bossone Center, located on Drexel's Main Campus in Philadelphia.

The IRT Sandbox and Adobe Connect

The concept of a Technology, or Academic, Sandbox was first proposed by the Computer Advisory Committee at Drexel. This inter-departmental committee consists of interested parties committed to examining emerging and beta technologies in higher education. In response to the Committee's proposal, IRT established a Sandbox area where beta versions of applications are made available to faculty, staff, or anyone interested in trying out these technologies. The applications are not guaranteed to work and are not fully supported by IRT. However, if an emerging technology located in the Sandbox were to gain significant traction in the end-user community, it would be tested further with an eye towards possible enterprise-wide deployment.

The creation of Drexel IRT's Sandbox parallels the emergence of DragonDrop, a fully-featured system for the capture, encoding, and publication of rich media. In the first iteration of this digital drop-box, end-users expressed interest in being able to drop, for example, their .avi video files into the system (then known as the Rich Media Conversion Project, or

RMCP) and retrieve them in Flash format. Adoption of DragonDrop was so widespread that resources were assigned to build out version two, and DragonDrop, as it is known today, was born.

The Sandbox is a dynamic "play place" for individuals to experiment with various applications and determine their value for themselves. Given the Sandbox's popularity, new technologies are constantly being added, while others naturally fail to gain traction and fall away on occasion. The latest Sandbox addition is Adobe Acrobat Connect Pro. IRT is rolling out this virtual meeting application on a limited basis while attempting to assign one "Meeting Organizer" license to each interested department. Thus far, Adobe Acrobat Connect Pro has shown promise and could "go enterprise" in the future. Stay tuned!

Did You Know...

Drexel is a connector for Internet2, one of only 23 connectors in the United States. Internet2 is a partnership between all of the connectors designed to deploy advanced network applications and technologies.



Online Learning Team News

Drexel's 2nd Annual Institute on Innovation



On September 10th and 11th, Drexel's second annual "Institute on Innovation in Training and Teaching" will offer area institutions a unique learning opportunity! The Institute will offer 16 workshops led by experienced Drexel University faculty and administrators on topics ranging from web-based surveying and e-books to lecture capture and online

collaboration. Attendees can choose to enroll in up to four workshops between 9 am and 4 pm on each of the two days of the Institute, which will be held at the Pearlstein Learning Center on Drexel's Main Campus in Philadelphia.,

For more information or to register, visit <http://www.drexel.edu/irt/innovation>. In addition to the scheduled workshops, there will be ample opportunity for networking, collaboration, and idea exchange. We look forward to your participation!

Did You Know...

The Sandbox, hosted by the Office of Information Resources and Technology, is a place where anyone can test and review new and beta software applications. The Sandbox is located on IRT's Web site.

Save the Date: 8th Annual e-Learning 2.0 Conference

Save the date! The eighth annual e-Learning 2.0 Conference will be held on March 25, 2010 at Behrakis Grand Hall in the Creese Student Center on Drexel's Main Campus (Chestnut Street between 32nd and 33rd Street). The 2009 conference brought together over 177 attendees and 29 presenters from more than 40 institutions, companies, and non-profit organizations all over the region. We hope you will join us for another successful conference in 2010!



OLT: Support for the Online Classroom

Within Drexel's Office of Information Resources and Technology (IRT), the Instructional Technology Support (ITS) division supports Drexel faculty, staff, and students in the use of technology for teaching, learning, training, and collaboration initiatives. Within the ITS division, the Online Learning Team (OLT) provides assistance with technologies that are available for instructional use in face-to-face, hybrid, and completely online learning environments. Located in room 109 of the Korman Center (off the Quad on University City Main Campus, 33rd Street between Market and Chestnut Streets), the OLT offers training as well as walk-in, phone, and email support for a variety of academic technologies.

OLT Training Sessions are Open to You!

The Online Learning Team conducts training sessions on Blackboard (Bb) Vista, Camtasia, Dreamweaver, Impatica, Snap, and Wimba Classroom. In addition, brown bag lunches on technology products of interest (OneNote, Turnitin, PowerPoint, Wimba, etc.) are generally held once a month.

For the schedule of workshops, see the workshops page linked at <http://drexel.edu/irt/news/publications/PocketGuide.html#general>. Unless otherwise noted, all training sessions will be held in room 116 of the Korman Center (off the Quad on Drexel's Main Campus, 33rd Street

between Market and Chestnut Streets).

Training sessions are open to members of Drexel's community as well as the general public. To reserve a spot, email us at olt@drexel.edu with your name, institution (if other than Drexel), contact information, and the name of the workshop(s) you would like to attend.



Did You Know...

Drexel offers the latest news through Twitter, a utility where anyone can create an account and post blurbs in real time about daily news or daily activities. Twitter is a new way for Drexel to post news in an active, current, and dynamic setting. Check out DrexelNews on Twitter!

Blackboard Vista & PowerLinks

A Robust Set of Instructional Tools

Blackboard (Bb) Vista is a Learning Management System that is used by 40,000 instructors, TAs, and students at Drexel and its partner schools. Bb Vista contains a suite of electronic tools that allow instructors to communicate with students, post course materials, link to Web-based resources, facilitate discussions, deliver online exams and surveys, and much more. There are also a number of instructional tools known as "PowerLinks" that are fully integrated into the Bb Vista system, including Turnitin (plagiarism detection software), Wimba (video- and audio-enabled virtual classroom environment and suite of voice tools), and Respondus (software for automated transfer of questions to Bb Vista's Assessment tool and creation of Flash-based games and quizzes).

Bb Vista can be used to augment face-to-

-face, hybrid, or fully online courses. It has become indispensable to many instructors and students because it is convenient and easy to use.

The Online Learning Team (OLT) provides training and support for Bb Vista and its PowerLinked technologies. Full- and half-day training workshops on Bb Vista are offered regularly (see page 11 for the full workshop schedule), and walk-in, phone, and email support is available. For more information about the services we provide, contact us at olt@drexel.edu or 215-895-1224.



Blackboard

IRT Technology Updates

The Office of Information Resources and Technology publishes the *IRT Technology Update* in email newsletter format to keep the University community informed of changes to the computing infrastructure at Drexel, including new software, virus and worm alerts, upcoming training sessions, tips and tricks, Bb Vista, and computing news related to Drexel's resources.

The *Tech Update* appears about three times per term, and twice during the summer term. It is sent via mass email to all members subscribed to the Drexel announcements mass mailing lists. The *Tech Update* can also be read online at <http://www.drexel.edu/IRT/news/technews/index.html>.



IRT Technology Leadership

Leading Drexel's drive toward technology innovation for the past decade has been **Dr. John A. Bielec**, vice president for Information Resources and Technology and Drexel's CIO.

Under his direction, **Dr. Michael Scheuermann** manages a group of technology professionals dedicated to end user services and technology integration. As associate vice president for Instructional Technology Support, he oversees work in online learning, emerging technologies and innovation, video conferencing, web casting, and lecture/event capture, as well as client services, training, and community outreach.

Kenneth S. Blackney, associate vice president for Core Technology Infrastructure, manages the University server farm, networks, Internet connectivity, and other physical infrastructure.

Michael J. McCabe, associate vice president for Core Enterprise Systems, maintains the software and long-term storage for all of the University's enterprise systems and databases.



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