STS Newsletter Spring 2012

Jacob Moses, '07, returned to campus this April to present a lecture on his work with The Hastings Center and "Cracking Your Genetic Code." Pictured here discussing the lecture with Julia Ding, '12, whose thesis covers similar themes.

Vassar College: Program in Science, Technology & Society

Over the end of last spring semester and into the fall, the STS Program engaged in a process of formal self-study, culminating in the visit of three outside reviewers of the program (Trevor Pinch, Cornell; Jesse Bellinger, Northwestern; Jennifer Tucker, Wesleyan). In our discussions, we celebrated the rich history of the program, but also looked seriously into its next few years.

We reaffirmed our mission, written during the early phases of less formal self-study three years ago: "Within the context of offering a multidisciplinary perspective on complex and rapidly changing areas of inquiry, the program strives: a) to understand the central role of science and technology in contemporary society; b) to examine how science and technology reflect their social, political, philosophical, economic and cultural contexts; and c) to explore the human, ethical and policy implications of current and emerging technologies."

We also discussed our future staffing, celebrating the engagement of several new faculty members in the program while also planning for the time of transition following the spring, 2013 retirement of Jim Challey (more on that, next year!)

In sum, we left proud of the richness of our curricular offerings, enthused by the engagement and excitement our faculty and students bring to our work together, and challenged (in a positive sense) to continue to bridge the natural and social sciences in a way that allows all of us to address the social impact and context of our increasingly complex scientific and technological world.

-Janet Gray, Director of STS

IN THIS ISSUE

Alumni Feature: Tom Stebbins, '99

by Melina Harris, '13

Though his career has been varied, Tom Stebbins, '99, has used his core skill set to navigate seamlessly his post-college years. Education,

grassroots organization, and coalition building are three strengths Stebbins began to explore in the Science, Technology, and Society program at Vassar College. Still, some may wonder how Stebbins, who studied educational technology and worked on *Antiques Roadshow*, ended up building support for tort reform. He explains, "the STS Program taught me to react quickly to changing environments."

Stebbins' career moves reflect this lesson. After working for WGBH-TV on the PBS science series NOVA from 2002 to 2005, he developed a greater concern for future energy sources, leading him to Horizon Wind Energy, where he built wind farms until 2011. When hydrofracking for natural gas became more prevalent, energy prices went down, and suddenly wind energy became much less competitive. This didn't stop Stebbins from applying what he had learned at Horizon Wind Energy to a completely new field. "While building wind farms I saw firsthand how regulations and liability prevented my company from hiring New Yorkers to do jobs in New York." Tom soon arrived at his current job, as Executive Director of the Lawsuit Reform Alliance of New York.

Stebbins has used his combination of skills to bridge the gap between seemingly disconnected occupations, and his most recent work in law reform focuses on bridging the gap between businesses, doctors, farmers, politicians and the public. Stebbins has taken the knowledge he gained from the interdisciplinary program of STS to his current line of work. "Positive change can only happen when you get everyone on board," he adds. By increasing understanding, Stebbins breaks down barriers between various actors in lawsuit reform to bring meaningful changes to policy and procedure. His diverse career path is also a reflection of his philosophy on finding a job after college. Stebbins advises, "try not to focus on a single industry or position, focus on developing your skill set and understanding what you are good at."

Senior Theses 2012:

The great variety of topics addressed in the theses of the STS class of 2012

The Age of Gamification: Why the Recent Trend and Where Gamification is Heading
Alex Cheung

Antiretroviral Expansion in Resource Limited Settings
Caitlyn Anderson

Cryonics: Definitions of Death and Ethical, Legal, and Moral Implications
Emily Beer

Surrogacy in the U.S. and Germany
Hannah McDermott

Pre-implantation Genetic Diagnosis and the Prospect of Designer Babies
Julia Ding

Adaptive Spectacles as a Solution to Global Visual Impairment
Kristin Simoncelli

HIV Microbicides: Feminist Technology?
Michelle Farinella

Reconciling Intellectual Property Rights and the Need for Improved Access to Pharmaceuticals
Nina Punukollu

Genetically Modified Crops and Ethiopia: A Solution to Alleviate the Hunger Crisis?
Rebecca Guenoun

Smoking Initiation in Chinese and Chinese-American Adolescents
Steven Chan

Junior Year Abroad: Michelle Farinella, '12

by Michelle Farinella, '12

In Spring of 2011, I studied abroad in Copenhagen, Denmark at the Danish Institute for Study Abroad's Public Health in Northern Europe program. One of the great things about studying abroad was that not only were my courses related to STS but my entire experience was as well. There were so many instances throughout my trip when my STS background really came in handy and made me appreciate being in Copenhagen.

Many of my courses were STS related. For example, my "Public Health in Northern Europe" class compared the healthcare systems of Denmark, Estonia and Finland. We looked at many different aspects of healthcare systems and how they function. We learned about who was covered under these systems, where the money came from and which level of government provided medical services to the citizens. Not only did this class teach me about healthcare in Europe, but it also helped me to think critically about the United States healthcare system. I was able to weigh the pros and cons of having an insurance based healthcare system versus a government run universal healthcare system. I also thought about many important STS questions: How does a country's healthcare system affect a population's health? How have medical advancements affected society? How do we determine the best way to use our medical resources to help the most people?

"Health Beyond Borders" was another class that had me asking many similar questions. This class was about global health and was structured around the United Nations' Millennium Development Goals (MDGs). The MDGs were created to combat extreme poverty on a global scale. We often spoke about the connection between socioeconomic status and health. As an STS major, the idea that one's health is not only related to one's access to medical care but also to food access, clean drinking water, education and the environment that one lives in was very familiar to me. Throughout my STS studies I have come to realize how interconnected science is with other subjects, such as economics and politics. In order to combat poverty and disease on a global scale the overlap between these different sectors of society must be highlighted.

Even in "Human Trafficking in Europe" I was able to see a connection to STS. Currently, human trafficking is the second most profitable criminal enterprise in the world (behind drug trafficking). It has become so profitable because we live in a globalized society. Technology allows us to move goods, ideas and people around the world easily. Therefore the entire world has essentially become a potential supplier and market for human trafficking.

Not only my classes related to STS, though, but my entire Copenhagen experience was as well. One of the great things about Copenhagen is the emphasis on environmental consciousness. Most Danish families own only one car and otherwise ride bicycles or take public transportation everywhere they go. Denmark has an excellent public transportation system as well as infrastructure for safe bicycle travel. The Danes are very energy conscious have some of the smallest carbon footprints in the Western World. Many of the lights in homes and public buildings are motion activated and water saving toilets are the norm. In Denmark there is no shortage of technology but instead they have found a way to be both environmentally friendly and technologically savvy.

Course Offerings:

The STS program is offering many new and exciting courses. Here are some of the classes that were offered this academic year, as well as some to look forward to in the coming year

Infrastructure: This course examines four of the most debated infrastructures: water, electrical power, transportation (bridges and highways) and communications (the Internet). The current state of the technology and its future prospects is examined, with the political, economic and environmental constraints and consequences.

History of Science from Plato to NATO: This course addresses key moments in the history of science from Ancient civilizations to the present day. We explore foundational texts of scientific traditions. Topics include: Ancient natural philosophy; Medieval traditions of astronomy, magic, alchemy, and medicine; early-modern experimentation; and recent debates that pit the sciences against the humanities.

Gender, Race, and Science: This course critically examines the intersections between science and categories of gender, race, class, and sexuality. We will consider how these constructions and the practice of science matter in terms of health care, education, foods, the environment, safety, careers, and power in society. Throughout the course, we will ask how the social institution and power of science itself is affected by gender, race, class, and sexuality.

Renewable Energy: This course examines renewable energy technologies currently available. Primary attention goes to wind, solar and hydroelectric power and biomass (including ethanol and biodiesel), with brief consideration of geothermal and tidal energy. We draw upon the social construction of technology and actor-network theory to understand the factors shaping the field.

Technology, Ecology and Society: This course examines the interactions between human beings and their environment as mediated by technology, focusing on the period from the earliest evidence of toolmaking up to the Industrial Revolution.

The Culture and Chemistry of Cuisine: This course develops the basic chemistry, biochemistry and microbiology of food preparation; explores the biochemical basis of nutritional practices; covers social and political aspects of foods. Controversies like genetically modified organisms, production of high-fructose corn syrup, and the historic role of food commodities such as salt, rum, and cod in the world economy are covered.

Alumni Feature: Marissa Codey '98

by: Olivia Arnow '13

Always engaged in interdisciplinary thinking, Marissa Codey '98 has transformed her STS education into interdisciplinary practice, currently managing the Conservation and Agricultural Programs at the Columbia Land Conservancy (http://clctrust.org/) in Columbia County. At the Conservancy, Marissa coordinates farmland protection efforts and started the Farmer Landowner Match Program, while also working on acquisition and conservation projects. The STS program allowed Marissa to explore her curiosity of the human aspect of science and sparked her interest in conservation. Marissa's passion led her and her now husband, Dan Werner '98, to Colorado to pursue agricultural research at Colorado State's Agricultural Research, Development and Education Center. Shortly thereafter both Marissa and Dan went on to graduate school and she received both a MSES (Master of Science in Environmental Sciences) and MPA (Master of Public Affairs) at The Indiana of University-Bloomington. Marissa and Dan moved to Indianapolis after graduation where Marissa served as the director of the Central Indiana Land Trust. In 2003 Marissa and Dan moved back to New York and she began with the Columbia Land Conservancy. Now Marissa splits her time working at the Conservancy and taking care of her 3 year old and 9 month old daughters. When looking back on her time as an STS major at Vassar, her advice to current students is 'do what you love-you can't predict the future, so I figure it's better to just find a way to enjoy what you do now and live in the moment!'

A Question of Intellectual Property: iParadigms® and Turninit®

by: Rebecca Guenoun '12 and Liz Edgaro '13

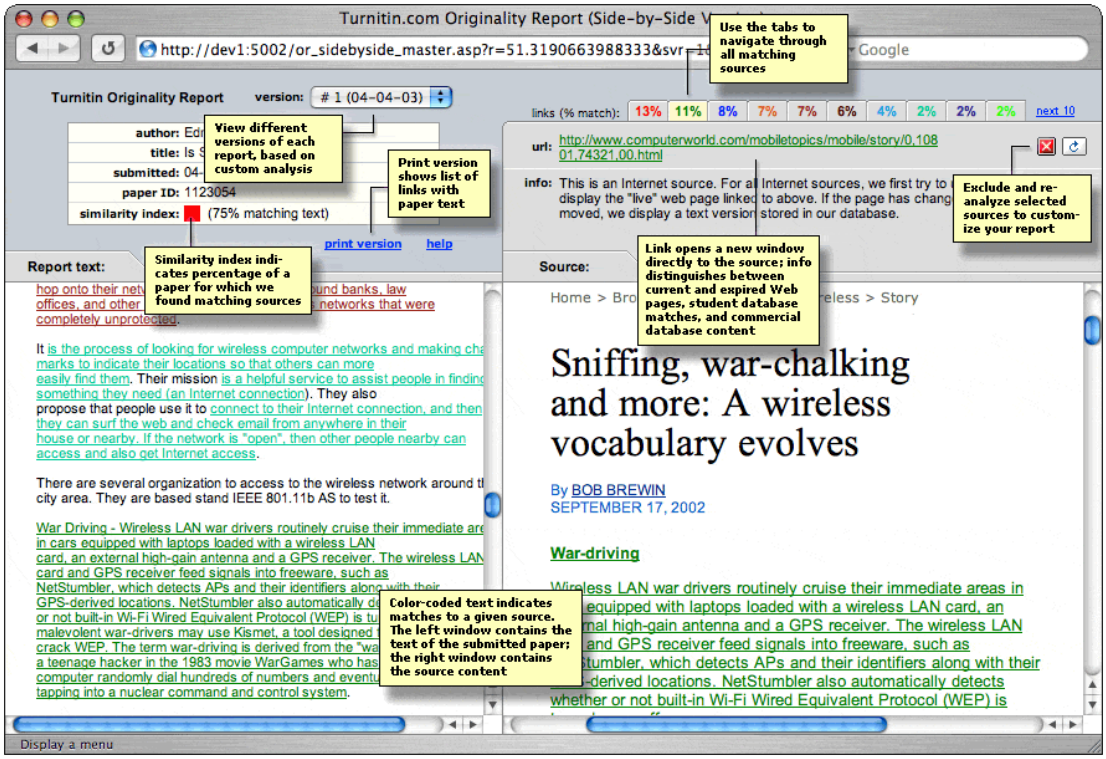
Last semester, Dr. Michael Bennett, currently Associate Professor at Northeastern University School of Law and previously the Mellon post-doctoral fellow in the Vassar STS program, presented a lecture on his most recent research in issues of intellectual property (IP) in emerging technologies. Dr. Bennett explored the many questions facing intellectual property in three case studies, including the case exploring services offered by iParadigms®.

iParadigms® designs software in an effort to prevent plagiarism in student work. Its primary service, Turnitin®, archives millions of papers and other publications and cross-checks student work with the texts in its database to inform educators of the probability that student work was plagiarized. Many educators require their students to submit assignments through Turnitin® to receive credit. However, in order to submit their work, students must agree to the company's terms of service of the technology: their work will be archived in iParadigms'® database. This is advertised as a user benefit, because iParadigms® can protect every student essay in its database from being plagiarized in the future.

But is iParadigms® a violation of IP rights? While the service may not be traditional violation of IP or copyright laws, the company is also not using the submitted materials in traditional fair use that protects newspaper reporting, education, or public use, as the papers in the database are unpublished. According to court rulings, the company is operating within the legality of the doctrine of fair use. However, one issue surrounding this is in regards to the profits that the corporation is making off of school subscription fees and indirectly off of archived student work. Furthermore, because the corporation is making a profit off of student work, the software implies that students are guilty of plagiarism until proven innocent.

Requirements to submit papers to Turnitin® imply distrust by educators of their students to such an extent that they are willing to pay an outside party to confirm their unfounded suspicions.

As with similar cases dealing with intellectual property, we can always approach the debate with different perspectives. There is rarely a completely right or wrong answer in questions of IP. However, in our society we need to come to a firm conclusion with a right and wrong answer. The decisions made about new technologies and their implementations communicate popular ethics in our current society and have important implications for how we operate in our communities.



Staff/Alumni Feature:

Andy Fiss '05

By Lesli Vaughan, '13

The STS program is lucky to have professor Andy Fiss as a member of the faculty, but if you were to ask him, he may say it's the other way around. A graduate of the Vassar College class of 2005, he majored in math and only happened to stumble upon the STS program in an attempt to fulfill distribution requirements. Although he discovered how enjoyable STS was after taking Professor Challey's history of science class, he continued on in math because he "thought it would be more practical." It wasn't until after a summer research experience that he realized how interesting, and in fact practical, topics like the history of science are. After graduating from Vassar, he went straight to graduate school at Indiana University where he studied history and philosophy of science.

While a student at Vassar Professor Fiss participated in numerous extra-curricular activities, including college choir and an a capella group. He was fascinated with exploring ways to effectively communicate science to non-students, so he enjoyed opportunities like the chemistry magic show. When asked what his favorite thing about Vassar was as a student, he mentioned how interested Vassar students are in everything they do, something that is not always present at other schools. As a student, and now as a professor, he found that students were always discussing what they were learning with their fellow students.

After completing his studies at Indiana University, Professor Fiss was able to return to Vassar to teach as a Mellon Postdoctoral Fellow, a position allowing him to continue teaching for one more year. He says that his experiences as a student here were so amazing, that he couldn't turn down the opportunity to return. As a professor, he enjoys the intellectual atmosphere and that there is more of an opportunity for students to talk to faculty since there is a greater sense of dialogue between professors and students. He enjoys teaching a wide array of topics in STS, but often teaches classes that "explore the intersection between STS and STEM (science, technology, engineering, and mathematics) education." Since his return, he has realized that Vassar now places more of an emphasis on inter- and multi- disciplinary studies. Relating to this growing trend, if he were to give one piece of advice to STS students, he would tell them to recognize that a degree in STS is practical: the major really does train students for a variety of career paths, and students end up gaining a lot of valuable things from their experiences.

Jacob Moses, '07, returned to campus on April 22 to talk about his work with the Hastings Center and producing the NOVA special "Cracking Your Genetic Code."

If you would like to contribute to the Science, Technology, and Society newsletter, or if you have any comments, questions, or feedback, please contact the 2011-2012 Science, Technology, and Society academic intern, Rebecca Guenoun at reguenoun@vassar.edu.