TEACHING

Repertoire

I have taught all of the required courses in the sociology program: Introduction to Sociology (soc55), Research Methods (soc91), History of sociological Thought(soc116), Proseminar (soc190), and Senior Seminar (soc191) and I regularly teach the following electives in sociology: Sociology of Everyday Life, Social Control, Geographic Information Systems, and Modeling and Simulation in the Social and Policy Sciences for the public policy graduate program.

While at Mills I have also developed as new courses the following: "Social Network Analysis," "Mathematics for Social Sciences," "Ants, Brains, Cities, and Software" (agent-based modeling for social sciences), "Computers and Society," "(Disruptive) Innovation as a Liberal Art." In addition I have recently experimented with independent studies using online curricula for "Human Centered Design" and "Design Thinking and Prototyping." I am currently collaborating with colleagues on a combined research methods for the social sciences course.

A summary of my teaching for the last six years:

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                          Courses Taught
                      Title (enrollment|credit)
                Fall 15                           Spring 16
Hist. Sociological Thought (34|1.0)   Proseminar (11|1.0)
IS Human Centered Design (6|0.5)      Research Methods* (42|1.25)
Assignment: Innovation Lab            GIS (23|0.5)
IS Design Thinking Prototyping (2|0.5)Modeling & Simulation + LAB (17|1.25)
                                      * team-taught
                Fall 14                           Spring 15
SABBATICAL LEAVE                      UNPAID LEAVE
IS GIS (1|1.0)
IS Technology and Society (1|1.0)
                Fall 13                           Spring 14
GIS + LAB (15|1.0)                    SABBATICAL LEAVE
Modeling & Simulation + LAB (6|1.0)
                Fall 12                           Spring 13
 Hist. Sociological Thought (19|1.0) Course Release - FEC 2009-10 (-|1.0)
 Sociology of Everyday Life (16|1.0) Course Release - FEC 2010-11 (-|1.0)
 Modeling & Simulation + LAB (11|1.0)Course Release - FEC Fall 2011 (0.5)
                Fall 11                           Spring 12
 Hist. Sociological Thought (13|1.0) Social Control (16|1.0)
 GIS + LAB (14|1.0)                   Network Analysis + LAB (9|1.0)
 Modeling & Simulation + LAB (12|1)
                Fall 10                           Spring 11
 Hist. Sociological Thought (19|1.0) Modeling & Simulation + LAB (16|1.0)
 Senior Seminar (10|1.0)              Proseminar (20|1.0)
 Course Release (-|1.0)               IS Sociology (1|1.0)
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I also consider academic advising to be a part of my teaching repertoire. I eschew "drive-by/just sign this/check off the requirements" advising and instead cultivate a more intensive and interactive advising experience by requiring each advisee to submit an "advising contract" each semester. In the contract she explicates her current long and short term goals, the shape of her current academic program, the state of her non-academic activities and how these relate to her education, and criteria by which we jointly assess the semester after it is over. We meet for at least 30 minutes at the start of the semester to discuss the contract and we both sign it when we have come to an agreement about what we are hoping to accomplish in the semester ahead. I have at least one follow up meeting with most advisees during the semester and then one at the end of the semester (or the beginning of the next one) to assess whether our agreed upon criteria were met.

Enrollments

From 2010 to 2014 my enrollment loads have been, in retrospect, unacceptably low. Based on an analysis of college-wide enrollment statistics and budget data, I've concluded that I need to be teaching a minimum of 95 students per year to "pay my way." My numbers are reflect teaching a course each year in the then small public policy graduate program, teaching mostly required courses in the sociology major during a time of relatively low enrollment, and having a teaching repertoire not well matched to the non-analytical,

Ryan Adjusted* Enrollment Load 2010-2015					
2010	2011	2012	2013	2014	2015
81	64	77	53	LOA	105

*Total number of students taught adjusted for five course schedule.

non-computational, and non-quantitative inclinations of students who gravitate toward sociology and anthropology. I am responding to this by strengthening my association with public policy, the graduate school of business, and math and computer science and expanding my offerings toward design thinking and innovation so as to be able to serve more students.

Pedagogy

Over the last half decade are so my teaching has shifted in several ways:

- substantive changes in course content
- procedural changes in how courses work
- serious pursuit of productivity gains
- rethinking assessment

I have rethought what I teach in several courses - especially social control, social theory, but also research methods, junior and senior seminar. This year I have begun to develop new courses around innovation and design thinking. I have also rethought how I teach: I have started to think about my courses as multiple, almost-stand-alone modules; I am experimenting with alternatives to lectures and alternatives forms of lectures; I have experimented with "flipped classrooms" and deploying online modules in a face-to-face context. I have made almost all of my teaching materials into open educational resources - meaning both my students and my colleagues around the world have access to everything I have developed for teaching. I have created elements of "proof-of-concept" prototypes for bottom-up outcomes assessment as an alternative to the pedagogically disastrous top-down regime to which we are at present subject.

Substantive Innovations

I long ago converted what is usually taught as "Sociology of Deviant Behavior" to "Social Control," trading the three most common paradigms - the so-called "nuts and sluts" approach in which a parade deviant behaviors is subject to etiological inquiry (why do they do it?); the "battling schools of thought" approach in which symbolic interaction is pitted against conflict theory (or, occasionally, an archaic version of functionalism); and the "postmodern" approaches built around Foucault and intersectional critiques of power in society - with one that looks at generic problems of social regulation making draws on cognitive neuroscience, law and society, and law and economics perspectives. This yields a course that positions sociology students to engage with practitioners in other fields and that fits in the curriculum for students of economics, politics, computer science, and law too.

My GIS class is now structured around the open source Quantum GIS platform and Open Street Map, the Wikipedia of global mapping data, and web-based mapping instead of ESRI products we used to use. This trains the student in more accessible software than conventional courses (with no loss of utility as switching to proprietary solutions is not difficult) and introduces her to open source ethos. The course is also structured as an alternative gateway to provoking an interest in learning to code.

In the "History of Sociological Thought" (aka "Theory") I switched from an approach that takes students on a wild ride through hundreds of years of theory with an emphasis on the "founding fathers" of sociology (an approach that ends up being the study of theorists). Intellectual history IS important, but with just one semester to teach theory, more that is deeply useful can be accomplished in an approach that is built around the question of how humans accomplish social order - culture, hierarchy, markets, groups, and networks. This permits us to transcend the classical/contemporary, quantitative/qualitative, and wholist/individualist divides, avoid artificial taxonomies, and incorporate ideas from economic theory, game theory, evolutionary biology, etc. Rather than being a rushed version of the multi-semester sequence a sociology grad student would study, the course yields a set of practical analytical tools for people who will work in communities and organizations and participate in civic debates about markets and hierarchies, shared values, social norms, and social networks.

Procedural Innovations

I have just begun to transform my semester courses into sub-semester-length modules. The goal will be to have units that can be offered as half or third semesters as well as units that can be combined with those of other instructors to form courses or that could be "dropped into" other instructors' courses for increased pedagogical efficiency. My first prototype of this work will be a revised version of my modeling class in spring 2016 and a new combined research methods course I am currently designing with colleagues.

History of Sociological Thought class was combined with Anthropological Theory for the last two years. I have introduced three new features this year. One is the use of (nearly) text-free slides - if I lecture with digital slides, I endeavor to use an absolute minimal amount of text so that students do not fall into "copying the slide" as a mode of taking notes. I also include in each module an interactive simulation or exercise which then becomes touchstone throughout the course (e.g., we did a public goods game replicating the experimental research in an article we read, and we did a market simulation to demonstrate the emergence of externalities).

In the Modeling and Simulations class (PPOL225) I have experimented with "flipping the classroom" by using video lectures recorded by a colleague, Scott E. Page of the University of Michigan, for a Coursera course as the exposition component of the class and then dedicating class time to group problem solving. I am currently looking into similar approach in other courses, combining course-based lectures, edited/curated lecture videos, and videos I make myself.

Teaching More, Better, and Easier

One element of my "Majoring in the 21st Century" project is to explore how to use technology and technique to be able to teach more students more effectively with less average effort. I argue that this imperative should inform how we think about educational technology, institutional restructuring, and on-the-ground pedagogy.

In fall 2015 I am piloting the deployment of an online course with a "bricks and mortar" instructor (me). Several students and I (and a colleague) signed up for "Human Centered Design." We met weekly using the curriculum developed by Acumen and Ideo.org but adapted for our own interests. A subset of the original group continued with a second course in prototyping. This model allowed me to make this course available to students with much less effort than developing it from scratch and teaching it "all by myself" would have required, it let the students learn from students all over the world, and their experience of the course was greatly enhanced because of the value added of the instructor in the room.

It occurred to me a few years ago that too often we teach one thing and examine another - in the classroom we might lecture, do group works, engage in discussion but then when it comes to time to evaluate student work we ask them to write essays. It would be like having the soccer team practice all week on the field and then have a swim meet on the weekend. As an experiment I have developed a protocol for oral exams (two midterm and one final) in History of Sociological Thought that motivates students to prepare assiduously, rehearse with one another, practice skills that are both substantively related to course materials and useful beyond (e.g., oral presentation, elevator speech, high pressure interviews), and that establishes continuity between activity in class and activities used to assess students. Each exam is about 15 minutes in length and consists in problems randomly selected from a stock to which students have access from the start of the course. In each section of the course we have one or more "Pitch and Catch" sessions in which students practice for oral exams by asking one another questions and evaluating their responses. The sessions are wrapped in coaching from me on what to look for in an answer, how to study for such an exam, and how to use this form of examination as an opportunity to demonstrate what one has learned and as a model for other interview situations (e.g., we talk about body language, voice, and structuring one's response).

These oral exams sound onerous, but they are not. For this large class, I have to make available 34 twenty minute slots - about 12 hours. But I spend almost no time creating the exam, and grading is finished instantly (no tallying, curving, etc.). Compared to a conventional course with three essay exams

One tool that can allow us to teach more/better/easier is sharing pedagogical resources (sometimes called Open Educational Resources). Since around 2011 I have been moving all of my teaching materials - handouts, lecture notes, slides, syllabi, images, diagrams, exams, quizzes, reading notes, bibliographies - online via a wiki platform (danryan.us). The course-based collections are all works-in-various-stages-of-progress, but when complete they will represent a fully searchable collection of creative-commons licensed materials.

One component of these open resources is a question/problem bank. As of this fall I've developed over 400 "questions/problems" related to various courses that I teach. These are available to students as well as other instructors. The tool allows me easily to assemble practice tests, flashcard study tools, study questions, and problem sets for use in a flipped classroom.

Another tool that might be used to increase pedagogical efficiency is the "popUp curriculum." I first developed this idea while working at the Iovine Young Academy at USC last year. A popUp is a (usually) one-off lecture, workshop, simulation, field trip, or group exercise that complements the course-based curriculum. By their nature, popUps are either "just in time" learning that can serve students in a variety of courses or components of courses that can be "popped out" and either shared with particular other courses (as when my lectures on probability would work in your statistics course)

or with the student body as a whole because they represent some useful skill that could be appreciated by people who will never encounter it if the only way to do so is by taking your whole course (2015). The popUp format also provides an infrastructure for fielding a broad diversity of non-course-based learning by units across the college.

Assessment

I have long been a critic of the "assessment movement" - my critique rooted in the shallowness of its goals and and the poverty of its methods - but I am a fan of the underlying motivation to ascertain whether or not what I am doing as a teacher works well and how to improve it, and I share the concern of those who find it strange that as teachers we largely get to assess our own work.

I am developing an alternative to the top-down ("mission goals > program goals > course outcomes…") illogic currently guiding conversations about assessment. I have begun to move toward thinking about courses in terms of explicit input assumptions and outcome expectations (e.g., "before taking this course you should be able to x, y, and z" and "when you have completed this course, you should be able to do a, b, and c") that would emerge from consideration of a broad range of very explicit skill descriptions for each module of each course. Below is an example from the decision tree module in my simulation and modeling class (click on skill to expand its description). Within the module all texts, examples, and problems can be tagged with the skill code so that a student can locate all related materials with a single click.

+ DT01: Apply basic concepts of probability
+ DT02: Calculate expected monetary value
+ DT03: Translate description to decision tree and vice versa
+ DT04: Use simple tree to assess a set of alternatives under uncertainty
+ DT05: Compute the value of information
+ DT06: Solve a problem that incorporates risk aversion
+ DT07: Solve a problem that incorporates imperfect tests
+ DT10: Describe indications and contraindications, caveats and concerns

These "micro" skills would then be clustered into higher and higher skill sets until we could express the outputs from a given course. This same consideration would also yield a way to think about input expectations and where those input skills might be gained. As humans we are much better at clustering and deriving an overarching concept than we are at a priori dividing the universe up at the top level. In summary, here are some of my teaching highlights:

- Flipped classrooms (2012)
- "Player/Coach" online courses (2015)
- Social theory for 21st century social science (2012)
- Laboratory sections in social science courses (1999)
- Wikipedia editing as a class assignment (2011)
- Teaching materials as open educational resources (2011)
- Introducing social science students to coding (2013)
- Video course descriptions (2015)
- Bringing "design thinking" and the "maker movement" to Mills courses (2014-15)
- Introduction of the "popUp curriculum." (2015)
- Social science "problem bank" (2012-)

Exhibits

Course Syllabi
Academic Advising