**Human-Centered Design**

**Quote:**

“If human-centered design can guide us towards a human-centered process, that accommodates how people work, how they like to discover and consume information, we’re all the better for it,” Matt Conner, Acting CISO and Director of Cybersecurity Office at the National Geospatial Intelligence Agency [quoted in Lane, K., “[How Human Centered Design Can Help Your Agency](https://www.govloop.com/how-human-centered-design-can-help-your-agency/)”, GovLoop, September 6th, 2016]

**Intro:**

Human-centered design (HCD) is a discipline in which the needs, behaviors, and experiences of an organization’s customers (or users) drive the design of a solution to a particular problem. A creative process for identifying, defining, and solving complex problems with a rigorous focus on the user, HCD is also a set of principles that can guide work across products, programs, and policy. Principles of human-centered design include empathy, iteration, collaboration, nonlinearity, making, and a bias toward action.

To respond to the needs of the American people, government needs nimble and creative approaches to truly understand and address the complex challenges of the 21st century. Human-centered design offers a way for government to more effectively serve its citizens by focusing on designing and building solutions for the user. It presents methods for understanding Americans through the social science lens of human behavior. It instructs on building inclusive processes for diverse groups of stakeholders, through which desirable, feasible, and viable consensus solutions emerge. [Human-centered design community of practice, personal communication with the Office of Science and Technology Policy, December, 2016]

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**Why:**

HCD offers a methodology and a conceptual framework for addressing complex challenges [IDEO, “[Design Kit: The Human-Centered Design Toolkit](http://www.designkit.org/resources/1)”, 2015]. This approach enables Federal employees to engage with the public as co-designers to identify and address the root causes of problems, rather than the symptoms [National Economic Council and Office of Science and Technology Policy, “[A Strategy for American Innovation](https://www.whitehouse.gov/sites/default/files/strategy_for_american_innovation_october_2015.pdf)”, October 2015]. It makes government more participatory and responsive, increases stakeholder engagement and cross-sector collaboration, offers insight into the needs, behaviors, and decisions of citizens, and equips us with tools for generating, testing, and improving solutions. Ultimately, using this methodology ensures that we are solving the right problem in a way that works for the people we serve. [Human-centered design community of practice, personal communications with Office of Science and Technology Policy, December, 2016]

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**How:**

Human-centered design can be used to understand, create, or improve Federal programs and services across agencies. [Human-centered design community of practice, personal communication with the Office of Science and Technology Policy, December, 2016] A human-centered design process includes three broad phases of work: research and discovery; ideation and prototyping; and piloting, testing and implementation. Individuals or project teams using this approach often use it to tackle problems with existing government services, or when a new solution is needed for an existing problem. [Human-centered design community of practice, personal communication with the Office of Science and Technology Policy, December, 2016]

Human-centered design can be broken down into six, reinforcing principles that together create better products and services:

1. Adopting multidisciplinary skills and perspectives
2. Clear understanding of the users, tasks and environments
3. User-centered, evaluation-driven design
4. Considering the overall consumer experience
5. Involving the consumer in the design and production process
6. Iterative design process

[Elmansy, R.,"[Characteristics of Human Centered Design](http://www.designorate.com/characteristics-of-human-centered-design)", Designorate]

**Case Study:**

## USDA & OPM

*Case content provided by Arianne Miller, Deputy Director of The Lab @ OPM. This case study concerns a collaboration between the U.S. Department of Agriculture (USDA) and the Office of Personnel Management (OPM), which improved the USDA’s National School Lunch Program. Details are provided based on a discussion with Arianne Miller of the OPM’s Innovation Lab, as well as information from* [*a blog post*](https://www.whitehouse.gov/blog/2015/09/04/using-human-centered-design-make-government-work-better-and-cost-less.) *on the event.*

[Ramsden, M., personal communications with Office of Science and Technology Policy, December 2016]

## Lunch Money: Inter-Agency Collaboration for Innovation

**Background**

From May 2014 through April 2015, the USDA’s Food and Nutrition Service (FNS) partnered with the OPM’s Innovation Lab to solve enrollment issues with the National School Lunch Program. The National School Lunch Program provides healthy, reduced-cost, and free meals to over 30 million children each school day. Previously, those interested in participating in the program struggled to accurately complete the application forms. This led to improper payments, including under- and over-payments totaling approximately $1.9 billion in 2015. Hoping to improve the enrollment process and eliminate many of the costs associated with improper payments, the FNS turned to the Innovation Lab at the Office of Personnel Management (OPM)and human-centered design (HCD).

**Applying HCD**

Since the improper payments plaguing the FNS were often the result of human (in this case, parent) error, the FNS and Innovation Lab needed an approach that considered the experience of the human completing the program’s application form. Because HCD starts with the human, and builds solutions based on the human’s experience and needs, it was a perfect fit for the FNS. By partnering with the Innovation Lab’s HCD experts to solve the program’s enrollment issues, the FNS was able to identify the root causes of human error and specifically address those issues to improve outcomes.

The OPM Innovation Lab trained and collaborated with the FNS to conduct research, in-depth observations, and interviews with people who participate in the school lunch program, including families and school officials. The team determined that small, yet important factors were hindering parents’ completion of the application form. The team designed a new program application form that was one page long, provided more space for the parents to write their children’s names, and that was more simple and intuitive. Before releasing the form to school officials for approval, the form was tested with parents to ensure that the changes would positively impact the parents’ experience and accurate completion of the form. Finally, the form was approved by school officials and launched by the USDA in 2015

Additionally, the FNS found that in school districts where the poverty level rose above 90%, it was actually more fiscally responsible to approve all students within the district for the school lunch program than to correct the average number of improper payments. Blanket approval eliminates the risk of human error in the application process so the FNS can be confident that the district will not be awarded an “improper” amount which would require reimbursement.



[Source: Image retrieved from “[**The OPM Director’s Blog**](https://www.opm.gov/blogs/Director/2015/5/21/OPMs-Lab-Leading-Government-Innovation/)”, accessed December 2016]

**Key Accomplishments**

The FNS believes that the newly improved National School Lunch Program will reduce human error, which costs the USDA billions of dollars in over- and under-payments each year. With more accurately completed application forms, the FNS will correctly calculate reimbursement payments to schools for the meals that they provide. Additionally, blanket approvals in seriously impoverished school districts will save the USDA millions of dollars in overhead costs associated with correcting improper payments.

The FNS has set a goal to reduce the error rate among completed school lunch program applications from 15.8% in 2015 to less than 10% by the 2019-2020 schoolyear. The FNS and the OPM’s Innovation Lab are confident that the improvements made through HCD will help the FNS meet their goal.

**To Learn More**

* Follow the [OPM Innovation Lab](https://twitter.com/LABopm) on Twitter
* Read more on the [Harvard Kennedy School of Government blog](https://www.innovations.harvard.edu/blog/human-centered-design-us-federal-government)
* “[USDA Announces Progress in Reducing Improper Payments in School Meals”](http://www.fns.usda.gov/pressrelease/2015/fns-0005-15) USDA press release

**Next Steps/Checklist:**

**Relevant Policies:**

**Additional Resources:**