USD(R&E)

CRWS-BoK:

Modernizing the Body of Knowledge through Cyber Resilience

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Presentation
NDIA conference
October 2024

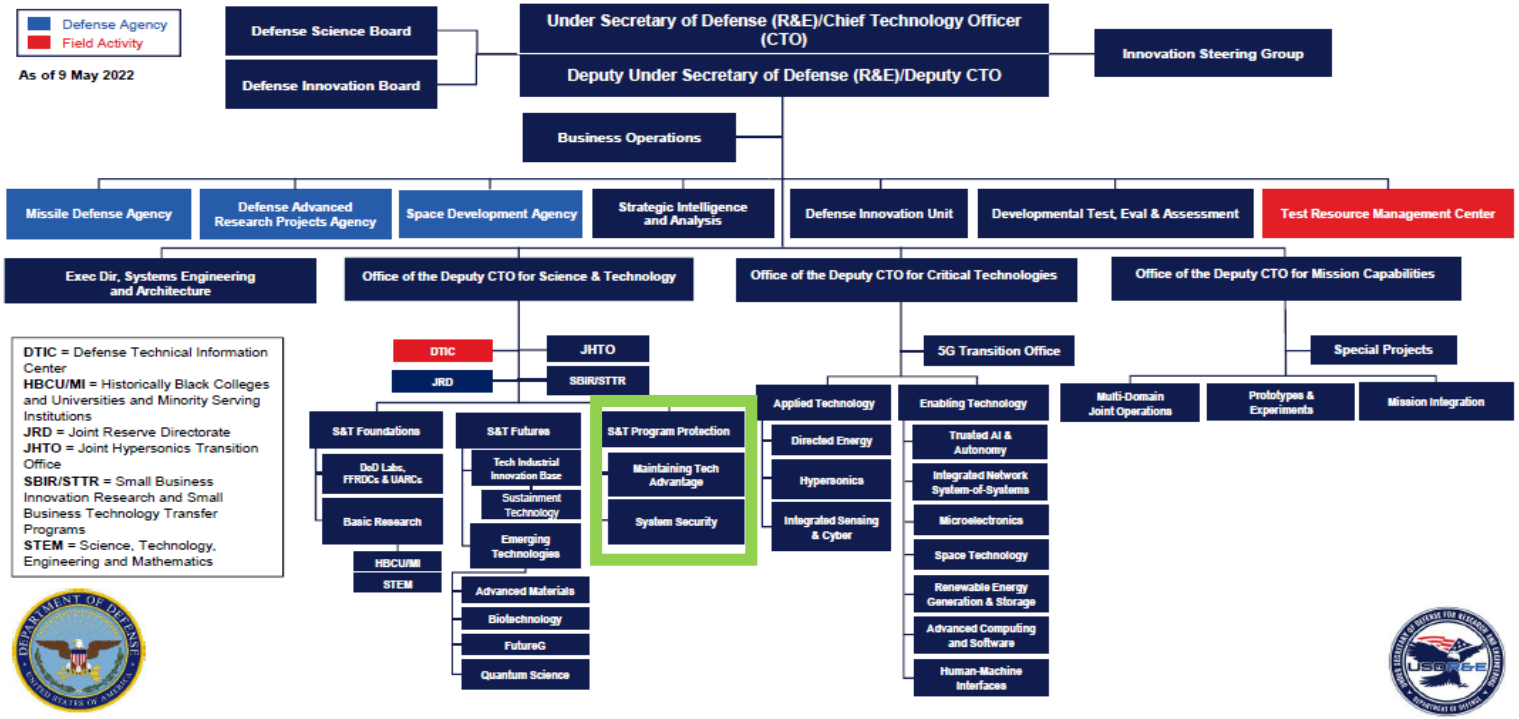
https://crws-bok.org
https://www.CTO.mil
@DoDCTO

Agenda

- Introduction
- General Overview
- Functionality Overview

Introduction

Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) Organization



STPP Mission: Protect technology advantage and counter unwanted technology transfer to ensure warfighter dominance through assured, secure and resilient systems and a healthy viable national security innovation base

Introduction

System Security Mission and Priorities

The Challenge

Problem: Adversary threats are outpacing policies and practices for engineering weapon systems; requires knowledgeable S&T and engineering workforce to provide dependably safe, secure, and resilient systems to operations at speed and scale

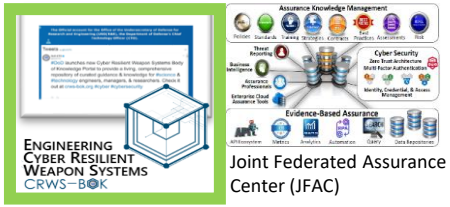
- **Advance policy and guidance to balance technology and program protection that enables rapid delivery of warfighter capability**
- **Strengthen System Security/Secure Cyber Resilient Engineering (SCRE) workforce through innovative education and training methods**
- **Advance Technology and Program Protection methods to ensure technological superiority**
- **Advance the practice of Trust and Assurance through Joint Federated Assurance Center**

Lead Policy :
- DoDI 5000.83, DoDI 5200.44, DoDD 5200.47E

Guidance:
- Program Protection Planning
- Information Communications Technology Supply Chain
- Secure Software Supply Chain
- Software Assurance
- Controlled Technical Information
- Hardware Assurance
- Anti-Tamper

Standardization:
- Secure Cyber Resilient Engineering (SCRE)

Competency:
- System Security Engineering (SSE)
- SCRE



Joint Federated Assurance Center (JFAC)

System Security Mission: Foster Assured, Secure, Resilient Innovation, Missions, Systems and Components

Introduction

Comprehensive knowledge hub that not only provides easy access but also serves as an authoritative source of guidance and information with over 600 publicly available resources to support secure cyber resilience engineering activities

Visit us: https://www.crws-bok.org

Key Benefits

- Easy and direct searches to quickly locate all your resources on one site
- Regular updates to ensure the most current references are always available
- Confidence of knowing your references come from credible resources
- Highly curated and relevant content to make the most efficient use of your time

Developed for
- Science & Technology Managers
- Researchers
- Engineers

Across the **systems security engineering** & adjacent communities from
- Department of Defense
- Federal Government
- Industry
- Academia

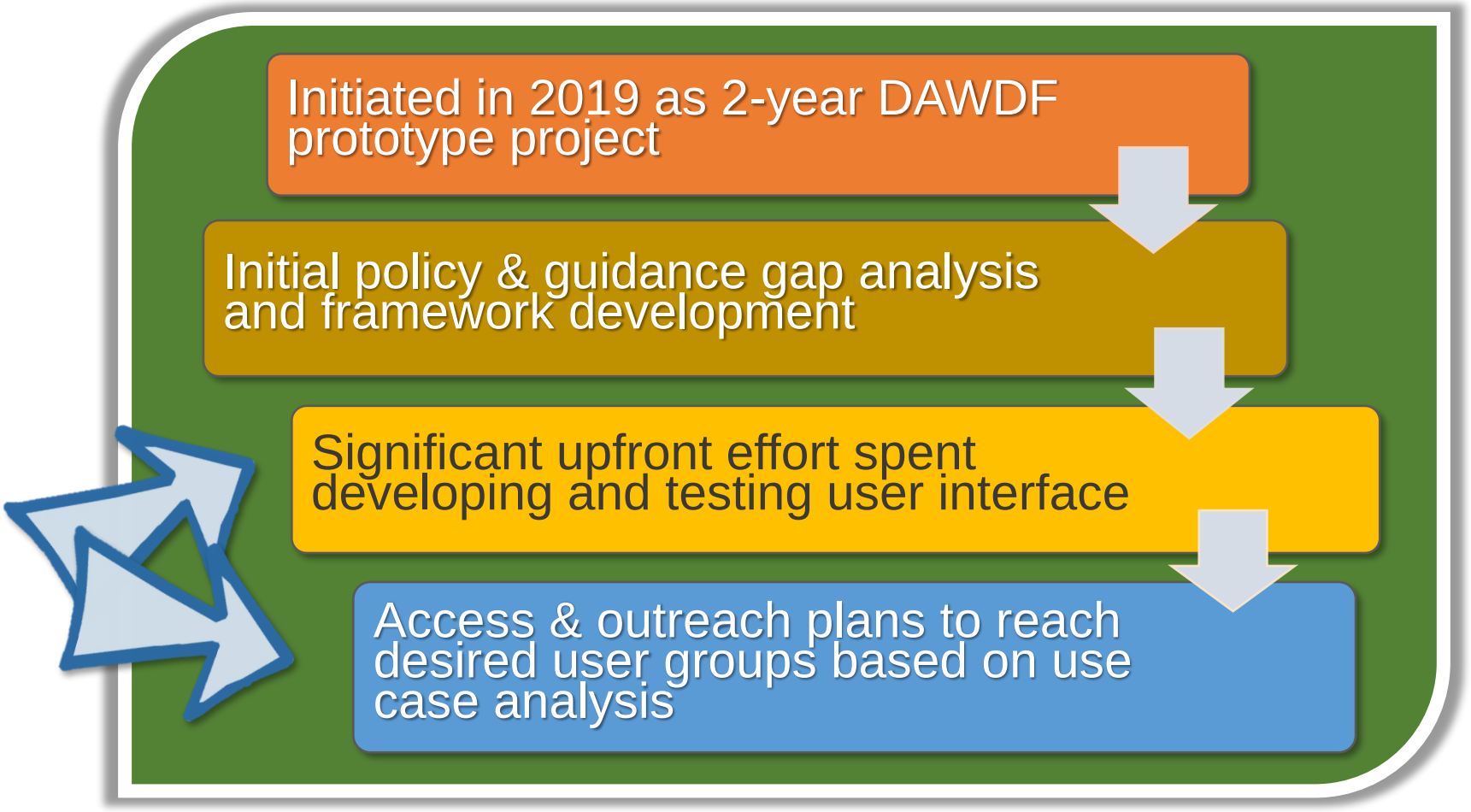
First launched May 2021
Version 4.2 released August 2024

User Features

- Receive free, unlimited access to all resources in CRWS-BoK
- Save searches
- Favorite resources
- Annotate resources
- Save resource annotations
- Subscribe to email notifications when updates to resources and saved searches occur
- Nominate resources for addition to the BoK

A powerful repository and viewing environment that enables users to efficiently and easily access, search, annotate, save, and share the engineering information

General: Background



** DAWDF (now DAWDA): Defense Acquisition Workforce Development Fund (Account)*

General: Repository Quality and Maintenance

Maintaining Quality

- Users able to nominate new resources
- Ongoing verification of resources for most current versions (or if superseded or rescinded)
- User notification/related documentation when resource retired or rescinded
- Algorithms & performance metrics leveraged to determine resource review schedule
  - How frequently accessed or if consistently rated not useful
  - Poor performance places on “candidate for removal” list

General: Repository Governance and Updates

Adding Credible, Authoritative Content

- Governance: Content Management Stakeholders from Government, industry and academia, with Curation Team facilitation
- Results: As of October 2024, 11 Review Boards have added 79 community-nominated resources to the repository

General: Top Challenges Facing S&T Professionals

After conducting usability testing interviews with industry and academia, the following challenges facing S&T professionals regarding engineering knowledge and resources were identified:

Figuring out if guidance & references are the most current versions

Determining if those references come from authoritative, credible sources

Difficulty wading through multiple sources and search engines to locate resources

Wasting time filtering and narrowing broad results in order to get to relevant information

General: Value-Added CRWS-BoK Capabilities

CRWS-BoK meets those challenges and provides S&T professionals publicly available, authoritative guidance and knowledge to assist in the engineering of SCRE

Continuously updated resources to ensure users have most current versions

All resources are from credible, authoritative sources

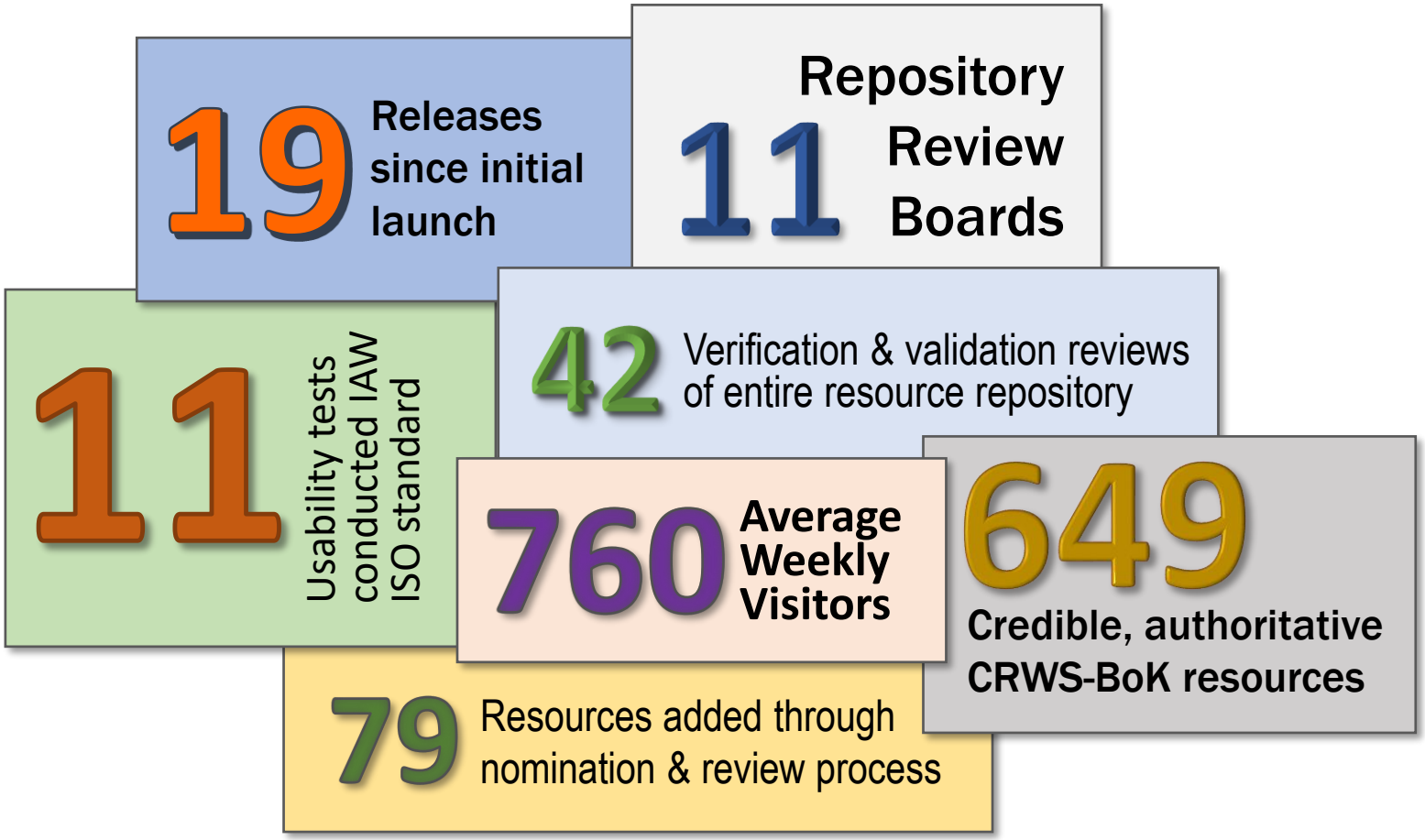
Usability ratings & domain categories help users quickly and easily determine relative ratings and sources

All resources are conveniently located on one site

Highly curated resources supported by a review board process ensure focused, relevant repository content

** SCRE: Secure Cyber Resilient Engineering*

General: CRWS-BoK by the Numbers



[*As of Oct 2024*]

Functionality Overview

Current Features

Search

- Guided search
- Keyword search
- Design Patterns
- Keyword filter
- Save a search
- Search w/i doc
- Defined filters

General

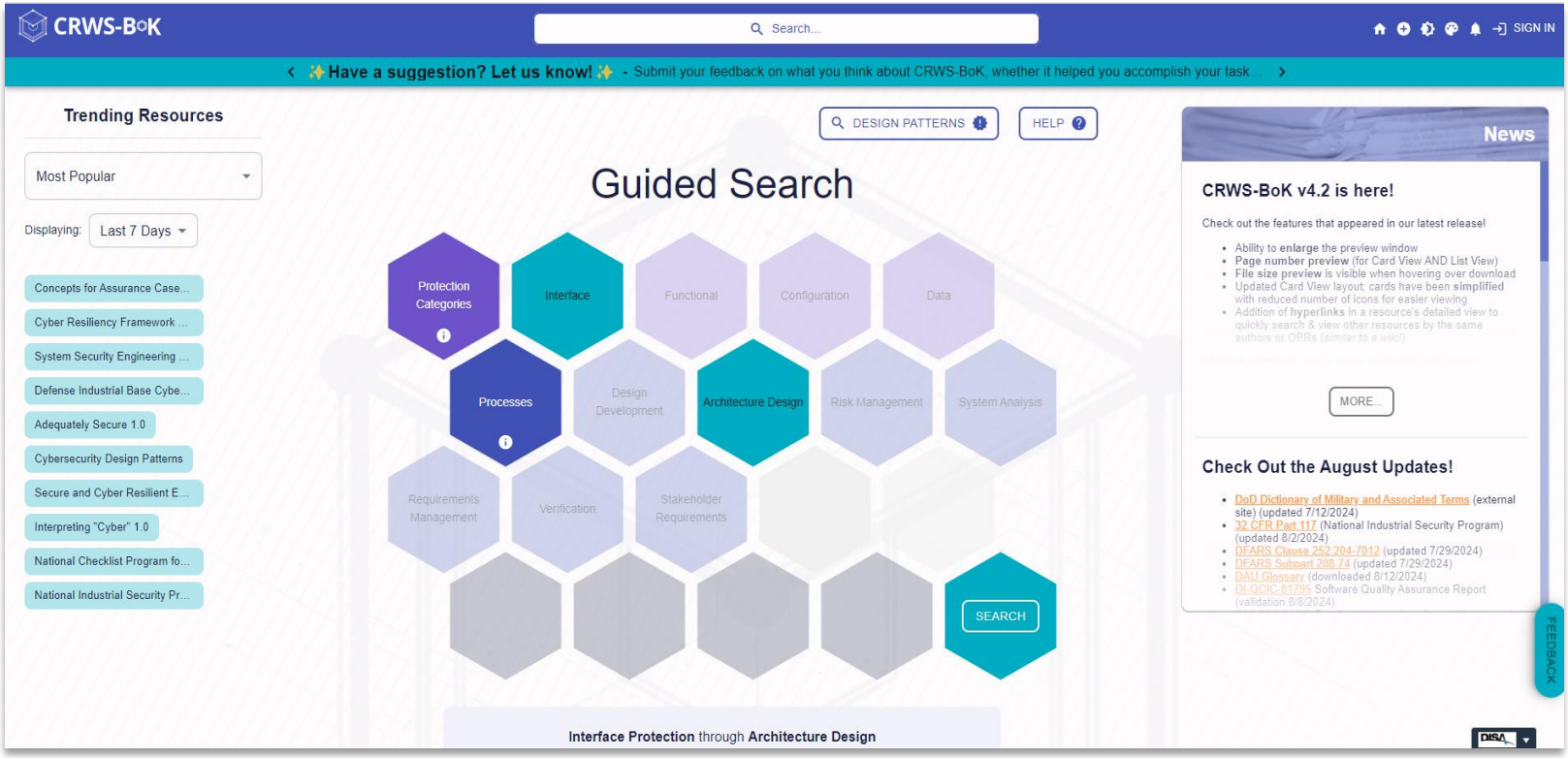
- Notifications
- Dynamic community metrics
- Streaming video
- List/Card views
- Help boxes
- Accessibility
- Site map
- Email support
- Dark mode

Resources

- Nominations
- PDF viewer
- PDF annotate
- Bookmark
- Download
- Print
- Share
- Favorite
- Details view
- Usability ratings
- User ratings
- Listed Page Count & File Size

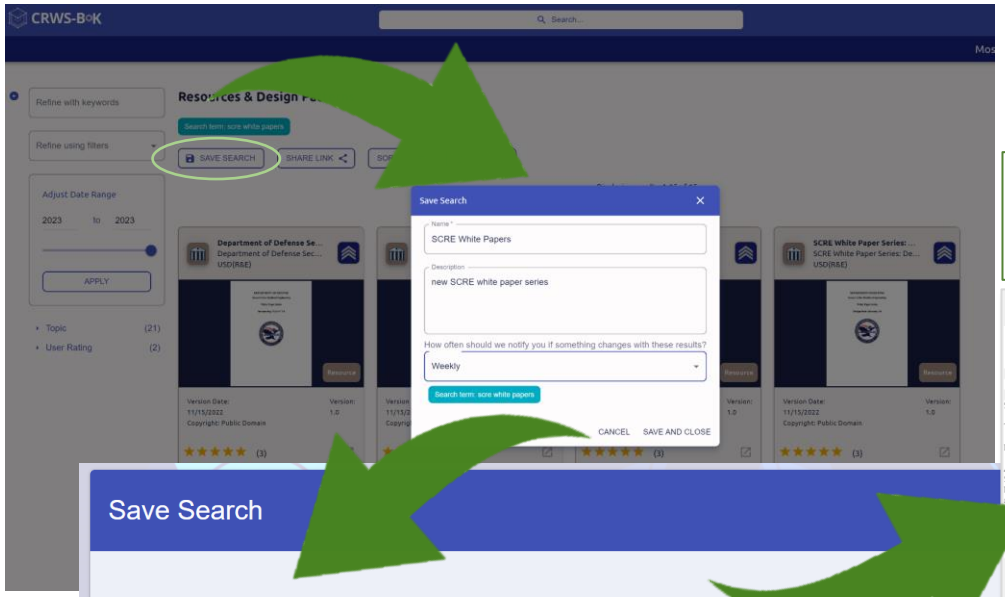
Functionality Overview

Landing Page

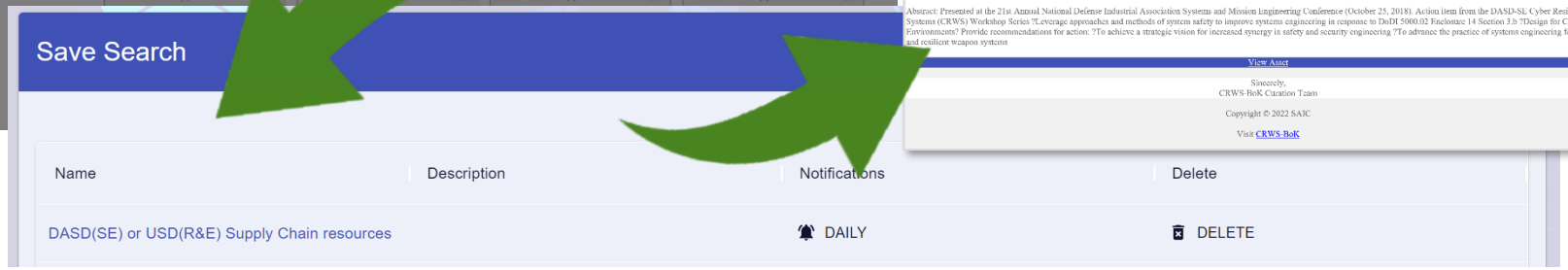


Functionality Overview

Save a Search/Search Notification



Email alert to registered user:

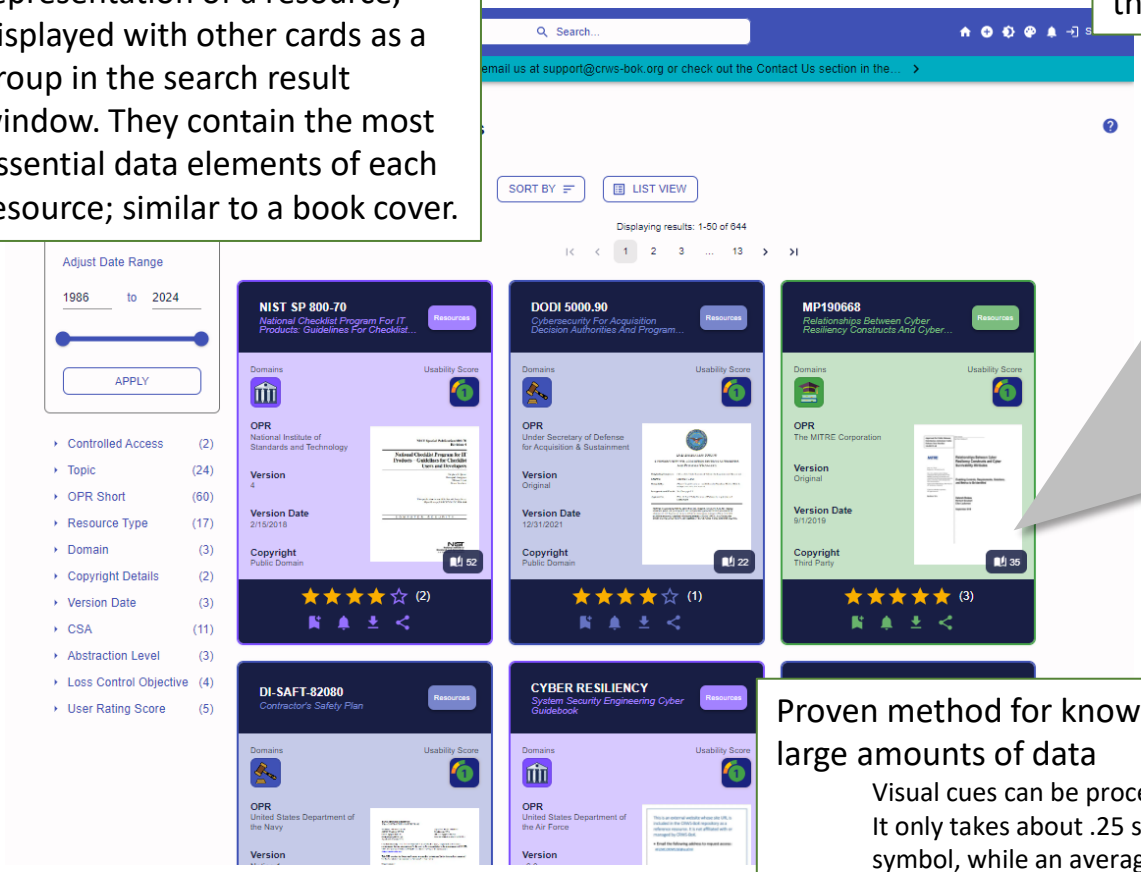


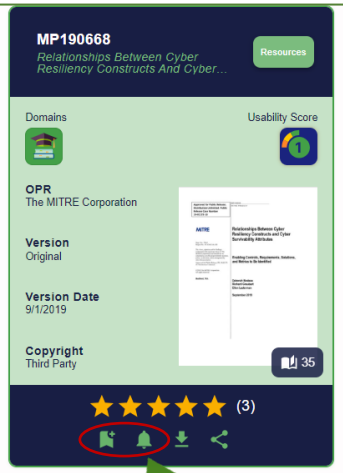
Functionality Overview

Card Features

A Resource Card is a card-shaped representation of a resource, displayed with other cards as a group in the search result window. They contain the most essential data elements of each resource; similar to a book cover.

Purpose is to help inform user, allowing to sift through large numbers of resources in the most efficient manner possible





Registered Users: Additional Features

Proven method for knowledge workers to acquire and manage large amounts of data

- Visual cues can be processed 60,000x faster than text*
- It only takes about .25 seconds to process and attach meaning to a symbol, while an average of 6 seconds to read 20-25 words*

* *Visualteachingalliance.com*

Functionality Overview

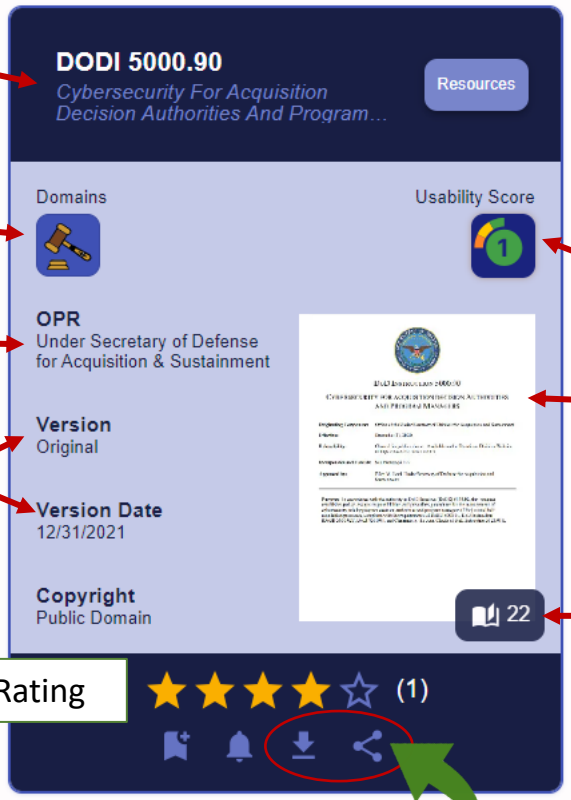
Card Features

Full Resource Title & Shortened Title (when available)

Type of resource
- Government (Directive or Non-Directive)
- Non-Government/Industry

Office of Prime Responsibility

Release Version & When the resource [update] was published



Internal algorithm to determine usability

Thumbnail of the resource

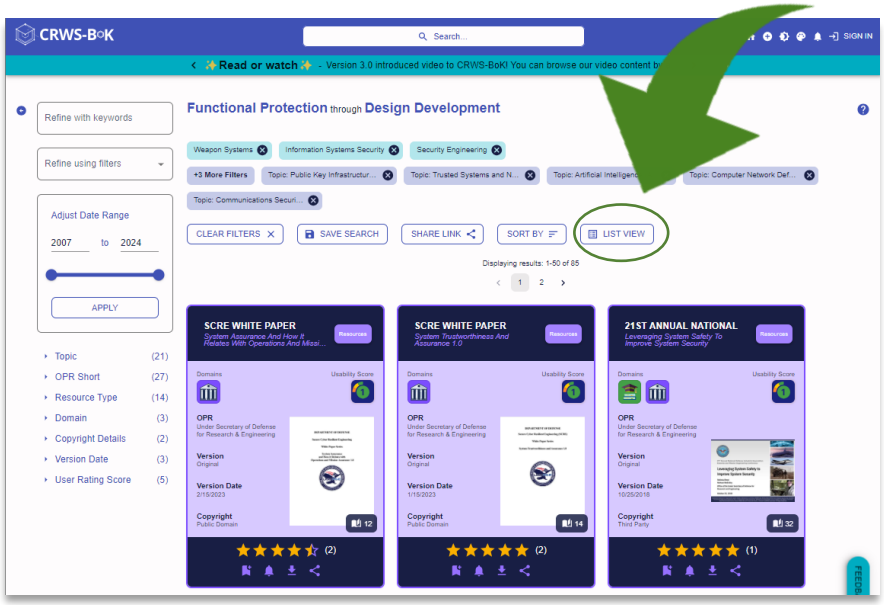
Page count

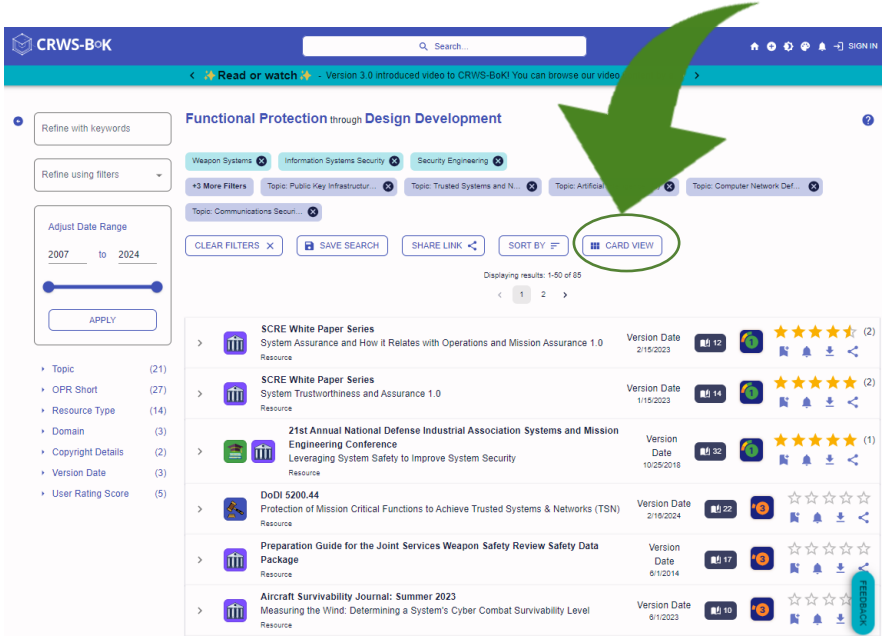
Download & Share

* Visualteachingalliance.com

Functionality Overview

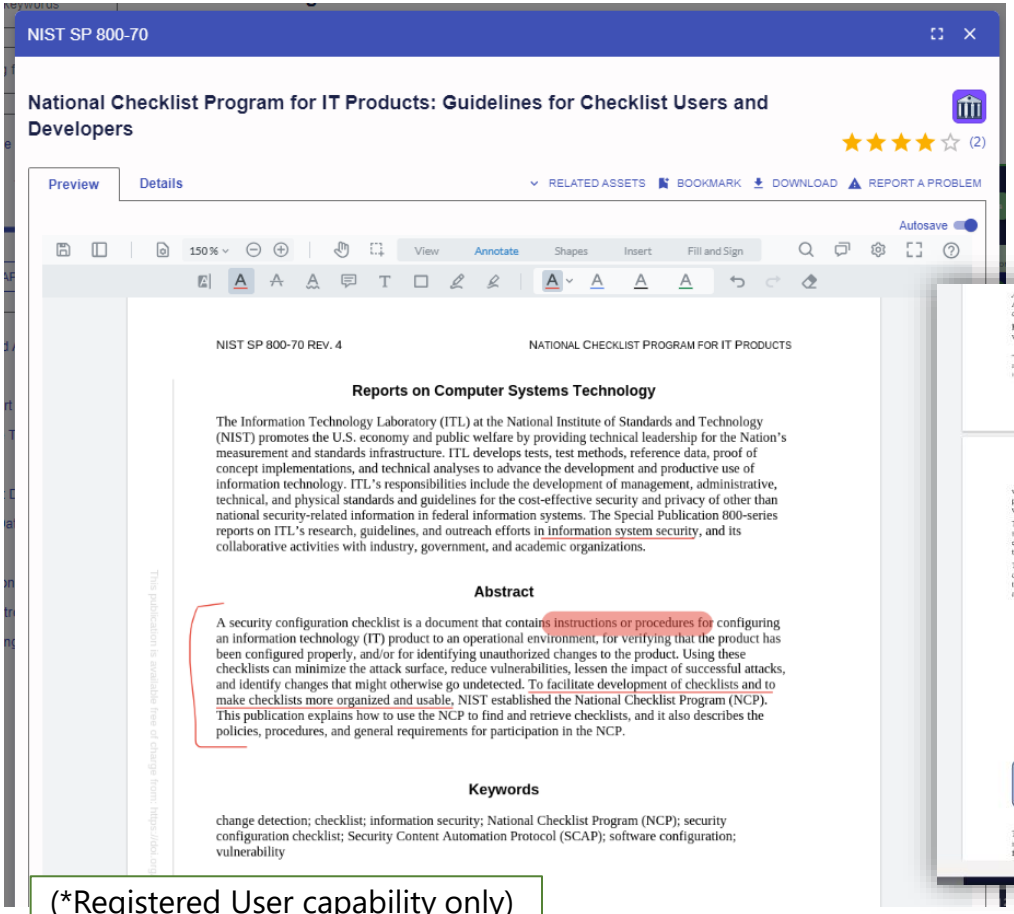
Search Results/List & Card Views



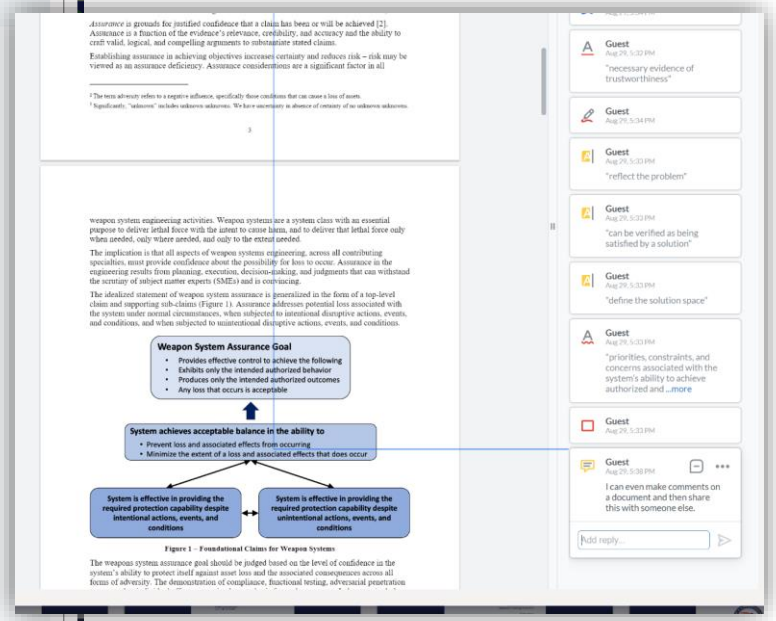


Functionality Overview

Annotate & Save



Annotations are **auto-saved locally** to a registered users' account – only you will be able to see your annotations



(*Registered User capability only)

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