

News & Information from Library & Technology Services at Lehigh University

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Linderman Library Exhibit Celebrates STEPS Opening

THE EDITORS' UPDATE

- ▶ Library and Technology Services welcomes everyone back for a new academic year, after our busy summer featuring work on several grants. A National Science Foundation (NSF) grant for \$1.7 million was received, funded under the American Recovery and Reinvestment Act of 2009. The award will be used to...[read more](#).

NEWS

▶ Linderman Library Exhibit Celebrates STEPS Opening

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▶ Heterogeneous Computing Coming to Lehigh

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▶ Classroom LIVE

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▶ As We May Read...E-books on the Move at Fairchild-Martindale Library

Hand-held books at the library? E-books at the library? Not exactly new. But there is something truly new this fall for our library users: e-books on mobile devices -- the iPad, the Kindle, the Kobo and the Nook...[read more](#).

▶ Course Site is Here!

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▶ Wide Screen in the Classroom

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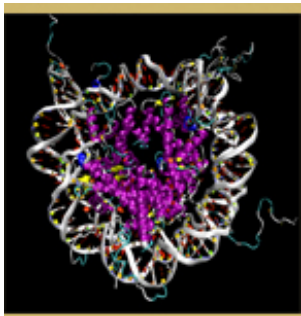
▶ LTS Staff Changes

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▶ In Memoriam: Maria Merle

We regretfully announce the passing of Maria Merle, longtime Circulation staff member in the Fairchild Martindale Library...[read more](#).

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Heterogeneous Computing Coming to Lehigh



Classroom LIVE



As We May Read...E-books on the Move at Fairchild-Martindale

Linderman Library Exhibit Celebrates STEPS Opening

A new exhibit, planned to celebrate the opening of the STEPS building, premiered in Linderman Library on August 26. "Environmental Steps: Environmental Education and Action at Lehigh", guest curated by Lehigh's Humanities Librarian Melissa Grafe, features selected works in science, technology, the environment, and policy to represent work supporting the mission of STEPS.



Francis Trembley in 1970
*An ecologist on
the Lehigh faculty*

The exhibit is located on the ground, first, third, and fourth floors of Linderman Library and runs through December 17, 2010. Please visit the Special Collections website for news of the online version of this exhibit located [here](#).

The opening of STEPS was viewed by Special Collections Curator Lois Black as an opportunity to showcase Lehigh's rich environmental history collections. While the Lehigh community focuses its attention on the new environmental sciences building, the exhibit is the perfect opportunity to educate and inform visitors and the Lehigh community alike about historical resources associated with science, the environment, policy, and society.

Grafe undertook background research for the exhibit during her tenure as a Council for Library and Information Resources (CLIR) post doctoral fellow. She tackled an analysis of collections, identifying historical material relevant to aspects of environmental science and its history taught across Lehigh's curriculum.

In addition to seminal works in the field, she identified supporting materials, such as photographs and ephemeral artifacts and publications. The current exhibition is the first in a series featuring these resources: a second show centered around travel narratives and exploration will open in Linderman this spring.

Visitors are encouraged not to miss a single part of this exhibit as they travel throughout Linderman to see the sights through the eyes of early environmentalists. Featured in the Café Gallery on the ground floor of Linderman are materials selected in support of environmental education and action at Lehigh.

The work of Francis Trembley, an ecologist on the Lehigh faculty whose work influenced several generations of students, is represented through photographs, publications, as well as botanical specimens collected on



research trips and now preserved by the Department of Earth and Environmental Sciences. Also on display in the Café Gallery are images detailing the construction of STEPS and selected publications by STEPS faculty.

Highlights of the environmental history collection are displayed in the first floor reading room and in the Linderman Library lobby, where even Audubon's magnificent *Birds of America* plays a role in educating visitors about the impact man has had on driving ornithological species to extinction.

The current plate on display is that of the now extinct Passenger Pigeon, formerly one of the most abundant species in the world then driven to extinction by reckless hunting for sport for decades, until the last example died in a zoo in 1914. In addition, two exhibit cases in the main reading room display and contextualize iconic works including Ralph Waldo Emerson's *Nature*, Henry David Thoreau's *Walden, or Life in the Woods*, and Rachel Carson's *Silent Spring*.

The Bayer Galleria exhibition case illustrates current research by STEPS faculty, while the fourth floor Parents Gallery features regional examples of crisis and subsequent recovery in the environment. Among the venues explored are the Three Mile Island nuclear disaster and the Palmerton Superfund site.

Actions and reactions are interpreted through the work of exhibition curator Grafe, as well as by lenders Professor Sharon Friedman, the Lehigh Gap Nature Center, and the Wildlands Conservancy in Emmaus.

The exhibit is open regular library hours. Visitors are also encouraged to visit the Fairchild-Martindale Library to explore the associated exhibit, "Turning a New Leaf- Teaching Children about the Environment," and K-12@FMLibrary, both on the main floor.

-- Lois Fischer Black

Article posted September, 2010

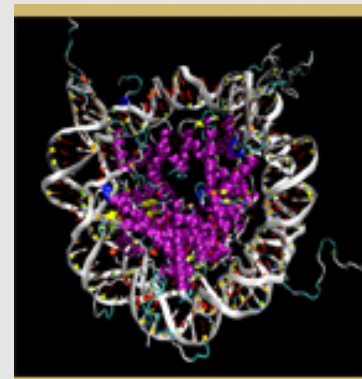
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Heterogeneous Computing Coming to Lehigh

Pendulum swings are a common trend in computer technology, for example centralized computing to distributed and back. Another example is homogeneous vs. heterogeneous processing.

At present the pendulum swings toward heterogeneous computing -- computers that use a variety of computational units. General Purpose Graphics Processing Units (GPGPU) or GPUs are hundreds or even thousands of small computational cores that are great at doing small, mathematical calculations very quickly. GPUs were originally designed to offload the processing required for display operations from the Central Processing Units (CPUs) of desktop computers.



This processing load is particularly significant in the gaming world, where the object is always to squeeze as many pixels (picture elements) as possible onto a screen as quickly as possible as a gamer flies down a race course in a sports car or drives a tank on a battlefield. The High Performance Computing (HPC) community realized that these graphics co-processing cores could be harnessed to do scientific research that can often require millions of arithmetic operations in large matrix manipulations in fields like molecular dynamics (MD - think molecules vibrating) and medical image processing.

Library and Technology Services and the HPC Steering Committee have purchased a test-bed server for researchers on campus to gain experience with GPU computing and to learn how this type of hardware can help satisfy their computational needs. The six core Intel Xeon (X5650 Westmere 2.66 GHz) CPU based server, with 24 GB of DDR3 memory, comes with 2 nVidia "Fermi" Tesla C2050 GPUs.

Each one of those GPUs has 3 GB of GDDR5 memory and supports single and double precision floating point operations (with a Peak Performance rated at 515 GFLOPS double precision floating point and 1.03 TFLOPS single precision floating point performance) across 448 cores. The machine can be expanded in the future to accommodate another CPU, 2 more GPUs, and twice as much RAM. Access to this Linux-based server will be open to users with Enhanced Level 2 HPC accounts .

These users may employ the hardware in several ways: to load programs that are GPU-aware already, such as MD packages like GROMACS or LAMMPS; to access higher level mathematical subroutine libraries for packages that are GPU-aware, like MATLAB from MathWorks and Jacket from Accelerereyes; and to program the cores directly using programming language library extensions in C/C++/Fortran with CUDA or OpenCL.

Questions on this hardware and on access may be directed to Brandon Leeds (byleeds@lehigh.edu), tel: 84905.

-- *Brandon Leeds*

Article posted September, 2010

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Classroom LIVE

Lehigh's Office of Distance Education is piloting the use of an enhanced Internet-based platform, named "Classroom LIVE", for delivery direct to the desktop (home, work or while traveling) for all real-time classes. Wi-Fi and 3G services are now so widely available that students can have access to their classes almost anywhere in the world.



The delivery technology features the integration of a web-conferencing tool (currently Elluminate Live) into all distance education production classrooms, enabling use of all the functionalities and tools of these high-tech rooms, each equipped with production-quality equipment.

A fully integrated audio system permits interactions between the classroom and all distance education students, anywhere in the world. Video sources, including multiple in-room technician-controlled cameras covering faculty, classroom students, computer-generated programs and images, SmartBoards, etc., are viewed in the room as well as by all registered distance education students.

An improvement over the standard one-way video/two-way audio restriction of current satellite courses, *Classroom LIVE* has the added capability of return video sources from participating students, from their web cams. Another advantage of *Classroom LIVE* is use of an in-class "chat" feature. Previously a challenge with satellite feeds, it will now be easier for DE students to participate in classroom discussions through use of this tool.

Supporting a mission of providing high-quality distance education to professional students not physically located on Lehigh's campus requires high quality, reliable delivery technologies. During the 1990s that technology was satellite transmission of real-time courses to partner corporate sites.

In 2000, when the Internet had advanced sufficiently to also be a reliable platform for captured versions of the satellite classes, LESN-Online was launched and was immediately successful. Assuming a successful pilot of *Classroom LIVE*, it is the goal to cease satellite broadcasts of real-time distance education classes beginning in the Fall semester, 2011.

-- Peg Portz

Article posted September, 2010



As We May Read...E-books on the Move at Fairchild-Martindale Library

Hand-held books at the library?
E-books at the library?

Not exactly new. But there is something truly new this fall for our library users: e-books on mobile devices -- the iPad, the Kindle, the Kobo and the Nook -- that retain some of the remarkable design and heft of codex books.



E-books that are ready to serve up a definition, to save annotations, to activate text to speech and to offer accessible font, but are also truly immersive like a 'real' book. The 'form factor' of these e-book devices is a bit like a book, easy to carry and slip into a backpack, a midpoint between a hardback and a paperback.


Library & Technology Services is participating with the Student Senate to provide ten iPads for loan along with the Kindle, the Kobo and Nook at the Fairchild-Martindale Library. The iPad, with its multiple functionality, is admired as an e-reader that gets close to the book but the Kindle, the Kobo and the Nook get good ratings, too; their e-ink is pleasing and easy on the eye like paper.

Books, magazines, newspapers and apps for all four device types have been selected by the Libraries' E-book Committee and LTS staff with suggestions from students. At least two titles, *Snow Crash* by Neal Stephenson and *From Time to Eternity* by Sean Carroll, are books assigned for fall Lehigh courses.

The committee has explored mobile devices with the acquisition of the first generation Kindle in 2008 and evaluated platforms for library e-book subscriptions, recommending the eBrary Academic Collection in spring 2010. The e-books added to these mobile devices to date are general interest non-fiction and fiction, similar to the Libraries' Leisure Reading Collection. As the availability of e-books expands and terms of use respond to the academic marketplace, so will the e-reading material offered.

These e-reader devices are a kind of "exploratory equipment loan" -- any personal information is removed from the devices upon return of the equipment to the Circulation Desk.

The iPad provides reader software applications, too, in addition to Apple's iBook: the Kindle for iPad, the B&N eReader for iPad, Stanza, and the Kobo Reader. Each device and its content is cataloged and searchable in ASA, Lehigh's Library Catalog. The iPad is offered with "apps," all selected to support student study and to illustrate the educational possibilities of app technology. The iPad is Internet-ready for the "Lehigh" wireless network.



The E-Reading Lending Service has four objectives -- to provide pre-loaded academic and general interest e-books on mobile devices, a chance for students to experience a variety of personal technology devices, an additional platform for access to e-books and e-journals from the University Libraries collections, and a supportive service for students with print disabilities to evaluate e-reading on several kinds of mobile devices. Students can give these devices a test drive and to gain insight into how an e-book reader might support their own study habits.

What can I do with the e-reader devices at the Fairchild-Martindale Library?

- Kindle, Kobo & Nook: Read one of the pre-loaded books
- iPad: Read one of the books pre-loaded on the iBook app such as [The Big Switch: Rewiring the World, From Edison to Google](#) by Nicholas Carr. Read magazines and newspapers. The iPads all have the Apple Safari browser, too, so you can read your favorite blog, look up articles in the library, visit your eBrary Bookshelf, check out your RefWorks@Lehigh, your Google Reader, or your bookmarks, too. Yes, and you can read in the dark. Explore iPad apps; here is a sample in addition to the e-book applications: Learning English with the New York Times, Nature, New York Times Editors' Choice, OECD Factbook, Periodic Table of the Elements, Popular Mechanics, and WIRED.

An increasing inventory of e-books and apps available for download will enable our library program to expand. Suggestions for content additions and comments on user experience are welcome. See the LibGuide [E-Books: Are We There Yet?](#) for updates on the program.

-- Jean Johnson

Article posted September, 2010

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Editors' Update

Library and Technology Services welcomes everyone back for a new academic year, after our busy summer featuring work on several grants.

A National Science Foundation (NSF) grant for \$1.7 million was received, funded under the American Recovery and Reinvestment Act of 2009. The award will be used to improve networking and infrastructure in Iacocca Hall. Lehigh also continues to work with partners throughout the state on PennREN (The Pennsylvania Research and Education Network).

In the Libraries, work proceeds on a CLIR (Council on Library and Information Resources) grant in concert with the Moravian Archives; on the multiyear Quali OLE (Open Library Environment) project; and on an LSTA grant to digitize recorded interviews of steelworkers.

Also during the summer, our facilities and technology underwent upgrades and rearrangements. The entire Fairchild-Martindale Library stack area was rearranged in an enormous moving project to better accommodate future growth.

Lehigh's commodity internet connection has gone from a speed of 500 megabits per second to 1 gigabit per second. The new STEPS building contains numerous technology enabled classrooms, public computer labs, and research labs as well as the networking and computer installations for the building. Campus public sites and classrooms were moved to 64 bit Windows 7.

LTS has been exploring the rise in mobile handheld devices and has created a web page at <https://drusandbox.cc.lehigh.edu/Itsmobileapps> with mobile compatible links and applications which can be added to your iPhone, iPad, Droid, Blackberry, or Windows Mobile device.

Library mobile applications are featured as part of a new Library tab on the campus portal that provides easy access to electronic resources; the new tab replaces the previous MyLibrary service.

--*Tim Foley and Christine Roysdon*
Acting Editors

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Course Site is Here!

As of the start of the Fall 2010 semester, Course Site has become the official learning management system for the University. In November 2009, Library and Technology Services announced the university's move from Blackboard™ to Course Site.

The planning for this project began in the Fall of 2008 with the investigation of a possible Blackboard™ replacement. Based on faculty and student survey responses related to the use of features and desired enhancements, the instructional technology team proceeded with the testing of the open source course management system "Moodle". In order to better reflect the purpose of this new learning management system, Lehigh decided to name our installation of Moodle "Course Site".

Several factors contributed to the decision to move to Course Site. Faculty and student feedback on the annual Blackboard™ survey demonstrated an increasing desire for enhanced, easy-to-use features. In addition, a new version of Blackboard was close to release that was very different from the version then in use. Instructional technology staff recognized the level of re-training that would be required for this new environment and were concerned that this training effort might not result in appreciable improvements for users of the system.

The adoption of an open source course management system also enables the University to save on licensing costs, allowing support of other teaching and learning initiatives.

Course Site pilot tests were run throughout the spring, summer and fall 2009 semesters. These pilot courses spanned all four colleges and included undergraduate, graduate, and distance education students. Positive feedback from faculty and students provided the impetus for making a campus-wide move.

Here are some of those comments:

*"I now use the grading spreadsheet function. Bb's was not worth the effort. I really like being able to add my own grading scales."
- Instructor*

"Pictures of students with all references to their names is GREAT!" – Instructor

"MUCH better discussion forums...have been able to do a lot more with it." – Instructor

"The discussion boards are more user-friendly and provoke

discussion.” - Student

“Students can have more control over submitting their work -- I like this. For example, I'll often ask for initial draft, then final draft. In Bb, this would have to be two separate assignments. In Moodle (Course Site), it's all the same drop box -- makes more sense.”- Instructor

“It's so much easier to see all my course materials on the front of the course page rather than having to dig through the many places instructors could put things in Blackboard” - Student

While it is always challenging to change from one technology to another, the instructional technology team in partnership with faculty development is providing numerous opportunities for faculty and staff to learn how to take advantage of the many features within Course Site.

In addition to recorded video tutorials, scheduled training classes, and walk-in open lab sessions, instructional technology consultants are available to meet one-on-one to answer questions about how to best use Course Site to enhance learning activities. Support is also available through the Lehigh University Help Desk.

The Course Site system and help resources are available at: <http://coursesite.lehigh.edu>

-- Sherri Yerk-Zwickl

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Wide Screen in the Classroom

This summer, as part of the classroom technology life cycle replacement program, LTS continued to move towards support of the now ubiquitous wide-screen laptop format.

Nine classrooms were upgraded, including Neville 1, which received two wide-screen projectors and a huge new projection screen. These nine rooms join the 12 rooms that were updated last year and all of the 19 new classrooms and labs in the STEPS building.

The classrooms currently equipped with wide-screen capability are: Drown 202, Fritz 605, Imbt B101, Lewis 512, Maginnes 102, 113, 290, Mohler 110, Neville 1, Packard 101, 208, 258, 360, Sinclair 106, RBC 71, 101, 151, 211, 241, Whitaker 270, ZAC 211, 345 and all of the technology-equipped rooms in STEPS.

PowerPoint users who are teaching in one of these updated classrooms may want to take advantage of the program's 16x10 wide screen design option: Go to the Design tab, select Page Setup, and then select On-screen Show (16x10) from the drop down menu.

It is best to select this option before preparing a presentation. If it is necessary to make this change to an existing presentation, it's important to check every slide as drawing objects, clip art, photos, or text boxes may have shifted.

While wide-screen projection will make attachment of laptops to classroom projection systems easier, there are still many potential complications as manufacturers change display resolutions, graphics card capabilities and connectors.

A detailed discussion on connecting laptops, with information about connectors, resolution, adapters, and the steps you may need to take to successfully connect to a presentation system is available in an article in a recent edition of [Lehigh Lab Notes](#).

-- *Elia Schoomer*

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LTS Staff Changes

Dan Brashler, formerly Senior Computing Consultant for WIRED, is now a Senior Computing Consultant assigned to the Arts and Sciences Team and focused on Mid-Level Scientific Computing research.

Melissa Grafe (Arts & Sciences Team), formerly CLIR Postdoctoral Fellow, has accepted the position of Humanities Librarian, replacing Kathleen Morrow, who retired in June after twenty four years of service.

Brigit Gray (Library Access Services) has transferred from ILL Lending Assistant to PALCI EZ Borrow service coordinator.

Peggy Kane has been named Sr. Instructional Technologist/Manager, DE Online Services, assuming responsibility for the management and supervision of the Distance Education online operations, processes and staff.

Robert (Bobby) Siegfried, formerly Web Support Specialist for the Help Desk, has been promoted to Senior Computing Consultant for WIRED position, supporting the computing needs of residential networking and student computing.

Michelle Suranofsky (Library Technology Team) was hired as Senior Developer for Library Services, focused on programming for the Quali Open Library project.

--*Tim Foley and Christine Roysdon*
Acting Editors

Article posted September, 2010

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In Memoriam: Maria Merle

We regretfully announce the passing of Maria Merle, longtime Circulation staff member in the Fairchild Martindale Library.

Maria managed the popular PALCI EZ Borrow service and was a favorite with our many student assistants.

We miss her energy, service commitment and her distinctive humor.

Read more about Maria [here](#).

-- Gail Kriebel

Article posted September, 2010



Maria Merle

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