What's out, What's in?
Students Rule

by Dr. John A. Bielec

Each New Year's day, I look forward to reading predictions of "What's Out and What's In" for the next twelve months. Drexel has always pushed the technology "In" envelope with a number of firsts going back to 1983 when it was the first university in the world to require entering freshman to purchase a computer. A lot of "firsts" have happened since then and what was the new "In" thing quickly becomes "Out".

Today, while many colleges and universities are still pursuing labor intensive computer distribution models, beginning wireless networks and building larger general purpose computing labs, Drexel students purchase their computers from a web store front; register on-line for wireless use (over 24,000 registered wireless devices on campus) and bring their lab with them anywhere, anyplace – Students Rule!

When new technology is on the horizon, Drexel clearly is an early adopter. Technology however quickly moves from the institution to the individual. Once commercialized, individual choice rules. As we enter the New Year, What's In is student asset selection, costs and control of transactions anytime, anyplace – Choice, Choice, Choice! What's Out is business as usual. Happy New Year!

How will Students Rule change the technology landscape over the next few years? Here's my list:

What's out?

- Print Delivery
- One Stop Shops

- Dorm Phones
- Modem Pools
- Library Stacks

- Student Email Boxes
- Email Communication
- Campus or Home Wireless
- Campus GP Computing Labs

What's in?

- Web Delivery - print is gone
- Integrated Portal - take a look at the updated DrexelOne
- Cell Phones and BYOLD
- ISP's
- Collaboratories, eJournals; Wikipedia and Google Scholar
- Student Email Forwarding
- Online Social Networking
- National Broadband Wireless
- BYOL - nearly 60% of Library Users BYOL

Glossary for those who are out:
BYOLD –Bring your own Long Distance
BYOL - Bring your own Laptop

The New Academe
How Technological Innovation Is Changing, How Students Learn, How Teachers Teach, and How Drexel University Does Business

Today's university students have grown up with computers, video games, handheld devices, cell phones, digital music players, and digital cameras. They are comfortable with these devices for education, work, and play. They have developed their own modes of using such devices, often more than one at a time. They have devised whole new languages for use with these technologies.

This evolution of technology has demanded that universities be agile. Classroom teaching, laboratory research, library collections, and a whole range of university services have undergone multiple transitions since the day in 1983 when, in response to faculty-staff-student-administration collaboration, Drexel became the first U.S. university to require that all students have access to a personal computer.

The model for ubiquitous computing has changed dramatically over the past quarter century. The 10,000-square-foot distribution and repair center for Drexel's single-vendor environment has long since been turned into a shiny new dormitory, and today's technologically savvy students make their own choices of platform in conformance with designated minimum specifications. Nearly $2 million worth of personal computers are purchased each year by students via Drexel's Web site from vendors such as Dell and Apple who have negotiated advantageous pricing through the University. But the students make the choice.

Campus wireless infrastructure has transformed the public access computing center into a BYOL (Bring Your Own Laptop) facility that provides power, connectivity and space for collaboration. A similar BYOL transformation has taken place in the Hagerty Library which has shifted resources to other priorities such as subscriptions to a growing number of electronic journals.

Instructional Technology Support

How to Get Help

The Office of Information Resources and Technology (IRT) offers consulting and other assistance regarding the new technologies available for instruction. For general computing assistance, contact the Help Desk at **consult@drexel.edu** or 215-895-2698.

A major resource for Drexel professors, instructors, and staff is the **Faculty Development Center** (FDC), located in Room 109 of the Korman Computing Center (off the Quad on University City Main Campus, 33rd Street between Chestnut and Market Streets). Walk-in service at the FDC is available during term Monday - Friday from 7:30 a.m.-6 p.m. and Saturday 9 a.m.-6 p.m. Or call 215-895-1224 or email **OnlineLearningTeam@drexel.edu**.

The FDC provides workstations (both Windows and Macintosh), scanners, and a small collection of manuals and journals, as well as the services of seven highly-skilled technology experts from the **Online Learning Team** to help with development of online course and training materials.

Training

In addition to individual technology mentoring, the Online Learning Team organizes a series of workshops and sharing sessions each term. Faculty and staff are invited to participate in training for online instruction, both as a supplement to face-to-face classes and for remote learning or training. One main topic is **Bb Vista** (formerly WebCT Vista), a full featured online learning delivery tool.

The Online Learning Team offers trainings for a number of teaching tools that are integrated with Vista. The Online Learning Team also organizes a series of *Brown Bag Lunches* during which participants can share their experiences using online learning systems.

Usually once each term, the Online Learning Team presents a *Faculty Showcase* during which faculty members demonstrate their innovative uses of technology for instruction.

For up-to-date information about training opportunities, see **www.drexel.edu/IRT/services/workshops**.

The New Face of the College Classroom

A professor stands in front of the room and talks. A chalkboard or whiteboard behind the lectern is the sole teaching aid. On rare occasions, someone from the audio-visual center may bring in portable equipment to show a film. Students fill notebooks with scrawled reminders of the in-class presentations.

Sound familiar? That was the face of the college classroom of the 1990s and earlier. Things are different now. Here are some of the ways things have changed.

SmartBoards

The SmartBoard has replaced the chalkboard, allowing for the combination of pre-packaged electronic materials and annotations added in class, which can then be saved to a laptop computer.

Ubiquitous Networking

With wired and wireless connectivity available throughout the campus, faculty members bring laptop computers to class to connect via the Internet to resources they want their students to see.

Course Management Software

These electronic tools enable an instructor to communicate with students, post resources for their use, enable student-to-student collaboration, give and grade exams and other assessments, and much more.

Two providers of course management software used at Drexel - *WebCT* and *Blackboard* have recently merged. Drexel is involved in designing the new combined course management software system that will encompass the best features of both while further enhancing their functionalities.

Instructional software tools that are fully integrated with the course management systems include: PowerPoint, Impatica, Camtasia, Captivate, MediaSiteLive and Horizon-Wimba. Instructional software tools are used both to supplement traditional classes and to deliver courses remotely for online learning.

Instant In-Class Feedback

How do instructors know whether their students have understood class presentations?

- *Clickers* enable instructors to poll students, take attendance, even administer snap quizzes. Some sets of these are available and have been in use in LeBow College of Business and in the new Drexel Law School.
- *NetSupport* lets the instructor view or even control the computers of students in the classroom.

Assessment

This is an essential but time-consuming part of teaching. Some modern software tools can ease the labor. These programs are fully integrated with Bb Vista:

- *Respondus* is quiz- or exam-creation software that interfaces with the course management software. It can be programmed for instructor-assessment or for student self-assessment.
- *TurnItIn* checks for plagiarism.

Software Tools
to Make Research Easier

Instruction, the sharing of knowledge, is an essential part of the academic enterprise. Equally important is the discovery and generation of new knowledge - research - which requires extensive organization and documentation.

Whether you're a teacher, a student, or an academic researcher, there are some software tools to make the job easier.

- *OneNote* a note-taking product from Microsoft that enables you to share and collaborate
- *EndNote* a footnote-, citation-, and bibliography-creation tool that works with APA, MLA, Terabian and other formats.
- *TurnItIn* the anti-plagiarism tool can be used for self-checking as well as monitoring student writing.

Using these tools can make the preparation of academic publications considerably less onerous.

Rich Media Conversion: A Tool for Multi-Taskers

Today's technologically savvy students challenge instructors to provide learning opportunities for every medium. IRT's Rich Media Conversion (RMC) project provides a goodly collection of such media.

One simple dropbox combines comprehensive media conversion with a robust back-end storage repository with interfaces for the creation, publishing and deployment of user content. The end product can encompass both video and audio outputs to a wide variety of technologies: podcasting and streaming video to PCs, iPods, PDAs and cell phones, as well as MP3s, MP4s and standard PDF files.

Both teachers and students have a rich choice of media. Content may be created in many favorite applications (Word, Excel, PowerPoint, Camtasia, graphic files in GIF, JPG, PNG, TIF and BMP, and others). Digital video (DV) and MPEG (MPG) files can be uploaded and converted to Real, Windows Media, MP3, MP4 and/or 3GP formats.

The Playlist feature enables the content creator to control which items to aggregate, the order of the items to be aggregated, and the sharing of items with and from other Channels. Playlist contents can be edited, republished, and deleted. This facilitates re-use of materials as well as collaboration.

The web-based Rich Media Conversion application is available to faculty and staff in the Drexel community. For more information, contact **richmedia@drexel.edu** or visit the RMC website at **www.drexel.edu/irt/rmcweb**.

Classrooms, Collaboratories and Video Conferencing

The Korman Computing Center offers a variety of facilities for technology-assisted instruction. Eight classrooms are equipped with computers for instructor and student use. The computers available include both PCs and Macs, with configurations ranging from rows facing forward to workgroups. To reserve a classroom, for one time or a whole term, instructors fill out the form at **www.drexel.edu/IRT/classrooms**.

In addition, Korman has a room fitted out as a "collaboratory" with seminar table and video projection equipment that can be reserved for classes and by student groups as well. Two Korman classrooms have built-in video conferencing facilities as do a number of lecture halls scattered across the campus.

Technology
for the Community

The School of the Future

The Microsoft School of the Future, newly opened this Fall at 40th and Parkside in West Philadelphia, is one of the most exciting innovations in technology in which IRT has participated.

The School of the Future was constructed from scratch and is wireless throughout. Students use few books and little paper. They carry laptop computers to use in classes, to access instructional materials on the Internet, and to take home to do their homework. This year's student body consists of some 160 freshmen; the school will grow by one class a year until it has a full freshman-senior high school complement.

Drexel has been involved in this innovative school from the early planning stages. IRT's associate vice president for instructional technology support served on the planning committee. IRT co-op students keep the technology functioning under the supervision of an IRT professional staffer, and Drexel's IRT hosts the servers for the School of the Future.

This ongoing project strengthens the long-term collaboration between Drexel University, the School District of Philadelphia, and now Microsoft.

Win-win-win!

Drexel as Application Service Provider

The major instructional and enterprise applications that keep Drexel and other major universities running are often beyond the means both financial and technical - of small colleges.

Drexel has stepped in to provide access and service to several colleges. In some cases, Drexel merely hosts their email. In others, Drexel gives them access to course management software (Blackboard Vista) as well as to SCT Banner tools for managing student records and financial transactions.

This both gives the small colleges access to software they could not otherwise afford, and gives Drexel a larger user base from which to negotiate price advantages with vendors.

The New Academe *continued from page 1*

University services that used to require a wait in line are now available any time, any place via DrexelOne. This single-sign-on portal not only provides an integrated umbrella for Web-based services from multiple systems - email, online courses, personal records, library databases - but it also unifies the credentials needed to access services. Using one user-ID and password is far better than the hodgepodge of personal information, often not adequately encrypted, that used to be required to access a university's many systems.

These are only a few of the emerging trends in academic innovation.

In The Know

IRT Technology Updates

The Office of Information Resources and Technology publishes a periodic *IRT Technology Update* in email newsletter format to keep the university community informed about changes to the computing infrastructure at Drexel.

The *Tech Update* appears about three times per term. It is sent via mass email to all members of Drexel's Announcements mass mailing lists. The *Tech Update* can also be read on line at **www.drexel.edu/IRT/news/technews/index.html**

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. Janice M. Biros** manages a group of technology professionals dedicated to user support and technology integration. As associate vice president for Instructional Technology Support, she oversees the work of the Faculty Development Center, user services, training, and community outreach, as well as telephone services.

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 the University's enterprise systems and databases.

Students FIRST — and Always

For the student, college is a time of expanding and deepening. Much of this development has to do with formal study, with pushing back horizons, with coming to recognize just how much there is in this world to know. But the other side of college life is experience: making new friends, forming lifelong bonds, discovering who you truly are and really want to be. Much of that experience takes place outside the classroom and laboratory.

Some of Drexel's innovative technologies are designed to nurture that non-academic development.

Music Select: How to Download Legally

Music to study by, music to dance to, music to soothe the anxieties of tomorrow's exams. Drexel students, like students everywhere, seek release from pressure in the music of their choice. Not too long ago, Drexel students were among students all over the USA who were targeted by the recording industry for "illegal downloads".

Drexel's answer is a program called *Music Select*.
This fully-legal download service for all kinds of music is available to members of the Drexel community who enroll at **www.drexel.edu/irt/musicselect.**
It provides unlimited access for up to one year to millions of musical numbers from Napster, or coupons for a limited number of permanent downloads from iTunes (choice of service is governed by the user's receiving device).

Enrollment is from September 1-August 30. For students in Drexel residence halls the service is free. Non-resident students must pay $6 per quarter. Faculty and staff members who enroll receive a 30 percent discount on Napster only (the iTunes discount is not available to non-students).

OSTN: Open Student Television Network

For aspiring video artists, Drexel is a member of the *Open Student Television Network* (OSTN), a 24/7 Internet2-enabled global channel dedicated to broadcasting student video productions and programming.

Through OSTN, you can view student and faculty programming from colleges and universities throughout the world and see what today's creative young talent will bring to tomorrow's entertainment industry.

Drexel's OSTN site is found at **www.drexel/edu/IRT/rmcweb/ostn.html**.
Contact **ostnhelp@drexel.edu** with questions.   Student video artists must have a faculty/staff sponsor.

Intra-Group Communications

Group activities are an essential ingredient of the student experience. The single-sign-on DrexelOne Portal offers access to a wide variety of services: email, personal records and schedules, campus announcements, and more. Among the special features of the portal is the *Groups* function, which enables communication to and within a defined group. Access is by subscription.

To check out the features of this Groups service, log in at **http://one.drexel.edu** and click on the Groups icon.

For communication on a larger scale, student organizations - and other campus groups may request Listserv lists or distribution of approved materials via Drexel's central mailing lists. See **www.drexel.edu/irt/services/listserv/centrallists.html** for instructions.