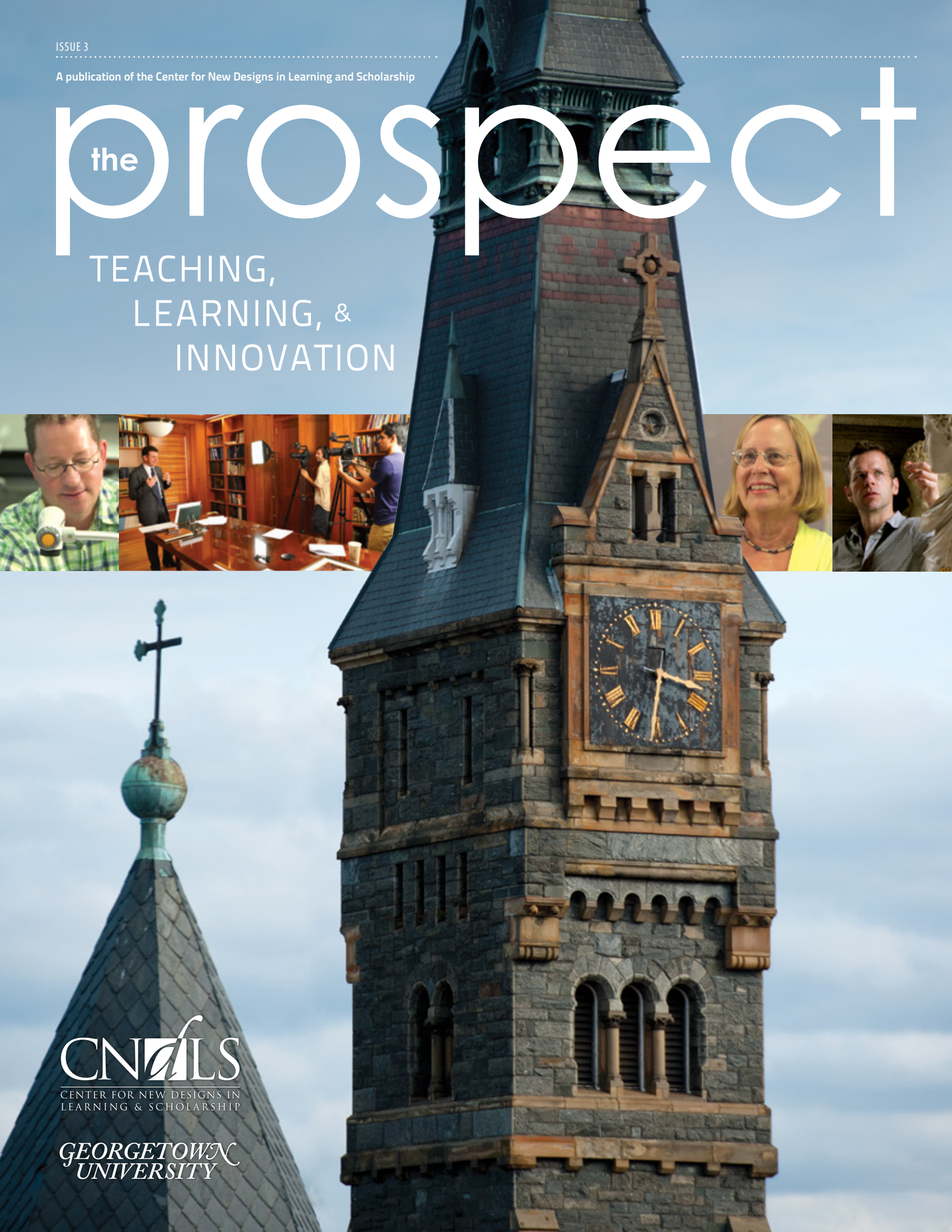


ISSUE 3

A publication of the Center for New Designs in Learning and Scholarship

the prospect

TEACHING,
LEARNING, &
INNOVATION



CNLS
CENTER FOR NEW DESIGNS IN
LEARNING & SCHOLARSHIP

GEORGETOWN
UNIVERSITY

INITIATIVE ON TECHNOLOGY-ENHANCED LEARNING (ITEL)

FUNDING CYCLE

2

We are pleased to announce the **second call for ITEL proposals**. Faculty are invited to apply for one of three tracks: a cohort track for collaborative inquiry, an open track for investigating a specific teaching and learning or curricular question, and a MOOC track for producing a GeorgetownX course.

COHORT TRACK

We invite individuals and department teams to apply to join one of three cohorts that will each explore a particular approach to designing course models to take advantage of new technologies for learning. More information about the theme of each cohort is available on the ITEL website.

OPEN TRACK

We invite individuals, faculty teams, or departments to apply to design and implement a technology-focused pedagogical project.

MOOC TRACK

We invite teams to propose a GeorgetownX course for development in 2013-14 and implementation in the 2014-15 academic year.

Applications are due **October 31, 2013**.
Award announcements will be made in November.

To apply, please visit
ITEL.GEORGETOWN.EDU

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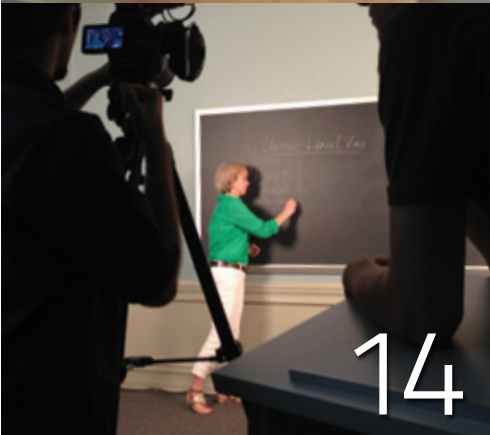


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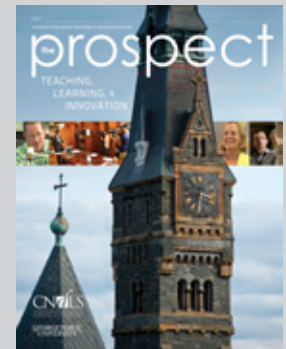
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the prospect

We're pleased to present this issue of **The Prospect**, a CNDLS publication designed to highlight innovative teaching practice at Georgetown. This third issue captures the creative energy that has characterized the past few months as ITEL awardees across campus have begun designing, developing, and implementing the inaugural round of ITEL projects. We also invite you to explore our website (cndls.georgetown.edu), where you can learn more about our mission, major projects, and services for teaching and learning. If you missed the first and second issues, you can find them at cndls.georgetown.edu/publications/.



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Since 2000, the Center for New Designs in Learning and Scholarship (CNDLS) has supported faculty and graduate students with tools, resources, and opportunities for new learning environments. We began with a mission to bridge a historic gulf between pedagogy and technological advances, and today CNDLS integrates a teaching and learning center with the latest educational technology. Our team of experienced educators facilitates a broad-based program that promotes discovery, engagement, and diversity in an ever-expanding conception of learning.

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LETTER FROM THE EXECUTIVE DIRECTOR

I am very happy to be able to present

to you the third issue of *The Prospect*, the semi-annual publication from the Center for New Designs in Learning and Scholarship (CNDLS).

After a very busy summer, we are excited to see the first round of projects funded by the Initiative on Technology-Enhanced Learning (ITEL) take off. This fall, more than 25 faculty teams from all three campuses are experimenting with new approaches to teaching, all with the goal of establishing exemplary models of technology-enhanced learning at Georgetown. In the following pages, you can learn about some of the innovative work happening around campus.

This issue of *The Prospect* also highlights GeorgetownX's first ever Massive Open Online Course (MOOC) developed in partnership with edX: *Globalization's Winners and Losers: Challenges for Developed and Developing Countries*, taught by Professor Ted Moran, the Marcus Wallenberg Chair in International Business and Finance at the School of Foreign Service. Professor Moran's course, launching October 1, marks Georgetown's entry into the global online teaching and learning space, and will be followed in 2014 with new courses in Bioethics, Genomics, and Terrorism/Counterterrorism.

As we implement the first round of ITEL projects and our first-ever GeorgetownX course, we are also looking ahead to expanding innovation in teaching and learning across campus by announcing a new round of ITEL grants to be awarded in November 2013. Please see itel.georgetown.edu for more information about the next call for project proposals.

On a more personal note, this issue of *The Prospect* also marks the transition of Randy Bass to the position of Vice Provost for Education. Randy served as Executive Director of CNDLS for the past 13 years, and his leadership has been instrumental in helping Georgetown University prepare for the challenges and opportunities facing higher education in the twenty-first century. While we are all sad to see Randy leave CNDLS, we are excited to work with him in his new role.

This is an exciting time for Georgetown University and for CNDLS, and we're looking forward to working with everyone on campus to help imagine the future of higher education here and beyond our walls.



Eddie Maloney
Acting Executive Director
CNDLS

Big Data Conference

On April 3, frequent CNDLS collaborator Betsy Sigman (MSB) convened students, educators, and industry representatives to facilitate discussion about how big data—or very large datasets—might benefit higher education.

Keynote speaker Vivek Kundra, the first CIO of the United States, explained how big data might be used to encourage government efficiency and promote civic engagement. He also outlined how big data has helped create global opportunities for entrepreneurs and boost employment numbers.

Provost Robert Groves moderated a panel on Big Data Education, which focused on preparing new generations in higher education to become users of big data. The participants offered insights about the reshaping of curricula and teaching practices, such as incorporating data analytics into every field and requiring students to take analytics literacy classes. Groves cited skepticism as an essential skill that should be taught to future data analysts: students of big data should learn to think critically about what statistics accurately represent.

TEACHING, LEARNING, & INNOVATION SUMMER INSTITUTE

More than 100 faculty and staff participated in CNDLS' annual Teaching, Learning, and Innovation Summer Institute (TLISI), which took place from May 20–23. Participants were invited to attend one of three different programs: Teaching and Learning with Technology, a symposium on Writing in the Disciplines, and a kick-off program for the year-long Doyle Faculty Fellowships.

The three programs of this year's summer institute provided faculty with tools and approaches for developing and achieving their teaching and learning goals. Participants in the three tracks came together for two plenary sessions: "The Role of Analytics" by Oded Meyer and "Learning, Innovation, and the Possible Futures of Georgetown" by Randy Bass.

Teaching and Learning with Technology

In the Teaching and Learning with Technology program, 80 participants dove into three days of preparing for Georgetown's technology-enhanced learning efforts. During the first half of each day, ITEL awardees and other interested faculty members explored issues such as evaluating learning goals, deploying technology inside and outside the classroom, and gathering evidence of learning. These conceptual discussions, facilitated by CNDLS staff and experienced faculty members, gave participants the groundwork for choosing specific technologies to explore in the second half of each day. Each afternoon, hands-on sessions offered participants the opportunity to practice using specific new learning technologies in small groups. This mix of large and small sessions gave participants both the conceptual framework and the practical experience to better design technology-enhanced learning projects.

"It was great to get an overview of the new technologies out there and to see a little of how to use them," said Mike Hull, Research Associate in the Department of Physics. "Seeing the different technologies contrasted with each other helped me think about what might work with our project."

Writing in the Disciplines Symposium

In the Writing in the Disciplines sessions, coordinated by the Writing Program, 18 faculty members from five different departments worked together for four days, developing plans to integrate writing into their departmental curricula. Teams discussed how their departments will address the recently approved Integrated Writing (IW) requirement, intended to strengthen the attention given to the specialized forms and contexts of writing within academic fields. “I really liked that it was action-oriented—we did not just sit around blowing hot air but we created plans for improving writing in our departments,” explained Maggie Baker, Assistant Professor of International Health. “Doing this together with other departments provided a rich environment within which to create such a plan, providing us with instant peer review and other ideas that we could incorporate into our planning.”

Doyle Faculty Fellowships

In the Doyle Faculty Fellows program, twelve faculty fellows from eight different departments began their year-long Doyle fellowships with four days of workshops. The central goal of the Doyle Program is to support Georgetown professors as they redesign courses to explicitly engage themes of difference and diversity in the classroom. TLISI workshops included reflections from a panel of former Doyle fellows on their experiences in the program, sessions on course design and the definition of student learning goals related to diversity, and a discussion about ways to engage issues of socio-economic class in coursework.

The varied experiences and disciplinary backgrounds of the faculty cohort made the week’s activities a productive forum for discussing strategies through which to engage difference in the classroom.

For the first time this year, the cohort includes returning Doyle fellows who are taking part in the program for a second time. Some will build on the Doyle work they started during a prior fellowship year, while others are drawing on their earlier Doyle experiences to try something new. Also new this year is a subset of faculty fellows who will be teaching Writing and Culture seminars, pilot courses in Georgetown’s Writing Initiatives that aim to incorporate engagement with difference as part

of the writing curriculum. The TLISI experience left fellows excited about what one participant deemed to be “lasting tools for course design and teaching” and “useful building blocks for my future professional development.” ■

CNDLS Videographer Ryan Walter demonstrates classroom uses of a document camera.



Attendees of the Teaching and Learning with Technology program learn about synchronous communication technologies.

DOYLE SYMPOSIUM

The annual Doyle Symposium fosters discussion among Georgetown alumni, students, faculty, and staff about diversity and difference on our campus, in our lives, and around the world.

The Doyle Symposium is a key component of the Doyle Engaging Difference Program, a university-wide initiative made possible by William J. Doyle (C'72) and co-directed by CNDLS and the Berkley Center for Religion, Peace, and World Affairs.

This year's symposium, held on February 14, convened several different panels to focus on how a liberal arts education might encourage and build upon engagement with difference and diversity. Specific topics for discussion included:

- How does an emphasis on engaging difference resonate with the Jesuit commitment to liberal education in our contemporary global era?
- How can new communications technologies, such as the Soliya Connect program used at Georgetown, deepen intercultural encounters in our global era?
- To what extent and how does time spent abroad during the junior year deepen a student's appreciation of cultural differences in a global context?

The panelists represented a wide variety of perspectives, including Doyle Faculty Fellows, current students who had spent their junior year studying abroad, and staff working in Student Affairs. ■

2013 DOYLE SYMPOSIUM PANELISTS:

Tom Banchoff
Berkley Center for Religion, Peace, and World Affairs

John O'Malley, SJ
Theology

Dennis Williams
Center for Multicultural Equity and Access

Randy Bass
CNDLS

Lucas Welch
Soliya

Shavonna Corbin-Johnson
SFS'14

Michael Kessler
Berkley Center for Religion, Peace, and World Affairs

Nicole Fleury
SFS'14

Audrey Wilson
SFS'14



For more information about the Doyle Program, please visit CNDLS.GEORGETOWN.EDU/DOYLE



ENGELHARD PROJECT HIGHLIGHTED AT WHITE HOUSE CONFERENCE

In June, President DeGioia spoke about the Engelhard Project at the National Conference on Mental Health.

On June 3, the White House held a conference on mental health to initiate a national conversation about mental health issues and the struggles and stigmas that attend them. At the invitation of President Obama and Vice President Biden, Georgetown President John J. DeGioia served on a panel titled “Ignite: Unlocking Innovative Campaigns” and spoke about Georgetown’s Engelhard Project for Connecting Life and Learning, which was founded in 2005 to create meaningful connections between faculty, students, and campus health professionals and to encourage the practice of *cura personalis*, or care for the person, while engaging in personal growth and learning.

Moderated by U.S. Secretary of Education Arne Duncan, the panel cited members’ applications of successful techniques to their respective outreach efforts. President DeGioia described how the Engelhard Project developed at Georgetown: “We simply developed a new context in which conversations about mental health could take place.” By integrating mental health topics into curricula from 225 courses, more than 60 faculty members and 30 health professionals have succeeded in reaching over 7,500 undergraduates on our campus. ■

For more information about the Engelhard Project, please visit
[CNDLS.GEORGETOWN.EDU/ENGELHARD](https://cndls.georgetown.edu/engelhard)



New Faculty Orientation

At the beginning of each academic year, CNDLS leads sessions on teaching to welcome new Georgetown faculty.

Approximately 25 new faculty members attended CNDLS’ introduction to teaching and learning at Georgetown during New Faculty Orientation in August.

CNDLS Acting Executive Director Eddie Maloney introduced the session with a description of CNDLS services and the larger context of our work. Georgetown faculty Betsi Stephen (SFS) and Sarah Stiles (Sociology) explained why they have chosen to work with CNDLS. Other elements included a discussion of principles of course design facilitated by John Rakestraw (Director of Curriculum, Assessment, and Pedagogical Practice), a consideration of the nature of expertise facilitated by Dedra Demaree (Learning Design and Research Specialist) and John Rakestraw, and smaller breakout sessions on writing assignments (facilitated by Sherry Linkon, Director of Writing Curriculum Initiatives), teaching to the whole person (facilitated by Mindy McWilliams, Assistant Director for Assessment), and using technologies in support of teaching (facilitated by Rob Pongsajapan, Assistant Director for Web Projects; Marie Selvanadin, Senior Software Engineer; and Eddie Maloney).

INITIATIVE ON TECHNOLOGY-ENHANCED LEARNING (ITEL) FUNDING CYCLE 1

More than 25 faculty teams, including the 23 local campus projects listed here, have begun implementing the first round of ITEL projects, which explore creative approaches to learning, including the redesign of large introductory courses and the development of cross-disciplinary learning environments. Propelled by a spirit of innovation and experimentation, these faculty projects will contribute valuable insights and replicable models of thoughtful teaching and learning in a technology-enhanced space.

The primary investigators are listed here; for more information on the ITEL projects and teams, please visit the project blogs at CNDLS.GEORGETOWN.EDU/PROJECTS/ITEL

IMPLEMENTATION GRANTS

**LING001—
INTRODUCTION
TO LANGUAGE**
LINGUISTICS
**Jeffrey
Connor-Linton**

**TOWARD A PARTIAL
HYBRID CURRICULUM
FOR SPANISH LOWER
LEVEL COURSES**
SPANISH AND PORTUGUESE
Ronald Leow

**FLIPPED
GRAMMAR PROJECT**
CENTER FOR
LANGUAGE EDUCATION
AND DEVELOPMENT
**Jennifer Lubkin &
Andrew Screen**



DEMONSTRATION GRANTS



**TANGIBLE &
EMBODIED
COMPUTING**
COMMUNICATION,
CULTURE, AND
TECHNOLOGY
Evan Barba

NATIONAL SECURITY CRISIS LAW
LAW CENTER
Laura Donohue

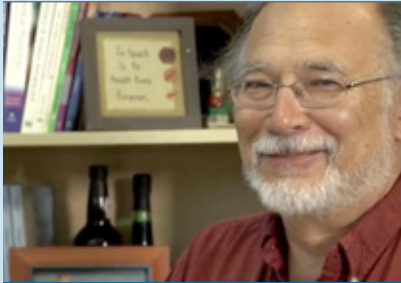
**HOW TECHNOLOGY CAN ENHANCE WRITING
INSTRUCTION AT GEORGETOWN**
ENGLISH | **Margaret Debelius**

**FLIPPING (PARTS OF) THE PUBLIC
FINANCE CLASSROOM**
GEORGETOWN PUBLIC POLICY INSTITUTE
Nora Gordon



**USE OF TABLET
COMPUTER IN LARGE
LECTURE CLASSROOM**
ECONOMICS
Arik Levinson

TRANSFORMATION GRANT



MULTIFUNCTIONAL, SCALABLE APPLICATION OF EDUCATIONAL TECHNOLOGY TO THE TEACHING OF A CORE HEALTH SCIENCES DISCIPLINE

PHARMACOLOGY & PHYSIOLOGY
Adam Myers

PILOT PROJECTS



MUSIC AND PUBLIC POLICY IN THE AGE OF MODERN MEDIA

PERFORMING ARTS
Anna Celenza



WEB-BASED COMPUTER SIMULATION EXERCISES FOR THE STUDY OF EVOLUTIONARY GENETICS

BIOLOGY
Matthew Hamilton

USING TECHNOLOGY TO ENHANCE TEACHING IN PHYSICIAN-PATIENT COMMUNICATION

PSYCHIATRY | Stacey Kaltman

ELECTRONIC TESTING TO ENHANCE LEARNING IN THE SCHOOL OF MEDICINE

BIOCHEMISTRY AND MOLECULAR AND CELLULAR BIOLOGY
Dean Rosenthal

ONLINE CERTIFICATE IN INTERNATIONAL MIGRATION STUDIES

SCHOOL OF FOREIGN SERVICE
Susan Martin



USING THE OLI PLATFORM TO DEVELOP ONLINE MATERIALS TO SUPPORT TEACHING QUANTITATIVE METHODS (STATISTICS) IN INTERNATIONAL POLITICS

SCHOOL OF FOREIGN SERVICE
Parina Patel & Oded Meyer

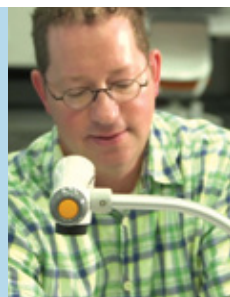


THE EVIDENCE GAME

LAW CENTER
Tanina Rostain

IMPROVING COMPUTER SCIENCE 1

COMPUTER SCIENCE
Clay Shields & Mark Maloof



DIGITAL ROME

HISTORY / CLASSICS
Tommaso Astarita & Josiah Osgood

HOW TECHNOLOGY CAN ENHANCE WRITING INSTRUCTION

ENGLISH | Sherry Linkon

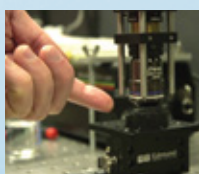
BLENDING AN UPPER-DIVISION GERMAN COURSE

GERMAN | Peter Pfeiffer



MIND THE GAP

SCHOOL OF FOREIGN SERVICE
Elizabeth Stephen



FILLING THE GAPS

PHYSICS
Edward Van Keuren

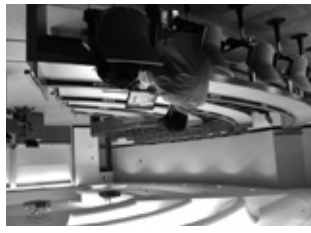
USING AN E-LEARNING AUTHORING TOOL FOR DEVELOPING SELF-DIRECTED LEARNING MODULES

SCHOOL OF MEDICINE | Taeyeol Park



ITEL THEMATIC SPOTLIGHT

FLIPPING THE CLASSROOM



Clockwise, from top: Kaitlyn Tagarelli, Daniel Ginsberg, & Laura Siebecker (Linguistics); Mark Maloof; Nora Gordon; Clay Shields

“Flipping the classroom,” the strategy of shifting particular activities from inside to outside the classroom, was a persistent theme in the inaugural set of ITEL project proposals.

In a flipped classroom model, traditional learning and content delivery often take place online in advance of class meetings; for example, a faculty member might “flip the classroom” by asking students to view videotaped lectures before class. The benefits of this approach lie in the restructuring of class time, which is freed for interaction in the form of advanced discussion, problem-solving, or other collaborative work.

Designing new and deeper ways to use class time that may have been previously dedicated to lectures is the most critical—and challenging—part of this approach to instruction. Instructors are embracing technology in their courses by using both software and hardware to enhance their content delivery and, in many cases, in-class activities, improving students’ learning. By delivering content more efficiently, the flipped classroom approach allows students and instructors to spend their face-to-face time on practice-focused, intellectually stimulating engagement with the course content. For example, an instructor might pre-record a lecture using Echo360, deliver that content to students on Blackboard days before class, and then spend class time using a document camera

to model the practice of close reading of a foundational passage.

Members of the first cohort of ITEL faculty are exploring different types of flipped classroom models, and they are using their newly available class time for a rich variety of more advanced activities. For example:

Nora Gordon (GPPI) redesigned her public finance course to provide more time for interactive problem-solving in groups during class to satisfy the course goal of training students to think about public policy as economists do. By reallocating some content delivery to pre-recorded videos and online assessments completed as homework, Gordon has transformed her classroom into a collaborative meeting in which she participates by providing her students with immediate feedback.

For their introductory computer science course, **Clay Shields** and **Mark Maloof** are creating video screencast tutorials and lectures to enable students to review material outside class and thereby develop their individual programming skills, which is a key goal of the course. Shields and Maloof have devised software systems for automatic grading and a peer

review system so that students receive individualized attention despite increasing enrollment.

For Introduction to Language, a team of four graduate students in Linguistics, led by professor **Jeffrey Connor-Linton**, used Adobe Captivate to develop interactive modules that will introduce students to basic concepts, assess students' understanding, and provide just-in-time teaching data that instructors in three course sections will incorporate into their lesson plans. This flip will enable instructors and students to dedicate more class time to discussion and to deepening students' understanding of foundational concepts, preparing students for their final research projects and for future work in upper-level linguistics classes. ■

To learn more about how ITEL faculty are flipping their classrooms, visit CNDLS.GEORGETOWN.EDU/PROJECTS/ITEL

The part of the project I'm most excited about is having more problem-solving happening in the classroom. For that, we're not using a lot of technology. But without the technology for lecture capture and online quizzing, I wouldn't feel comfortable freeing up class time for problem-solving.

NORA GORDON, GEORGETOWN PUBLIC POLICY INSTITUTE

Teaching English as a Second Language

JENNIFER LUBKIN & ANDREW SCREEN

Students from around the world come to Georgetown to take the next step toward their academic and career goals. The Center for Language Education and Development (CLEd) provides English as a Second Language (ESL) courses, helping international students gain fluency and confidence in their English communication skills.

THE CHALLENGE

Frustrated by the amount of class time traditionally devoted to grammar explanations, CLEd instructors Jennifer Lubkin and Andrew Screen wanted to spend more time on language practice in the classroom. They hoped to make their in-class time as active and student-centered as possible.

HOW IT WORKS

In order to increase the time available for conversational practice and grammar exercises without compromising detailed grammar instruction, Lubkin and Screen designed a flipped classroom model for their Intermediate Grammar course sections. In this model, grammar explanations are moved into an interactive online format using the Open Learning Initiative (OLI) platform, developed by Carnegie Mellon University, allowing students to spend class time practicing applications of the grammar concepts.

NEXT STEPS

In addition to freeing up class time for practice, using OLI for grammar instruction provides instructors with valuable data detailing what students are understanding and where misconceptions persist. This not only allows the instructors to adapt class content to target problematic concepts, but also helps them to plan future courses and continue learning about cognitive functions used in second language acquisition.



ITEL THEMATIC SPOTLIGHT

GAMES & SIMULATIONS

Educational games and simulations allow students to apply theoretical knowledge in practical, low-risk environments. These activities facilitate hands-on practice and the development of real-world skills.

Games and simulations can help students better understand the dynamics of complex systems. Some types of simulations allow students to see how relatively simple interactions can combine to create complex behaviors, while others build skills that will benefit students in real-life situations.

Like simulations, games are deeply engaging activities that offer opportunities for practice within complex systems. Games, at their most basic, are interactions framed as a set of challenges and rewards. Typically, challenges are presented incrementally, leading the player toward deeper levels of mastery within the game.

Several ITEL awardees are designing games and simulation environments to enable students to develop foundational skills within engaging and interactive contexts.

For example, students in **Tanina Rostain's** Evidence course at the Georgetown Law Center will practice applying the rules of evidence in a trial setting by playing a game designed by Rostain with the support of CNDLS staff. In the Evidence game, students, playing the role of defense counsel, are asked to select appropriate objection cards in response to evidence introduced by the prosecution. The game is designed to simulate the quick speed of a trial and the need for tacit knowledge

of the rules of evidence. Using several in-class activities, Rostain will gauge students' objections in similar case exercises and examine learning outcomes of the game compared to those demonstrated through more traditional classroom pedagogy.

Ron Leow's research into attention and perception in language acquisition led him to explore how the use of games can enhance language instruction in a hybrid context. Before class, Leow's Spanish students will navigate virtual mazes designed to give them practice with grammar items that often prove tricky. This will allow for more in-depth focus on oral and written communication during

Patient-Centered Communication

STACEY KALTMAN

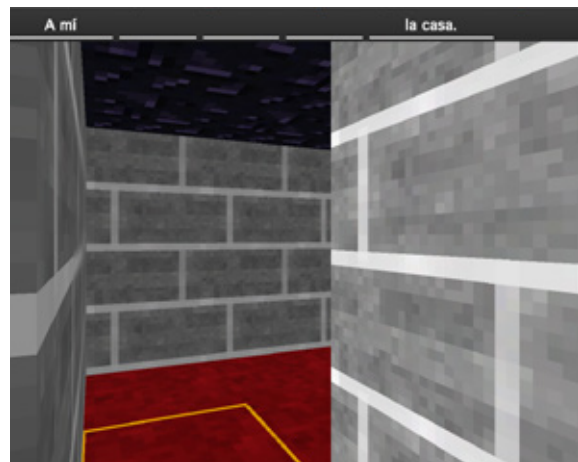
As Stacey Kaltman explains, evidence shows that enhancing doctor-patient communication improves patient satisfaction, provider satisfaction, and health outcomes. She directs the module in Patient-Centered Communication, a course for first-year medical students that focuses on how to elicit patient concerns and medical history through open-ended inquiry.

THE CHALLENGE

Opportunities to practice in-person patient communication, even with actors, are relatively infrequent due to logistics and cost. Kaltman hypothesized that developing a virtual simulation enabling students to practice conducting patient interviews would improve students' fluency and comfort with patient-centered communication before they apply these skills in high-stakes contexts.

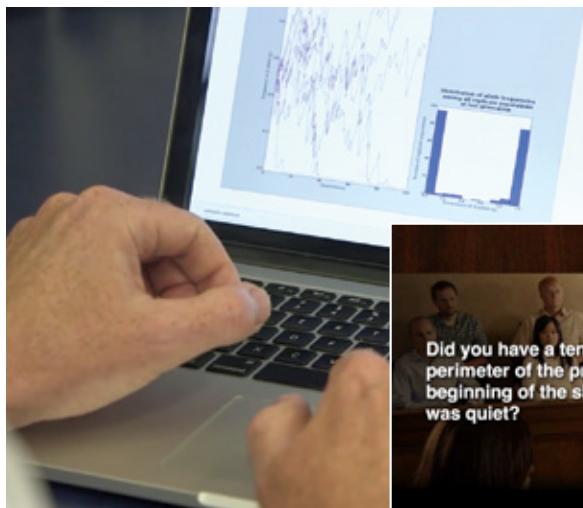
The hope is that students are going to think hard about what it takes to get evidence in, that they're going to learn to think quickly and on their feet, that they are strategic about which objections they use, and that—most importantly—they have fun doing it, so that the fun reinforces the learning aspect of it.

TANINA ROSTAIN, GEORGETOWN LAW CENTER



face-to-face class time. Leow hopes that this game will serve as the basis for other language learning games.

Matthew Hamilton (Biology) is creating digital simulations to help students grasp complex concepts in evolutionary genetics. Not only do these models allow students a way to visualize data that can be difficult to observe through empirical means, but they also give students practice with the types of tools they might encounter in more advanced research applications. As part of his project, Hamilton is exploring how students interact with these simulations in order to inform future pedagogical uses of such tools. ■



Matthew Hamilton enters parameters to demonstrate one of the possible outcomes of interacting with his digital simulations.

In Ron Leow's Spanish game, students have to navigate a series of 3D mazes while testing their knowledge of Spanish grammar.

Tanina Rostain's Evidence game pits students against a virtual prosecutor determined to introduce inadmissible evidence at trial.



HOW IT WORKS

Using Articulate Storyline software, Kaltman and a team from CNDLS are designing a series of interactive modules, each of which simulates an interview with a patient. In each module, students interact with a video simulation with the goal of eliciting a patient's chief complaint and medical history. As students pose questions to the patient, branching technology presents them with corresponding videos prompting them through a complete interaction. At the end of the simulation, the program provides students with feedback on their communication and offers advice on framing open-ended questions.

NEXT STEPS

Kaltman's pilot module will provide data indicating how students interact with the simulations and with technology-enabled patient encounters more generally. This information, along with additional data determining student needs, will allow Kaltman and the Medical Center to extend this project, creating simulations that offer students practice with a variety of complex communication skills.

UPCOMING edX GEORGETOWNX COURSES

A key facet of Georgetown's accelerated approach to experimenting with technology-enhanced learning is its recent partnership with edX, announced in December 2012. The four course teams awarded the first grants to develop Massive Open Online Courses (MOOCs) at Georgetown are actively conceptualizing, filming, and building their online courses. The first course, **Globalization's Winners and Losers: Challenges for Developed and Developing Countries**, is poised to launch **October 1**. GeorgetownX courses put the expertise of Georgetown instructors within reach of unprecedented numbers of learners around the world. In addition to Globalization, the following two courses will be launching in the spring:

Genomic Medicine Gets Personal | March 4, 2014

While the advances in genomics promise to usher in a new era in medical practice and create a major paradigm shift in patient care, the social impact of genomic medicine will be equally significant. The information and potential use of genomic discoveries are no longer issues left for scientists and medical professionals to handle, but have become ones for the public at large. This course will provide an introduction to genomic medicine and a better understanding of the issues associated with personal genomic information.

Introduction to Bioethics | April 15, 2014

Introduction to Bioethics explores some of the most difficult—and fascinating—moral challenges we face in health, medicine, and emerging technologies. Should we clone humans? Who owns our DNA? How much control should we have over how and when we die? When does medical treatment turn into medical enhancement—and should we care? Is rationing health care good, bad, necessary—or all of the above? This course will explore fundamental moral issues that arise in medicine, health, and biotechnology.

Planning has also begun for a new course on **Terrorism and Counterterrorism**, scheduled to launch in the fall of 2014.

To register, please visit

WWW.EDX.ORG/SCHOOL/GEORGETOWNX/ALLCOURSES

▶▶ THE MAKING OF THE MOOCS

Each MOOC is a time-intensive production, from the first design conversations and wireframes to the finishing touches put on the live course.

Each member of the first four course teams has been instrumental in making the online courses come to life within the current constraints of the medium. Staff from CNDLS, the Gelardin New Media Center, and Lauinger Library are working to provide extensive support for MOOCs in the areas of instructional design, project management, web development, videography, graphic design, animation, content development, copyright clearances, and digitization of readings. The GeorgetownX courses that result are intensive, collaborative efforts that reflect Georgetown's engagement with new instructional opportunities, and will ultimately help us uncover what it means to teach in emerging environments.

For more on the making of **Globalization's Winners & Losers: Challenges for Developed & Developing Countries**, continue to page 16.



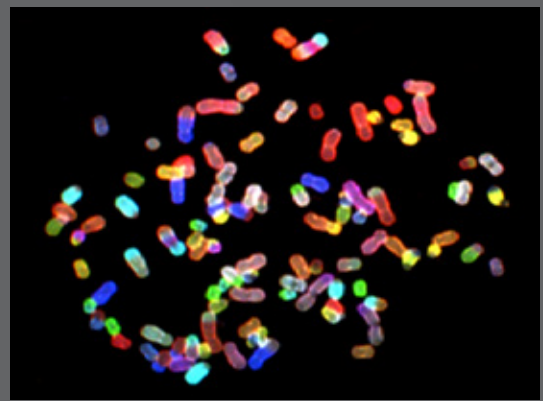
Anna Maria Mayda, guest lecturer for Globalization, discusses comparative advantage with Ted Moran.



Daniel Byman, Terrorism and Counterterrorism, films a lecture for his upcoming course.



Bassem R. Haddad, Genomics, incorporates current clinical, social, ethical, and legal aspects of personal genomics into his GeorgetownX course.



Maggie Little, Bioethics, demonstrates a concept for their upcoming course.



A graduate student tests the assessment activities for Globalization.



Rebecca Kukla, Bioethics, works with CNDLS videographers on a whiteboard animation.



WITH TED MORAN

Professor Ted Moran, the lead faculty member for the upcoming GeorgetownX course **Globalization's Winners and Losers: Challenges for Developed and Developing Countries**, shares his thoughts with CNDLS on teaching Georgetown's first MOOC.

Did you ever expect that you would be teaching Georgetown's first Massive Open Online Course (MOOC)?

I started out being a MOOC skeptic, and that's why a lot of people have been surprised by my participation. Many popular MOOCs are courses that don't have a lot of controversial discussion groups. With these courses, you can assign problem sets and their answers are either correct or incorrect. Some of the most popular courses are in fields where you can get accreditation in a fairly straightforward manner.

As you know, what we have at Georgetown are intense discussions building on the Jesuit tradition with a lot of dialogue. We pride ourselves on very direct, intimate teaching methods, so I always thought that this kind of online course was a contradiction. Thanks to the team at CNDLS, we have been able to develop new and engaging methods of presentation. I had done some in-course video capture in the past, and I

was very comfortable with being in front of the camera. I don't think that deciding to go ahead with it was that big of a decision. Thanks to the innovative work of the videographers with two-camera shoots and lighting, I realized that this could work well.

What is your personal teaching style and how have you needed to adapt that for an online course?

I prefer very personal interactions between students and professors. I normally demand immediate feedback from students, and I encourage them to ask questions and answer each other's questions. This benefits the learning of each student. I also have extensive office hours, and I get to know my students. We are trying to do as much of this Georgetown style online as the medium permits.

Globalization's Winners & Losers: Challenges for Developed & Developing Countries

LAUNCH DATE: OCTOBER 1

FACULTY & GUEST LECTURERS:

Ted Moran	Kathleen McNamara
Carl Dahlman	Lindsay Oldenski
John Kline	William Plummer
Rodney Ludema	Scott Taylor
Anna Maria Mayda	

COURSE MANAGER: Rosaelena O'Neil

TEACHING ASSISTANTS:

Emily Cheung	Christian Holkeboer
Caroline Fisher	Paul Lindemann

The way we started off developing the course was in the filming of what we call master classes, which involve three to five students sitting around a table maintaining a back-and-forth discussion. When we were watching the videos of these classes, we realized that this method did not translate well on its own to the global student. We decided to make more videos of myself speaking directly to the student. Like my on-campus courses at Georgetown, there's a lot of eye contact in those videos. It's a little different because you are looking at a camera, but you really imagine yourself talking directly to the student and asking them questions like: What is it like in your country? Do you have any experience with these specific issues?

Additionally, we started by filming twelve-minute video segments, some even longer. We've been exploring some research that there is a big drop-off in

viewing if you have any one segment longer than six minutes. We went back and reconfigured the course so that the videos included short, punchy content.

I'm trying to keep the same style of teaching as the classes that I've always taught at Georgetown. This may change though, so stay tuned! In October when we have more than 20,000 people logging in, answering questions, and voting on what's important across the discussion boards, that's going to be very different.

How does the learning process change with an online course?

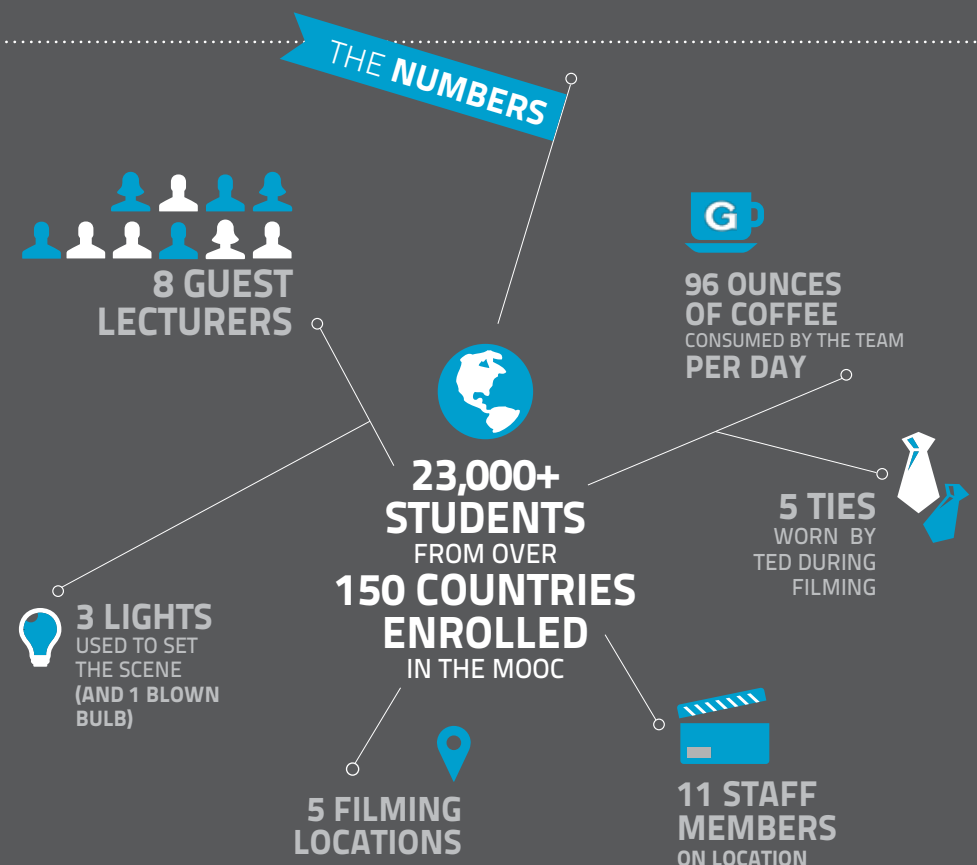
We don't know how it's going to work with an online course. Hopefully we'll be able to identify how students are learning. Is it from the videos? Is it from the readings? Is it from the discussion boards? That can shape how the other MOOCs from Georgetown are developed.

How will students be evaluated in this course?

Many of the evaluation methods in the course are different from what I would normally have in my course. It would be very difficult to personally grade feedback from 20,000 students. We are looking into models such as true/false, multiple choice, fill-in-the-blank, and open response questions. We will also be facilitating online discussions where students can interact with each other and where the teaching assistants and I can interject when needed. Based on the interaction and feedback of students on the discussion board, I can address student questions directly.

How will you measure success?

We're going to see what the drop-off rate is. We're going to see how many people stick with it. We're going to see how responsive the discussion boards are. We're going to see how many



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TED MORAN, SCHOOL OF FOREIGN SERVICE

students do the assessments. All of these measures of success are on my mind. If we reach Week 6 and we're down to 2,000 students and half of them are not doing the assessments, then we will have learned something about this mode of learning.

How does student motivation play a role?

That's a big question. My view is far too idealistic. Even in my own courses, I think people are there because they love the subject matter. Professors like to think that the love of knowledge is what drives people around here. We know that people want to get jobs, too. We hope to be able to understand the motivations of the students through surveys that we have designed. Hopefully I can use this information to adapt how I teach the course.

Do you focus the course to a specific type of student or audience?

There are no prerequisites. There is no math, no statistics, and very few graphs or equations. We hope it will appeal to learners all across the globe.

Have you used a lot of technology previously?

My typical use of technology is chalk and a blackboard. Only under duress do I use the Blackboard website. I would

rather hand out paper copies of things in class. I am a real primitive. I would say yes, I'm a real old-fashioned Georgetown teacher. All of my colleagues are much more sophisticated.

I tend to avoid the use of technology and PowerPoint presentations because anybody can memorize information. I would rather ask students the question directly and make them figure it out. That's my pedagogical style. I do integrate a lot of current events-based case studies, so it's not as if the course content is out of date or not connected to the contemporary world.

What do you see as the future of MOOCs?

Is the future of MOOCs like this one going to be direct education for tens of thousands of people? Maybe. I don't discount that. I can imagine professors all over the world using this MOOC as the basis for their real-life teaching. I can imagine professors in Kenya building their own course from this MOOC or using it as a tool that actually enhances their own course. I'm sure that the CNDLS team is going to make real winners out of these MOOCs. ■



Guest lecturer Anna Maria Mayda and Ted Moran confer before filming a segment for the upcoming MOOC.

DESIGNING GEORGETOWNX RESEARCH QUESTIONS

YIANNA VOVIDES, DEDRA DEMAREE,
AND SARAH INMAN

The CNDLS Instructional Design and Assessment Team is working to develop a set of research questions to guide the development of Georgetown's MOOCs, with a particular focus on learner engagement in the online environment.

MOOCs are seen as a way of opening access to students who might not have otherwise participated in the elite college experience; however, though completion rates can approach 40%, the majority of MOOCs retain fewer than 10% of students (Jordan, n.d.). Because MOOC students "neither pay tuition nor earn credit, the motivation for completing a course is largely intrinsic" (Bruff, 2013).

Compared to university classes, many participants in MOOCs do not participate for a credential. As Koller, Ng, Do, and Chen (2013) point out, "for retention metrics to be useful, they must be defined and interpreted with the learner's goals in mind." Without knowing what the learner intends to gain from his or her participation in the course, one cannot adequately assess retention and achievement within open learning environments.

It is critical to explore factors that influence the depth of student engagement. Balakrishnan and Coetzee (2013) discovered that students who rarely check their progress "drop the most frequently in early weeks" whereas "those students who consistently check their progress 4 or more times a week have very low likelihoods of dropping the course" (p. 9). Additionally, those students who are more active on discussion forums, view more course lectures, and view at least one discussion thread a week are less likely to drop the course, indicating that engagement directly influences retention. Because these findings are correlational it could be possible that motivations that influence student retention are the same motivations that lead particular students to be more actively engaged.

CNDLS' approach to creating and investigating MOOCs is first to identify factors, based on the literature, that influence learner retention and achievement. Then we apply instructional design principles and a design-based research approach to the development of the curriculum for a MOOC with the aim to provide flexibility for learners to stay engaged and therefore reach the desired learning outcomes. Our intentional approach to the holistic design of MOOCs, and CNDLS' resources and expertise in learning analytics, situate us to conduct iterative research to assess and improve our MOOC implementations as well as contribute to the research literature on online learning. Research questions include: what are the patterns of learner engagement within a MOOC that enable increased retention and/or achievement? What is the role of learner motivation and intent in relation to retention? What is the role of learner motivation and intent in relation to achievement? Does the learning design we utilize for MOOCs lead to increased retention and/or achievement? ■

Sources: Jordan, K. (n.d.). MOOC completion rates: The data.

Bruff, D. (2013, Aug. 19). Lessons learned from Vanderbilt's first MOOC.

Koller, D., Ng, A., Do, C., & Chen, Z. (2013, June 3). Retention and intention in massive open online courses: In depth.

Balakrishnan, G. & Coetzee, D. (2013). Predicting student retention in massive open online courses using hidden Markov models.

**Our intentional approach
to the holistic design
of MOOCs, and CNDLS'
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situate us to conduct
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WORKSHOPS

This fall, **CNDLS** and the **Gelardin New Media Center** are offering over 30 workshops for faculty and graduate students on teaching practice and teaching technologies. Workshops are designed to help participants implement effective strategies and use new tools in their courses. Participants will learn how to create interactive learning modules, how to apply high-impact practices, and how to use Google Apps, to name a few.

SHARING OUR WORK

Publications and Presentations

In December 2012, **Anne Rosenwald (Biology), Janet Russell, and Gaurav Arora (Biology)** published "The Genome Solver Website: A Virtual Space Fostering High Impact Practices for Undergraduate Biology" in *The Journal of Microbiology and Biology Education* (13.2). The article describes how the Genome Solver website, developed at Georgetown, engages undergraduates in important research on the human microbiome.

Maureen Walsh, Joselyn Schultz Lewis, and John Rakestraw presented their research on engaging diversity in the classroom at the Association of American Colleges and University (AAC&U) conference "Modeling Equity, Engaging Difference: New Frameworks for Diversity and Learning" last October; they published their article, "Faculty Collaboration to Effectively Engage Diversity: A Collaborative Redesign Model," last winter in the AAC&U's journal *Peer Review* (15.1).

In January, several CNDLS staff members presented at the **EDUCAUSE Mid-Atlantic Regional Conference** in Baltimore, MD:

Brian Boston, Lucas Regnér, Janet Russell, and Theresa Schlafly shared their presentation, "Identifying Lecture Capture Practices That Spark Transformational Teaching," and discussed how strategic lecture capture practices enable blended learning opportunities that enhance the classroom experience for teachers and students.

Susan Pennestri, Marie Selvanadin, and Betsy Page Sigman (MSB) outlined

Improve Your Class Presentations

October 9, 2013 | 10AM | Picchi (Gelardin)

This workshop will cover the best practices of designing better and more engaging class presentations as well as the techniques of using various presentation tools, including PowerPoint, Google Presentations, and Prezi.

Learn How to Talk About Social Class in Class

October 31, 2013 | 2:30PM | Lannan Center

Discussions of social and economic class remain difficult for many students and faculty. In this workshop, participants will discuss strategies for navigating challenging discussions of class.

Edit Your Echo360 Footage

October 22, 2013 | 2PM | Picchi (Gelardin)

This workshop will cover how to edit Echo360 footage with iMovie. Please bring your Echo360 footage on an external hard drive or flash drive for this workshop.

Start a Blog for Your Spring Course

November 7, 2013 | 10AM | Picchi (Gelardin)

This workshop will cover how to use WordPress, a popular blogging platform used by many courses here at Georgetown. We'll cover how to request and manage a site from CNDLS and describe pedagogical approaches to using blogs (including the hub and spoke model, rotating roles for your students, and using rubrics).

For a full list of workshops and registration information, visit:

CNDLS.GEORGETOWN.EDU/CALENDAR

GRANTS AND GIFTS

their findings from "Circles of Learning: Using Google+ to Enhance Classroom Communities," showing how Google+ revolutionized an undergraduate database management course and enriched student learning, engagement, and communication.

Finally, **Anna Kruse, Susan Pennestri, Janet Russell, and Theresa Schlafly** presented "Lessons from Cross-Campus Colleagues: Using a Team-Based Model to Redesign Courses Collaboratively," which highlighted how the Teaching, Learning, and Technology Initiative at Georgetown allowed meaningful experiences in teaching and learning to emerge.

Sally Engelhard Pingree and the Charles Engelhard Foundation: a gift of current use funds for special projects exploring the impact of technology and virtual learning environments on core themes of the Engelhard Project, including student well-being, reflection, and connecting life and learning.

Marc Sulam (B'84): a gift to establish a current use "Transformational Project" for the Initiative on Technology-Enhanced Learning (ITEL).

Frank McDonough (Alumnus and Parent): a gift supporting the Georgetown Learning Initiatives (GLI) and CNDLS.

Catherine Lawton (B'79): a gift supporting the Georgetown Learning Initiatives (GLI) and CNDLS.

Marie Hurabiell (C'92): a gift supporting the Engelhard Fund and the Georgetown Learning Initiatives (GLI).



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