Data Mining and the Hunt for Terrorists

By Stephen E. Fienberg, Maurice Falk University Professor of Statistics

The events of September 11, 2001 changed our lives in irrevocable ways. You would have to have been in hibernation for the past four years to miss the fact that the federal government is engaged in a hunt for terrorists. The government has always used data collected for a variety of purposes for security purposes. Indeed, such activities lie at the heart of organizations such as the National Security Agency. But after 9/11 the effort has intensified and shifted in some surprising ways bringing to the fore tools that we at Carnegie Mellon know something about.

Where and how does the government look for terrorists? Clearly there are many sources of information that government officials tap into in this regard. Some believe that if we sift through the data available from government and other sources using the latest data mining techniques, we’ll find the clues to prevent the next attack. For those who haven’t caught up on the latest lingo from computer science, data mining is usually described as an information extraction activity, using machine learning and statistical tools for discovering hidden facts contained in databases. Using “An Algorithm As a Pickax” was the data mining metaphor in a recent New York Times article (October 10, 2005). Data mining is what most of us in Carnegie Mellon’s Center for Automated Learning and Discovery (CALD) do, in one form or another, and we now offer a Ph.D. in Data Mining and Knowledge Discovery. So it must be a good thing, right? But then why are civil libertarian and public watchdog groups like the ACLU so upset over the use of data mining? One of the problems is that many of the databases that are targets for data mining contain personal information that we have long believed was not subject to such data snooping. Thus there is a public issue as to whether we should trade our privacy for the protection against terrorists that data mining might afford us. This is another topic that those of us associated with CALD have examined, i.e., the risk-utility tradeoff associated with access to confidential data.

There’s one further problem: We don’t know what form the next attack will take, but we can look for clues about potential terrorists we have seen in the past. This is why Congress, in its wisdom as part of the USA Patriot Act, rescinded the confidentiality provision for data from the National Center of Educational Statistics (NCES) to allow government access to identifiable individual information. This still might sound strange to you until you realize that NCES data files include information on individuals enrolling in flight schools and we know that several of the 9/11 hijackers spent time at a flight school in Florida prior to their coordinated attack! Moreover, the 20 attackers showed up in a variety of other “unprotected” non-confidential databases once they had been identified. And the price for this kind of “retrodictation” is the potential loss of privacy, especially when we look at the sources of the data the advocates of data mining want to exploit. As the Patriot Act continued on page 3

Lysistrata at the Chosky

By Peggy Knapp, Professor of English

The entwined themes of Aristophanes’ Lysistrata (410 BCE), the futility of imperialist war and the redemptive rationality of women render the choice of this play for the Chosky main-stage particularly timely. The title character, Lysistrata, delivers impassioned speeches urging Athenian men to give up the battlefield for productive lives with their families that seem “ripped from the headlines,” as the television ads for Law and Order say about its episodes. The Peloponnesian War (431-404 BCE) is also in the news because of a fresh analysis of it by Victor Davis Hanson, who calls the Athenian attempt to extend its rule throughout Greece “the Western world’s first example of globalization” (the book was reviewed in the New York Times on October 11 by William Grimes).

In spite of our habit of regarding ourselves as the intellectual and political descendants of “golden age” Athens, there is a good reason for including Lysistrata in a season devoted to “celebrating difference.” The “difference” being highlighted in this case is the centuries-long divide between the pre-Christian Greek play and the modern audience. Aristophanes insists on the grim realities of war the women of his play describe, but he presents their point through comedy, and not subtle comedy either. Television (the most public venue for us, as theater was to Athens) would censor the visual jokes about sex-starvation resulting from the withdrawal of conjugal rights by the anti-war women of Athens and Sparta.

Comedy usually relies on the topical to elicit laughter, and each culture has its own sense of what can be laughed at. During the English Renaissance, people would amuse themselves by visiting the madhouse—Bedlam—or keep the insane as household “jesters.” Anyone who has tried to read a play from this period has to rely on footnotes for many of the linguistic jokes, since slang and double-entendre are famously short-lived. But the one subject for humor that needs little explanation and can be almost seamlessly translated into new social practices is sex. And in Lysistrata sex dominates both the plot and almost all the funny lines.

That Aristophanes would choose the very fortuitous physical result for males of the women’s sex-strike is natural enough in light of the connection of Old Comedy with Dionysus - god of wine, sex, and festivity - and the identification of the erect phallus with the fertility and wellbeing of the city. Outrageous plot turns and outlandish (mechanical) displays of outsized penises were not unusual in ancient Athens. The production at the Chosky left in those reminders of Athenian practice, but also attempted to overcome historical difference by translating some of the jokes into a contemporary style, for example by giving the Athenians northeastern and the Spartans a southern accents (this ploy produces some nice moments as Lysistrata’s Athenian sidekick Kleonike sounds New Jersey-eque), and by rendering choral chants as modern music. Something from 410 BC, something from just yesterday.

To put such broad devices to use in underlining so serious a theme as ending the Peloponnesian War, though, must have created a narrative problem for Aristophanes, and its still does for us. Brian Johnston writes in continued on page 7
Letter in reply to “What Kinda Person Needs an “Assault Weapon”? 

Dear Focus Editors,

Maybe I would relax if all gun owners were philosophy professors, but I doubt it. Professor Covey’s arguments on freedom, liberty and culture are valid and well-made, but there is no getting around the fact that, in a peaceful society, everyone is less safe when more guns are carried in public or private. By “peaceful society,” I mean one in which essentially all individuals pursue life, liberty and happiness without fear of violent attack, especially by those who claim they areardoing the same. People carrying firearms – especially concealed firearms and more so “assault-type” firearms – make me nervous. I am not, from the ideal. Whenever I ride the bus (for example), I worry a little bit that one of my fellow riders may have a concealed weapon, and, if they see the need to use it for personal protection, a bystander could get shot. The chances of that would only increase if an assault weapon was drawn and used. A bystander victim is unlikely to feel that possibility because from ex post facto legal recourses mercurial or never having been shot. Furthermore, my argument against assault weapons is that they are dangerous to law enforcement. Assault weapons are especially dangerous in public areas. Professor Covey makes many valid points, we need to be honest about the full spectrum of effects of guns in our society. 

Sincerely,

Frederick Lanni
Associate Professor, Biological Sciences

It may seem odd to go without saying that being hungry is terrifying. The stress response allows survival: no words however. It’s not like a horror movie, where the movie ends, and you might have nightmares, but you know you’re safe. When you’re hungry, the nightmare doesn’t end. As the great poet Aude Lord once said, “when our stomachs are empty we are afraid we may never eat again” (“A Litany for Survival,” from The Black Unicorn). When I was hungry, I thought about food constantly, with a kind of panic. I’m sure the fear showed on my face. Since I couldn’t project confidence in an interview, finding a job was very difficult. It was tiring, I half expected a flyer on my pillow some night. I completely run away from my peers even these pages or maybe not.

Just a taste of real hunger: Why I

Food Drive Committee — You know these people. They appear between Halloween and Thanksgiving, and hit you up for canned goods. They leave a flyer on your car windshield, on your desk, and I half expect a flyer on my pillow some night. Don’t mess with these people. Give them your goods, or they might have support for the Food Bank. Food gave so much to Katrina victims that their shelves are seriously depleted, so dig into your pockets and cupboards this year — it’s important.

Kennywood — Okay, that’s self-explanatory, but what do they do the rest of the year? Actually, most of Staff Council folks are double-booked on committees, so don’t think they just sit around in the winter eating free lunches. I’m starting to feel guilty that I only joined one committee.

Constitution Committee — These people are like the Supreme Court of Staff Council; they interpret the Constitution and Institute amendments. Except to join, you don’t have to describe your beliefs or give a full disclosure of your voting history.

The Election Committee handles the call for nominations and the Staff Council ballot, and they’re obviously doing a fine job because they got me elected. Seriously though, I’m glad I got involved, and I encounrencore enough people tome come re-elect our committee and increase our committee of this.

Grievance Committee — These are the guys that have your back if you need to file a grievance or just think about filing one. They’ll show you how to proceed, they’ll sit with you while you go through it and they’ll make sure nobody hassles you for it. They can’t take sides, but they will be there for you.

Take Our Daughters and Sons to Work — This committee organizes activities of far more interest than the workday most of us drag through day after day. I’d like to see these kids really put to work, but there are laws against that, so we entertain them and teach them instead. My cubic neighbor works every day on this committee every year, but I know well enough not to join now. If they ever want you to join, they have to short circuit our Dogs to Work committee, we can count me in.

There are some of the committees and chores of Staff Council. I’m still a newbie, but I’m enjoying myself so far, and I’m motivated by how much Staff Council members care about Carnegie Mellon better place to work. They’re a dedicated bunch, and I’m proud to be one of them.

Just a taste of real hunger: Why I

Food Drive Committee — You know these people. They appear between Halloween and Thanksgiving, and hit you up for canned goods. They leave a flyer on your car windshield, on your desk, and I half expect a flyer on my pillow some night. Don’t mess with these people. Give them your goods, or they might have support for the Food Bank. Food gave so much to Katrina victims that their shelves are seriously depleted, so dig into your pockets and cupboards this year — it’s important.

Kennywood — Okay, that’s self-explanatory, but what do they do the rest of the year? Actually, most of Staff Council folks are double-booked on committees, so don’t think they just sit around in the winter eating free lunches. I’m starting to feel guilty that I only joined one committee.

Constitution Committee — These people are like the Supreme Court of Staff Council; they interpret the Constitution and Institute amendments. Except to join, you don’t have to describe your beliefs or give a full disclosure of your voting history.

The Election Committee handles the call for nominations and the Staff Council ballot, and they’re obviously doing a fine job because they got me elected. Seriously though, I’m glad I got involved, and I encourage enough people to come re-elect our committee and increase our committee of this.

Grievance Committee — These are the guys that have your back if you need to file a grievance or just think about filing one. They’ll show you how to proceed, they’ll sit with you while you go through it and they’ll make sure nobody hassles you for it. They can’t take sides, but they will be there for you.

Take Our Daughters and Sons to Work — This committee organizes activities of far more interest than the workday most of us drag through day after day. I’d like to see these kids really put to work, but there are laws against that, so we entertain them and teach them instead. My cubic neighbor works every day on this committee every year, but I know well enough not to join now. If they ever want you to join, they have to short circuit our Dogs to Work committee, we can count me in.

There are some of the committees and chores of Staff Council. I’m still a newbie, but I’m enjoying myself so far, and I’m motivated by how much Staff Council members care about Carnegie Mellon better place to work. They’re a dedicated bunch, and I’m proud to be one of them.

Just a taste of real hunger: Why I

Food Drive Committee — You know these people. They appear between Halloween and Thanksgiving, and hit you up for canned goods. They leave a flyer on your car windshield, on your desk, and I half expect a flyer on my pillow some night. Don’t mess with these people. Give them your goods, or they might have support for the Food Bank. Food gave so much to Katrina victims that their shelves are seriously depleted, so dig into your pockets and cupboards this year — it’s important.

Kennywood — Okay, that’s self-explanatory, but what do they do the rest of the year? Actually, most of Staff Council folks are double-booked on committees, so don’t think they just sit around in the winter eating free lunches. I’m starting to feel guilty that I only joined one committee.

Constitution Committee — These people are like the Supreme Court of Staff Council; they interpret the Constitution and Institute amendments. Except to join, you don’t have to describe your beliefs or give a full disclosure of your voting history.

The Election Committee handles the call for nominations and the Staff Council ballot, and they’re obviously doing a fine job because they got me elected. Seriously though, I’m glad I got involved, and I encourage enough people to come re-elect our committee and increase our committee of this.

Grievance Committee — These are the guys that have your back if you need to file a grievance or just think about filing one. They’ll show you how to proceed, they’ll sit with you while you go through it and they’ll make sure nobody hassles you for it. They can’t take sides, but they will be there for you.

Take Our Daughters and Sons to Work — This committee organizes activities of far more interest than the workday most of us drag through day after day. I’d like to see these kids really put to work, but there are laws against that, so we entertain them and teach them instead. My cubic neighbor works every day on this committee every year, but I know well enough not to join now. If they ever want you to join, they have to short circuit our Dogs to Work committee, we can count me in.

There are some of the committees and chores of Staff Council. I’m still a newbie, but I’m enjoying myself so far, and I’m motivated by how much Staff Council members care about Carnegie Mellon better place to work. They’re a dedicated bunch, and I’m proud to be one of them.
My reading these days has been centered on a book that I would never have bought for myself—one of those Christmas gifts for which I profusely thanked the donor and then promptly put the volume into a collection of stuff to be disposed of, after a decent interval on the library table, unread and unappreciated.

Fortunately, something—perhaps current headlines—urged me to give the book some time, and reading *The Persian Puzzle: The Conflict Between Iran and America* has made me genuinely grateful for this gift of last December. Kenneth M. Pollack is its author, a seasoned military and diplomatic analyst for the CIA, the National Security Council, and currently a research director at the Brookings Institution. Mr. Pollack employs a very engaging style of prose that presents the most complicated strategies of Middle-Eastern policies in clean and digestible language while not ignoring the convoluted calculations of American practice.

Thanks to his research and examination, I was able to revisit and somewhat understand the machinations that toppled the democratically elected Mossaddeq in the Eisenhower era to replace him with the autocratic Shah, an event which ultimately led to the frightening hostage crisis during the Carter Administration and so on, and so on, and so on—the Iran Contra conspiracy included. There’s enough paranoia to go around in this desperate history that links us, and because of Mr. Pollack’s scrupulous eye one can only wonder if we might be having an easier time of it today if the Persian fleet had only had better breezes at Salamis, All kiosks aside, this is very worthwhile introduction to the whole nightmare we are living through right now.

Fiction on my current reading stack includes Ann Beattie’s new collection of stories *Follies*. Her view of American middle class skirmishes has always been set in a cut above other chroniclers, I think, and the usual characterization of her work as part of the minimalist school was always too convenient a critical packaging. Her technique is that of a wonder fully dry wit and a keen eye on the high and low jinks of the baby boomers that supplies that wit. Reading one of her stories is like sitting down with a smart, articulate friend to catch up on the egregious behavior of old friends.

My friend and mentor Stanley Kunzit turned 100 years old in July and part of the celebration was occasioned by his new book—yes, a new book at 100! *The Wild Bruid* is ostensibly about the remarkable garden he has made of the sand waste that surrounds his summer house on the tip of Cape Cod in Provincetown, but its real strength and observations, aided by his amanuensis Genine Lentine also a poet, go far beyond the iron fence that borders Commercial Street. Some of Kunzit’s lovely lyrics are also included along with discreet photographs of the poet inspecting plants and patrolling a garden path with buckets and hoe in hand. Pictures are by Marnie Crawford Samuelson.

Thanks to my colleague Sharon Dilworth, I have been enjoying *Thirteen Ways of Looking at the Novel by Jane Smiley.* I have even shared some of novelist Smiley’s wisdom and attitudes toward this wayward form with my advanced fiction workshop. Frankly, I do not admire Ms. Smiley’s fiction as much as I probably should, finding much of it rather verbose, but this collection of essays and articles on the structure and those who attempt to come to terms with it appeals to me greatly, though it may not be for the general reader.

And last—and just in—is *Tête à Tête* an account of the odd relationship between Jean Paul Sarte and Simone de Beauvoir. Those of us who ran screaming through the night in search of our authentic existences in the 1950’s will appreciate this author’s non-judgmental view of the numerous seductions and swappings that occurred in the sleazy existential sheets, saved from being downright seedy by the marvelous philosophical posturings that accompanied them like foreplay. Further, Ms. Rowling has reproduced a startlingly vivid image (and images) of the issues raised during World War II of the capacious inhumanity of mankind and how that generation responded. Our Creative Writing Program invited Hazel Rowley to give a reading last year, and she read from some of this material and talked about some of the difficulties of her research. It is a great pleasure to now see the book in print and to cheer the enthusiastic reception it is receiving.

**Data Mining and the Hunt for Terrorists**

**continued from Page 1**

came up for renewal this past summer, some in Congress attempted to force the government to disclose its use of data mining techniques in tracking suspects in terrorism cases, an effort that the Bush administration strongly resisted. Advocates for controls believe that public has the right to know what databases are being searched and with what data mining algorithms.

As pernicious as the USA Patriot Act provision reserving the confidentiality provision of NCES was, perhaps the biggest threat to privacy in the hunt for terrorists comes from data warehouse operations that draw on all databases, public and private, and confer on the government the right to know what data or how accurate the security lapses at these other large organizations such as Bank of America have been regular news items this past year and they point to serious security vulnerabilities. Someone recently observed that the security lapses at these companies confirm the maxim that “a company can have information security but not privacy but not privacy without information security.”

The data warehouses also participate in the hunt for terrorists. They merge and match data on individuals, impervious to error and inaccuracies, and then repacke the data for sale to other private enterprises and govern-
Carnegie Mellon’s principal historic space, which is sometimes referred to as the Hombostel Mall, is regularly subject to indignities. The lining of the lawn as athletic space, the coming and going of tents, and the episodic destruction and regeneration of grass are rather thoughtless and distracting activities; but the effects are temporary and ultimately harmless, I suppose.

Significant alterations to the Mall have included the rebuilding of the lower end in about 1970 as the roof of an arm of Wean Hall, which introduced a banal plaza and an assortment of plantings now dominated by insipid members of the banana plant family (1). More recently, the Department of Civil and Environmental Engineering’s design-build projects have proliferated along the perimeter of the Mall, but since most of these projects are tucked into recesses, and the Herbert A. Simon Memorial is literally tucked into the landscape, they have had relatively little impact on the space as a whole.

There have been major threats as well. In 1995 the University commissioned an Open Signet Plan that called for reshaping the Mall in the name of accessibility. This plan would have removed the dips that shape the slope, changing a wide range of physical and visual relationships. Fortunately, this idea has remained on the shelf.

And David Lewis, Distinguished Professor of Urban Studies in the School of Architecture, remembered the “battle royal” that was waged in the early 1960s when Warner Hall was targeted for a site between the College of Fine Arts and Hamerschlag Hall. Lewis—and ultimately the University—concluded that it was “wrong to permanently interfere with the major element of [Henry] Hornbostel’s grand design.”

Now the integrity of the Mall is being challenged again, this time by art!

**

When architect Henry Hornbostel won the competition to design the original Carnegie Tech campus in 1904, he proposed to reshape and organize an unruly landscape while it is actually located 140 feet further on a power plant (Hamerschlag Hall) with its extraordinary iconic tower; and the College of Fine Arts closes the eastern end. But the Mall is about more than individual buildings; it’s also about the space.

Hornbostel’s plan was monumental in scale and rigorous in organization. It was structured with compositional rules and devices such as axiality and symmetry. Carnegie Tech’s essential armature was a major spatial axis flanked by parallel ranges of buildings organized along central spines. We all know the buildings. Baker and Porter Hall comprise a southern range, and Doherty Hall (and later Wean Hall) a northern range. Hamerschlag Hall closes the western end, complete with its extraordinary iconic tower; and the College of Fine Arts closes the eastern end.

Now the integrity of the Mall is being challenged again, this time by art!

**

Hornbostel’s Beaux-Arts design principles, as derived from French Baroque planning, addressed space as a positive element, rather than just a void. Space could be geometrically structured like architecture and designed like architecture, with a range of formal characteristics. It could also be charged with a variety of experiences for the spectator. Hornbostel intended that spectators should enter the campus at its upper end in order to properly perceive the entire court as an architectural ensemble laid out in full array. From a viewpoint at the entrance to the College of Fine Arts he established a planned pictorial vista that extends along the primary axis of the campus and beyond.

This carefully designed vista reveals a wide variety of precedents and allusions in addition to those mentioned so far. It represents an exercise in one-point linear perspective, with a vanishing point lodged in Hamerschlag Hall. It is structured and in some respects functions as a stage set. It is made in the image of Andrew Carnegie and represents Pittsburgh industry by focusing on a power plant (Hamerschlag Hall) with a smokestack instead of Jefferson’s library. It incorporates aspects of the French Baroque garden including purposeful optical illusions. When seen from the entrance to the College of Fine Arts, Hamerschlag Hall appears to sit comfortably at the end of a level lawn despite the dips in the Mall and the topographical complexity of its actual siting; and from the same vantage point, the Hamerschlag Hall tower appears to stand directly over the entrance to the building, while it is actually located 140 feet further to the west. These precisely controlled visual effects break down as the spectator leaves the ideal viewpoint and moves through the space toward Hamerschlag Hall, prompting a different set of perceptions and experiences.

I could go on. I’ve been studying this space for years, and my analysis will appear in a forthcoming book. In short, the Hombostel Mall is an important site of American architecture, landscape, and urbanism. It incorporates a vista, designed for the spectator, which is a work of art in its own right.

**

A new artwork has recently appeared within this visual field, and another will appear soon, suggesting an incipient sculpture garden on the Mall. Snowmen, a sculpture by Gary Hume, is here. The foundation has been laid for Walking to the Sky, a sculpture by noted alumnus Jonathan Borofsky, which will be installed in the spring. Both will be visible from throughout the Mall, and the 100-foot-tall Walking to the Sky will challenge the century-old primacy of the Hamerschlag Hall tower, the scale of the entire campus (it was previously displayed among tall buildings at Rockefeller Center), the clarity of Hornbostel’s vista, and the integrity of his “grand design.”

I understand these artworks to be the fruit of a new effort to raise the profile of public art on campus. I applaud this effort—while noting the lack of community input into these decisions so far. I will not pass judgment on the artwork—while suggesting that siting can be as crucial to successful public art as the artwork itself.

My concern is that art should not compromise art. Carnegie Mellon shares little of the University of Virginia’s respect for its lawn as sacred space; but the Hombostel Mall, with its vista, is, and will likely remain, the best art on campus. It deserves the understanding and respect that we are obliged to bestow on the newest arrivals.

For Borofsky’s sculpture see: http://www.borofsky.com/public/walkingtothesky%5Bnew%5D/
Academic Year 2005-2006 Leaves

Caroline Jean Acker, associate professor, Department of History, College of Humanities and Social Sciences, intends to complete the research and writing of a book on needle-exchange policy and politics in the United States. Her leave is supported by a National Library of Medicine Publication Grant.

Stephen Brockmann, professor of German, Department of Modern Languages, College of Humanities and Social Sciences, has been granted a Humboldt stipend for summer 2005 and an academic leave during the Fall 2005 semester. During the summer, Brockmann worked in the States and in Pittsburgh doing research for his next book, which will deal with Nuremberg as a symbolic German capital. In the Spring 2006 semester, Brockmann plans to offer a course on Nazi and Resistance Culture, part of which will be based on his research for the current book project. During summer 2005, Brockmann, who is the editor of the Brecht Yearbook, also traveled to Augsburg to plan next year’s symposium of the International Brecht Society in commemoration of the 70th anniversary of Bertolt Brecht’s death in August 1956.

William F. Eddy, professor, Department of Statistics, College of Humanities and Social Sciences, is spending the academic year 2005-2006 in the Department of Neurological Surgery at the University of Pittsburgh. He is studying magnetoneurography, a tool used for presurgical planning in patients with epilepsy or brain tumors.

Thomas A. Ferguson, professor, Department of Physics, Mellon College of Science, intends to work at the European Accelerator Center (CERN) in Geneva, Switzerland, on the installation and testing of the CMS detector, which is being constructed for the Large Hadron Collider (LHC). When completed in 2007, the LHC will be the highest energy accelerator in the world.

Joel R. Greenhouse, professor, Department of Statistics, College of Humanities and Social Sciences, intends to spend part of his leave at the University of Pittsburgh’s Department of Epidemiology’s Data Center (EDC). He also plans to write a textbook on mathematical statistics.

Tera W. Hunter, associate professor, Department of History, College of Humanities and Social Sciences, intends to devote her time to writing a new book “The Marriage Covenant in Early Modern Sweden and Free Black Marriages in the Nineteenth Century, which is under contract with Harvard University Press.

Myung S. Jho, professor, Department of Chemical Engineering, Carnegie Institute of Technology, intends to be involved with management and manufacturing of display and digital devices at Dowson DND.

Robert A. Loeve, assistant professor of Strategy, Tepper School of Business, intends to work with CMU start-ups and related companies, including “Pittsburgh Pattern Recognition” and “Wuthering.” He will continue to work part time in the Innovation Transfer Center on research projects related to university.

William J. McEvily Jr., associate professor of Organizational Behavior and Theory, Tepper School of Business, intends to be at the University of Toronto, Canada, teaching and researching with colleagues.

Bill Messner, professor, Department of Mechanical Engineering, Carnegie Institute of Technology, intends to divide his time between assisting Carnegie Mellon’s Red Team in its efforts to create a “virtual city” of Pittsburgh and working with Dr. Tom Stossel of the Women’s Hospital in Boston on the dynamics of reversible assembly of linear actin filaments in cells and the organization of such filaments into various architectural configurations.

Martin Prekop, professor, CFA Dean’s Office, College of Fine Arts, intends to devote his time to creative work in photography, sculpture and painting. He expects to have opportunities to exhibit the work after he returns to full-time teaching in the Fall 2006 semester.

Raj Rajkumar, professor, Department of Electrical and Computer Engineering, Carnegie Institute of Technology, intends to study in depth model-based approaches for the design and development of large-scale software systems.

Such systems are used by critical infrastructures such as air traffic control, aerospace, defense and widespread applications such as medical devices and automotive systems.

David Sholl, professor, Department of Chemical Engineering, Carnegie Institute of Technology, intends to visit the Department of Chemical Engineering at the University of Queensland in Brisbane, Australia, to collaborate with groups designing nanoporous materials for energy and environmental applications.

David R. Shumway, professor, Department of English, College of Humanities and Social Sciences, intends to complete work on Classic Rockers: the Cultural Significance of the Stars and write a research and write a book on film director John Sayles.

Andrej Stojnov, professor, Department of Electrical and Computer Engineering, Carnegie Institute of Technology, intends to pursue extensions of his current research at CMU aimed at maximizing manufacturability of next generation Ultra Large Scale Integrated circuits and define the necessary statistical verification methodology to perform “yield sign-off” and incorporate this methodology into the IC design flows.

Lan Zhang, assistant professor, Department of Statistics, College of Humanities and Social Sciences, intends to be on leave during the Spring 2006 semester to work on a joint research effort to integrate psychopathological interventions with DBT methodology as well as studying how to integrate EMDR and DBT therapies. In addition, she plans to use this time to finish a theoretical manuscript that she has been working on for several years.

SuJie Silver, associate professor, School of Art, College of Fine Arts, intends to develop a new body of print media and digital video works related to ideas of hyperconsumerism, gender and sexuality in black vernacular culture.

Lynne Reder, professor, Department of Psychology, will be on leave during the Spring 2006 semester to work on a major review article for the Journal of Abnormal Psychology, and to conduct an investigation of the applicability of formal design methods in internet-based software development organizations.

Sara Majetic, professor, Department of Physics, Mellon College of Science, intends to investigate the magneto-transport properties of magnetic nanoparticle arrays using scanning probe and point contact techniques.

Krzysztof Maryaszewski, professor, Department of Biology, College of Humanities and Social Sciences, intends to spend the Spring Semester 2006 at the University of Paris, France, to establish collaborations between studies of polymers and their macroscopic properties.

Ayuhan Moor, assistant professor, Art, School of Art, College of Fine Arts, intends to develop a new body of print media and digital video works related to ideas of hyperconsumerism, gender and sexuality in black vernacular culture.

Daniel Stancil, professor of Electrical and Computer Engineering, Carnegie Institute of Technology, intends to work on a book on Antennas for Wireless Communications as a visitor in Professor David Rutledge’s group at CalTech. The book will be a textbook-style treatment that includes fundamental theory but concentrates on the most widely used antennas for wireless applications, as well as new application areas such as ultra-wideband and RF Identification tags.

Vicki S. Helgeson, professor, Department of Psychology, College of Humanities and Social Sciences, intends to examine the psychological and social factors that predict children’s adjustment to diabetes over the course of adolescence (ages 12-16). She expects to analyze data from an ongoing longitudinal study of adolescents in preparation for a grant proposal that would extend the study to early childhood.

Marcel Just, professor, Department of Psychology, College of Humanities and Social Sciences, intends to prepare comprehensive publications spanning several research areas related to brain imaging projects examining the brain function underlying cognition.

William O. Williams, professor of Mathematical Sciences, Mellon College of Science, intends to work on a major review article for the Journal of Elasticity, and in addition he will work on a project with Fred Lanni of the Department of Biological Sciences.

Spring 2006 Leaves

Ron Bennett, professor, School of Art, College of Fine Arts, intends to create a series of bronze and aluminum landscape sculptures influenced by aerial photographs he has taken throughout the West.

Robert Cavalier, associate teaching professor, Department of Humanities and Social Sciences, under the broad category of “Applied Political Philosophy,” will work at Carnegie Mellon College of the Southwestern Pennsylvania Program for Deliberative Polling. This program will be a collaboration between Carnegie Mellon and the Carnegie Library of Pittsburgh and will house Project PIRCOLA (Public Informed Citizen Online Assembly).

David Gufan, professor of Computer Science, intends to conduct an investigation of the applicability of formal design methods in internet-based software development organizations.

Lyne Reder, professor, Department of Psychology, will be on leave during the Spring 2006 semester to work on a major review article for the Journal of Abnormal Psychology, and to conduct an investigation of the applicability of formal design methods in internet-based software development organizations.
Your Annual Drive Dollars @ Work: Benefiting Students

By Greg Faist & Carole Panno, University Advancement

Personal message from Everett Tademy – Director of Equal Opportunity Services, Secretary to the President’s Diversity Advisory Council, and University Ombudsman

I’ve been asked why I choose to raise money and help students. And, honestly, I think it’s my opportunity to give back. I was a student here; I was a student at Reed College and at the University of Pittsburgh. And I was a student that had less than enough. I was a scholarship student, a fellowship student and I was an intern. All of those positions supported my efforts to move my career along. But it wasn’t my money, it was often someone else’s money supporting me. If we include my undergraduate days, we are talking about more than eight years that someone helped me get to where I am today. I certainly appreciated that.

Now I have the opportunity to return the favor; I have an obligation to support current and future students the way I was supported. I actually think of it in a broader way. I think we need, as a university, to demonstrate the value of philanthropy amongst ourselves and pass it on to our students. The disaster of Katrina points out there are several access points that we need to fund as a society. All of those access points need us. Whether it is the Red Cross, the Salvation Army, or Carnegie Mellon, money contributed by those more fortunate needs to go to help those less fortunate. As a society, our job is to figure out how we can get money to all of those people and places. As individuals, our job is to decide how much we can give and which of those people and places we will choose to support.

As Co-Chair of the Faculty & Staff Annual Fund, I would like to see all members of our community consider Carnegie Mellon as one of those places to which we give. Particularly because of our direct contact with students – I mean, we can actually see a student when we walk across this campus and know that our gifts impact their time here. And to me, that has an instant impact because I can see it immediately. That is one reason why I give. I have been giving for a number of years and I think it is so important to realize that any gift an individual or a group gives affects and supports our students. Whether it is buying a brick, investing in the Library, or giving to the unrestricted Carnegie Mellon Fund, all of our gifts support our students. Having said that, I want to encourage everyone to give. For more information regarding annual giving, or to make your gift, please contact Carole Panno at X1617 or at cp1g@andrew.cmu.edu.

Take a look at how our giving has impacted the following students – today’s students – OUR students:

Daron Colflesh
Daron is a junior in the Carnegie Institute of Technology, with a double major in Chemical and Biomedical Engineering. Daron has worked as a student caller for 2 years in the university’s Telemarketing Ambassador Program, was promoted to a student mentor position last spring, and is now serving as a student supervisor.

On the impact that gifts to Carnegie Mellon have had:
“This whole campus is shaped by what people are giving to the school – all the student activities we’re involved in, the financial aid and scholarships, even things like research. Professors love having students help them with research if they already have a grant. And Carnegie Mellon helps fund research for undergrads.”

Jesse Lecy
Jesse is a full-time graduate student in the Heinz School of Science in Public Policy and Management program and will graduate in May 2007. As a Heinz Fellowship Recipient, Jesse is on full scholarship here at Carnegie Mellon.

On the impact that gifts to Carnegie Mellon have had:
“It’s such a huge difference for me… the support from that scholarship has enabled me to work with professors and take other courses and not have to worry so much about trying to make rent every month… I’ve had more time to actually study and focus on my area while I’m here.”

Nathan Stock
Nathan is a senior in the Mellon College of Science, majoring in Physics. He is a 2006 Andrew Carnegie Society Scholar, which will provide him with a $2,500 award to support his future academic and personal growth.

On why giving to Carnegie Mellon is important:
“I plan to give back to the Carnegie Mellon community as soon as I am able. Participating in philanthropy, in general, is very important. If you have the means, you should help those who’ve helped you, as well as those who are less fortunate.”

Anita Taylor
Anita is a junior majoring in Computer Science. She is serving as Co-Chair of the Senior Gift/Student Philanthropy Program for undergraduate students. She is working to foster an ongoing spirit of philanthropy that will enable future generations of students to benefit from opportunities created by annual contributions, just as she has benefited from such support.

On the impact that gifts to Carnegie Mellon have had:
“Donors have made it possible for me to take advantage of everything Carnegie Mellon has to offer. I’ve been able to get involved in a lot of things outside of the classroom. Currently, I am an Academic Counselor, a member of Kappa Kappa Gamma sorority, a varsity cheerleader, and a volunteer for the Modern Languages Film Festival. Without my scholarship, I realize it might be difficult – if not impossible – for me to enjoy such a well-rounded student experience. I know, first-hand, how annual contributions help to make a difference in the lives of current students.”

Leah Wolkovich
Leah is a third-year architecture student in the College of Fine Arts and will graduate in 2008. As an Andrew Carnegie Society Legacy Scholarship recipient, Leah receives $2,500/year for four years in financial support.

On why giving to Carnegie Mellon is important:
“Donating to a University, especially one like Carnegie Mellon that is so devoted to preparing students to be qualified professionals as soon as possible, is a great idea because it is not only enriching the lives of individuals, but it also helps elevate the quality of the working world.”

Matt Markovina
Matt is a second-year MBA student in the Tepper School of Business and will graduate in May 2006. As a Dean’s Scholar, Matt receives the benefit of a full-tuition, merit-based fellowship.

On the impact that gifts to Carnegie Mellon have had:
“Without financial assistance, I would not have been able to pursue my master’s degree at this school. The support I’ve received has enabled me to maximize my experience here. With the financial burden alleviated, I have been able to handle the rigorous workload of a full-time academic schedule, as well as serve as the vice president of the Graduate Finance Association—a career-focused club that schedules a speaker series, plans trips and provides mentoring to help students determine if finance is an area of study that they wish to pursue. This is one way I can begin to give back to the school and my classmates.”
surveillance in public spaces, whether it is effective. Should we view data mining tools effectively to protect us from terrorist attacks in the future without data mining often makes it difficult to assess the claims. For example, Nature ran a news article on September 22 with the headline: "Brain imaging ready to detect terrorists, say neuroscientists." Imagine, functional magnetic resonance imaging (fMRI) to the rescue! What Nature did not report was that this conclusion was based on the neuroscientists’ study of only 26 subjects in the laboratory using a “guilty knowledge” type test which all experts on the detection of deception acknowledge could hardly use to identify terrorists of whose plans we are unaware! And a careful examination of the paper summarizing the study suggests that the accuracy of fMRI for this purpose was hardly distinguishable from the polygraph.

The hypothesis that polygraphs are an apt one. We know that the use of polygraphs to detect spies leads to two kinds of errors: false positives and false negatives. False positives are the thing we usually focus on, honest individuals labeled incorrectly as deceptive or upstanding citizens labeled as terrorists. But false negatives are at least as bad: real spies or real terrorists who go undetected. Believe in the accuracy of the prediction can breed complacency, under the expectation that all of the terrorist have been discovered. When it comes to polygraphs there is evidence suggesting that both types of errors are too high and in particular that the polygraph as a screening device to detect spies simply doesn’t work! Yet those who administer polygraphs in our national laboratories still believe in their accuracy and effectiveness. Should we view data mining for terrorists in a similar fashion?

The arguments over data mining extend to surveillance in public spaces, whether it is done by TSA at airports or by cameras located throughout our metropolitan areas. How is information gathered and utilized? Where do watch-lists used at airports come from and how are they being used? Does matching names on airline tickets against IDs protect anyone? Can we accurately and effectively match facial images from passengers in airports or on subways against ones of known terrorists? What are the costs associated with surveillance techniques, including privacy loss, and what are the real gains? The list of questions goes on and on. At least some of these questions are amenable to empirical examination.

The claims for data mining usually rest on its value in automatically sifting through large amounts of data and detecting undiscovered patterns and relationships. We often hear that the more data the better. But data mining algorithms in the end are built on a foundation involving statistical models and if the models are aren’t correct or the data aren’t appropriate then more is not better. Are the databases the government wants to use in the hunt for terrorists appropriate? What do we know about the data fusion techniques that will be used to combine data from different sources? Can we really use data mining tools effectively to protect us from terrorist attacks in the future without seriously compromising our privacy? A new committee at the National Research Council is charged with investigating answers to these questions. We can expect a report in a couple of years, so stay tuned. But in the meantime be wary, both about what you read and hear, and about what some are trying to do with your data and mine.

*Steve Fienberg is a former Dean of the College of Humanities and Social Sciences. These days he can be found in the Department of Statistics, the Center for Automated Learning and discovery, and Cylab.

Source: http://claybennett.com/images/archives/seeing_john.gif
E-mail: claybennet@eathlink.net
The Food and Wine Column
The Food and Wine Column goes public (it thinks)  ...And gets pretty culturally commative

We also finally, after the rest of the world has been there twice, tried out Soba in Shadyside. We won’t be going back soon, although it wasn’t terrible. The wines by the glass were not bad, service was fine. In fact it was the ‘quality’ of the service that prompted one of the younger members of our group to suggest that we try to get the appetizer waiterback person by order- ing another plate of the soybean paté things with crackers. We talked, he wrote, entirely we thought, that the first plate was free but the second would cost $2.00. Why? We wondered. The plate was so small that the 5 of us each got barely a taste, and it really costs only $2. We'll then do more. We'll then do more. We'll then do more. We didn't think. The taste was so good enough, although a little too dry, and the broth was wonderful, and the beef bowl crispy and undeniably uninpiring.

We tried out the new-looking Greek Delhi on Murray and found it very nice, clean, shiny, with very nice people running it. The grape leaves (non-veg) are among the best we’ve had, though the veg ones were less impresive. The halvah was lovely, but the tabouli seemed flat, dry and lifeless. We’ll go back again.

Food & Wine Cultural Corner Collective

There you will find a stirring art-type illustration called ‘Busi- nessman Climbing to the Sky’, a suited guy with a briefcase scaling a ladder that seems to end in a cloud. What’s in that briefcase? Could it be money? Subpoenas? Indictments being handed up?

As to drink, the country (this one, right here) at present abounds in the stuff, or at least in the early stages of the stuff, since it is harvest season, at least in California. The Europeans seem to have a more vibrant sense of this annual celebration than we do. France we can imagine being crowded out with vineyard tourists at this time of year, and we can imagine the English waiting patiently for the French Beaujolais to get at least 3 weeks old before the first Beaujolais Nouveau is dropped from helicopters onto the grounds of Gleneagles resort in Scotland, to the de- light of those lucky folk dinners on grouse yad heather and pondage. Here, though, hardly notice, it seems, that there is a huge crush in the country. California, of course, is busy, and you could, if you hurry, attend the pinot harvest in Willamette Valley, Oregon, the Anne Amie vineyard invite us to join them on October 21st. Part of the event, we find, will be the sculpture of Mark Frank. Mark will be joined by “cheese makers Ron and Melissa Volbeda sharing their artistic creations.” (for more go to http://anneamie. typepad.com/). click, click, click. TFAWC could get close to that idea, cheese sculpture on the Mall. Hmmmn.

To the surprise of some, however, Pennsyl- vania has its own harvest underway around this time of year. It’s worth, and in early Fall to Presque Isle vineyards—pick your own grapes if you want, or just watch amateur winemakers pick and crush their own. You can sample wines as well. The same kind of thing is going on in New York State, where we have heard of drive-in wine juice service with huge gasoline-like pumps dispensing ferment- able juice directly into plastic buckets of folks who then rush home and throw yeast at the stuff and wait, three weeks at least, before enjoying the results.

You can get a sense of some of this right here in Pittsburgh, to be sure. For the past few weeks the Strip District has had many, many six gallon buckets of California wine grape juice for sale, and you can also buy tons of wine grapes themselves imported directly from California. So, if you are into that kind of thing, and who wouldn’t want to enjoy more good food and wine? well then you bring the nouveau and we’ll be out looking for goose. We’ll keep an eye peeled for the helicopters and little wine-bottle-carrying parachutes. That’s us, right next to the cheese sculptures, eyes expectantly heavenward, feet nailed to the floor, glass and plate (and cheese knife) in hand.

Recently we traveled over the river (the Alleghenonahela) to visit Shuburg, site of some famous food … sites. Many folks know of both Homaterra and one of our favorites, the Grant Canal. Not too much, perhaps, many will know that Shuburg was also the loca- tion of the first Heinz business enterprise. As early as 1852 the lady was bottling and selling horseradish, the ground there apparently being exceptionally well suited to the growing of horseradish: Historical scholars have apparently unearthed some of the original horseradish roots on the site of the family farm. Now is that an image of scholarly dedication, or what?