This fall, the STPP graduate certificate program admitted its third group of students. As with the previous cohorts, these ten students represent departments and schools throughout the university: Jessica Bell (Medicinal Chemistry); Craig Cammarata, (Public Policy); Heather Claxton (Biological Chemistry); Jakub Czyz (College of Engineering); Chris George (Medicinal Chemistry); Nicole Kasper (Health Management Policy); Shaw Lacy (SNRE); Myra Tetteh, (Public Health); Chrystal Thrall (Nuclear Engineering); Yi Wang (Environmental Health Sciences). We also graduated our second student, Andrew Schroeder (Public Policy). Andrew has taken a position as the Research Director for Direct Relief International, a non-profit medical humanitarian organization based in Santa Barbara, CA.

We continue to be excited about the level of student interest in the STPP Program. We currently have a total of 22 students (2 have graduated), and the STPP core courses have very healthy enrollments.

Our next round of graduate certificate applications are due February 15th. We will be holding another STPP Graduate Certificate Information Session and Reception on January 22nd in order to introduce the program to prospective students and also to provide an opportunity for STPP faculty, postdoctoral fellows, and students to continue to get to know one another. On January 15th, our next round of applications for the STPP postdoctoral fellowship program will be due. We expect to choose two fellows, who will be at UM for 2 years and teach STPP courses, coordinate the lecture series, and conduct their own research. The new fellows will start in Fall 2008. We will certainly miss our current postdocs, but they are leaving us for exciting new jobs: Dan Plafcan has accepted a position as Assistant Professor of Science, Technology, and Society at University of Virginia, and Paul Erickson has accepted a position as Assistant Professor of History at Wesleyan University.

In early December, U.S. intelligence about Iran’s nuclear program appeared to have taken a dramatic turn. The U.S. government released an unclassified version of the “Key Judgments” section of a recent National Intelligence Estimate (NIE) on Iran’s nuclear program (n. 1). As a part of the previous NIE on Iran in 2005, the intelligence community had assessed “with high confidence” that Iran was “determined to develop nuclear weapons despite its international obligations and international pressure” (n. 2). In its recent NIE of November 2007, however, the intelligence community assessed “with high confidence that in fall 2003, Tehran halted its nuclear weapons program and that the halt lasted at least several years” (n. 3). This apparent turnaround prompted the New York Times, on the day after the unclassified NIE’s release, to begin its front page “news analysis” article with the observation that “rarely, if ever, has a single intelligence report so completely, so suddenly, and so surprisingly altered a foreign policy debate here [in Washington]” (n. 4).

While that observation may have overstated the case, foreign policy and national security commentators were indeed provoked to take immediate stock of the NIE’s judgments and of what they meant for U.S. diplomacy vis-à-vis Iran (n. 5). In particular, commentators critiqued the way in which the U.S. intelligence community and the Bush administration framed and staged the NIE’s technical and political judgments in the context of ongoing diplomacy with Iran. According to the conventional wisdom that emerged, U.S. diplomacy was not

(continued on page 3)
STPP Lecture Series—Winter 2008

The STPP lecture series is sponsored by The Herbert H. and Grace A. Dow Foundation
Events are held on Mondays, 4:00-5:30pm in the Betty Ford Classroom (1110 Weill Hall) at the Gerald R. Ford School of Public Policy

28 January 2008
“The Policy and Politics of Science and Technology on Capitol Hill”
Tind Shepper Ryen
Professional Staff, Committee on Science and Technology, US House of Representatives
Commentary by Richard Hall, Professor of Public Policy and Professor of Political Science, University of Michigan
Co-sponsored by the University of Michigan Department of Atmospheric, Oceanic, and Space Sciences

3 March 2008
“Governing Man and Beast:
Scientific Knowledge and the Management of Populations”
Paul Erickson
Postdoctoral Fellow, University of Michigan Science, Technology, and Public Policy Program
Commentary by Carl Simon, Professor of Mathematics, Economics, and Public Policy, and Director of the Center for the Study of Complex Systems, University of Michigan
Co-sponsored by the University of Michigan Science, Technology, & Society Program

31 March 2008
“Changing Big Systems: Barriers to Innovation in Energy Technology”
Frank Laird
Associate Professor of Technology & Public Policy at the Graduate School of International Studies, University of Denver
Commentary by Andrew Hoffman, Holcim (US) Professor of Sustainable Enterprise, Associate Professor of Management & Organizations, Associate Professor of Natural Resources & Environment, Associate Director of the Erb Institute, University of Michigan
Co-sponsored by the Michigan Memorial Phoenix Energy Institute

7 April 2008
“You Can Argue with the Facts: A Political History of Climate Change”
Naomi Oreskes
Professor of History and Science Studies at the University of California, San Diego
Co-sponsored by the University of Michigan Science, Technology & Society Program and the School of Natural Resources and Environment

14 April 2008
“Science and Technology Policy for Development:
Issues from the Global South”
Susan Cozzens
Professor of Public Policy, Director of the Technology Policy & Assessment Center, and Associate Dean for Research for the Ivan Allen College, Georgia Institute of Technology
Commentary by Ted London, Senior Research Fellow, The William Davidson Institute, and Director, Base of the Pyramid Initiative, University of Michigan
Co-sponsored by the University of Michigan International Policy Center, Gerald R. Ford School of Public Policy
as much thrown into question by the NIE’s Key Judgments as it was by their framing and staging. This conventional wisdom, however, fails to deal with the root of the problem: the politics of managing credibility when expert knowledge becomes a significant rationale for public action.

The release of the unclassified NIE in early December 2007 came on the heels of failed talks between Iran’s new negotiator and the European Union’s head of foreign policy. In these talks, the Iranian negotiator had declared that years of previous negotiations were irrelevant, that the U.N. Security Council’s sanctions were illegal, and that Iran had no intentions of suspending its on-going enrichment of uranium (n. 6). The NIE’s judgment that “Tehran halted its nuclear weapons program” in 2003 was read as undermining the Bush administration’s efforts to use Iran’s intransigence at these talks to persuade the U.N. Security Council—and in particular veto-wielding China and Russia—to toughen its sanctions (n. 7). With the significance and urgency of the threat having seemingly collapsed, the diplomacy of U.S. and European Union vis-à-vis Iran was reported to be in “disarray” (n. 8).

Yet, the Key Judgments of the unclassified NIE—and presumably much more so for the nearly 140 page classified report—were of course not as cut-and-dry an assessment as “Tehran halted its nuclear weapons program.” For example, given Iran’s enrichment capabilities, the NII judged “with moderate confidence” that Iran could technically produce enough highly enriched uranium for a weapon “sometime during the 2010-2015 time frame” (n. 9). The unclassified NIE also stated:

“We assess with moderate confidence that convincing the Iranian leadership to forgo the eventual development of nuclear weapons will be difficult given the linkage many within the leadership probably see between nuclear weapons development and Iran’s key national security and foreign policy objectives, and given Iran’s considerable effort from at least the late 1980s to 2003 to develop such weapons. In our judgment, only an Iranian political decision to abandon a nuclear weapons objective would plausibly keep Iran from eventually producing nuclear weapons—and such a decision is inherently reversible (n. 10).

Provided that one considered the development of a nuclear weapon by Iran as a serious problem to be avoided—and the issue is debatable—the Key Judgments of the unclassified NIE, taken in their entirety, are hardly prescriptive of policy.

If that is the case, then how were the Key Judgments initially read to undermine the U.S.’s and E.U.’s diplomacy vis-à-vis Iran? Prominent commentators such as Henry Kissenger, Dennis Ross, and the ubiquitous Thomas Friedman have suggested that the document was improperly “framed” (n. 11). Let’s look again at the document. Before the Key Judgments, in a “Scope Note” section that explains the NIE’s terms of reference, the first bolded section of the document declares:

This NIE does not assume that Iran intends to acquire nuclear weapons. Rather, it examines the intelligence to assess Iran’s capability and intent (or lack thereof) to acquire nuclear weapons, taking full account of Iran’s dual-use uranium fuel cycle and those nuclear activities that are at least partly civil in nature (n. 12).

Their bolded paragraph suggests that the U.S. intelligence community has learned a lesson from their disastrous October 2002 NIE on “Iraq’s Continuing Program for Weapons of Mass Destruction.” Unlike in the case of the Iraq WMD NIE, intent in the Iran NIE is not assumed. Check. Now turning to the Key Judgments section, we read the (continued on page 4)

Notes:
3: Ibid.
10: Ibid.
first sentence at the top of the section’s first page: “we judge with high confidence that in the fall 2003, Tehran halted its nuclear weapons program” (n. 13). There’s the attention-grabbing news, but is it the most relevant information for policymakers? The paragraph that follows and the five bullet points that fall under it all focus on Iran’s “nuclear weapons program.” What does the NIE mean by the term “nuclear weapons program?” For instance, is Iran’s enrichment program included in the term? A footnote explains that “for the purposes of this Estimate, by ‘nuclear weapons program’ we mean Iran’s nuclear weapon design and weaponization work and covert uranium conversion-related and uranium enrichment-related work; we do not mean Iran’s declared civil work related to uranium conversion and enrichment” (n. 14). Here again seems to be another lesson from the Iraq WMD NIE. Unlike in that document, in this Iran NIE, “weapons program” is defined narrowly. Yet, how does U.S. intelligence know that Iran’s uranium enrichment is in fact “civil” and is not—and will not become—part of a plan to develop “nuclear weapons?” Isn’t that the question under investigation? It is not difficult to imagine how the authors of the Iran NIE could have more skillfully described in their writing the ambiguity of the civil/military boundary.

In his op-ed, Dennis Ross takes the rhetorical analysis of the 2007 Iran NIE a step further from framing to staging (n. 15). After suggesting that the NIE “created a new story line” because it “shifted attention away from enrichment to weapons,” he argues that although “one can criticize the intelligence community for framing the NIE around the wrong issue,” it was “President Bush and those around him” who were responsible for the “public roll-out” of the NIE. They knew the document would leak, and “they wanted to get out in front of the leaks,” according to Ross (n. 16). There is little reason to doubt—and there are many reasons to agree—with Ross’s assessment here. The cover letter that accompanied the unclassified release of the NIE did explain that “the Intelligence Community is on the record publicly with numerous statements based on our 2005 assessment on Iran. Since our understanding of Iran’s capabilities has changed, we felt it was important to release this information to ensure that an accurate presentation is available” (n. 17). Yet, just a month earlier in late October, the Director of National Intelligence had issued policy guidance that directed that Key Judgments from future NIEs would not be declassified (n. 18). Especially considering that the cover letter states “the decision to release the declassified Key Judgments was coordinated in discussion with senior policy makers,” we have every reason to think that President Bush acted as the “declassifier-in-chief” (n. 19). Consequently, he and his staff are to blame for the hapless staging of the public release of the Key Judgments.

After the op-eds of Kissinger, Ross, and others the conventional wisdom emerged that U.S. and E.U. diplomacy was a fait accompli with Iran. Yet, how does U.S. intelligence know that Iran’s uranium enrichment is in fact “civil” and is not—and will not become—part of a plan to develop “nuclear weapons?” Isn’t that the question under investigation? It is not difficult to imagine how the authors of the Iran NIE could have more skillfully described in their writing the ambiguity of the civil/military boundary.

Notes:
13: Ibid., 5.
14: Ibid.
16: Ross (2007).
Craig Cammarata is a first year M.P.P. student at the Ford School. His undergraduate training was also in public policy and he graduated from Hamilton College in winter of 2004 with a B.A. in Public Policy. Before coming to the Ford School Craig worked as a policy analyst for the Congressional Budget Office. His policy areas at CBO were energy, the environment, and natural resources. Craig has a strong interest in promoting and developing sustainable energy systems.

Jake Czyz is a first-year PhD student in Computer Science and Engineering pursuing research in artificial intelligence. His interests in STPP are broad and include the areas of energy, information technology, and international relations.

Claire Giammaria (MPH '07) worked as a Research Assistant for Shobita Parthasarathy and the STPP program from January-December 2007. She graduated from the School of Public Health’s Health Management and Policy program in April of 2007. Starting in January 2008 she will be a Research Associate at the American Civil Liberties Union’s Technology and Liberty project in Washington D.C. With Barry Steinhardt, she will be researching and writing policy recommendations that ask organizations, individuals and government officials to consider new technologies’ affect on our fundamental constitutional rights. Claire will also be working with Tania Simoncelli on genetic technologies and their influence on our privacy rights. She is excited because this opportunity allows her to continue to learn about, and, in a real way, contribute to, public policy that will influence genetic research and the technologies that result from it. Claire says she is grateful for the introduction, preparation and direction that she gained from her time working within the STPP program and with Shobita.

Mitaire Ojaruega is working on his doctorate in Applied Experimental Nuclear Physics in the Applied Physics Program. He is extremely interested in the politics of funding for the physical sciences and science education.

Nathan Palpant is a graduate student in the department of Molecular and Integrative Physiology. His primary area of research is to develop a gene therapy technology for treatment of heart disease using an engineered mutant protein. He also intends to carry out cell culture studies to understand the specific mechanisms by which this mutation has effects on the functionality of cardiac myocytes. Nathan’s involvement in STPP originated from a long lasting interest in the social and political implications of science and technology. In 2007 he presented his research about the national stem cell controversy at the American Association for the Advancement of Science (AAAS): Science and Technology in Society Conference and the Annual Conference of the Society for the Social Studies of Science.

Andrew Schroeder (MPP '07) graduated in December from the Ford School's MPP program and STPP certificate program. His interest in joining the STPP program was to explore his interests in information technology and international development policy. His new job as of January 2nd is Director of Research and Analysis for Direct Relief International, an international and domestic humanitarian medical and disaster relief NGO based in Santa Barbara, CA.

Myra Marie Tetteh is a first-year student in the School of Public Health department of Health Management and Policy. A recent graduate (April 2007) from the University of Michigan, Myra majored in Political Science and Sociology with an interest in Pre-Medical/Science studies. The Science, Technology, and Public Policy program was a way to incorporate Myra’s two interests—science and public policy. Myra’s interests range from health policy to science policy to policy in general. Basically, if it is policy - Myra is interested.

Crystal Thrall is working towards a PhD in the department of Nuclear Engineering. Her research interest is in radiation detection. After graduating, Crystal hopes to influence national security policy.

Yi Wang is a first year Ph.D student in Environmental Health Sciences at the School of Public Health. He is interested in environmental health policy, health policy and policies related to biological and medical sciences. Through the STPP Program, Yi hopes to also get exposed to issues of environmental law.

Salena Whitfield received a B.S. in chemical engineering from Florida A & M University and a M.S. in chemistry from the University of Michigan. As a doctoral candidate her dissertation research is focused on organometallic chemistry, specifically the design & study of environmentally benign oxidants for use with metal catalysts and the examination of oxidative addition/reductive elimination with group 10 metals. Her interest in STPP includes environmental governance and related regulatory policies. Prior to attending Michigan, Salena worked as a business analyst at McKinsey & Company, a management consulting firm.
Certificate Program in Science, Technology, and Public Policy (STPP)
Application Deadlines: February 15th and October 15th

CURRICULUM

The STPP certificate requires 15 credit hours of coursework, including three core courses and 2 electives of the student’s choice. These courses can be taken in any order.

Core Courses

STPP Core Course 1—PubPol 650: Introduction to Science and Technology Policy Analysis (Offered in Fall; 3 credits)
STPP Core Course 2—PubPol 754: Research Seminar in Science, Technology, and Public Policy (Offered in Winter; students must enroll in 3 credit option)
STPP Core Course 3—PubPol 585: Political Environment of Policymaking (Offered in both Fall and Winter, Winter option focuses on science & technology policy examples; 3 credits)

Elective Courses

Information/Communication Technology
SI 507/703 : Foundations of Information Analysis & Design (NEW)
SI 510 : Special Topics: Data Security and Privacy: Legal, Policy and Enterprise Issues (Newly Listed)
SI 550 : Seminar in Information Policy: Regulation & Politics (Newly Listed)
SI 605 : Special Topics: The Development and Future of the Internet
SI 648/748 : InfoCulture: Theory and Method in the History and Sociology of Information Technology (NEW)
PUBPOL 720/SI 621 : Ethics, Values, and Information Dilemmas
SI 668 : Seminar in Information Policy: Regulation and Politics
SI 741 : Systems, Networks, and Webs
*SI 519 : Special Topics: Intellectual Property and Information Law
SI 532 : Digital Government I - Information Technology and Democratic Politics
SI 533 : Digital Government II - Information Technology and Democratic Administration

Biotechnology
HMP 517 : Issues in Public Health Genetics
PUBPOL 759 : Genetics and Biotechnology Policy
*EPID 776 : Bioterrorism and Other Weapons of Mass Destruction

Automotive Technology
UP 572 : Transportation and Land Use Planning
UP 671 : Public Policy and Transportation

Space Policy
AERO 583 : Management of Space Systems Design
AOSS 581/AERO 581 : Space Policy and Management

Environmental Policy
CAAS 596 : The History of Environmental Thought and Activism
NRE 558/CEE 587 : Water Resource Policy
NRE 559 : International Environmental Policy and Law
*UP 532 : Sustainable Development: Resolving Economic & Environmental Conflicts
PUBPOL 563: Politics of Environmental Regulation (Newly Listed)
PUBPOL 564: Government Regulation of Industry and Environment
PUBPOL 653: Global Environmental Governance
PUBPOL 655 : Energy in World Politics (NEW)

General Health/Medicine Policy
ANTHRCUL 548 : Theory and Practice in Medical Anthropology
ANTHRCUL 458/558 : Maternal/child Health, the Environment, & Pollution in Africa
CAAS 443 : Pedagogy of Empowerment: Activism in Race, Gender, and Health
CAAS 483/5xx : Gender, Poverty, Medicine
EPIDEMIOLOGY 663: Health, Evidence & Human Rights (NEW)
HMP 615 : Introduction to Public Health Policy
HMP 618 : Tobacco From Seedling to Social Policy
HMP 625 : Health and Health Systems in the Developing World
HMP 653 : Law and Public Health
HMP 684 : The Politics of Health Care Policy
HMP 685 : The Politics of Health Policy
HMP 693 : Mental Health Policy in the United States
*HMP 695 : Public Health Policy Issues in Women’s Health Information Law
SOC 475 : Introduction to Medical Sociology
SOC 575 : Sociology of Health and Aging
WOMENSTD 400 : Women’s Reproductive Health

General Science/Technology Policy
ANTHRCUL 625 : Anthropological Approaches to Property and Property Rights
CSIB 647 : Strategy for Technology Commercialization
HISTORY 619 : Knowledge/Power/Practice in Science, Technology, & Medicine
HISTORY 629 : Technology and Nature in Africa (NEW)
HISTORY 796 : Knowledge and Practice
IOE 438 : Occupational Safety Management
IOE 522 : Theories of Administration
*ChemE 597 : Regulatory Issues for Scientists, Engineers and Managers
PUBPOL 564 : Government Regulation of Industry and Environment
PUBPOL 654 : Science, Technology, and International Affairs
PUBPOL 757 : National Science Policy

*While this course is still being offered, the instructor has not yet responded to tell us whether they will allow STPP graduate certificate students.
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