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# Open Source in the Federal Government: Anecdotes and Evidence

Joseph Castle, PhD

GitHub - @jcastle | Twitter - @jrcastle\_vt

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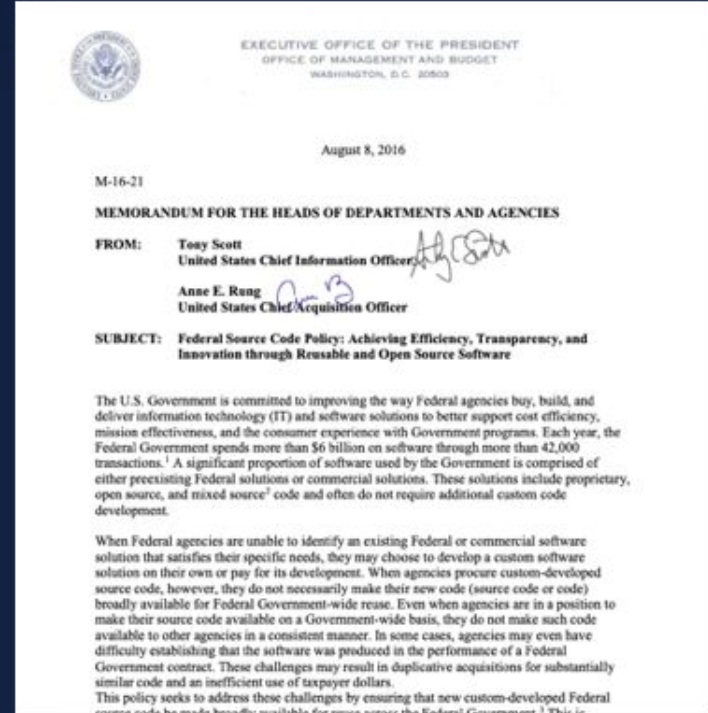
# History of Federal Source Code



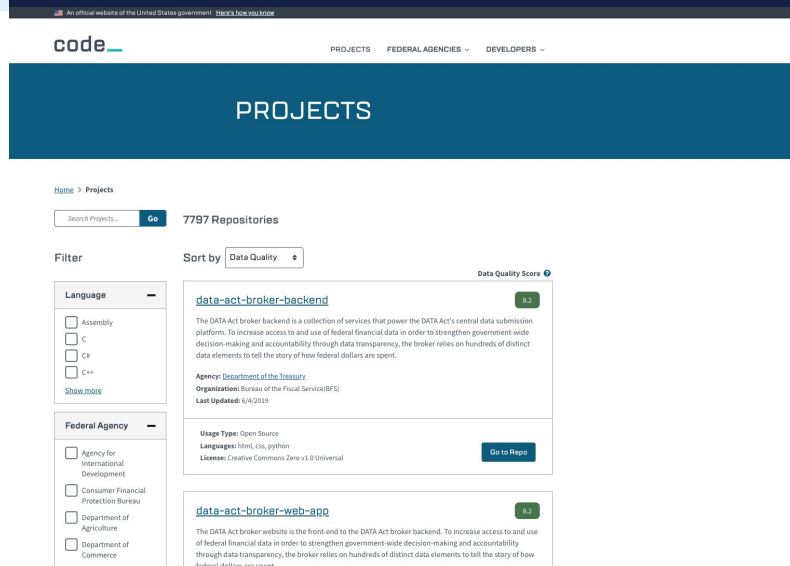
- Grace Hopper's work at the Harvard Computational Laboratory was a precursor to open source software (OSS)
- U.S. government funded labs using and modifying code
- Academic institutions consisted of "hackers" creating software programs and games
- Federal agencies consume OSS and publish less

# 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



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# Code.gov - Open Tasks



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

code\_

PROJECTS FEDERAL AGENCIES ▾ DEVELOPERS ▾

## OPEN TASKS

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There are 38 open tasks.

Filter

**Federal Agency** ▾

- ☐ Consumer Financial Protection Bureau
- ☐ Department of Energy
- ☐ Department of Health and Human Services
- ☐ General Services Administration

**Skill Level** ▾

- ☐ Beginner
- ☐ Intermediate
- ☐ Advanced

**Time Required** ▾

- ☐ Small
- ☐ Medium

Explore Open Tasks

[API Agency Issues Report Accuracy?](#)

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

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

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Languages: Not Available Type: content Skill Level: beginner Effort: medium

# 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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MAX STARKENBURG

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