

Projects and Studies

At a morning orientation program for new members, held on October 9, 2004, leaders of current Academy studies presented updates on their work, with particular attention to the Academy's unique ability to convene representatives of diverse fields, professions, and organizations – both scholars and practitioners. Their remarks appear below.

Rules of Space

Neal Lane

*University Professor, Senior Fellow,
James A. Baker III Institute for
Public Policy, Rice University*

The Academy's Committee on International Security Studies has initiated a new project on the Rules of Space. To provide you with some context for the study, let me begin by making a few assertions. America's space program, I believe, is at a critical turning point in its history. America's preeminent role in space is being challenged, both internationally and here at home. And America's intentions for the future military use of space are, in some cases, drawing considerable criticism from other nations. Space policy has become a prominent and a

very contentious public-policy issue. Policy decisions now being made will affect not only our national security but also our ability to successfully compete with other countries in the commercial use of space, and to collaborate with other parts of the world in the peaceful uses of space – for example, in such areas as space-based research and human exploration of space.

In an effort to focus attention on critical policy matters, and to suggest some policy alternatives that might improve the current situation, the Academy has convened a series of workshops and seminars; participants include representatives of the U.S. aerospace industry, satellite manufacturers, launchers, and operators; international military experts; and scientists. They are broad-based, highly informed groups of individuals that the

Academy is very good at pulling together. John Steinbruner (University of Maryland), cochair of the Academy's Committee on International Security Studies, directs the overall project. The Academy has commissioned a series of papers and reports on topics ranging from Chinese and Russian perspectives on the U.S. space program to technical requirements for achieving U.S. military objectives in space to U.S. policies affecting space commerce as well as space-based research activities in universities and laboratories around the country.

George Abbey, former director of the Johnson Space Center, and I are collaborating on one of these reports. Under the working title, "International Competition and Cooperation in U.S. Space Policy," we are examining the three barriers currently facing the U.S.

civilian space program. The first is a set of federal regulations called export controls that require a company or an organization to apply for an export license to sell, or even share collaboratively with any foreign country – ally or not – information or technologies that the U.S. government wishes to control. These rules apply to any information concerning space, satellites, rockets, technology, and instrumentation. Since all devices related to space are considered munitions, the license must be provided by the U.S. State Department. The problem is that the rules are ambiguous, the process is cumbersome and slow, and the outcome is highly uncertain. In many ways, it resembles the visa situation of recent months. As a result, the U.S. satellite industry has been severely damaged: we have lost 40 percent of the market share in a period of three years. These export



Leaders of current Academy projects

Front (left to right):
President Patricia Meyer Spacks (University of Virginia), David Clark (MIT), and Michael Kremer (Harvard University)

Back (left to right):
Robert C. Post (Yale University), Gerald Rosenfeld (Rothschild North America), Linda Greenhouse (*The New York Times*), Neal Lane (Rice University), and Tom Leighton (MIT and Akamai Technologies)

controls also apply to students, postdocs, and visiting collaborators from other nations, forcing the research establishment to continually ensure that it is following regulations, but with a great deal of ambiguity and uncertainty.

The second barrier – a huge one – concerns possible shortfalls in the science and engineering workforce. For a long time, boys and girls in the United States have chosen career directions other than science and engineer-

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ing. We've made up for that with our ability to attract the brightest and the best young and not-so-young minds from all over the world. The strength of American science and technology has been dependent on these individuals. But in the post-9/11 era with visas so difficult to obtain, fewer talented people want to come to the United States, leaving us unsure about the source of our future science and engineering workforce.

The third obstacle that George Abbey and I identify is what, in our opinion, is an unrealistic plan for the future of the U.S. civilian space program and for NASA in particular, where the focus has shifted to returning humans to the moon, and perhaps beyond, in future years. Shortly after this new plan was announced by Pres-

ident Bush, Senator McCain invited me to testify before the Senate Commerce Committee to express my thoughts from the perspective of my previous experience. Now I'm a space cadet; I've always wanted to go into space. What I said was that, indeed, NASA needs a vision. NASA needs a plan, and although this plan is bold, it's incomplete because it makes space science a lower priority than returning humans to the moon. It also does not suggest how we are going to obtain the funding for what would be a very expensive mission. Softly put, that was my view on the program.

I want to mention a fourth barrier – as a former government official I can only remember three barriers at a time. The fourth relates to America's future military plans in space. The missile defense system is an early indicator of what direction the United States might be taking, but nations around the world, individuals we've spoken with, both inside and outside of government, believe that the United States is on a trajectory to control space by arming satellites with weapons, which has never been done before, at least to my knowledge, and by using satellites as launching platforms, or as weapons themselves, perhaps to control Earth from space. It's a very real fear that has raised objections from China and other nations. Now, this may not be U.S. policy, but certainly such plans are on the drawing board, and they are based on serious, blue ribbon commissions reporting to the military establishment. The militarization of space is a critical issue, one that will be discussed in our report but will be examined intensely in the "Rules of Space" project as a whole.

Securing the Internet as Public Space

Tom Leighton

Professor of Applied Mathematics, MIT; co-founder and Chief Scientist, Akamai Technologies

As I'm sure you all know, the Internet has seen a stunning adoption rate in our society over the last decade. It has become a dominant communications medium for business, government, defense, and leisure. And this is just the beginning. I'm sure you have all read stories about Internet telephony, and it would not surprise me if over the next ten years the telephone becomes dependent on the Internet for communication. This is all good news. The Internet is an amazing and wonderful technology. But what many people don't understand is that a large portion of the current protocols and the technology that the Internet uses are based on the same protocols developed over thirty years ago by my colleague in this project, David Clark, and other experts in the field when only several hundred people were using the Internet. These individuals were from a few universities, industrial-research labs, and government groups; they were very intelligent, very sophisticated, and intended no harm to other users. At that time, there was a race to add functionality with little effort paid to securing that functionality as one went along.

Today we find ourselves in a situation where the Internet has gone rapidly from a novelty to mainstream; it is now a critical resource but we have no security. Everybody's been attacked by a virus or a worm, or been inundated by spam, but it goes a lot deeper than that. The public doesn't realize how easy it is for

someone to steal your confidential information, your bank password, and not just by "phishing" attacks, where someone fraudulently poses as an institution requiring your bank or credit card information. It would be very easy for me to steal your online banking password. You wouldn't know. The bank wouldn't know.

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And then I can do as I want with your bank account, and there's a lot of ways I can do that, and that's in part because there's no authentication today on the Internet. I can claim to Sprint or any other provider that I own the bank's IP address (its unique identifying number) and direct your traffic to me. Nobody checks. It's not authenticated. There's something called DNS (Domain Name System) on the Internet, which is the equivalent of 411, which you invoke every time you go to a website. That's not authenticated. I can slip in my IP address instead of the one where you're going, and you will come to me without knowing it. And there's no traceability. You can't catch the bad guy, and when you do catch somebody, usually it's the innocent bystander whose identity was stolen in some way.

Now, does this matter? This is actually a subject of debate today. To me, there's no question this is a serious problem. But there are people in positions of responsibility today that say, so what if my email's slow. So what if I couldn't get to eBay today. That really isn't important. And I agree in the big scheme of things.

There are issues more important than cybersecurity, but this security is also important, especially when you see today what's happening with international organized crime running extortion on the Internet through (denial-of-service) attacks, stealing of confidential information, the threat of a state-sponsored attack on critical portions of our infrastructure, and potential terrorist attacks timed to coincide with physical attacks. It is very scary, and a very serious problem for our country.

David Clark

Senior Research Scientist, MIT
Laboratory for Computer Science

As Tom has pointed out, security is built out of technical building blocks, such as strong encryption, and bad security is often the fault of bad technology: flaws in software that leave your machine open to attack. But in order to frame my remarks, I want to offer you a different way of sorting the security problem into two buckets. I want to describe security problems as, A, stupid, or B, non-technical. Software-engineering failures exemplify a stupid problem. Many of the computer attacks today use a very simple form of exploitation that involves sending a message that is much longer than your software can handle. Your software doesn't bother to check how long it is; it simply takes the message, lays it out in memory, and stomps all over itself. This is a serious problem, but it is a self-contained one. We don't need to redesign the Internet to solve it.

Let me take an example of something that really annoys us: spam. Is spam a technical problem or, to ask the question more precisely, can spam be directly solved by a technical change? First we must recognize that spam exists be-

cause we don't insist that individuals have a well-known and verifiable identity before they can send mail. We also don't insist that email carry a stamp or a price in any form. If we had put a charge of a penny on an email, we might have reduced spam, although we would have created a collection and tracking nightmare. The current state of email (and spam) is defined by the current technology, but we can change technology. The fundamental question is what do we want? Decisions about the structure of email, if we think about them in a deliberative way, are social decisions. For example, we could create something just like email except that you can only talk to people you've been introduced to – gated communities in cyberspace, so to speak. The solution to spam, whatever it is, is going to change the nature of the shared social experience. We're going to have to ask and answer the question of under what circumstances can you intrude on somebody you don't know, and what range of responses is socially acceptable.

Consequently my question about spam, and about a lot of the other problems we have in the Internet, is not can we build a solution, but what is the right thing to build? To answer it, we must take into account a broad range of social and economic policy issues. Let me quickly pose some other questions I don't expect you to answer. If we alter our accessibility to the Internet, what forms of identity will be required in order to participate? Will we continue to have any rights of anonymous action? How can we be held accountable for misbehavior? Are we going to see an overall loss of confidence in the Internet resulting from activities such as phishing – this continuous flow of messages that appears to be coming from an institution like Citibank but in fact is coming from somewhere overseas in a country I

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can't identify? Who owns the knowledge about where we are? Your cell-phone service provider knows where you are. Is he permitted to sell that information or is it yours? Who owns the knowledge of who we are and what we like? How can that information be used? If you have a computer on the net running software from a particular vendor and a nasty virus takes over the machines, launching a denial-of-service attack against a major provider, are you liable? Is the software provider liable?

How do we balance our rights as an individual, for example, our right to use encryption to protect private conversations, with the rights of the state to carry out lawful intercept? We're having a tussle today in Internet space as to how voice over IP (Internet telephony) should be reimplemented so that it is amenable to lawful intercept. The law of the United States, in this regard, is the Communication Assistance for Law Enforcement Act (CALEA) but the Internet standards are global protocols, not U.S. protocols. If we insert wiretaps into those protocols, they're going to be handled in every country according to that country's definition of lawful. How should we balance our design decisions in this global context?

All of these examples capture tensions that live in a space of personal rights, the interests of large private-sector players, the

rights of the state, and the reality of the global nature of the Internet that spans jurisdictions and many societies with disparate social norms. This is the level at which we have to examine security issues and, more broadly, the problems of this shared experience we have in the Internet. Our new Academy study will focus on the security of the Internet as a public space. How can we shape the Internet so we can deal with disruptive and malicious participants without harming the shared experience of people who, like all of my friends in the old days, actually do want to cooperate? For this approach, we need more than a room of techies. We need social scientists, economists, political scientists, philosophers, and others who have views on the nature of society and the nature of human action – along with computer scientists.

As a computer scientist by training, I know that we cannot develop or implement an effective approach to security on the Internet without a broad range of perspectives.

Congress and the Court

Linda Greenhouse

Supreme Court Correspondent,
The New York Times

The Academy is recognized for its ability to perceive emerging problems in our society even before the actual participants in them are aware that they exist. In addressing a group of federal judges several months ago, Justice Sandra Day O'Connor advised: "Try to make a friend out of the members of Congress. Try to help them understand the needs of judges. It's much harder

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to turn a cold shoulder on someone you know.” One seldom hears this kind of discourse from a Supreme Court Justice, but today federal judges as a group, and the members of the Supreme Court in particular, are feeling rather besieged at the hands of Congress.

When the Academy began its study of the relationship of Congress and the Court in 2002, it appeared to those of us involved in the project that the shoe was on the other foot. Congress was feeling much besieged at the hands of the Supreme Court, which in the mid-1990s had started down a doctrinal road of reexamining some basic premises that had been extant since the New Deal, such as the role of Congress in regulating national affairs with a national scope. In a series of decisions, the Court placed limits on the ability of Congress to enforce basic guarantees of equal protection and due process through the Fourteenth Amendment, on premises that had not been questioned since the 1930s. The Academy felt there was a role to be played in convening the principals in this debate and providing neutral ground where they could meet face to face in the hope that they might better understand one another.

Since then, there has been a shift in the polarity of the problem. Congress has been on the war-path against the federal judiciary

in a way that we haven't seen for quite some time – not so much in terms of more abstract doctrine but at the personal level of judicial pay and other issues. Criminal sentencing has been a major thorn in the side of the judiciary. Last year, Congress passed the Feeney Amendment that puts federal judges in the dock for handing down sentences that are lower than members of Congress think they should be. The House Judiciary Committee is conducting an internal investigation of a Court of Appeals decision on an affirmative-action case involving the University of Michigan. A resolution moving through the House of Representatives calls on federal judges to stop the very nascent, and some of us think very fruitful, practice of citing decisions from foreign courts to illuminate various problems facing American courts, including gay rights and capital punishment for juveniles.

I have been an observer of the Congress-Court relationship for more than a quarter century and I have never seen such a sharp deterioration, coupled with a toxic atmosphere, in the interaction of these two branches of government. It is appropriate for an organization such as the Academy to consider how we can examine the consequences of the current situation.

Robert C. Post

*David Boies Professor of Law,
Yale Law School*

The Courts and Congress study illustrates how the Academy can use its good offices to examine questions that call for both scholarly and professional perspectives, and how the nature of an Academy study can evolve over time in response to changing circumstances.

A few years ago, several Academy members became concerned about Supreme Court decisions seeking to limit the power of the national Congress. We formed a committee, whose members were experts in law, political science, journalism, and public policy and service, to consider how we could identify and address the tensions between the federal legislature and the judiciary.

The premise of these decisions involves a basic concept of the American constitutional order. From the end of the eighteenth century, it was well understood that the federal government had only the powers granted to it by the Constitution. State governments, by contrast, retained all governmental powers except those denied to them by the Constitution. Until the 1930s, the Supreme Court would regularly articulate the constitutional limits of congressional power. In 1918, for example, the Court held that Congress had exceeded the bounds of its constitutional power when it sought to regulate child labor.

The Great Depression illustrated the utter interdependence of the national economy, which effectively undermined the notion that Congress could have only limited power. The New Deal response to the crisis of the 1930s required Congress to expand national authority in ways that were inconsistent with the idea that the national government had only specifically enumerated powers. The upshot was a dramatic confrontation between Franklin D. Roosevelt and the Supreme Court. FDR's proposed court-packing plan was averted only at the last minute when Justice Owen Roberts changed his vote, prompting the famous quip that “a switch in time saved nine.” For half a century after the New Deal, American constitutional law effectively conceptualized the national government as possessing plenary

power. Congress was effectively given constitutional authority to pass all laws that Congress believed were necessary to meet national needs.

Then in 1995 and subsequently in 2000, the Supreme Court revived the notion that the federal government had only limited powers, so that it could not pass legislation it deemed necessary for the good of the nation. For the first time since the New Deal, the Court began to strike down statutes on the ground that they were beyond the power of Congress. These statutes included the Vio-

The evolving nature of this project exemplifies how Academy projects can maintain their value and relevance to the broader public by flexibly responding to changing circumstances.

lence Against Women Act and the Gun-Free School Zones Act. The Court's decisions were highly controversial and unclear. Congress was left with only a vague sense of the limits of its own legislative authority.

In the belief that the Academy could act as an honest broker in this difficult situation, our committee of Fellows began to pursue a multipronged strategy. We designed Stated Meetings in Washington, D.C., among policymakers, in which the implications of these recent court decisions could be discussed and evaluated. In 2002 we sponsored a debate about the criteria for the confirmation of federal judges; participants included Senator Charles Schumer and the then Chief Judge of the United States Court of Appeals for the Fourth Circuit, James Harvie Wilkinson. In 2003, we sponsored a debate about the

independence of the federal judiciary; participants included Academy Fellow Judith Resnik (Yale University), Representative Howard Berman of California, and Danny Boggs, Chief Judge of the United States Court of Appeals for the Sixth Circuit.

We also organized private, off-the-record conversations among members of Congress and the Supreme Court. These candid discussions were useful to the participants. After 2003, however, it became clear that the relationship between the branches had deteriorated to the point where this strategy had become ineffective. We therefore began to plan scholarly studies of issues that these conversations had demonstrated were salient. Two Academy studies are now in the development stage. The first, led by Academy Fellow Philip Frickey (University of California, Berkeley), focuses on the question of how courts interpret federal statutes. Using a number of case studies, the study will examine how legislation was enacted by Congress and subsequently interpreted by the Court. The effort will be to find grounds that might improve the relationship between the Court and Congress in the quotidian but important matter of statutory interpretation.

The second study is being led by Judith Resnik. It focuses on the staffing of the federal judiciary. American judges are not professional in the sense of French and German judges. Instead they come to the judiciary from private practice or public service. Although they are not trained in the art of judging, they tend to possess the kind of political savvy that seems a prerequisite of the American practice of judicial review. In recent years, however, federal judges have increasingly spent their careers as magistrates or as some other kind of non-Article III judge. The Academy will study the causes of this shift, and whether this change in ca-

reer path will affect the nature of American judging.

In the near future, the Court and Congress project will sponsor a Stated Meeting in Washington, D.C., on how the Constitution deals with the kind of stress exemplified by the events of 9/11. We are also considering a Stated Meeting comparing the American Constitution with other national constitutions.

The evolution of the Academy project on Congress and the Court illustrates the value of examining issues from the viewpoint of both scholars and practitioners. The evolving nature of this project exemplifies how Academy projects can maintain their value and relevance to the broader public by flexibly responding to changing circumstances.

Corporate Responsibility

Gerald Rosenfeld

Chief Executive Officer, Rothschild North America

Like the Congress and the Court study, the Academy's analysis of corporate responsibility has drawn on representatives of both scholarship and the professions to help us understand how we might address the breakdown in values in American business. The background to this study has played itself out on the pages of the newspapers and in the courts for the last three or four years, as public confidence in American business has seriously eroded.

I became involved in the project in May 2003 at a series of workshops in New York and subsequently took part in a very useful discussion with Senator Sarbanes, who, I am honored to say, is being inducted into the Acad-

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emy today. On the basis of these and other discussions, a series of papers was commissioned and will be published early next year by the MIT Press. The volume, *Restoring Trust in American Business*, is edited by one of the cochairs of the study, Jay Lorsch of the Harvard Business School; the Executive Officer of the Academy, Leslie Berlowitz; and the Project Director, Andy Zelleke of the Wharton Business School.

The study focuses on the significance of values in guiding corporate conduct and the role of various groups – whom we termed “gatekeepers” – in upholding ethical standards. They include regulators, auditors, journalists, lawyers, investment bankers, and corporate directors: the individuals that guide and oversee the institutions surrounding the business community. Serious issues concerning human behavior are evident in each of these professions.

In my own article for the book, I deal with ethical standards in the investment banking community. Since I am an investment banker and have been one for decades, I am particularly concerned about the question of whether investment banking is (or should be) recognized as a profession with obligations to the public, including responsibility as a “gatekeeper” helping to constrain corporate misconduct. Investment bankers have no specific set of behavioral rules to follow; they

are simply expected to obey the law. Although a higher level of awareness on the part of regulators and senior managers in financial services may help to prevent future corporate scandals, it is clear that external forces will continue to pressure investment bankers toward higher standards of conduct. In my view, the investment community should act to adopt its own code of conduct.

In addition to my commentary, *Restoring Trust in American Business* includes a broader analysis of management as a profession. The book concludes with a set of recommendations designed to enhance gatekeeper professionalism and to underline the importance of continuing cooperative efforts on the part of this nation's intellectual, business, and public leaders to ensure higher standards of corporate conduct.

As we go forward, there will be meetings to follow up on the reaction to the book and the possibility of undertaking an in-depth study of one or two of the gatekeeper professions. In this process, the Academy will continue to provide a unique forum for the nonpartisan analysis of these difficult and controversial issues.

Universal Basic and Secondary Education

Michael Kremer

Gates Professor of Developing Societies, Harvard University

The Academy's study on Universal Basic and Secondary Education (UBASE) is a multidisciplinary effort to evaluate the benefits and obstacles involved in educating all of the children of the world, aged six to sixteen. Nearly 28 percent of the world's children in this age group – 400

million in total – are not enrolled in school and even for those attending school, educational quality often leaves much to be desired. Moreover, in the developing world, the number of young people aged six to sixteen is expected to grow by more than 100 million in the next quarter century.

With these facts in mind, Joel Cohen of Rockefeller University and David Bloom of the Harvard School of Public Health initiated the UBASE study and recruited scholars and representatives of international organizations to analyze the challenges involved in launching such a massive educational effort. There are several aspects to the project: how the goal of bringing quality education to the world's children can be defined; how progress toward this goal can be measured; what obstacles – technological, financial, political, and cultural – will be encountered; what the consequences of success might be, and how a set of options for the steps needed to advance the goal might be developed. The current phase of the project will produce research reports in eight areas, from the gathering of facts and data for measuring progress toward universal basic and secondary education to the intersection of health and education, and cost and finance issues.

My particular aspect of the study deals with the evaluation of educational initiatives and reforms. Most of the evidence on the impact of various educational strategies or interventions comes from comparing schools with different characteristics. For example, to learn about the impact of private education as opposed to public education, experts have compared private to public schools. The problem is that these comparisons can be confounded by other factors. Parents who send their children to private schools might differ from those who send

There are many ways to increase the number of children in school; the more difficult challenge is to provide them with a quality education. The availability of resources is a key issue, but their impact can be more complicated than one might think.

their children to public schools. One can try to control for observable socioeconomic differences such as income and education, but parents can also differ in unobservable ways such as their attitude toward education. Even if one found a way to establish a constant in the comparison of parents, children may require different educational experiences. Statistically, it is difficult to control for all the random variables.

In contrast, we can adopt another approach known as randomized evaluation that is used in the natural sciences and particularly in medicine. Having been involved in a number of educational evaluations using randomized data, let me illustrate how we can apply this method to a few of the questions being addressed in the study. For example, what is the most cost-effective way to educate more children in developing countries, given the limited resources available? The best approach – and it was not the first that came to mind – was the elimination of intestinal worms that affect one out of every three to four people in the world and are inexpensive to treat. We found that a program involving mass treatment of children in randomly selected schools led to a reduction in absenteeism of at least 25 percent. The cost of the program was only about \$3.50 per additional year of schooling generated –

much more cost-effective than many traditional interventions.

There are many ways to increase the number of children in school; the more difficult challenge is to provide them with a quality education. The availability of resources is a key issue, but their impact can be more complicated than one might think. I was involved in a study of textbook provision in a part of Kenya where primary-school students had very few textbooks. Why do you need a study? Isn't it obvious that more textbooks will lead to enhanced performance? In fact, the results showed that the children who tested well before they received the textbooks improved considerably, but those who did poorly in the pretest showed no improvement. Because I had taught in this area of Kenya before entering graduate school, the outcome was understandable. The entire Kenyan educational system is based on English, but for these children, English is their third language. Their home language is their first and Swahili is their second. Because they are often sick or have other responsibilities, many of these children attend school perhaps 70 – 80 percent of the time, and their teachers show up at about the same rate. Only those students with the best attendance can benefit from textbooks.

These findings raise questions about the need for more systematic educational reform. The educational system in Kenya is oriented toward students from Nairobi with more privileged backgrounds and with parents who can afford textbooks. The system isn't really serving the typical student in rural areas.

In another developing country – Colombia – students from poor neighborhoods were given vouchers to allow them to attend private schools. Given the lack of sufficient funds, a lottery was instituted to determine the vouch-

er recipients. When we learned about this project, we decided to take advantage of the lottery to compare the students who won the vouchers with those who did not. We found that several years after receiving the vouchers, the lottery winners scored higher on tests. As the years passed, they were more likely to complete high school and to score well on college entrance exams. There is no doubt that the lottery was highly cost-effective for those who benefited, but there remain serious questions about the more general impact of vouchers.

Ultimately, what we need to advance educational development is greater knowledge about educational systems and the impact of specific interventions. Randomized evaluations are valuable because they can create greater certainty about how we should proceed, and the UBASE project is helping to develop a strong evidence base for action.

The Humanities Initiative

Patricia Meyer Spacks

Edgar F. Shannon Professor of English, University of Virginia

In 1998, the Academy established a two-pronged Humanities Initiative. I'll report first about the effort to develop humanities indicators, one of those key enterprises, and then about the histories of the humanities, the other central project. They're both at a very exciting stage of development.

Unlike scientists and engineers, humanists have never had available to them a single, dependable source of data about what's happening in their field. The *Science and Engineering Indicators*, issued biennially by the Nation-

al Science Foundation, provide information about education and employment over a considerable disciplinary range. In the humanities, various professional organizations have tried to assemble facts about developments within their disciplines, but data between fields are generally not compatible, since different organizations employ different means of gathering data and different ways of codifying them. The American Academy set out to facilitate the inauguration of a comprehensive system for accumulating and organizing basic information about education and employment in the humanistic disciplines. How many people major? How many take courses? How many get advanced degrees in these fields? What happens to those with Ph.D.s in the humanities? What do they do for a living? You can't assume nowadays that they get jobs in universities. How much teaching in the humanistic areas is done by part-time faculty? These are the sorts of questions we have in mind.

To accomplish our aim turned out to be unimaginably complex, as well as unimaginably expensive. The enterprise involves figuring out how best to make use of existing data as well as how to gather new information. It has required the collaboration of men and women from many disciplines – statisticians, social scientists, and humanists – and from many organizations, including the learned societies under the aegis of the American Council of Learned Societies.

But it is actually happening, thanks to foundation support and to the leadership of Norman Bradburn, who recently left the National Science Foundation to rejoin the National Opinion Research Center at the University of Chicago, along with medieval historian Francis Oakley and statistician Steven Raudenbush. I mention their professional iden-

These books, in conjunction with the effort to create comprehensive, accurate data for the humanities, will help to elucidate the specific functions, the specific condition, and the specific importance of humanistic knowledge in the United States.

tification to suggest how extensive the collaboration is. Thanks to the cooperation of individuals and organizations, a working committee has agreed upon a core set of questions of interest to all learned societies, and that wasn't an easy task. We are moving toward a national survey of humanities departments to generate basic information about faculty and staffing trends and about teaching loads.

The project to create histories of the humanities is closer to my heart, since I cochair it with Steven Marcus, and I'm editing one of the two volumes currently approaching publication. Both these books explore from different points of view changes that have shaped the humanities over the past century.

In the fall, the authors of the essays in my volume, *Mapping the Humanities*, met in New York to discuss drafts of their work. The meeting was exhilarating. The essays cover individually seven humanistic disciplines. They tell, as you would expect, seven different stories, but with provocative convergences. All record histories of immense vitality, with each discipline's governing assumptions in constant flux and with new consensus repeatedly generated out of controversy. Several disciplines – comparative literature, philosophy, and law,

according to their historians – show unexpected convergences with science. I have to say it was something of a shock to me, as it will be perhaps to you, to learn that in its early days comparative literature aspired to the status of a science.

Reading the drafts and hearing their authors talk were invigorating experiences, reminding me, as the finished volume will remind its readers, how fundamentally the humanities participate in the life of this country, engaging in various terms the issues that perplex the nation, and reflecting in their internal conflicts wider dilemmas of meaning.

It was essential to the Humanities Initiative from the start that the Academy sponsor multiple histories to emphasize that every set of facts can generate different stories, and that the story told often depends on who is telling it. Academy Fellow David Hollinger, a historian from Berkeley, has edited another volume offering histories of the humanities disciplines from a specific point of view.

His book, *The Humanities and the Dynamics of Inclusion since World War II*, explores social and cultural determinants that have helped shape a distinctly American version of the humanities in the twentieth century. Its essays, also of multiple authorship, argue that the role played by the academic humanities in embracing the diversity of subject matters, ideas, and types of Americans has not been fully appreciated. They examine the rise of foreign-area studies, the emergence of American studies and other interdisciplinary programs, and the growth of American higher education as the opportunity to attend colleges and universities expanded in the postwar era. Hollinger and his authors show that the humanities have played a vital role in the engage-

ment of the United States with the wider world, and that they continue to serve a crucial purpose as a means of incorporating America's ethnic and cultural diversity.

We hope to have both these volumes published in 2005 and 2006 to coincide with the observance of the Academy's 225th anniversary. Together, and in conjunction with the effort to create comprehensive, accurate data for the humanities, they will help to elucidate the specific functions, the specific condition, and the specific importance of humanistic knowledge in the United States. ■

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