

Open Source in the Federal Government: Anecdotes and Evidence

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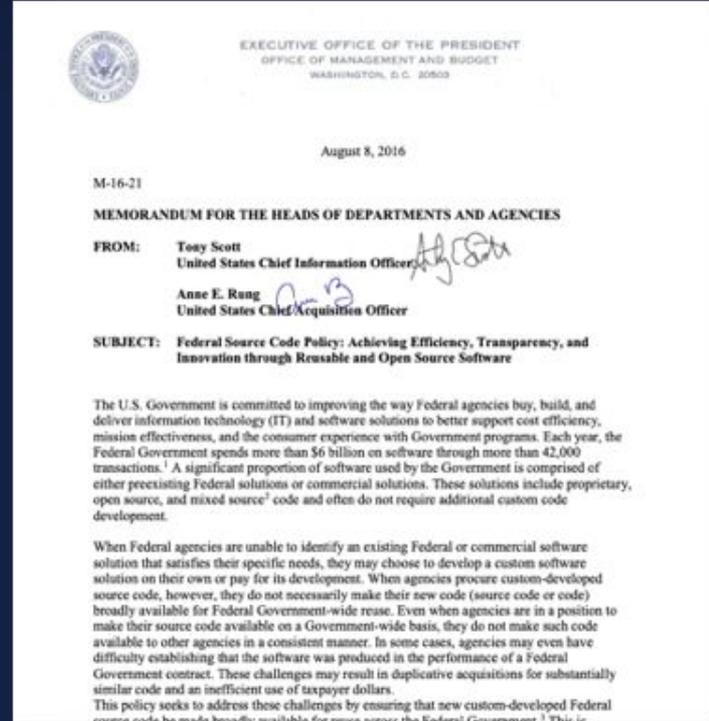
History of Federal Source Code



- Grace Hopper's work at the Harvard Computational Laboratory was a precursor to open source software (OSS)
- U.S. government funded labs using and modifying code
- Academic institutions consisted of "hackers" creating software programs and games
- Federal agencies consume OSS and publish less

Federal Source Code Policy (FSCP)

- Federal government spends \$6B each year on software
- In August 2016, the White House published the FSCP or M-16-21
- Agencies develop source code policy, update acquisition language, and inventory code
- Established Code.gov - program and platform for sharing government source code



Code.gov



An official website of the United States government. [Here's how you know](#)

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Sharing America's Code

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Code.gov is the federal government's platform for sharing America's open source software.

VISION

Serve as the community leader in driving code reuse and open source development to decrease code spend while increasing code quality.

Open Source News & Events

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Code.gov will host its first annual Federal Source Code Summit...
10/06/2020

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Federal Agency

- Agency for International Development
- Consumer Financial Protection Bureau
- Department of Agriculture
- Department of Commerce

data-act-broker-backend

8.2

The DATA Act broker backend is a collection of services that power the DATA Act's central data submission platform. To increase access to and use of federal financial data in order to strengthen government-wide decision-making and accountability through data transparency, the broker relies on hundreds of distinct data elements to tell the story of how federal dollars are spent.

Agency: [Department of the Treasury](#)
Organization: Bureau of the Fiscal Service(BFS)
Last Updated: 6/4/2019

Usage Type: Open Source
Languages: HTML, CSS, Python
License: Creative Commons Zero v1.0 Universal

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data-act-broker-web-app

8.2

The DATA Act broker website is the front-end to the DATA Act broker backend. To increase access to and use of federal financial data in order to strengthen government-wide decision-making and accountability through data transparency, the broker relies on hundreds of distinct data elements to tell the story of how federal dollars are spent.

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There are 38 open tasks.

Filter

Federal Agency

- Consumer Financial Protection Bureau
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Skill Level

- Beginner
- Intermediate
- Advanced

Time Required

- Small
- Medium

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Project: [code.gov:api](#) Agency: [General Services Administration](#) Last Updated: 9/21/2020

Languages: Not Available Type: bug Skill Level: beginner Effort: small

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Federal Source Code Study (FSCS)*

- Three year qualitative study that examined agency implementation of FSCP using OSS publication as an indicator of policy compliance
- General research question: Why do some federal agencies publish OSS and others do not?
- Examined organizational factors of cultural beliefs, public engagement, structural dimensions, and organizational location
- 25 participants from 20 cabinet-level agencies

* [Full study](#)

FSCS Results



Cultural beliefs – Non-monolithic, advantageous attributes

Public engagement – More and varied engagement through bi-directional communication, events, and electronic tools

Structural dimensions - Less centralization, more formalization, more differentiation, more coordination

Organizational location – Metaphorically located in the middle of the organization, unit has less hierarchical layers

→ **Publish OSS**

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CAPTIONING



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