

Office of Science and Technology Policy Open Government Plan

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The White House Office of Science and Technology Policy (OSTP) advises the President about the effects of science and technology on domestic and international affairs. The work of the office includes policy efforts encompassing science, environment, energy, national security, technology, and innovation. Transparency is a key aspect of the work of the office. OSTP provides information about the office's activities through online and in-person efforts, and actively works with stakeholders across government and from civil society in carrying out its mission.

OSTP also actively promotes open government initiatives across the Administration. Along with other offices within the White House, OSTP coordinates domestic participation with the Open Government Partnership, a global coalition of 64 governments and hundreds of civil-society organizations. This participation includes the establishment and implementation of Open Government National Action Plans, which are biennial blueprints that detail specific and measurable open government commitments. Additionally, OSTP coordinates open government efforts across agencies by leading the Interagency Open Government Working Group, which meets monthly to discuss open government opportunities and to guide agencies as they release these Open Government Plans every two years.

This plan discusses updates on OSTP efforts from the first and second OSTP Open Government Plans (published in 2010 and 2012), and showcases a selection of current and future OSTP efforts. These initiatives are presented around the core principles of transparency, participation, and collaboration, and includes several new flagship initiatives.

Transparency

Transparency in government is a key component of a democracy. Ensuring that the public has access to government information both builds public trust in government decision-making and allows the public to hold government accountable for those decisions. Key examples of the way in which OSTP has built transparency in its own work include the efforts discussed below.

Flagship Initiative – Access to Scientific Collections

Scientific collections are assemblies of physical objects that are valuable for research and education—including drilling cores from the ocean floor and glaciers, seeds, space rocks, cells, mineral samples, fossils, and more. Federal agencies develop and maintain scientific collections as records of our past and as investments in our future. These collections are public assets. They play an important role in promoting public health and safety, homeland security, trade, economic development, medical research, resource management, education, and environmental monitoring. They are studied across diverse fields of research and are used and re-used to validate and extend past research results as new analytical techniques develop. For the American public, students, and teachers, they are also treasure troves of information ripe for exploration and learning.

OSTP has directed agencies to <u>develop policies</u> that will improve the management of and access to scientific collections that agencies own or support, and OSTP staff have convened an interagency working group to share best practices and to facilitate agency compliance with the directive in the next few years. Agency policies, which are to be completed by September 20, 2014 and will be made available on agencies' Open Government webpages (www.[agency].gov/open), will help make scientific collections and information about scientific collections more transparent and accessible.

Open Data

Along with the Office of Management and Budget (OMB), OSTP works closely with agencies as they implement the 2013 OMB <u>Open Data Policy Memorandum</u> to manage information as an asset and make default for government information open and machine-readable. OSTP's own data catalog is available on Data.gov at: http://catalog.data.gov/organization/ostp-eop-gov.

CTO-Led Data Initiatives

OSTP's Office of the Chief Technology Officer (CTO) has led cross-agency efforts to support the Administration's Open Data work resulting in the releases of troves of valuable data that were previously difficult to access. Thousands of major government data resources have been posted in "machine-readable" form for free public access on the Data.gov website, and range from weather data to car safety ratings to the cost of healthcare procedures.

OSTP has coordinated and supported Open Data Initiatives aimed at scaling up open data efforts across the Health, Energy, Climate, Education, Finance, Public Safety, and Global Development sectors. In addition to making public government data more open and machine-readable, these initiatives have included brainstorming sessions called "data jams" where policy experts, innovators, and entrepreneurs develop ideas for proposed tools and services for the public that could be built using government data. OSTP also helps support Administration events (called "Datapaloozas") to highlight innovation in the public and private sectors fueled by open data, including recent events focused on education, public safety, energy, and climate data.

OSTP coordinates and supports Administration efforts for the "My Data" Initiatives, which empower Americans with secure and useful access to their personal data. These initiatives include Button, which gives consumers access to their own health information; Green
Button, which provides families and businesses with their energy-usage information; IRS's Get Transcript, which provides individual taxpayers with records of their past tax returns; and the Department of Education's MyStudentData, which gives students access to their Federal grant or loan information. These efforts continue to spur the development of innovative, data-driven consumer applications and services.

Presidential Innovation Fellows Program

The <u>Presidential Innovation Fellows</u> (PIF) program brings the principles, values, and practices of the innovation economy into government. This highly-competitive program pairs talented, diverse individuals from the innovation community with top civil servants to tackle many of our Nation's biggest challenges. The first round of the Presidential Innovation Fellows program launched in August 2012 with five projects across nine agencies. The second round of the program launched in June of 2013 with nine projects across 16 government agencies. Over the past year, the second class of fellows has broken new ground and expanded upon the work of the inaugural class to <u>deliver positive results</u>—from increasing consumers' access to their own personal healthcare information, to designing and launching pilot projects to improve Federal procurement, to unleashing the power of open government data to spur new useful products and services.

The third round of the PIF program will focus on addressing three national priority initiatives:

- Making Digital the Default: Building a 21st Century Veterans Experience
- Data Innovation: Unleashing the Power of Data Resources to Improve Americans' Lives
- By the People, for the People: Experiments in Crowdsourcing Government

Proactive Disclosures

OSTP <u>proactively discloses</u> frequently requested material and information that may be of interest to the public. Examples include speeches, presentations, strategic plans, fact sheets, national strategies, research plans, roadmaps, memoranda, Congressional testimony, and research and development budgets. In addition, OSTP's website houses many documents and reports related to the work of the <u>National Science and Technology Council</u> (NSTC) and the <u>President's Council of Advisors on Science and Technology</u> (PCAST). OSTP continues to identify additional documents and types of documents that might be published in the Resource Library.

Privacy

OSTP's Senior Agency Official for Privacy ensures that OSTP complies with all applicable privacy reporting requirements. OSTP reports applicable privacy compliance information periodically, as appropriate, to the Office of Management and Budget and the Office of Administration.

Whistleblower Protection

OSTP works to ensure that its employees are informed of whistleblower rights and remedies and has posted information regarding whistleblower protection throughout OSTP's offices. OSTP is also working with the Office of Special Counsel (OSC) to participate in OSC's Whistleblower Protection Act certification program.

Websites

The OSTP website holds a trove of information about the office's work including the types of documents discussed above in the Proactive Disclosures section. OSTP's website is available at www.whitehouse.gov/ostp. OSTP also coordinates content for the White House's Open Government website (www.whitehouse.gov/open), including the Open Government Initiative blog and the @OpenGov Twitter feed.

Participation in Transparency Initiatives

In 2011, OSTP launched a prototype "R&D Dashboard" to track data and information about how the government invests in research and development as required by the E-Government Act of 2002. OSTP has transitioned its concepts in collaboration with a growing number of Federal science agencies to the STAR METRICS Federal Reporter. OSTP has also supported related efforts by two of the three coordinating bodies that the office supports, the National Nanotechnology Initiative and the National Coordination Office (NCO) for Networking and Information Technology Research and Development. Both of these efforts feature up-to-date data from the President's latest budget.

Over the coming year, OSTP will continue to build on STAR METRICS with active participation by stakeholders and more Federal agencies to explore fundamental changes in how data on R&D are made available to the public. OSTP is testing models for making R&D-related data from contributing agencies available in ways that are secure, interoperable, and usable by a wide array of potential users. Efforts in this area will be coordinated with plans in closely related areas such as USASpending.gov and Data.gov.

Public Notice

OSTP engages with the public in a variety of ways to ensure the public participates in the activities and efforts of the office. OSTP uses the Web to encourage participation through the office's website, as well as through the OSTP blog and Twitter feed (@whitehouseostp). Public portions of meetings of the President's Council of Advisors on Science and Technology (PCAST), an advisory committee of scientists and engineers that directly advises the President, are streamed online and posted in the Federal Register and provide for public comment periods.

Records Management

OSTP works closely with the Office of Administration on OSTP's records management efforts. OSTP has designated a Senior Agency Official to supervise records management for the office and in February 2014 completed a self-assessment of the office's compliance with records management requirements, receiving a 95% score. The National Archives and Records Administration (NARA) supports OSTP in this domain with both an electronic recordkeeping and filing system and records management training, and OSTP is currently working with NARA to update its records schedule. In addition, OSTP has developed internal, staff-wide, formal

training, based on agency policies and directives, on the retention and management of email records as well as records created and maintained in electronic formats. This training is provided as part of the office's onboarding process and for continuing employees on a periodic basis.

Freedom of Information Act Requests

OSTP continues to manage its Freedom of Information Act (FOIA) operations with success, and once again was lauded for its efforts receiving praise for FOIA processing from the Department of Justice, the government's lead on FOIA policy, and for FOIA regulations by the Center for Effective Government, a non-governmental organization that independently reviews FOIA practices. OSTP responds to FOIA requests in a timely manner and works to minimize any backlog of pending requests. OSTP's Chief FOIA Officer discusses the presumption of openness with agency personnel to encourage the release of records that might otherwise have been withheld under applicable FOIA exemptions. Responsive records subject to an exemption are often reviewed several times and considered for potential discretionary releases. OSTP's FOIA webpage includes FOIA contact information, information on OSTP's FOIA processing, and links to OSTP's FOIA reports.

Congressional Requests

Senate-confirmed OSTP officials regularly receive invitations to testify before the U.S. Congress. OSTP also regularly receives requests from the U.S. Congress for information regarding OSTP and its activities. To facilitate the handling of these Congressional requests, OSTP's primary point of contact is its Assistant Director for Legislative Affairs. OSTP regularly posts on its website the prepared testimony of its officials who testify before Congress.

Declassification

OSTP has a process-oriented information security program. The one original classification authority within OSTP is the Director. The office encourages and assists with facilitating declassification efforts on a regular basis.

Public and Agency Ideas

OSTP engages with stakeholders to receive feedback on its work. Specifically, for this third Open Government Plan, OSTP staff solicited input from across all divisions of the office and held a brainstorming session where colleagues could collaborate on ideas for the plan. OSTP invited interested stakeholders to offer suggestions through an in-person meeting prior to release of the plan and will continue to seek feedback as the office implements the plan.

Participation

Opening government in a meaningful way means including civil society stakeholders and the public in government activities and decision-making. Public feedback and suggestions can lead to key innovations in government actions and policies. Key examples of the way OSTP has built participation into its work are discussed below.

Flagship Initiative – We the Geeks

This new series of <u>We the Geeks</u> Google+ Hangouts features informal conversations with experts to highlight the future of science, technology, and innovation in the United States. Participants can join the conversation on Twitter by using the hashtag #WeTheGeeks and asking questions of the presenters throughout the hangout. Topics thus far have included science, technology, engineering, and math (STEM) education; extreme weather and climate change; and turning science fiction into science fact. OSTP solicits topic suggestions from the public and from other

agencies that work on these issues. Presenters have included CEOs, inventors, entrepreneurs, students, senior government leaders, journalists, authors, scientists, and academics. This initiative carries forward the openness principle of public participation and will continue to expand over the next two years.

President's Council of Advisors on Science and Technology

The President's Council of Advisors on Science and Technology (PCAST) is an advisory group of experts from outside of government who are among the Nation's leading scientists and engineers, appointed by the President to augment the science and technology advice available to him from inside the government. The Council is co-chaired by OSTP Director John P. Holdren and is a public-facing effort. Portions of PCAST meetings are open to the public, live-streamed, and are archived on the OSTP website. Before each meeting, PCAST receives written public comments and during each meeting hears oral public comments, all of which are carefully considered. The advisors provide input on policy recommendations concerning science, technology, and innovation, which are made available in PCAST's reports, all of which are posted online. Recently, PCAST has addressed technology in higher education to improve outcomes and lower costs, opportunities for strengthening cybersecurity, and technological aspects of big data and privacy as part of the President's 2014 requested review of big data and the future of privacy.

Sharing Results of Federally Funded Research

OSTP, in coordination with OMB, is leading the 23 science agencies in <u>adopting policies</u> that provide for public dissemination of the results of unclassified research supported by Federal funding. Each agency is developing a plan to support public access to research results. The development of these plans has been a collaborative process involving online consultations and a <u>two-day stakeholder engagement session</u>, drawing on the expertise of leaders in this field such as researchers, universities, libraries, publishers, users of Federally funded research results, and civil society organizations to inform the contents of these plans. Once complete, agencies will post their plans on their www.[agency].gov/open webpages.

Broadening Participation in STEM

OSTP is leading Administration efforts to take steps to ensure that the Nation's STEM graduates reflect the full diversity of America. Among other efforts, OSTP has issued a <u>call to tech innovators</u> to work together to ensure that all youth—particularly those from underserved and historically underrepresented communities—have the opportunity to study STEM subjects and participate in the technology sector. In collaboration with the <u>White House Council on Women and Girls</u>, OSTP is dedicated to increasing the participation of women and girls—as well as other underrepresented groups—in STEM fields by increasing the engagement of girls with STEM

subjects in formal and informal environments, encouraging mentoring to support women throughout their academic and professional experiences, and supporting efforts to retain women in the STEM workforce.

In February 2014, in conjunction with Black History Month, <u>OSTP hosted a "week of action"</u> aimed at shining a light on the importance of engaging America's STEM talent pool. In March 2014, in conjunction with Women's History month, OSTP and other White House partners hosted a <u>series of activities</u> aimed at increasing the participation of women and girls in STEM.

Climate Assessment

OSTP leads the U.S. Global Change Research Program working with the National Climate
Assessment to engage producers and users of assessment information across the United States.
On May 6, 2014, the Obama Administration unveiled the Third U.S. National Climate
Assessment (NCA)—the most comprehensive, authoritative scientific report ever generated about climate changes that are happening now in the United States and further changes that we can expect to see throughout this century. The new NCA is a result of a three-year analytical effort by a team of more than 300 climate scientists and experts, informed by inputs gathered through more than 70 technical workshops and stakeholder listening sessions held across the country. The resulting product was subjected to extensive review by the public and by scientific experts in and out of government. This process of unprecedented rigor and transparency was undertaken to ensure that the findings of this report rest on the firmest possible base of expert judgment.

Public Input

OSTP gathers public input as a critical step in much of its work. Select recent examples of OSTP's proactive engagement with the public for feedback, suggestions, and other input are detailed below.

Big Data and Privacy

In January 2014, President Obama requested a wide-ranging review of "big data" and privacy—to explore how those technologies are changing our economy, our government, and our society, and to consider their implications for our personal privacy. In response, OSTP worked closely with Administration leaders and met with academic researchers, privacy advocates, regulators, the technology industry, advertisers, civil rights groups, and interested citizens. OSTP also issued a formal Request for Information (RFI) seeking public comment and jointly organized three conferences at MIT, NYU, and U.C. Berkeley to solicit feedback. The big data and privacy review resulted in a report containing six recommendations.

Technology to Enhance Learning

On January 14, 2014, OSTP issued an RFI and asked for public input on the <u>impact of learning technologies</u> on student outcomes, specifically the role that "pull mechanisms" such as incentive prizes and milestone payments might have on a student's success. OSTP received nearly 50 thoughtful responses to its RFI, including: ideas for types of prize competitions that could be useful in education; suggestions for a focus on the development of new tools such as digital assessments and learning games; and recommendations for learning outcomes that could be the target of such prizes and pay-for-performance approaches, such as adult education, English language proficiency, developmental math, civic engagement, and future employability. Going

forward, OSTP will work to develop these concepts with relevant Federal agencies, as well as private-sector and philanthropic organizations with shared goals.

Spectrum Policy

On June 14, 2013, President Obama issued a Memorandum to the heads of executive departments and agencies promoting more efficient use of the electromagnetic spectrum, so that more spectrum can be made available for wireless broadband and other innovative commercial uses. The Memorandum established a White House Spectrum Policy Team, which is co-managed by OSTP, and directed the Team to make recommendations regarding market-based or other approaches that could give departments and agencies greater incentive to share or relinquish spectrum, while protecting agency mission capabilities. On February 18, 2014, OSTP issued an RFI and requested public input to inform those recommendations. The RFI also directed readers to a report on the issue of agency incentives that had been published by a federally funded research and development center, the Science and Technology Policy Institute, at the direction of the Team.

STEM Listening Session

On April 23, 2014, in response to the President's April 2013 <u>call</u> for an "all hands on deck" to improve STEM education in America, OSTP welcomed leaders from the STEM education community to the White House to share ideas and input about how the Administration and members of the private, philanthropic, non-profit, and education sectors can work together to improve STEM learning for students across the country. More than 50 leaders from the STEM education community met with approximately 30 Federal agency representatives working on implementation of the <u>Federal STEM Education 5-Year Strategic Plan</u>.

Collaboration

Some of the best solutions to problems that the government is looking to solve come from the private sector. Innovators and entrepreneurs working alongside government experts can lead to unique policy decisions and inventive products and services. Key examples of the way OSTP has built collaboration into the office's work are discussed below.

Flagship Initiative – "All Hands on Deck"

In April 2013, at the third annual White House Science Fair, President Obama reiterated his commitment to an "<u>all-hands-on-deck approach</u>" to providing students with skills they need to excel in science, technology, engineering, and math. OSTP is helping lead this commitment as the United States brings together government, industry, non-profits, philanthropy, and others to expand STEM education and continue improving its quality.

Science Fair

The fourth White House Science Fair, held May 27, 2014, was an OSTP-led effort that brought together kid scientists, engineers, math champions, and innovators from across the nation together to share their discoveries. This hands-on celebration of STEM education featured dozens of students from dozens of states who showcased everything from portable windmills, to oil-producing algae, to underwater robots, to dehydration-preventing football gear. Recognizing

the next generation of scientists, engineers, inventors, and innovators will help inspire students across the Nation to succeed in these subjects, and develop the next generation of leaders in STEM fields.

Maker Faire

In 2014, OSTP will assist in launching the first-ever White House Maker Faire, which will highlight young people who design and build something that is personally meaningful to them. Like the White House Science Fair, the White House Maker Faire will feature efforts from students in the traditional STEM areas as well as art and other educational areas. Makers are entrepreneurs and inventors who learn career-building skills and develop confidence and creativity from their work. The Maker Faire is a key component of the overall effort to give students and adults the tools, mentors, and space to create just about anything. Citizens around the country were invited to indicate their interest in being involved with the Maker Faire by sharing their stories and creations at www.whitehouse.gov/makerfaire and maker@ostp.gov. OSTP has also supported the expansion of the "Maker" movement to cities through the "Mayors Maker Challenge" which encourages spreading access to the tools, technologies, and education to spur making and manufacturing innovation to drive economic growth, create jobs, promote new collaborations, inspire youth, and reinvigorate STEM education.

Games for Impact

Games for impact are media designed for interactive exploration which have different strengths than text or video for describing ideas. Academic research shows that use of interactive media such as games can significantly improve cognitive learning outcomes. Several agencies including the Department of Education, the National Science Foundation, the National Aeronautics and Space Administration, the Defense Advanced Research Projects Agency, and the National Institutes of Health have funded research into the development and utilization of games, and OSTP coordinates an interagency working group to ensure agencies are working together to build strong practices that improve game quality over time. In December 2013, OSTP asked for public input on the use of games for impact via an Ideascale website. OSTP plans to launch an Education Game Jam—a workshop for game developers—with the Department of Education in late summer 2014.

National Science and Technology Council

Collaboration across agencies is essential to accomplishing OSTP's mission. OSTP leads many of the Federal government's broadest interagency efforts through the NSTC (NSTC). NSTC consists of senior agency leaders in science and technology across the Federal government. Members of NSTC coordinate research programs, provide strategic investment recommendations, identify capability needs, and share best practices to accomplish the Administration's goals in science, technology, and innovation policy. Coordination of Federal activities often requires feedback from the broader stakeholder community, which may occur through open forum workshops, symposia, and listening sessions, as well as through formally posted RFIs in the Federal Register and interaction with Federal advisory committees.

Prizes and Challenges

In 2009, President Obama's <u>Strategy for American Innovation</u> called on agencies to increase their use of prizes and challenges to address some of our Nation's most pressing challenges. To support these ongoing efforts, OSTP has led agencies in incorporating prizes and competitions to engage citizen solvers. OSTP and the General Services Administration have trained more than 1,200 agency staff through workshops, <u>online resources</u>, and an active community of practice. The prize competitions being run across the Federal Government are detailed at <u>Challenge.gov</u>, a one-stop shop where tens of thousands of innovators and citizen solvers have participated in more than 300 of these public-sector prize competitions.

Science and Technology Expert Networking

Developing an expert networking system to connect policymakers in science and technology fields with citizens has been underway since OSTP's version 1.0 Open Government Plan was published in 2010. Since then, the concept of an expert network has expanded beyond an OSTP initiative and is now part of both the first and second United States Open Government National Action Plans. Ongoing efforts include pilots across government such as the Food and Drug Administration's ExpertNet, which connects Federal experts with each other and citizen experts, and similar efforts by the Environmental Protection Agency and U.S. Department of Agriculture.
