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PANEL 2

INFORMATION TECHNOLOGY AND THE FUTURE OF DEMOCRATIC GOVERNMENT IN THE UNITED STATES

Chair: **John Leslie King**
University of California, Irvine

Panelists: **Mary Culnan**, American University
Kenneth Laudon, New York University
Kenneth Kraemer, University of California, Irvine
Theodore Sterling, Simon Fraser University

During 1987, the United States has celebrated the two-hundredth anniversary of its Constitution. This remarkable document has provided the United States with a foundation for government that has survived not only the test of time, but two major epochal transitions as well. An agricultural nation at its birth, the United States became a preeminent industrial power, and now is emerging as a leading force in the developing service and information economy. The Constitution unites the people of the United States as the country's most powerful "boundary object" -- an object that brings together people with fundamentally different points of view so they can communicate on common ground. It provides the basic design for bringing information to bear on issues basic to the collective fortunes of over two hundred million people. As the United States enters its third century of constitutional government, we pause to ask whether the powerful new technologies for the management of information might alter the form or function of our constitutional, democratic government.

This panel will address three basic issues of constitutional government related to information technology: public surveillance and control of the government; government surveillance and control over citizens; and the effect of increased use of information technology on the function of our democratic government.

Theodore Sterling points out the critical role of public oversight of government decision making in a democracy, especially at a time when public policy decisions are increasingly based on scientific studies. Important decisions by government agencies are often rationalized by appeal to results of studies which either have been initiated and executed by the agency or done under contract (such as on the effectiveness of certain armaments, hazards of certain occupations, impacts of certain economic policies). The review of these studies therefore should be part of the process by which citizens maintain surveillance over government agencies.

Several critics have voiced concern that the government's substantial control over the kinds of studies used in decision making could effectively preclude public oversight to these key inputs to the decision process. Sterling argues that, in fact, appropriate exploitation of information technology could enhance the public's ability to examine such studies. Where data are in machine readable form (and few data files are not), it may be possible to obtain actual copies of the data and reanalyze them. Given the complexity of a problem, the number of variables that may enter into adjusting data for or coefficients of an analysis and the inventiveness of the analyst to come up with desired results, a conflict situation may arise between results obtained by the original investigators and by the reanalysts. Differences in results may be shown to be due to: (1) errors in data handling, (2) incompetent or incorrect application of mathematical and statistical techniques, (3) bias, and (4) outright fraud.

There are instances when data were obtained and reanalyzed and found to differ with original official results. However, the demonstration of differences between results and secondary analysis does not necessarily lead to correction or public discussion. For example, recent reanalysis of three National Cancer Institute studies found large scale programming errors, incompetent data analysis and attempts to

hide effects of occupational factors. The relevant government agency was reluctant to either admit to errors or correct them, or even to permit the dispute over the analyses go public, despite intervention by national professional associations.

Although some agencies may be aware of possible conflicts, and therefore decline access to their data files, direct executive orders, court orders, legislative acts or access through freedom of information acts can reduce the effect of such evasions. The ability of citizens to reanalyze data files, and the response to this opportunity by government, will play an important role in the maintenance of sound public surveillance over agencies.

Mary Culnan also addresses the key theme of public surveillance over government, but raises an ominous development taken from recent efforts by the Office of Management and Budget to restrict access to public information, and in some cases, to preclude the collection of such information in the first place. Public access to public information is essential to the functioning of a democracy. The federal government mandates the collection and dissemination of information such as demographic data from the census, from business statistics assembled by the Department of Commerce, from the publications of government-supported research, and from corporate financial information collected by the SEC. These and other forms of government information, in turn, play a key role in the planning and decision-making activities of corporate America. It is often in the public interest for the government to restrict data collection and limit access to collected data in the case of information on individuals in the interests of privacy. But for public information generally, the public benefits by wide access to such information.

Information technologies have greatly facilitated public access to public information. Commercial on-line databases, for example, have empowered users to locate information that usually has not been retrievable using manual searches because of the difficulties of combining large numbers of search terms in a printed index. As noted by Sterling, electronic access to public data could prove to be a boon to public access to government information. However, an alternative view of public access held by the current Administration has prompted efforts to restrict such access on the grounds that increased public access to even unclassified public information constitutes a threat to national security. The Administration has tried, unsuccessfully thus far, to limit the unclassified information that might be accessed through commercial systems, ignoring the counter-argument that overemphasis on secrecy reduces the United States ability to gain collective experience and promote innovation.

The Administration has also attempted to restrict the amount of public information that is collected. Under the rubric of the Paperwork Reduction Act of 1980, and usually with the stated aim of achieving economy in government, the Administration's Office of Management and Budget has attempted to restrict data collection in a number of important scientific and public policy studies, including the U. S. Census. This effort to limit the amount of data collected is ironic at a time when technological advances in computers and storage devices (e.g., optical disks) make possible wider, and more economical, use of public information than ever before.

Kenneth Laudon turns the tables on the issue and raises the question of what kinds of data the government is collecting, and for what purposes. According to Laudon, we all are becoming part of the Dossier Society, in which the cornucopia of goods and services promised as part of the "information economy" will come at the price of personal privacy for most citizens. The Dossier Society has four features: a rapid growth in power and scope of federal government information systems; a growing merger of public and private data and information systems; a decline in the status of privacy as a constitutional value; and a breakdown in historic barriers to the flow of information introduced by the Founders to prevent the society we are building from ever occurring.

The technical features of this society do not sound frightening: mainly the increasing integration and centralization of heretofore distinct files at all levels of government. The social consequences are cause for much greater concern. More and more decisions about individuals will be made on the basis of a data image -- and regardless of whether the data are right or wrong -- than on face-to-face interaction. This

will bring unprecedented powers to the Federal government to conduct surveillance on individuals by linking together previously unconnected records. For example, we should expect that in the near future the FBI will obtain access to credit data records to investigate "suspicious" people. We can expect to see growing social surveillance, enabled by information technology, producing a "macro village." The social surveillance now being mounted with respect to drug use and AIDS can easily be extended to other demographic facts, such as what magazines one reads. In the Dossier Society we will all come to know the power of the "official life" of recorded acts about our pasts dogging us forever. For the first time in our history as a nation, the frontier will be closed and new starts for one's life prevented.

The causes of the movement towards the Dossier Society are complex. Technology plays a role, but that role is less important than many think. One incentive for the movement is the money to be made (or saved) by ignoring or reducing restrictions on the flow of information. For example, the surveillance dangers inherent in linking governmental and non-governmental databases have already been subsumed and dismissed by the Reagan Administration's matching programs to catch welfare cheats. Another incentive is the political capital to be gained by trouncing privacy in the quest of a larger social vision, regardless of how ill-conceived. The construction of really powerful national information systems has often arisen as a proposal to solve social problems -- lagging national productivity, crime, terrorism, espionage, poor reading scores, worse math scores, absconding fathers, welfare cheats, deadbeats, AIDS, and drugs, to name a few -- when more direct and obvious solutions are not close at hand.

According to Laudon, these powerful forces, acting in concert, make the prospects for protecting or enlarging on privacy in the United States seem remote. Yet some policy changes could help. Support for these policy changes will require a much greater information systems literacy among the general population at present.

Kenneth Kraemer addresses the processes of government itself, noting that the Constitution serves as a set of rules for the brokering and exchange of information in the shaping of the commonweal. Information technology can affect these processes by altering the balance of power between the branches of the federal government, and the processes by which constitutional officers are elected and appointed by the Constitution.

There has been considerable speculation that the Executive Branch's dominant use of computers in the federal government system has put Congress and the Judiciary at a disadvantage. The Executive, according to this argument, has at its disposal much more comprehensive information than do the other branches, and this information can be used by the Executive to mislead the other branches (and the citizenry) who lack the means to check on the Executive's actions. In a limited sense, it is true that the Executive Branch has gained some political power from its rapid automation of the budget process and other important functions of government policy making. But this advantage has been short-lived. The genius of the Constitution transcends even the information revolution by dividing up the most fundamental features of control among the branches. Congress, with its power of the purse and its right of oversight, has the means to build its own information systems capabilities, which it has done in recent years. It also can literally strangle Executive Branch computerization efforts at will by denying appropriations. Similarly, it can demand access to Executive Branch information necessary for its oversight function, and has proven successful at obtaining such information regardless of the form of the information. The Judiciary has an even more basic right to grant or deny standing of parties and the materiality of information to issues. In a profound sense, the Judiciary holds the right to determine what information *is* information. It is extremely unlikely that information technology *per se* will alter the interbranch relations of the United States constitutional system.

A more serious matter arises with respect to the election and appointment of constitutional officers. Information technology in the form of broadcast media, especially television, has already changed forever the way campaigns are waged. Many otherwise excellent candidates are now summarily written off as "television losers" simply because their presence on TV is not sufficiently charming. Computerization of campaigns, particularly direct mail advertising, has contributed greatly to the emergence of the "single-

issue campaign," in which targeted campaigning to individuals on narrow but strongly held issues influences the outcomes of elections. These systems also have dramatically changed the financing of campaigns, especially after the passage of restrictions on contributions of institutions that made small individual contributions more important. Finally, experiments with on-line plebiscites in so-called "wired cities" like Columbus, Ohio have demonstrated the possibility for bypassing formal elections in favor of running public opinion polls on major issues. Certainly national polls have already taken a key place in the formation of national policy. It is difficult to tell whether these effects of information technology are short-lived disequilibria that soon will be smoothed out in the course of politics-as-usual. However we have seen that information technology has had substantial and apparently lasting effects on other complex social systems such as the stock market that are dependent on the informed actions of large numbers of individual decision makers. It is possible that the politics of the bicentennial of the Constitution will bear little resemblance to the politics practiced even twenty years hence.