

EPIDEMICS and the LIBRARIES: Researching Responses to Emerging Diseases

In a graduate class known as *Epidemics in History*, David Barnes and his students examine the demographic, social, political, and cultural impact of public health threats from the 14th to the 21st centuries. They also scrutinize the ways in which contemporary diseases become identified as possible pandemics, and the concomitant policy responses, public concern, and actions taken to quell the perceived threats to public health.

For the final assignment, called *Threat and Response*, groups of students assess the real and perceived danger of what have become known as emerging diseases, such as Ebola, West Nile Virus, avian flu, H1N1, and “mad cow disease,” each of which has been depicted at some point over the past 30 years as the next great threat to public health. Providing some background for why he developed the assignment, Barnes points to a recent upsurge of media attention to emerging diseases, in part supported by an untested set of assumptions about their potential impact. “The ostensible plotline is: we thought we had conquered infectious diseases, but now Mother Nature is wreaking her revenge for our hubris, our environmental encroachment, or whatever sins we committed, and is unleashing new diseases to decimate society.”

Wittingly or not, this unsupported premise enters the public sphere when television and news media broadcast the opinions of self-identified medical experts and pundits, who cast the discovery of an unknown disease as the advent of the next great plague. But, according to Barnes, there is a lack of accountability for the accuracy of the information being broadcast, and a tendency to allow the same pundits to prognosticate on new issues, despite a track record of errors and exaggerations. “When I watch baseball,” he says, “I get to see the batter’s average every time he comes up to the plate. But when a pundit is on TV, I don’t get to see that this person is always wrong.”

Ultimately, Barnes aims to develop an index to evaluate the success rate of pundits—a sort of *punditcheck.org*. Realizing that this would be an incremental process, he started with the big picture. “I had this vision of the assignment and the benefits that it might provide, and how it might look,” says Barnes. “But it didn’t always include the mechanics of how to produce a particular outcome.” So Barnes consulted WIC Director, Anu Vedantham. “Once I had the vision, the first thing I did was go to Anu, who has become my indispensable advisor for all kinds of issues. I don’t know what I ever did before she got here.” In consultation with Vedantham, Barnes developed strategies to help students meet the challenges of this complex assignment. First, students would comb through news media and medical journal coverage for a period of thirty years to determine the amount of attention being paid and by whom to each disease. Then they would map the available data about the reported inci-



David Barnes, Associate Professor in History and Sociology of Science and Director of the Health and Societies Program

dents and deaths per capita. From there, students would cull their findings to see what predictions pundits made based on the information available at the time, and what factors shaped policy and popular responses to each disease.

“It was really a major team effort,” says Barnes, alluding to the need for students to combine library research, technology and presentation skills, and writing for one assignment. To start, the students tapped the expertise of reference librarians for help accessing resources. In a course that meets once a week, Barnes took pains to set aside two class sessions for research workshops, conducted by Van Pelt Reference Librarian, Nick Okrent, and Biomedical Reference Librarian, Melanie Cedrone. Meeting in Van Pelt’s Goldstein Electronic Classroom, the class started mining the Libraries’ resources. “Nick and Melanie have been our gurus for news media and biomedical databases,” Barnes says. “We just rolled up our sleeves, and dealt very pragmatically with search terms and strategies. I think ... [the assignment] would have been unworkable if we hadn’t done that.”

Barnes cites David Toccafondi (C’95), Vitale Digital Media Lab Coordinator, as being instrumental in helping students use PowerPoint to create posters to display their findings graphically. “Posters are common currency in biomedicine and the sciences,” Barnes says, “but to me they were foreign. You might as well ask me to present my research in the form of iambic pentameter, or abstract expressionist art. Thanks in part to the workshops...at Weigle, I’ve realized that posters are an important medium for communication.” But communicating in a borrowed medium requires skill to translate data effectively. For various assignments, Barnes relies on CWiC undergraduate advisors to help his students present their findings, because, as he says, “You can have great material, but if you present it poorly, your great material has been wasted.”

The *Threat and Response* posters, presentations, and papers examined American responses to a wide range of health threats since 1990, and recommended various ways of negotiating a path between complacency and panic when confronted with a new disease or potential epidemic. The “pundit battling average” project will take more comprehensive research over a long period of time, but Barnes sees immediate value in the skills the students gained during the assignment. “It definitely challenged them to exercise new academic muscles,” he says, “and it wouldn’t have been possible without the Libraries’ resources and staff.”



David Toccafondi, Coordinator of Services, Vitale Digital Media Lab

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TECHNOLOGY, TEACHING, LEARNING, AND THE LIBRARIES

Looking around the Libraries, it’s easy to see how fully technology has pervaded many aspects of students’ lives. Smart phones dot tabletops everywhere, and laptops sit alongside desktops, supplementing access to the Internet and an array of software. Of course, students are checking in on Facebook, tweeting, and texting friends. But, in collaboration with faculty and staff at the Penn Libraries, students are also learning to use a wide range of technologies to access information, synthesize their findings, and develop creative and engaging presentations to showcase their work.



Building on Success

The Weigle Information Commons exemplifies an integrated approach to meeting the research and information needs of the 21st-century scholar. The Penn Libraries plan to build on this success, incorporating media labs and collaborative learning spaces in renovations to the Biomedical Library and the Library of the School of Engineering and Applied Science. And in an instance of past and future worlds colliding, plans for the new Special Collections Center, for which the Libraries recently received an anonymous gift of \$4.25 million from a member of our Board of Overseers, include a Media Laboratory. Here students, faculty, and researchers will apply the latest technology to the study of Penn’s oldest and rarest print resources, and enhance their examination of the extensive collections of digitized materials created by the Libraries’ Schoenberg Center for Electronic Text and Image. Each of these projects will include technology-rich study spaces for faculty, students, and staff to engage with the Libraries’ print and digital resources, and to experiment with emerging technologies.



Students work collaboratively in WIC’s data diner booths.

the Writing Center, support every aspect of student projects, making WIC a go-to destination to work individually or in groups, get help with software, and polish writing and presentation skills.

WIC is also a place for faculty, researchers, instructors, and staff throughout Penn to meet and learn from each other, consult software and hardware experts and information professionals, and develop ways to evaluate and experiment with technology. This happens by chance when, for example, two colleagues from opposite ends of campus sit next to each other in a WICshop and discover that they share research interests, and develop a plan to keep each other informed of their tech successes. It also happens by design, as it did in September of 2009, with our symposium, *Engaging Students Through Technology*, where six faculty members shared technology ideas and experiences with 85 of their peers.

Ultimately, WIC is a crossroads where students, faculty, and staff work side-by-side, incorporating technology into their assignments, teaching, and research. This issue of *Ivy Leaves* highlights some of the ways in which faculty and students are using the resources of the Penn Libraries to integrate technology into their work, and in the process, strengthen research skills, foster creativity and student engagement in assignments, and share results with audiences beyond the classroom.



TECHNO-GOGY in URBAN STUDIES and SOCIAL POLICY & PRACTICE

Andy Lamas and his students are regulars in the Weigle Information Commons and Vitale Digital Media Lab. Working closely with staff there, Lamas has designed assignments that bring students beyond the term paper, and make their original research accessible to broader audiences. His students have made posters that might hang in a bus kiosk or Amtrak platform to explain complex concepts in urban studies and social policy to rush-hour crowds, created digital video documentaries that transform the results of library and field research into informative, engaging visual publications, and even authored and illustrated comic books that explain the intricacies of Hegel's master/slave dialectic.

To cite just a few examples of his students' work, Megha Patel (SW'08) combined demographic and socio-economic Census data with video she shot from the car while her father drove through two communities in Chester County, PA. "Megha did a video collage of contrasting visual images while presenting her data," says Lamas. "She brought the quantitative data alive through her 'drive-by' documentary work, and it had a profound impact on the class when she showed it." Another of Lamas' students focused on emerging interpretations of private versus public development in an eminent domain case in a New Jersey community. Recording video interviews with residents and city officials, Elizabeth Pelly (SW'08) presented what Lamas calls a "full 360 degree view of what eminent domain is in this community." In the summer after her freshman year, Julia Luscombe (C'10, W'10) was awarded one of the Provost's Undergraduate Research Mentoring (PURM) fellowships to work with Lamas on his global economy research, and she has been working with him for the past three years to make documentary films of alternative currency systems around the U.S. and in Korea, Japan, and Argentina. Another of Lamas' students, Jody Pollock (C'10), won a Seltzer Family Digital Media Award – made possible by a generous gift from Libraries Overseer, Jeff Seltzer (W'78, PAR'09), and his wife, Annie (PAR'09) – to make a documentary film about the complicated motivations, ideas, plans, and reflections of Penn students volunteering on a service project in Guatemala during the summer of 2008. "Jody and Julia's films are so good that they have been shown in classrooms in Wharton and in the College and at academic conferences in this country and abroad," Lamas notes.

In his *Religion, Social Justice, and Urban Development* class, Lamas noticed that one of his students, Lauren Hansen-Flaschen (G'12), seemed particularly moved by a film about the effects of microfinance on one family's life in Bangladesh. "When Lauren asked, 'How do you think they are doing today, now that ten years have passed since that documentary was made?' I suggested that she go and find out, *and she did!*" says Lamas. After spending several months filming in the family's rural Bangladeshi village, she returned to the Vitale Digital Media Lab to edit her sequel to the

Andy Lamas (L'81),

Faculty in the School of Arts and Sciences' Urban Studies Department and in the School of Social Policy & Practice (SP2)



original documentary. A portion of Lauren's new film debuted at Civic House's Anti-Poverty Week 2009 events. Lamas says that "her film is a triumph and a very worthy sequel to the original documentary. In the years ahead, these two films will be shown alongside one another in many college classrooms because they afford a rare, ethnographic record of the complex effects of micro-finance on one family across more than a decade." Lauren now plans to pursue a PhD in visual anthropology and to continue making documentary films.

The introduction of digital media is transforming not only his students' work-products, but also the way in which Lamas teaches. "In my classes, I now feel like I'm co-teaching, and my partners are library staff, other faculty colleagues, members of the public with specialized knowledge and experience, and my amazing students," Lamas explains. "We've decentered the classroom and raised expectations about what can be accomplished. While we challenge each other to learn new skills, our ultimate purpose is to do the liberal arts in a way that is theoretically rich, critically aware, socially useful, and personally meaningful."

Lamas is quick to point out that, while students are learning to use new technology to create, package, and present their work, they must also master the old school skills of reading academic literature and writing papers. "We're not substituting one method for another. We're piling on new methods—expanding our repertoires of representation and analysis. This often means even more work for the students; but, at the end of the day, I hope that together we've created memorable educational experiences, and the students have learned analytical and technical skills for later use in their academic and professional work, and their civic lives beyond Penn."

The enthusiasm that Lamas has for creating new modes of teaching with technology frequently extends beyond his work with students. After learning of Lamas' project using Google Maps to document Philadelphia landmarks funded by the New Deal, Carol Muller, Professor of Music, adopted the same technology with her students to map the diaspora of African music traditions. Anna Cremaldi (Gr'13), a doctoral student in Philosophy, cites Lamas as being influential in her adoption of video in her course on environmental ethics. And thanks to Lamas' networking, WIC Director, Anu Vedantham met SP2 doctoral student Kristie Thomas (SW'05, SWP'10), who is now writing an article that includes examples from the WIC about how technology has changed her pedagogical practices. Thomas is also coordinating a symposium to acquaint her fellow graduate students across campus with the ways in which they can use video in the classes they are teaching.

LEGAL ADVOCACY VIA DIGITAL MEDIA

Regina Austin opened the 2009 Penn Law Visual Legal Advocacy Roundtable with a simple, rhetorical question: what is visual legal advocacy? "Well," she offered candidly, "we made it up." Austin, whose work was featured in the Fall 2009 issue of *Documentary*, the International Documentary Association's magazine (documentary.org), went on to explain that visual legal advocacy, a blend of legal scholarship and digital technology that she is championing at Penn, is a means by which lawyers use visual media to make arguments for their clients, advocate for social justice, and raise awareness of complex legal issues among a variety of audiences.

A multimedia faculty development module about Austin and her Visual Legal Advocacy class, produced by staff in the Vitale Digital Media Lab, highlights the benefits of film-making for law students. The module (<http://wic.library.upenn.edu/elixr.html>) is part of Penn Libraries' *Nurturing Student Creativity through Video Projects*, grant-funded by MERLOT ELIXR. According to Austin's student, Nathan Vogel (L'11), whose documentary focuses on a community in South Ardmore, PA, film-making has been a creative learning experience, which got him thinking



Vitale Digital Media Lab Consultant Jesse Turnbull [right] assists a student with his video project.

about the law as more than a "cut and dry subject in many ways, [and now] in a way that's emotionally engaging... It's a ... very different challenge from the kind... that I spend most of my time in law school working on... That nexus between law and art is something that I'm very interested in."

Since 2004, Austin has been teaching classes that integrate documentary films, film-making, and the law. From the beginning, Merle Slyhoff, Biddle Law Library's Collection Development Librarian, has been instrumental in finding visual and print resources to support the original research that students are doing to contextualize the topics of their documentaries. Training and assistance in how to use camera and sound recording equipment and editing software are provided by Neal Swisher (LPS'10), IT Support Manager for Penn Law's Information Technology Services, who runs the school's Digital



Regina Austin (L'73),
William A. Schnader Professor of Law and
Founding Director of the Penn Program on
Documentaries and the Law

Media Lab. Professional videographer, Rebecca Scotland, helps students strengthen their skills in conducting interviews, lighting and composing scenes, developing scripts, and recording audio. She also shoots interviews under the students' direction. And then Austin's students attend customized training sessions at the Vitale Digital Media Lab, where Lab Consultant, Jesse Turnbull, provides four hours of training in Final Cut Pro video editing software, with a guarantee of one-on-one follow-up at any time throughout the course of their projects.

Thanks in part to the affordability of digital video equipment and software, and the availability of expertise at Penn Law and in the Penn Libraries, Austin has been able to help her students not only direct, but also produce their own short films about real life legal issues. A selection of these documentaries is available through Penn's iTunesU site (<http://www.upenn.edu/cgi-bin/itunes/itunes>), and on the Penn Program on Documentaries and the Law homepage (<http://www.law.upenn.edu/academics/institutes/documentaries/>). These films demonstrate at once the profound, immediate impact of the law on people's lives, and the benefit of conveying complicated but necessary information in such an accessible format. Austin's students have taken on issues such as the practice of sentencing juveniles to life in prison without the possibility of parole, the nefarious role that some Spanish-speaking notaries public play in the immigration process, and the hardships of limited access to Supplemental Security Income (SSI) benefits for elderly and/or disabled refugees and asylees in the U.S., as illustrated by story of Shmul Kaplan. Before seeking asylum in the U.S., Kaplan escaped Nazi persecution in Ukraine, suffered a serious injury which necessitated the amputation of his right leg, and earned a PhD in Kazakhstan. Bureaucratic delays in processing applications for naturalization and an arbitrary legislative cut-off resulted in the termination of Kaplan's SSI benefits. The film, which was directed by Michael Wong (L'09) and Margaret Tong (L'08), documents a David v. Goliath story of the class action suit that Kaplan brought in 2006 against Michael Chertoff, the Secretary of Homeland Security. The film will be shown at the 2010 Philadelphia Jewish Film Festival, a testament both to the power of Kaplan's story, and to the efforts of the law student/filmmakers who told it so compellingly.

In addition to gaining valuable technical and communication skills, and learning how to edit a story, add transitions, subtitles, and a soundtrack to enhance the impact of the message, documentary film-making deepens students' understandings of the law in real-life contexts, reinforcing readings and classwork, and adding an element of creativity to students' work. At the same time, the medium of video opens up the process of legal scholarship to audiences beyond academia.

TEXTBOOK 2.0

Over the years that Linda Chance has been teaching her survey course on Japanese history and civilization, she has cycled through several textbooks, finding none particularly outstanding. The challenge is identifying a single text to adequately cover the scope of the course—"from the Paleolithic era to yesterday," according to Chance's understatement. "The survey texts are very loose, very broad, and fairly boring, because what can you say about a three hundred year historical period in fifteen pages [of a textbook]? It can be very painful reading," says Chance. "I've tried six different textbooks, but students always complained... So I decided that I would use wiki technology to replace the textbook."

Chance got the idea of using a wiki workspace—essentially a simplified interface for creating and sharing content on the Web—from her colleague, Ed Dixon (Gr'94, CGS'06), Lecturer in German Language and Culture and Technology Director for the Penn Language Center. Dixon uses wikis in his intermediate German language class. "I could see that ... [what Ed's students] were doing was way beyond what intermediate students would normally produce," Chance says. "That gave me the idea that the student engagement level might be really different with the wiki."

So, in addition to their mid-term and final exams, and a final paper, students worked in teams to write a chapter of the textbook for the class, using the wiki utility in Blackboard, course management software administered University-wide by the Penn Libraries. The students were also responsible for reading and providing feedback on each other's work. The teams met with Chance to discuss strategies, and get some instruction on selecting sources of



Linda Chance,
Associate Professor of Japanese Language
and Literature

information. "I introduced them to the notion that some of the things out there, particularly on popular subjects like the Samurai, are going to be authored by 14 year olds," Chance says with a smile. From there, "...the students would meet with each other virtually, or together over in the Weigle Information Commons," says Chance, "and figure out how they were going to approach putting together a kind of introduction to their historical period."

Chance used the Libraries' Blackboard service not only as the workspace for the class to write their own textbook, but also as a means to manage the assignment, monitoring students' progress, offering comments along the way, and enforcing due dates by setting access permissions provided by the course software.

The results, which included summary texts, illustrations, citations, and links to academic content on the web, videos, and maps, were such a success that Chance decided to adopt the Blackboard wiki for her class in comparative literature. The course had been what Chance calls a "standard read and discuss literature class," where the professor introduces the material, and leads a discussion. Dividing the course content among students grouped in twos, and getting them to present the material using the Blackboard wiki, "...really gave the content to them," Chance notes, adding that students went far beyond the expectations of the assignment. "I had to tell them: this is enough," Chance says, noting her students' enthusiasm. "Your presentation should last thirty minutes and not longer."

Hoesley Digital Literacy Fellows Program

A generous gift from Libraries Overseer, Jim Hoesley (PAR'07, PAR'08), and his wife, Sandee (PAR'07, PAR'08), will help undergraduates develop their facility with technologies commonly used in the workplace. As many as 15 undergraduates will attend hands-on workshops covering a variety of tech topics, ranging from graphic and Web design to visual literacy, Excel, PowerPoint, and collaboration software. Students will meet with library staff in September 2010 to plan out personalized programs, and will have opportunities to delve deeper into technologies particularly relevant to their career interests.

The program, which is co-sponsored by the Libraries, the School of Arts and Sciences, the Center for Undergraduate Research and Fellowships (CURF), and Career Services, will begin in September, 2010.

