

Reinventing Our Library Space for the 21st Century

THE VISION

The UC Davis Library unites the campus community in learning and discovery. It has always been the space where our students learn to be critical thinkers, creative scholars, informed citizens and lifelong learners. Today, the dramatic transformation in the ways that knowledge is produced, collected, curated and used—as well as the explosion of new knowledge that is born digital—requires a bold rethinking of what our library can be.

In the digital era, we must remain current in an environment where the development of technology outpaces our ability to adapt to it, stand out as a beacon for knowledge in the face of information overload, and be a shared resource where deep expertise and cutting-edge technology support insight and innovation. The library for the 21st century will respond creatively to all of these challenges.

Modern libraries are both digital and physical, dynamic and enduring, exciting and inspiring. They embrace new information technology and lead the community in employing it for research, teaching, patient care and public outreach. They provide a home for new computing-intensive research and for dialogue about the outcomes of that research. The UC Davis Library is an international leader on many of these fronts, but we want to do more.

UC Davis has a bold vision to build a library without limits: a large-scale, ambitious reimagining and renovation of the flagship Peter J. Shields Library that will support a growing student body and new forms of research and learning. Beyond its physical space, the library will create a leading-edge digital platform for knowledge creation, management and sharing by the university's research community. Revolutionizing the library will create the conditions for success for our students and faculty and establish a national model for the library for the 21st century.

Students engaged in cutting-edge research and scholarship depend on modern, innovative, comprehensive and inspiring library spaces, services and resources to prepare them for academic success. A reconfigured Shields Library will significantly increase UC Davis' capacity to house a growing student body in a modern and diverse range of spaces. A uniquely democratic space, the library will be home to specialized technology—from data-mining software to 3D printing capabilities—to which students will have equal access, making the library more instrumental than ever before in leveling the playing field.

In an extraordinary vision for the future, the library will stand as the academic heart, brain and nervous system of a changing university. The library will remain the one place with the tools and talent to assist students and faculty, across disciplines, in making sense of and learning from the vast amounts information, in all formats, we can access and create today. A forward-thinking library will underpin the entire university's work to change the world.

THE RIGHT TIME AND THE RIGHT PLACE

Just as students must be prepared for the new knowledge-based economy, the library, too, must adapt to a new reality in order to prepare our students to be tomorrow's leaders. The way information is gathered, shared and preserved is changing, and we are reimagining the library to meet the challenges and opportunities the digital era brings.

In this time of change, the UC Davis Library will adopt new methods of providing access to knowledge to today's students—leveraging the power of Big Data and data science, dynamic modeling and imaging, and more. There is a responsibility, too, to preserve the digital. A very real risk exists that the future will lack a record of the 21st century if digitally encoded knowledge is not preserved. Without thoughtful stewardship, our record of advancements could be lost to software updates, dead hard drives and eliminated storage.

University Librarian MacKenzie Smith is a pioneer in information technology and digital libraries, and she is leading the library's transformation into a model for 21st-century digital knowledge management. Under her leadership, we will create the digital environments necessary for interdisciplinary learning and collaborative research.

Setting the standard among libraries worldwide with our expertise in new research methods and changing modes of scholarly communication, UC Davis will provide a model for other institutions, demonstrating the power of a modern research library on the global stage.

THE OPPORTUNITY

A recent campus-wide forecasting game, "Envision UC Davis," challenged students, faculty and other community members to imagine the UC Davis of the future. Enhancing and extending the library was highlighted as one of the top five opportunities for tremendous growth, with the potential to advance the impact of the entire university. Students envision the modern library as the place that helps people connect using technology, the collaborative hub for data analysis and information visualization. We share their vision for the future.

In the reimagined library, learning will be active, engaged and immediately relevant. New tools will shape student experiences. "Makerspaces," collaborative learning environments where people come together to share materials and learn new skills, will offer 3D printers, a virtual-reality cave, digital media production tools and more, introducing students from all disciplines to new technologies. With these tools and on-demand expert consultative services, the library will be rich with resources to guide students to success.

Imagine a team of grad students in plant science, water resources, and agricultural economics working together to understand how the drought and changing agricultural practices are affecting water use in the Delta. From the field, the students are able to use library resources to call up detailed GIS-linked digital maps, satellite imagery, and long-term data on climate, river flows and crop history to inform their research. All of this information is at their fingertips, miles from campus, because of the online databases and digital resources collected and preserved by the library to support exactly this type of longitudinal, interdisciplinary research. When they return to campus, they gather in a collaboration studio in Shields Library with one of our informatics

experts, using the interactive media walls to interpret and visualize their data and develop a water management plan that helps millions of Californians.

Imagine, too, a group of veterinary students meeting in the library, performing a comparative analysis of vascular surgery in humans and dogs. The students practice surgery on both dog and human models in a virtual reality cave. They chart their results on interactive whiteboards, which enables their data to follow them across technology platforms wherever they are. At home, at the library or in the lab, the students can review recordings of the surgery to study and improve their technique. The library is a home base for the group's research, but the students are not bound to the space.

With access to a wealth of information from anywhere at a moment's notice, state-of-the-art technology, and immersive spaces for collaborative study and information visualization, the library for the future will enable the rich interdisciplinary scholarship that is characteristic of UC Davis.

Supporting Scholarship: The Library in the Digital Age

Interdisciplinary research is a hallmark of UC Davis excellence. Imagine a place where research is a truly collaborative endeavor, with bustling hives of activity in which faculty, graduate and undergraduate students work together in dynamic learning spaces empowered by technology. The new UC Davis Library will be embedded in the flow of research and learning wherever it is happening—enabling, managing, sharing and preserving it for future generations.

Additionally, many interdisciplinary teams do not have a logical home in any one department. The library will provide them the space to collaborate, experiment and grow. Designed without borders, the new library will be both tangible and portable, a place where people come together from across campus and connect with colleagues around the world.

Students and faculty will organize their research in new and creative ways in the library—the bound thesis of today might become a digital broadcast or an interactive presentation in the future. A transformed library will give our scholars the chance to explore technology-driven research and the power of data analysis in ways they would not otherwise have dreamed possible.

Supporting Student Success: Redefining the Library's Role

Imagine students learning from dynamic interactions with peers, diverse sources of data and specially trained librarians. In the 21st-century library, expert librarians and advisory consultants will provide the guidance students need to become efficient and sophisticated researchers in a rapidly changing environment. Librarians will empower students to become skilled consumers of information, able to discern what is valuable and accurate.

A transformed Shields Library will be the base for partnership with other organizations dedicated to student success, including Undergraduate Education, the Office of Graduate Studies and the Division of Student Affairs. Together, these partners will offer a full suite of support services—student academic support, teaching and research support, data science and information technology, and more—to help students manage and use information. Providing these academic services under one roof in the library will help ensure student success.

MOVING FORWARD

Focusing on Shields Library, with its central location, five levels of wide spaces, inviting central courtyard and 350,000 square feet of floor space, provides an unparalleled opportunity to transform student learning and faculty and researcher success at UC Davis.

Renovating and reconfiguring the library's physical space to support this vision for the future will also require resources, commitment and imagination. And the journey has already begun.

The UC Davis Library has embarked on the first phase of a three-part project to design the future campus libraries. *Phase One: Visioning* will lay the foundation for *Phase Two: Long-Range Space Planning* and *Phase Three: Design*, which includes renovation and reconfiguration. As we move from Phase One toward more detailed plans, resources will be needed to support the design process and future construction.

For more information about the vision for the UC Davis Library of the 21st century, or to learn how you can help the library in its transformation, please contact Jean Flournoy Korinke, director of development, jfkorinke@ucdavis.edu, (530) 752-2422.

