



(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

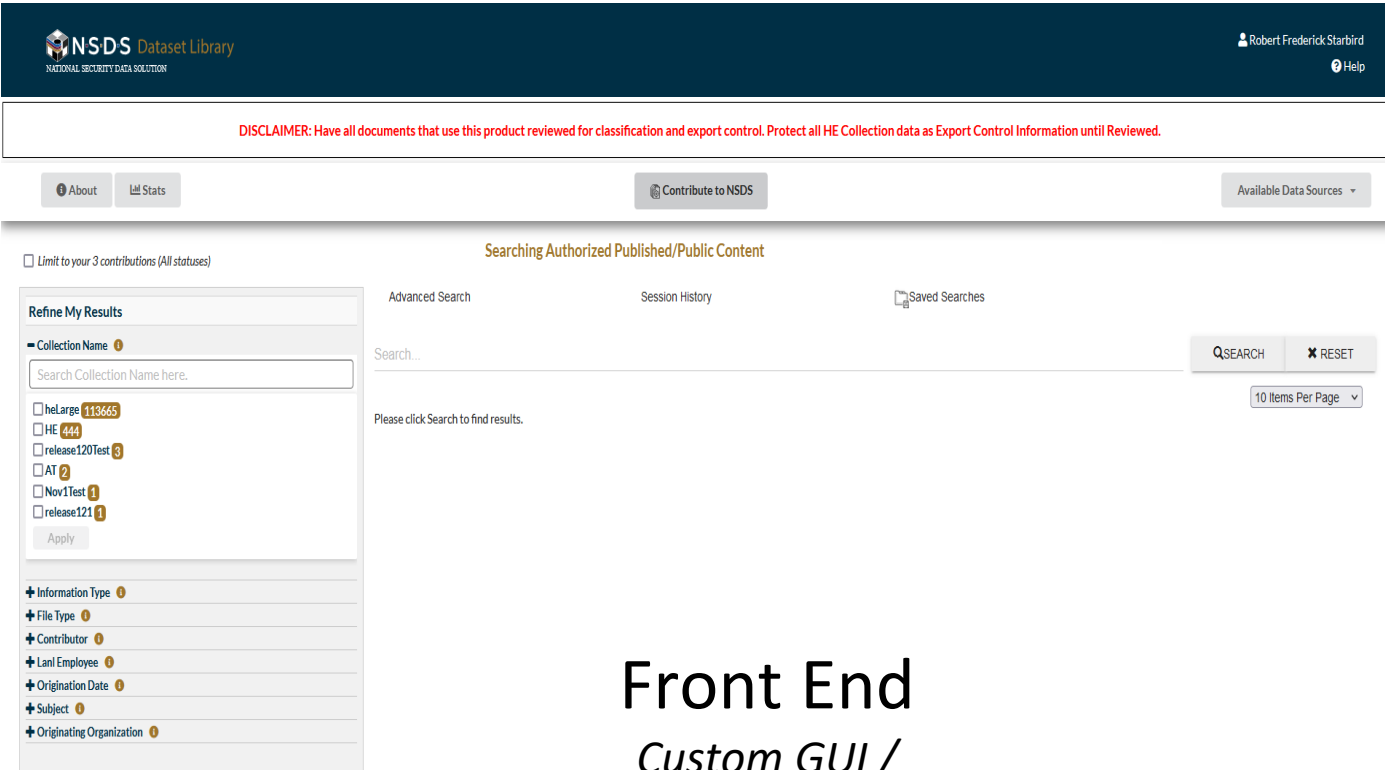


NSDS is a two part program

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



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)

The screenshot shows the NSDS Dataset Library interface. At the top, there's a dark blue header with the NSDS logo and 'Dataset Library' text. A user profile for 'Michael Isaiah Ham' is visible in the top right. Below the header, there's a navigation bar with 'About', 'Contribute to NSDS', and 'Available Data Sources'. The main content area is titled 'Searching Authorized Published/Public Content'. On the left, there's a 'Refine My Results' sidebar with filters for 'Collection Name' (HE 424, mie 21), 'Information Type', 'File Type', 'Contributor', 'Lanl Employee', 'Date', 'Subject', and 'Originating Organization'. The main search area has a search bar, a 'SEARCH' button, a 'RESET' button, and a '10 Items Per Page' dropdown. Below the search bar, it says 'Please click Search to find results.' A central box displays the following statistics:

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

WVRS WEAPONS
RESEARCH
SERVICES

Faceted search in NSDS

 Hello  **Select your address**

All ▾ watch

≡ All Back to School Off to College Best Sellers Ama


1-48 of over 70,000 results for "watch"


Eligible for Free Shipping
☐ Free Shipping by Amazon
All customers get FREE Shipping on orders over \$25 shipped by Amazon

Prime Try Before You Buy
☐ Try Before You Buy

Department
Men's Wrist Watches
Smartwatches
Women's Watches
 Women's Wrist Watches
Movies & TV
 Movies & Films
 Movies
Activity & Fitness Trackers
Men's Smartwatches
Girls' Wrist Watches
Boys' Wrist Watches
▼ See All 18 Departments

☐ Limit to your 427 contributions (All statuses)

Refine My Results
 Remove All

 HE
Collection Name 1
☒ HE 424
Apply

Information Type 1
+ File Type 1
+ Contributor 1
+ Lanl Employee 1
+ Date 1
- Subject 1
☐ High Explosive 409
☐ General Experiment 3
☐ analysis 2
☐ notebook 2
☐ scope 2
☐ stills 2
☐ Test Problem 2
☐ video 2
☐ he 1
Apply

Originating Organization 1
+ he Experiment Name 1
+ he Experiment Series 1
- he Firing Site
☐ 2S 177
☐ 1S 105
☐ 8 40
☐ K8 16
☐ BOOM 12
☐ TA-08-70 10
☐ K3 8
☐ PRAD 7
☐ IJ 5
☐ K12 4
Apply
Show More

High Explosive Specifics


Shot Number(s):


Firing Site Required Facet Advanced Search

Shot Number(s) Required Repeatable Advanced Search

Type of Experiment

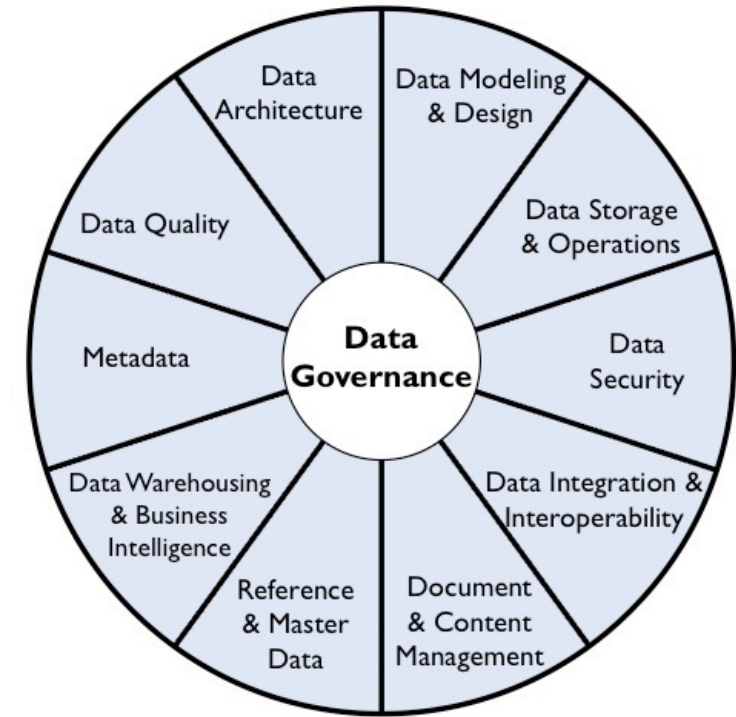
Type of Experiment Facet Advanced Search

 **NSDS** Dataset Library
NATIONAL SECURITY DATA SOLUTION

 **WEAPONS
RESEARCH
SERVICES**

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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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

Lifecycle
phases

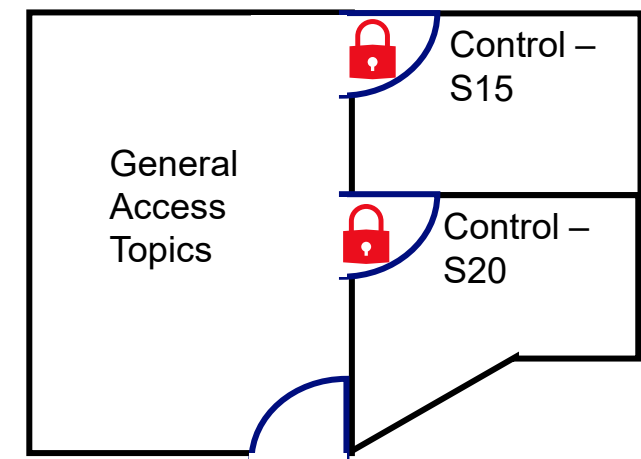
Active Work

Archival State

NOT Enduring Knowledge Base, a.k.a Limited Access Topics*

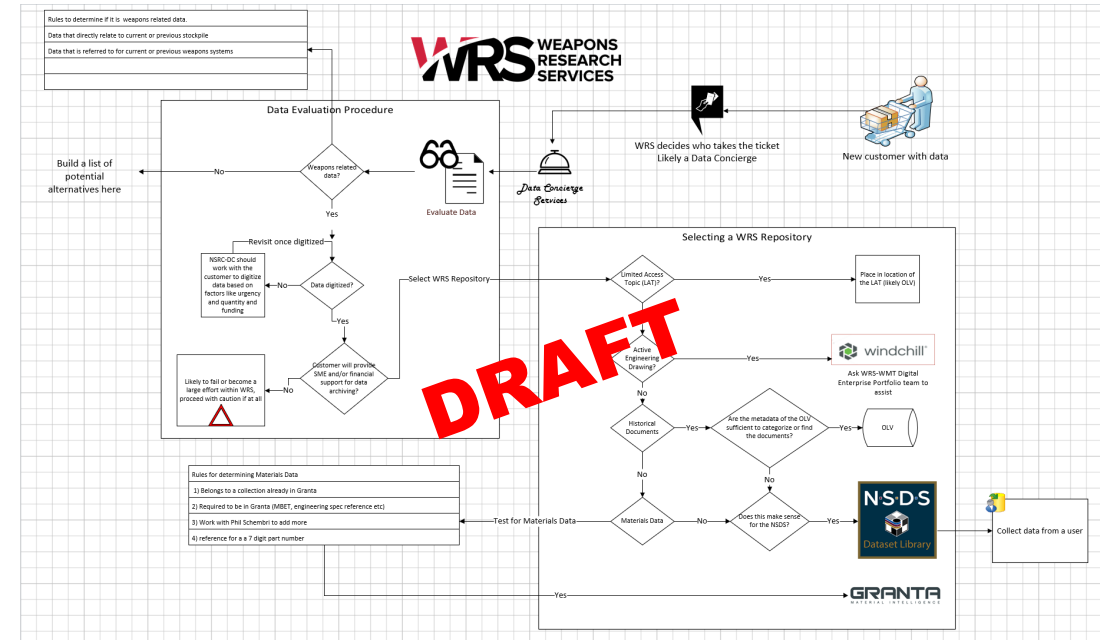
-  UK
-  Annual Assessment
-  Radiochemistry notebooks
-  Titans

Enduring Knowledge Base



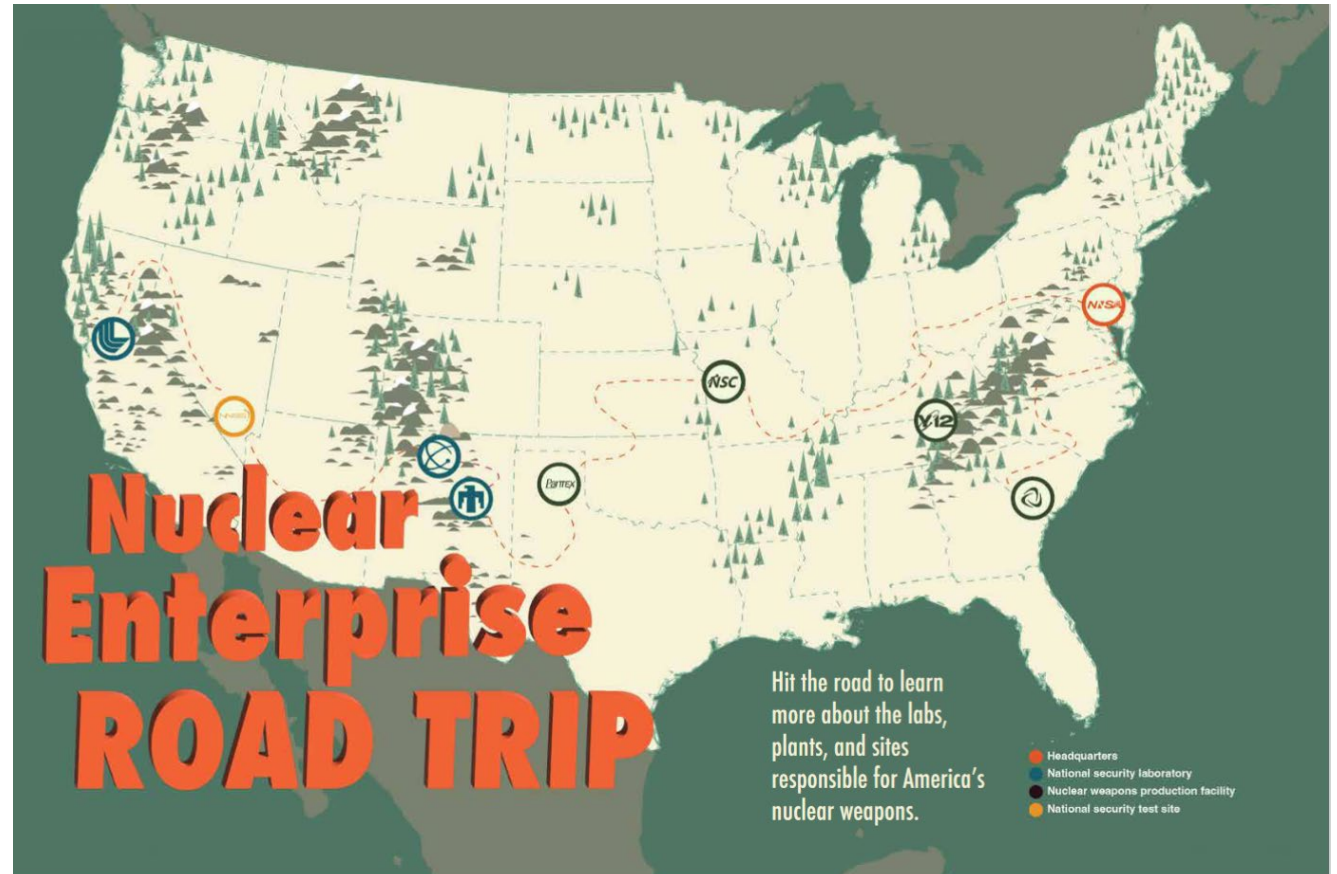
Division Level Data Governance

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



NSDS is growing

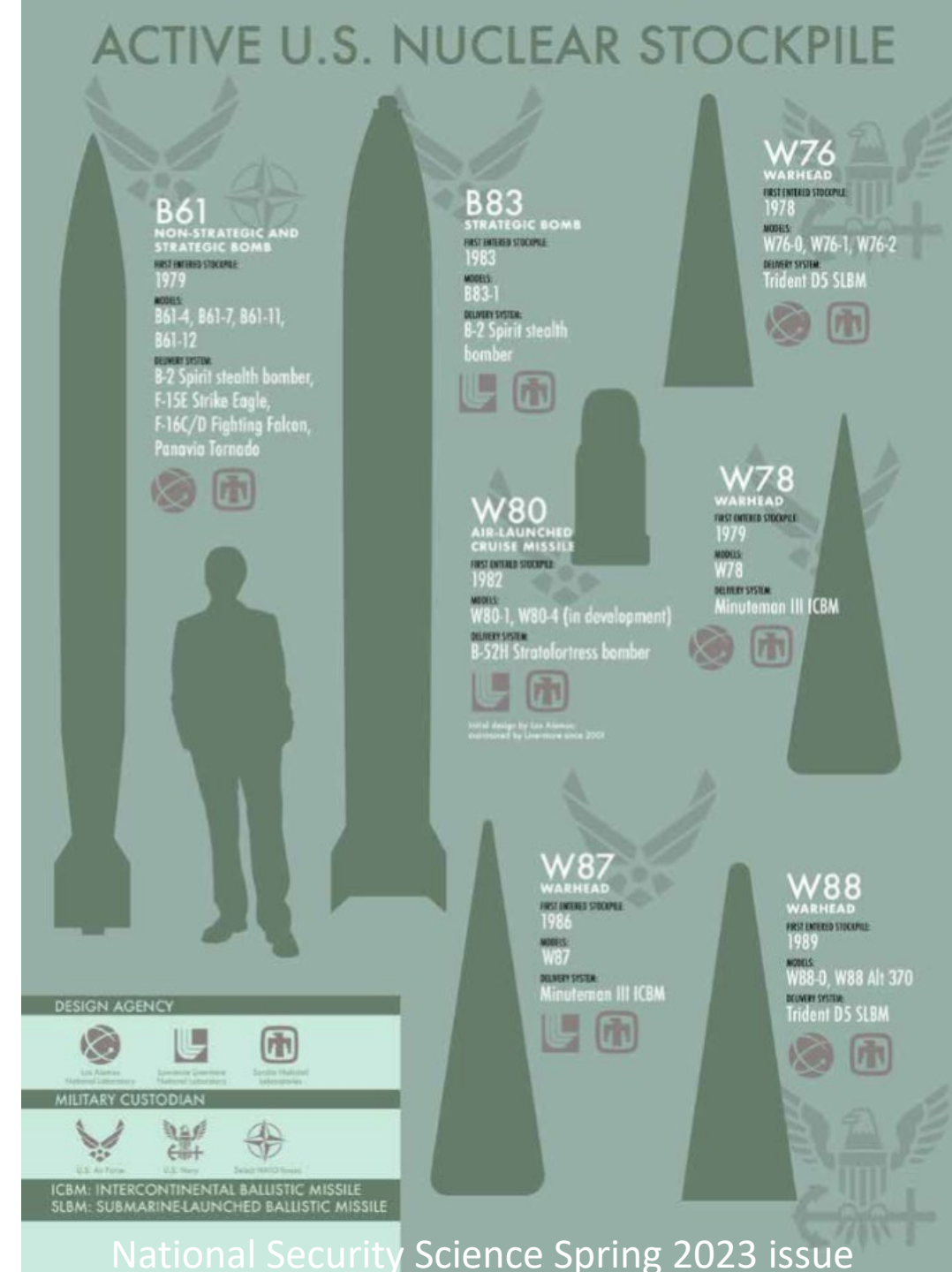
- Unclassified and Classified environments
- Enterprise access is in process
- Data is growing
- Changing culture



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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



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

