

For Immediate Release

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Fact Sheet: PCAST Report on Big Data and Privacy: A Technological Perspective

Advances in information technology have led to many new ways to collect data, analyze, and use data in ever expanding volumes. Big data holds tremendous potential to benefit society and contribute to economic growth, yet it also presents new challenges related to individual privacy. In January, President Obama asked his Council of Advisors on Science and Technology (PCAST) to analyze the technological dimension of this big data transformation and its significance for the future of privacy.

In its report, PCAST examines what distinguishes big data from data at smaller scales, how the infrastructure for handling big data is evolving through services such as cloud computing, how approaches to analyzing big data are evolving and what insights they are yielding, the opportunities and limitations technology offers in protecting privacy, and what these and other technical factors imply for public policy. It discusses a number of domains (e.g. health care, education) that accumulate big data and explores ways it can be used.

Both technology and policy play important roles in protecting privacy. PCAST concludes that technical measures alone are not sufficient for protecting privacy. In its report to the President, PCAST recommends five steps the Federal government can take around big data and privacy:

- Recommendation 1: Policy attention should focus more on the actual uses of big data and less on its collection and analysis.
- Recommendation 2: Policies and regulation at all levels of government should not embed particular technological solutions, but rather should be stated in terms of intended outcomes.
- Recommendation 3: With coordination and encouragement from the White House Office of Science and Technology Policy (OSTP), the agencies of the Networking and Information Technology Research and Development program should strengthen U.S. research in privacy-related technologies and in the relevant areas of social science that inform the successful application of those technologies.
- Recommendation 4: OSTP together with the appropriate educational institutions and professional societies should encourage increased education and training opportunities concerning privacy protection, including career paths for professionals.

- Recommendation 5: The United States should take the lead both in the international arena and at home by adopting policies that stimulate the use of practical privacy-protecting technologies that exist today.

Advances in technology hold the potential to both enhance and diminish personal privacy. In its report, PCAST notes that the challenge is to understand the nature of privacy in the modern world and to identify technical, educational, and policy solutions to help preserve and protect privacy and the societal benefits and economic potential around the use of big data.

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