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Faculty File

Read Write Think
Spring quarter, now winding down, has been a very busy time for us. It has also ushered in some major changes for the campus, including Academic Affairs, which includes the Library, all schools and academic departments and units, as well as related programs. For the last five years, I have had the distinct privilege of having Executive Vice Chancellor Suresh Subramani as my boss. Many of you reading this no doubt know and admire Suresh, both as an astute and conscientious administrator, and as a distinguished and accomplished molecular biologist. I too have valued his guidance, insight, and support, so like many of you, was sad to hear of his decision to step down from the EVC position at the end of the quarter. Following a much-deserved sabbatical, Suresh will return to his teaching and research in the Department of Biology.

Political scientist Peter Cowhey, dean of the School of Global Policy & Strategy, has been appointed as Interim EVC for Academic Affairs. It is by pure coincidence that we chose this issue of Faculty File to feature Dean Cowhey, who—like Suresh—has a long history with the university, as well as an impressive track record of scholarly and policy accomplishments, dating back to his early days with the university, as one of the founding faculty members of the erstwhile School of International Relations & Pacific Studies, now GPS. Read more about Dean Cowhey in our Q&A feature.

As some of you may know, on May 3 we held a grand opening for our new café, Audrey’s, now serving certified organic coffee and tea, among other things. Hundreds of students and other members of the campus and surrounding communities joined us for a celebration that included Chancellor Khosla, EVC Subramani, and other campus representatives, including the current and newly elected AS presidents. I encourage you to visit Audrey’s in the near future, if you haven’t already.

Over the last few years, the Library has been actively recruiting and hiring a number of talented librarians and other professionals. One of those librarians is Tim Dennis, who joined the Library last year after 16 years at UC Berkeley, where he helped launch and manage the UC Berkeley Library Data Lab. In just one short year, he has made notable progress in building our Library’s data-intensive research services, including specialized training with data science tools. See the feature in this issue to learn more about Tim Dennis’s work.

With Best Regards,

Brian E. C. Schottlaender
The Audrey Geisel University Librarian

Data Services Librarian Tim Dennis Leads Library Efforts to Expand Data Training for Campus Researchers

“Researchers need to do text mining, network analysis, or big data in their research, but they don’t often know how to code in R or Python. This typically forces early career researchers to learn how to code on the fly, outside of their research and instructional responsibilities.”

“Since arriving at UC San Diego, I’ve had recurring encounters with researchers and faculty that clarified this need for training,” said Dennis. “They need to do text mining, network analysis, or use big data techniques in their research, but they don’t often know how to code in R or Python. This typically forces early career researchers to learn how to code on the fly, outside of their research and instructional responsibilities.”

In that role, he provided a variety of research data support services to nearly 1,400 patrons a year, including research design, statistical tool instruction, data discovery, management, and analysis.

At UC San Diego, he is collaborating with the Library’s Research Data Curation (RDC) team in offering these same types of services, but he and his RDC colleagues are also meeting a critical need for more foundational training in data science as well. Students, faculty, and other researchers need to learn how to code to reach their research goals.

Tim Dennis is a data services librarian who was recruited by the Library last year to help meet the growing need for data-intensive research support and data sciences training for students, faculty, and other campus researchers. A member of the Library’s Reference & Research Advisory Services Program, Dennis joined the Library team in April 2015, after a 16-year stint at the UC Berkeley Library, where he helped launch and manage its Data Lab.
The Digital Media Lab (DML) which opened its doors in Geisel Library to faculty, students, and other researchers in fall 2015, has already become an important campus resource supporting the creation of 3D models. 3D modeling is a powerful communications tool, bridging a multitude of academic disciplines in the humanities, arts, and sciences. It can be used to visualize information, design and fabricate custom parts and sculptures, and offers modes for exploring and interacting with artifacts and environments, in ways that were previously not available.

While the means to create digital models have become easily accessible to the average user, the expertise needed to fully exploit the technology remains scarce. Fortunately for campus researchers and other users, DML technology staff have this expertise. DML manager Scott McAvoy and his team recently began offering one-on-one consultations on 3D modeling for faculty and researchers, assisting faculty, students, and other members of the campus community with a wide range of projects.

"Since we opened last fall, we have completed a little over 100 unique consultations," said McAvoy. "Our deliverables have ranged from custom microscope parts and musical instruments, to anatomical models and Mayan artifact replicas."

The DML offers the campus community free access and support for 3D printing and other in-demand technologies, housing a number of high-performing computers, including three desktop 3D printers and a large Wacom Cintiq drawing tablet. All machines are loaded with Adobe Creative Cloud and various industry standard video editing and 3D modeling software. This summer, according to McAvoy, the DML will be expanding its services to include virtual reality and augmented reality equipment, including HTC Vive and Oculus Rift headsets, along with cameras having the capability to record 360 degree video.

To learn more about the Library’s Digital Media Lab, visit: library.ucsd.edu/dml.

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"It was clear that the campus demand for
BECOMING VALUABLE RESOURCE FOR 3D MODELING
Library’s Digital Media Lab

Peter Cowhey
Dean of Global Policy and Strategy

Q. The School of Global Policy and Strategy was founded as the Graduate School of International Relations and Pacific Studies in the late 1980s, when Japan was in its heyday. Obviously, the world has changed a lot since then. What factors precipitated the name change? How has the school’s mission changed?

A. We remain “Pacific focused.” We now have centers in China (with the largest number of China scholars on the faculty of any school in the U.S.), Mexico, Japan, and Korea. In the 21st century, a mastery of the Pacific is essential and allows for a keener starting point to understand this pivotal region in global dynamics, just as a mastery of the Atlantic was in the 20th century. Our faculty research and teaching emphasizes strong, data-driven problem-solving that blends traditional international relations with a more analytical approach to public policy and the evolving roles of markets and civil society. Thus, the new name is the School of Global Policy and Strategy. Our motto is: “Solution driven. Pacific focused. Global results.”

Q. How important are cross-campus collaborations for Global Policy and Strategy students? Are there academic collaborations that have worked especially well for the school?

A. Our research centers embody these collaborations. The Policy Design and Evaluation Lab is a core research facility for faculty in GPS, economics, political science, and several other disciplines. It supports new ways of thinking about policy interventions for poverty reduction, public health, and conflict management in every country, and then establishes rigorous empirical evaluations to gauge the success of these initiatives.

Our 21st Century China Program supports outstanding scholars in a wide range of disciplines, from history through sociology and political science, in addition to GPS faculty. It has created a major partnership between UC San Diego and Fudan University—one of China’s best—because of our breadth and depth.

Next fall, the Jacobs School of Engineering and GPS will debut a joint research project on deep decarbonization, to mitigate the carbon impact of those parts of the global energy system that will remain more carbon intensive by combining innovative engineering with deep policy analysis of the economic and political conditions influencing the energy system. We will also continue to work closely with Scripps Institution of Oceanography on climate and environmental policy.

Q. Your policy expertise runs the gamut from international trade and corporate strategy to information technology and cybersecurity. What are you currently working on?

A. I have co-authored a new book called Digital DNA, which examines changes in the world’s innovation system and asks how global economic policy can adapt to best respond to these changes. The book features proposals for coordinating national policies on cybersecurity and digital privacy. For example, finding the right policy framework for the use of big data to spur innovation is essential.

The analysis draws on my years of work as a scholar and my experience serving in economic policy roles in two presidential administrations. This experience helps me to address the “valley of death” that has to be navigated between interesting academic insights, and the realm of feasible global policy choices.

Q. A lot has changed in the library world, both in terms of how we provide resources and services and how faculty, students, and others utilize them. How do you utilize the Library for your research or teaching now?

A. Virtually everything is digital, whether in my research or materials assigned to my graduate students. Working papers, rather than polished journal articles, matter more than in the past due to the rapid research cycles that have emerged in the past 20 years. Specialized data are much more accessible and available than when I began my career. But my secret vice is this: I still buy paper versions of the key scholarly books for my research. I love to annotate in the margins and flip the pages to see my notes—it is still faster and more aesthetically pleasing than the digital counterparts.
UC Press recently launched Luminos, an Open Access (OA) scholarly monographs publishing program. Luminos titles are published in both digital and traditional formats and undergo the same rigorous selection and peer review processes as do all UC press books. The traditional print copies are available for purchase, review copies, and other publicity such as conference booths. While both versions are identical in content and layout, the digital editions can also include live links and interactive multimedia such as audio, video, or maps. The digital editions of all Luminos-published titles are available free of charge to anyone in the world, which makes them widely accessible to readers, regardless of their home institution’s library budget, and ideal for assigned course readings in the age of prohibitively high textbook prices.

UC San Diego Anthropologist Nancy Postero, whose book The Indigenous State: Race, Politics, and Performance in Plurinational Bolivia is currently under review, says: “I am excited about publishing with Luminos because it means my book will be available for free to all the people with whom I collaborate in Bolivia. The one thing my colleagues in the Global South have emphasized that we can do for them is to make our scholarship available to them. I see this as an ethical response aimed at addressing—if only slightly—the injustices in the global politics of knowledge.”

In the OA model, publishing costs are shifted from the final product’s readers to the content creators. In this case, the author and UC Press. Authors are not paid royalties, as any revenue from print sales helps offset the costs of the OA digital editions. UC Press calculates the cost of OA monograph publishing at approximately $15,000; the author’s contribution for faculty, books based on UC dissertations, and books published in series where the editor is a UC faculty member, is $5,000.

To support this venture, the Library will cover the (full) author fee of $5,000 for UC San Diego authors’ accepted books. Both Postero and another faculty author have already submitted manuscripts to Luminos for review.

For more information, contact Annelise Sklar, the Social Sciences Collection Coordinator, at asklar@ucsd.edu.

View faculty file online: library.ucsd.edu/about/pubs
data training would soon outstrip the Library’s ability to meet the need,” said Dennis. “We were limited in our capability to provide more frequent instructional workshops on computational tools.”

To address this challenge, the Library will become a partner of the Software Carpentry Foundation, which will allow the campus to draw on a larger instructor pool and provide more discipline-specific instruction. Dennis and Library colleagues Reid Otsuji and Juliane Schneider are now certified as Software and Data Carpentry instructors, and will teach upcoming workshops.

“Our partnership also lets us identify candidates for future instructor training,” said Dennis, who proposed that the Library become a member. “This will allow us to increase the number of instructors on campus. We are eager to continue to grow the Software Carpentry footprint at UC San Diego, and are very interested in more partnerships with campus departments and school.”

For more information about data training workshops and customized offerings, please contact Tim Dennis and the Library RDC team at data-consult@ucsd.edu.

**Q.** Recently, our data services and research data curation librarians have worked with Global Policy and Strategy staff to provide data science training to your students. How do you see services like this complementing your academic programs?

**A.** We have been expanding the training of our students in a number of technical areas, such as statistical policy analysis, spatial mapping and remote sensing, and big data analytics for business applications. As a result, our students are exposed to an ever-expanding number of software packages, increasing their fluency in coding and data organization to the extent that they’ve become central skills. We have benefitted tremendously from our association with the data curation librarians, particularly Tim Dennis, who designed and taught a quarter-long certification course at GPS, which covered the use of the R package, Python, and a set of data carpentry and curation skills based around SQL. There was tremendous demand from GPS students for this training. Enrollment was capped at 60 and the course quickly became over-subscribed. We are now looking to solidify the Library/GPS relationship to provide these training services for our students over the long haul.

We have also benefited through our Policy Design and Evaluation Lab, which has received a grant from the university’s Integrated Digital Infrastructure initiative to promote data transparency. This will enable us to hire graduate students to work with faculty to prepare and publish data sets and put them into the public domain through the Library’s research data curation and hosting services.

**Q.** What book or books are currently on your nightstand? Do you recommend them and if so, why?

**A.** The stack—physical and digital—is way too large. Among those I have just finished or am reading concurrently are several that reflect some of my recurrent interests, outside of pure works of scholarship. Travis Sawchik’s *Big Data Baseball* is a great successor to *Moneyball*. Its prose is less elegant, but it is a deeper analysis of the reasons why organizations embrace or resist changes, driven by new data. And, it’s about baseball, my favorite sport. Ron Chernow’s *House of Morgan* is loaded with important insights into the business strategies, economics, and politics associated with the emergence of the U.S. as the leader of world finance. Greg Herken’s *The Georgetown Set* is the opposite of the Morgan book. It is a gossip-laden history of the creation of the post-1945 foreign policy establishment. It is not as deep as Isaacson and Thomas’s *The Wise Men*, but it’s a really interesting take on George Kennan’s role in the rise of the CIA.

**Your feedback on faculty file is welcome**

Please send your comments and suggestions to: Dolores Davies, editor ddavies@ucsd.edu or 858.534.0667