There is clear evidence that the research needs of undergraduate students have changed in recent years. While one still sees students writing the classic five- or ten-page term paper, undergraduates are increasingly asked to produce more sophisticated research projects, often with multiple parts in a group work setting, and using a variety of media for the final project. It is common to see projects that include student-produced video, posters, Web sites, media-rich PowerPoint presentations, and various other audiovisual components. Yet while there is an increased need for students to develop technologically sophisticated research productions, there is often a lack of services designed specifically to support these new research demands. The University of Michigan (UM) Library’s Tech Deck is a new service designed to meet these emerging undergraduate needs by providing access to expertise designed to produce technologically sophisticated research in an environment that supports peer learning.

Commitment to undergraduate learning

As part of UM’s commitment to engage undergraduates in sharing their ideas and projects with each other in new and meaningful ways, the library opened a learning laboratory, the MLibrary Tech Deck, in October 2008. The Tech Deck leverages existing staff expertise, built over a decade of administering the library’s Knowledge Navigation Center, but tailors that expertise for undergraduates. It is housed in the Shapiro Undergraduate Library, a collaborative facility heavily used by students, featuring extensive hours of operation, a central campus location, and a history of innovative service and programs.

The Tech Deck is an enclosed facility housed on the busy first floor of the library, with glass walls and a welcoming atmosphere. Generally staffed by two people during all hours it is open, there are ten computers (both Apple and Windows) available with an array of software and hardware not commonly available on library workstations. Software includes the Adobe Creative Suite, Microsoft Office, EndNote, Web browsers, and scan-
ning software, as well as access and support for online resources such as RefWorks, Flickr, and blogging software.

Hardware includes color scanners, a media conversion station, color and black-and-white printers, and a large-scale poster printer/plotter.

Help is available from the staff both by appointment and on a walk-in basis. Staff members emphasize instruction and training for the facility’s users, rather than just providing a media production site. However, the equipment in the Tech Deck is similar to that available at other media production centers on campus, so that students receiving training at the Tech Deck can apply their knowledge at many places on campus.

Service designed for undergraduates
The Tech Deck has been a deliberate and thoughtful way for us to further explore how library services enrich the undergraduate experience. We have considered many questions along the way. Questions such as:

- What does it mean for an undergraduate library to be the intellectual center of the undergraduate experience? How does this translate into the services and facilities provided?
- How should the library facilitate interdisciplinary work? How does this inform our decisions about our facilities, programs, services, and collections?
- Is the library becoming an extension of the classroom? An extension of the educational experience? An extension of social functions? How does this impact spatial and programmatic design decisions? How does the library balance being where the students “are” and where they want the library “to be”?
- How do technologies play a role in our services?

Goals that emerged from discussions around these questions demonstrated to us the importance of examining assumptions and thinking about our services and spaces as they relate to the learning experience for undergraduates.

Goal 1: Provide support for student authoring in a rich media environment. The Tech Deck environment ensures that students work effectively and creatively with the growing array of new media and electronic information resources that are increasingly available across disciplines, as well as facilitates the investigation of rich media for learning and collaboration by providing both the technology and corresponding expertise in use of this technology.

Goal 2: Provide a flexible learning environment for students to work both independently and collaboratively. Students working in the Tech Deck will have support intersections that don’t happen when students only interact with their peers in the same class, the same major, the same school/college.

Goal 3: Recognize the importance of supporting undergraduates as consumers of information and creators of knowledge. It is critical to assist undergraduates in effectively identifying, understanding, and using resources. The Tech Deck strategically supports students as they become informed consumers of information.

Goal 4: Serve as a campus partner in developing and providing learning tools to enrich the undergraduate academic experience. Develop partnerships with a variety of campus units, such as Career Planning
and Placement, the Undergraduate Research Opportunity Program (UROP), or the Digital Media Commons, to provide value-added support of the campus curriculum.

**Goal #5: Encourage students to plan for their futures, both by acquiring new skills and gaining valuable experiences.** Engage students in thinking ahead—building their portfolios and making them more marketable employees with viable and relevant skills.

**Outcomes**
In the year that the Tech Deck has been opened, we have reached each of our goals to varying degrees. The common thread to all the goals is that the students welcome the presence of the Tech Deck and the services it provides. The Tech Deck has become the place where discovery happens, and students have come to expect it to happen there. Below are typical occurrences of learning:

- Students work independently on sound editing for background of a movie.
- A small group of students create a Web page summarizing their research for a class assignment.
- Students come in “just to use a computer” and learn to create styles and automatic tables of contents.
- After successfully printing a poster, we hear “I knew this was the right place to come!”
- Students receive assistance from peer consultants to create and print their posters.
- Graduating students learn how to post their resumes on their own Web sites.
- And many more.

**Celebrating innovation**
As part of our commitment to student learning, we are planning to invite students who use the Tech Deck to submit their project for an exhibit in the library. We will develop an awards program to recognize their work by creating an online anthology and hosting a celebratory event. We anticipate giving awards to students in categories such as innovation, collaboration, and possibly more ambitious ideas such as an award for knowledge creation that contributes to the greater social good. It is our goal not only to support students, but also to celebrate their work. We see this as a way to also promote the service and as a way to further engage the campus in discussions about facilitating undergraduate research.

**Vision for virtual Tech Deck**
Opening the facility was the first step in meeting undergraduate multimedia needs, but we also hope to go beyond this by developing a virtual component to provide peer support and shared learning beyond the physical walls of the facility.

Imagine a collaborative learning environment where students ask questions, explore new ideas, think through complex issues, discover new ways of approaching topics, learn various viewpoints, and create meaning out of disparate facts. What do you see? Three students huddled around a computer as they collaboratively author and design a poster about their research project.

One student showing another how to create media-rich presentations. Online tutorials developed by students with graphic software skills for other students in relation to a class assignment. Other students are IMing about

(continues on page 530)
tribal values to create an elder protection code within the National Indian population, diabetes education, and a caregiver stress fact sheets. Their “Elder Visions” newsletter is also available from 1981 to current issue on the Web site. Access: http://www.nicoa.org/.

- **Segunda Juventud.** AARP’s bilingual online magazine provides active online community that offers games, celebrity interviews, recipes, along with video and audio casts. Access: http://www.aarpsegundajuventud.org/english/index.html.

**Notes**


(“The Tech Deck,” continued from page 510)

...validity and complexity, it is more important than ever to promote skills that can help students find, select, and transform information into knowledge.

Coupled with the expectation that the end product is expressed not just in a traditional research paper, but rather a high-end video, poster, or multimedia format, we must develop ways to engage our undergraduates in sharing their ideas and learning from one another.

The Tech Deck provides a learning environment that is transparent and flexible in its use, a space to foster student collaboration, and a service to promote participatory learning.

As we look to the future and implement our vision for the virtual Tech Deck, our commitment to undergraduate learning remains strong and grows with the changing needs of our students.

**Notes**
