(U) Creating Institutional Data Governance and Repositories

Michael Ham and Vanessa Feagin

Los Alamos National Laboratory Weapons Research Services (LANL WRS)

Presentation for Doe Data Days

10/24/2023

LLNL, Livermore Ca

Introduction

Weapons Research Services (WRS) is the evolution of Oppenheimer's personal library

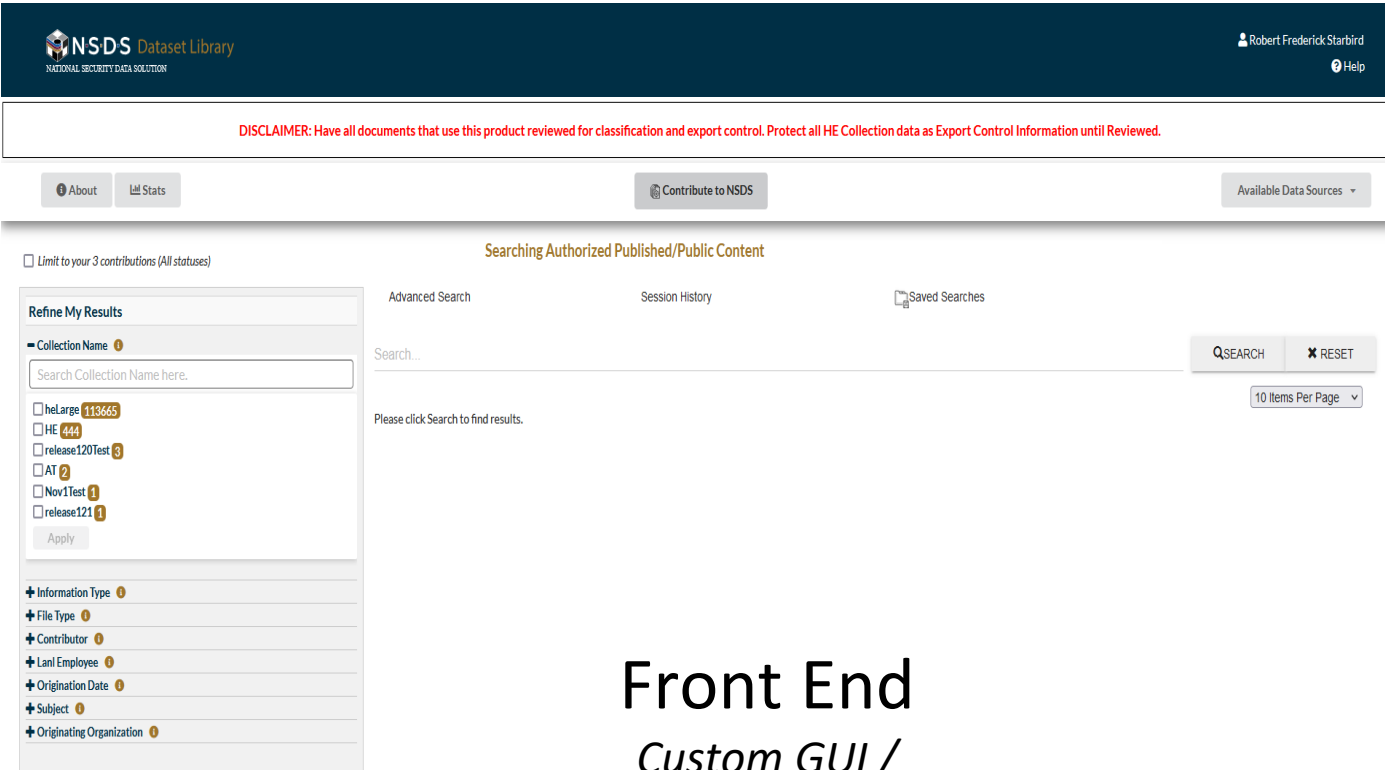In 2019 Weapons Research Services made a commitment to institutional data

NSDS is a two part program

1. Institutional repository for raw and reference data
2. Catalyst for Weapons Program Data Governance Council

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National Security Data Solution

Front End
Custom GUI / API

NoSQL Backend
Licensed by cores

TEAM

- Project manager
  - Vanessa Feagin
- Strategist
  - Mike Ham, Amy Reeves
- Developers
  - Steve Lawrence, Dave Grant, Bob Starbird, John Box
- Data concierges
  - Carla Tafoya, Jeremey Martinez, Ali Ticknor, Jeremiah Bingham

LANL National Security Data Solution (NSDS)

18 Collections in Prod
796 Records
12393 Documents
(As of Oct 14 2023)

LANL employees automatically have an account!

Data Concierge program helps you create data collections, upload data and integrate into workflows

ITAR, OUO, UCNI and Export Control compliant

Customized access control lists and assistance in developing data governance mechanisms (ex MOU)

LANL Yellow July 2022

LANL Red July 2023

Yellow Enterprise Access In planning stage

WRS WEAPONS RESEARCH SERVICES

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Faceted search in NSDS

Weapons Program Data Governance Council

- Charter
- 4COOs from the Deputy Directorate Weapons are the voting members
- Website
- Held quarterly
- Types of issues include access to weapons data, provide guidance/sign-off on data management best practices, reviewing policies that need to be taken to the next level of leadership
- The national security issues of today require data governance
    - Access
    - Deconflicting
    - Provide top down directives
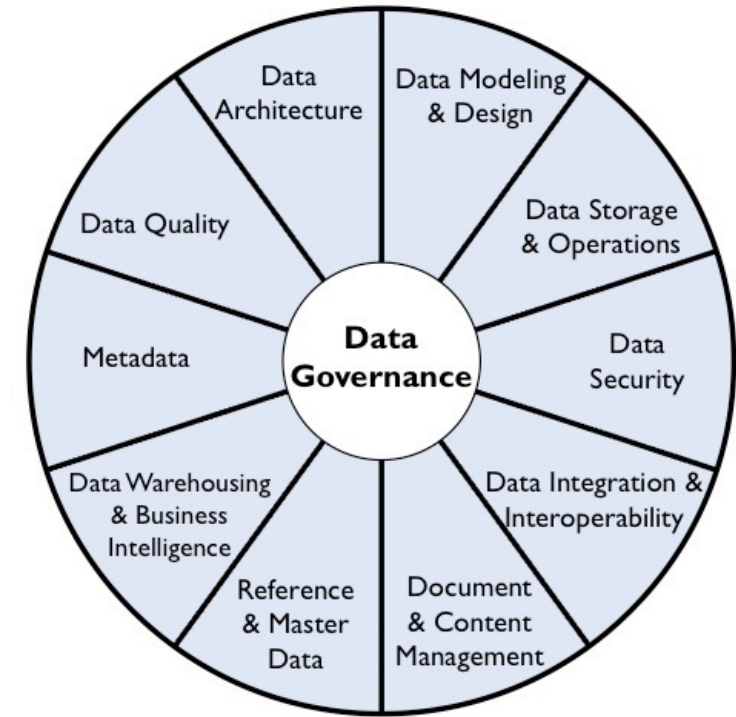
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"Government, even in its best state, is but a necessary evil; in its worst state, an intolerable one." Thomas Paine possibly talking about data governance

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Enduring Knowledge Base

- One of our greatest successes!

- Interplay between work and policy

- Was not a concept when we started
  - good thing we have a data governance council
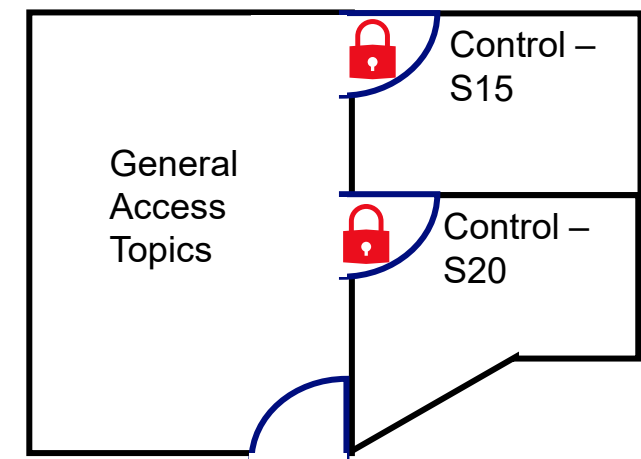
Division Level Data Governance

- Metadata Initiative
  - Division support for the project and implementation
  - See the poster!!
- Data roadmap
- MOU for data sharing
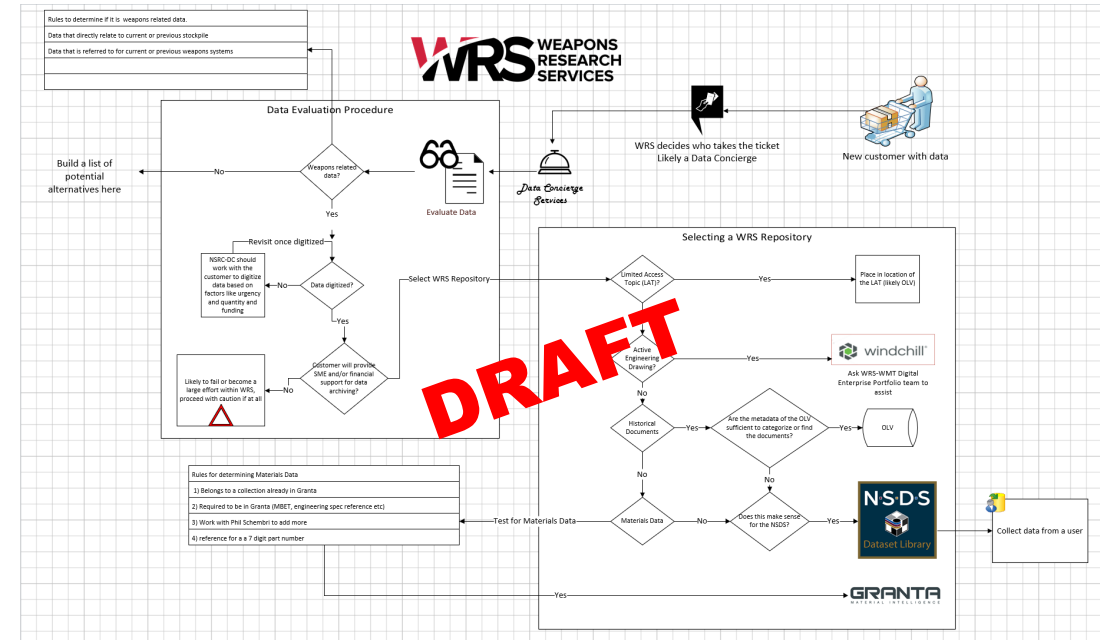
NSDS is growing

- Unclassified and Classified environments

- Enterprise access is in process

- Data is growing

- Changing culture

National Security Science Spring 2023 issue

Lessons Learned

- Everyone loves the NSDS
  - But we need top down direction to make it work
- You'll find people hear about you from weird places
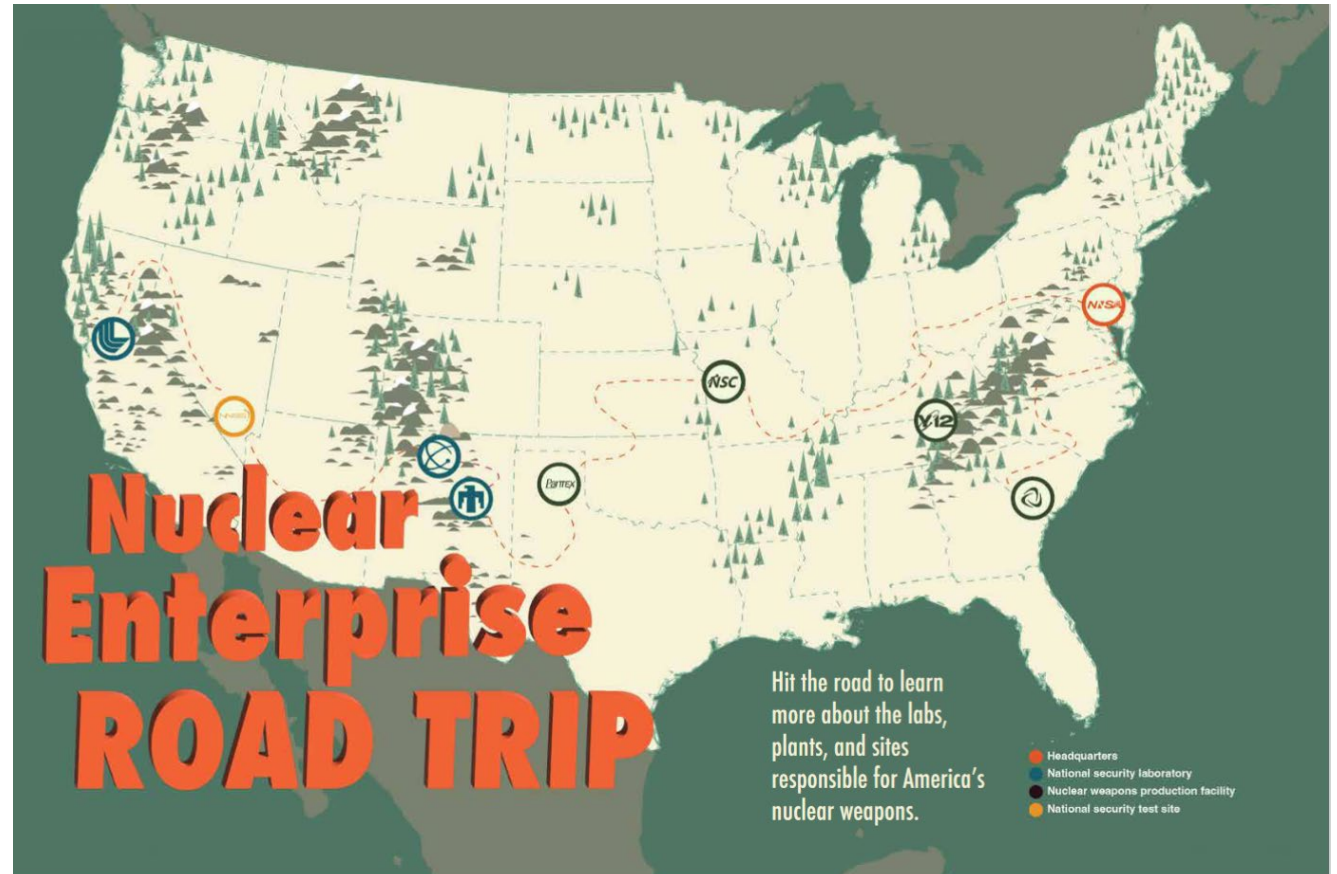- Building a tool in a silo without user acceptance is problematic
- Our scope is creeping heavily
  - We're popular with higher ups seeking solutions that already exist, but they don't yet push that down

ACTIVE U.S. NUCLEAR STOCKPILE

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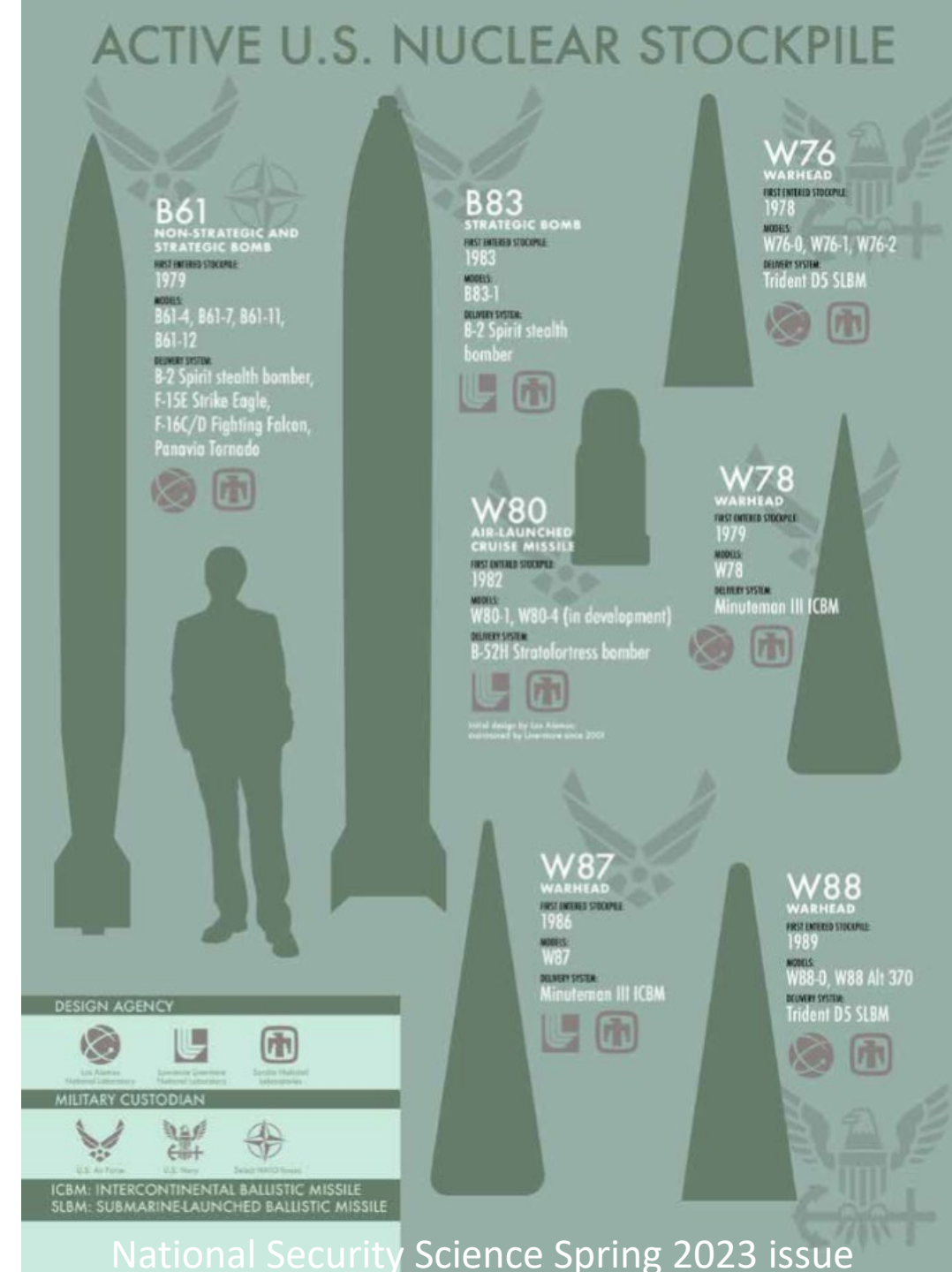
Data Concierges and Librarians

- As the NSDS grew it became apparent we needed dedicated customer support staff

- Issues include:
  - Clearances
  - Authority
  - Prioritization

- Changing cultures

Data Concierge Services

Takeaway

- You can build very clever products
  - Without governance in place you risk running into unforeseen walls
- DMBOK 2
  - Data Management Book of Knowledge 2

"We cannot be mere consumers of good governance, we must be participants; we must be co-creators." Rohini Nilekani

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