DADLAC

Defense Advanced Distributed Learning Advisory Committee

2022 ANNUAL REPORT

Prepared by the ADL Initiative December 2022

Table of Contents

> " The DADLAC continues to be a readiness enabler, keeping our nation on the cutting edge of distributed learning and ensuring our forces and the civilians that support them remain the best trained in the world.
>
> **Bill Mansell, SES**
> Director, Defense Support Services Center (DSSC)

Message from the DADLAC Chair

2022 was a year of transition for the Advanced Distributed Learning (ADL) Initiative. We were realigned under the Defense Human Resource Activity (DHRA), made great strides in operationalizing our RDTE portfolio, and I was honored to become the new ADL Director. As the new Director, I am grateful for the opportunity to serve as the next DADLAC Chair and hope to continue the cross-service collaboration that guides our mission.

As a community, we continue to modernize our infrastructure to improve the way we train and educate our personnel. It was exciting to see so many familiar (and new) faces at the Fall DADLAC meeting where we were finally able to connect in person. After a two-year hiatus of in-person meetings, it was amazing to hear about your accomplishments, challenges, and future plans. I found that the work you're doing validates, enhances, and improves upon the work we're doing and I'm heartened to hear about the cooperation across our organizations.

Over the past few years, we...

- Continued to meet and learn from each other at the biannual formal meetings (Spring and Fall) and the well-received water cooler meetings. The DADLAC and ADL also benefited from the two–day innovation workshop led by the Office of the DoD Chief Information Officer to focus on barriers to interoperability. Many of you and your staff attended the TLA PlugFest which provided plug-and-play interoperability testing with commercial applications, and an exploration of use cases for xAPI, cmi5, competency frameworks. Read more in the Enterprise Digital Learning Modernization (EDLM) section of the report on page 18.

- Launched the DoD Learning Enclave (DLE) using the USAF Platform One DevSecOps platform. The DLE is a secure, cloud-based environment where previously approved EdTech applications and platforms can be deployed quickly and cost effectively. This work removes barriers and increases access to next generation tools and technologies that support training and education. The DLE enables shared hosting and IT services for hosting, operating and maintaining applications for defense-wide use. Thank you to the DADLAC members whose input contributed to the creation of this new cloud-based environment.

- Kept up the rapid pace of modernization using a First Principals approach to improve the entire lifecycle of learning. The lessons learned and best practices shared by DADLAC members embrace the spectrum of learning engineering to make improvements across the myriad of related analysis, design, development, and fielding activities. See the Member Highlights section on page 7 for more information.

- Welcomed new DoD organizations to the DADLAC, including the Air Force Life Cycle Management Center, Defense Language Institute English Language Center and the Defense Language and National Security Education Office. Today, over 400 individuals across over 128 organizations participate in the DADLAC. The collective experience of the DADLAC helps synchronize our individual modernization efforts and brings new ideas and concepts that continually improve operational performance and increases readiness

Not only does this report highlight our collective efforts over the past year, I believe it shows that the future learning ecosystem is closer to a reality than ever. I am especially heartened to see the culture of change embodied by the DADLAC. This group is poised to enable a defense-wide learning ecosystem underpinned by data and grounded in interoperability - which is the foundation for cultivating, growing and retaining the personnel needed to support our nation's defense. I appreciate the opportunity to work with you during the past year and look forward to even more fruitful collaboration in the year ahead.

Laura Milham, Ph.D., Director, Advanced Distributed Learning (ADL) Initiative, Office of Sec. Def.

DADLAC History

For over twenty years, distributed learning leaders across the DoD have collaborated, learning from each other's efforts and continuously improving our collective use of distributed learning. Originally established in 1997, this community was called the Total Force Advanced Distributed Learning Action Team. In 2017, the policy governing this group, Defense Instruction 1322.26, was updated, and we were renamed the Defense Advanced Distributed Learning Advisory Committee or DADLAC (pronounced *dad-lak*). This Defense Instruction also includes the DADLAC charter, which outlines the assignment of roles and responsibilities. It directs the DADLAC to advise on distributed learning policy, exchange information, and collaborate on emerging concepts relevant to the DoD community.

The DADLAC enables critical information and resource sharing among DoD Components. It helps maximize return on investments and identifies ways to improve distributed learning systems and their reuse. The DADLAC also identifies common areas of need and recommends priorities for R&D. In addition, the DADLAC provides updates to the DoDI 1322.26 Fungible References, which defines the technical requirements and best practices for distributed learning systems.

DADLAC Mission

The DADLAC provides advice to the DoD distributed learning community with respect to the policies and procedures included in Defense Instruction 1322.26, and it helps the DoD distributed learning community adapt to evolving learning science and technical changes in distributed learning environments.

Above: Members gathered in Alexandria, VA for the Fall 2022 DADLAC meeting. Right: Illustration represents a cross section of the DoD and U.S. Government organizations participating in the DADLAC activities supported by the ADL Initiative.

Member Organizations

The ADL Initiative, part of the Office of the Secretary of Defense, serves as the DADLAC Chair and advises DoD leadership on current and proposed distributed learning activities. DADLAC members include designated military and civilian distributed learning leaders, as well as guests from across the greater DoD and U.S. Government distributed learning communities. The next page shows a cross section of organizations that participate in the DADLAC. This is not exclusive—all government organizations interested in participating or receiving updates on DADLAC efforts are encouraged to join our email list (see page "DADLAC Digest Emails" on page 15).

DADLAC Participating Organizations

The Advanced Distributed Learning Initiative

DADLAC Chair

Office of the Secretary of Defense	
Office of the Under Secretary of Defense for Research and Engineering	Office of the Under Secretary of Defense for Personnel and Readiness
└── Human Systems Directorate	└── Defense Human Resources Activity / Defense Support Services Center
Office of the Under Secretary of Defense for Acquisition & Sustainment	└── Defense Activity for Non-Traditional Education Support (DANTES)
Office of the Under Secretary of Defense for Policy	└── Defense Civilian Personnel Advisory Service (DCPAS)
└── Office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict	└── Defense Language and National Security Education Office (DLNSEO)
Office of the Under Secretary of Defense (Comptroller)	Office of the Under Secretary of Defense for Intelligence and Security
	Office of the Chief Information Officer
	Office of the Chief Management Officer

Army	Navy	Air Force	Marine Corps
Army Training and Doctrine Command (TRADOC), Army University / The Army Distributed Learning Program / Army Combined Arms Center	Office of the Deputy Under Secretary of the Navy	Air Education and Training Command	Training and Education Command (TECOM)
Army Futures Command (AFC)	Office of the Deputy Chief of Naval Operations	Air Combat Command	College of Distance Education and Training (CDET)
Army Civilian Human Resources Agency (ACHRA)	Naval Education and Training Command	Air Force Agency for Modeling and Simulation	Marine Corps Combat Development Command
Army War College	Naval Air Warfare Center (Aircraft Div.)	Air Force Life Cycle Management Center	Marine Corps Education Command (EDCOM) – College of Distance Education and Training
Army Aviation and Missile Command (AAMC)	Naval Air Warfare Center (Training Systems Division)	Air Force Materiel Command	
Army Combat Capabilities (ACC)	Naval Community College	Air Force Research Laboratory	
Army Development Command (ADC)	Naval Info. Warfare Center (Atlantic)	Air Force Reserve Command	Marine Corps Systems Command
Army Combined Arms Support Command (ACASC)	Naval Info. Warfare Center (Pacific)	Air Mobility Command	Marine Corps Tactical Systems Support Activity
Army Command and General Staff College (ACGSC)	Naval Info. Warfare Systems Command	Air University	
Army Military Intelligence Corps (AMIC)	Naval Medical Forces Support Command	Office of the Deputy Assistant Secretary for Budget	Marine Corps - The Basic School (TBS)
Army Research Institute (ARI)	Naval Medical Research Center	U.S. Air Force Medical	Marine Corps University
Army Research Laboratory (ARL)	Naval Medical Training Support Center	U.S. Space Force	
Army Reserve (AR)	Naval Postgraduate School		
Army Reserve Readiness Training Command	Naval Supply Systems Command		
Army Talent Management Task Force	Naval Sea System Command		
Army Tank-automotive and Armaments Command	Naval War College		
Army Training Information System	Navy Judge Advocate General's Corps		
Army Training Support Center	Navy Medicine Education Training and Logistics Command		
Combined Arms Support Command (CASCOM)	Office of the Naval Inspector General		
DEVCOM Army Research Laboratory	Office of Naval Research		
Judge Advocate General's Legal Center and School	Submarine Learning Center		
Program Executive Office for Simulation, Training and Instrumentation (PEOSTRI)	Surface Warfare Officers School Command		
U.S. Army Medical Center of Excellence	U.S. Naval Surface Warfare Center		
	U.S. Navy Systems Commands		

DoD 4th Estate	
Defense Acquisition University	Joint Staff / J6 Command, Control, Communications, & Computers/ Cyber
Defense Contract Audit Agency	Joint Staff / J7 Joint Interoperability Division
Defense Counterintelligence and Security Agency	Joint Staff / J7, Joint Knowledge Online
Defense Finance Accounting Service (DFAS)	Missile Defense Agency
Defense Health Agency	National Defense University
Defense Information Systems Agency	National Geospatial-Intelligence Agency
Defense Intelligence Agency	National Guard Bureau
Defense Language Institute English Language Center	National Reconnaissance Office
Defense Logistics Agency	National Security Agency
Defense Security Cooperation Agency	North American Aerospace Defense Command (NORAD)
Irregular Warfare Technical Support Directorate	Uniformed Services University of the Health Sciences
J6 Command, Control, Communications, & Computers/ Cyber	United States Northern Command (NORTHCOM)
Joint Forces Staff College	United States Special Operations Command

| Government Agencies	
Department of Education	Department of Labor
Department of Energy	Department of the Treasury
Department of Homeland Security	Department of Veterans Affairs
└── Federal Emergency Management Agency	Federal Bureau of Investigation
└── U.S. Coast Guard	General Services Administration
Department of Housing and Urban Development	Nuclear Regulatory Committee
Department of the Interior	Office of Personnel Management
└── National Park Service	Office of the Director of National Intelligence
Department of Justice	Peace Corps
└── Pretrial Services Agency	

Year in Review

DADLAC Meeting Highlights

In 2022, we continued to meet using a hybrid approach – virtually with Water Cooler meetings in March and December, the formal Spring meeting in May, and in-person for the formal Fall meeting in August to coincide with the Federal e-Learning Science and Technology Conference (iFEST). For many community members, meeting virtually has allowed them to join from the comfort of their homes or offices, while in-person gatherings have allowed for reconnecting and networking. In 2022, we focused on modernization, especially how the EDLM reform will enable the interoperability needed to make the future learning ecosystem a reality. As a community, we continue to explore new ways to leverage lessons learned to benefit the entire DoD.

Introducing the DoD Learning Enclave

During the Spring and Fall formal DADLAC meetings, the ADL Initiative discussed the progress of EDLM, the development of the DoD Learning Enclave (DLE), and collaboration with other DADLAC stakeholders. The DLE is a secure, cloud-based environment where previously approved EdTech applications and platforms can be deployed quickly and cost effectively to reduce barriers to entry for DoD organizations. This allows access to next generation tools and technologies that support training and education. DLE applications are conformant with the Total Learning Architecture (TLA) interoperability standards to enable a uniform approach for integrating current and emerging learning technologies into the DoD's future learning ecosystem.

The DLE includes the data management infrastructure and microservices required to share and interpret learner data that are collected from connected systems. In other words, the DLE hosts the centralized software services that make an enterprise-level TLA-based learning ecosystem function in practice. The DLE enables shared hosting and IT services for hosting, operating and maintaining applications for defense-wide use. The implementation of the DLE brings the DoD one step closer to achieving the future learning ecosystem vision.

Above: The DLE hosts the centralized software services that make an enterprise-level TLA-based learning ecosystem function in practice.

See the "EDLM Advancements" section on page 18 to learn about the progress of the reform and its impact on the DoD DL community.
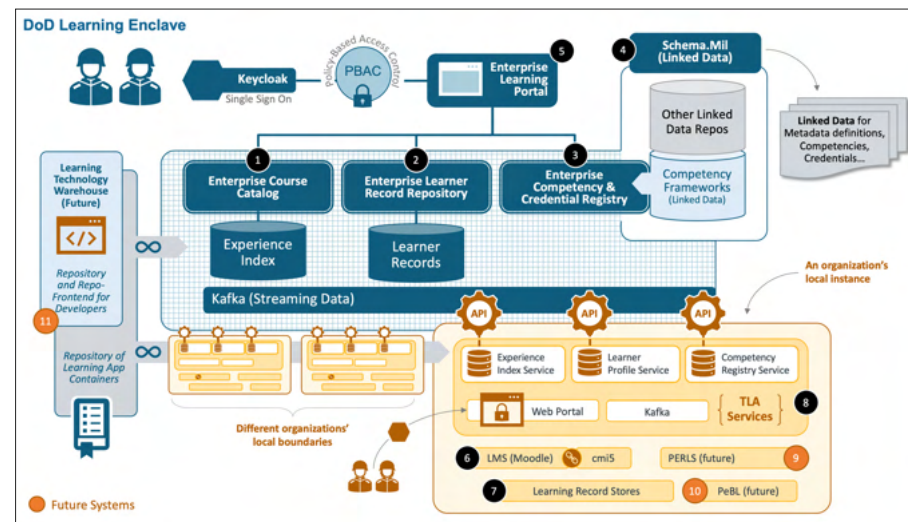
DADLAC Member Highlights

The Army Distributed Learning Program (TADLP)
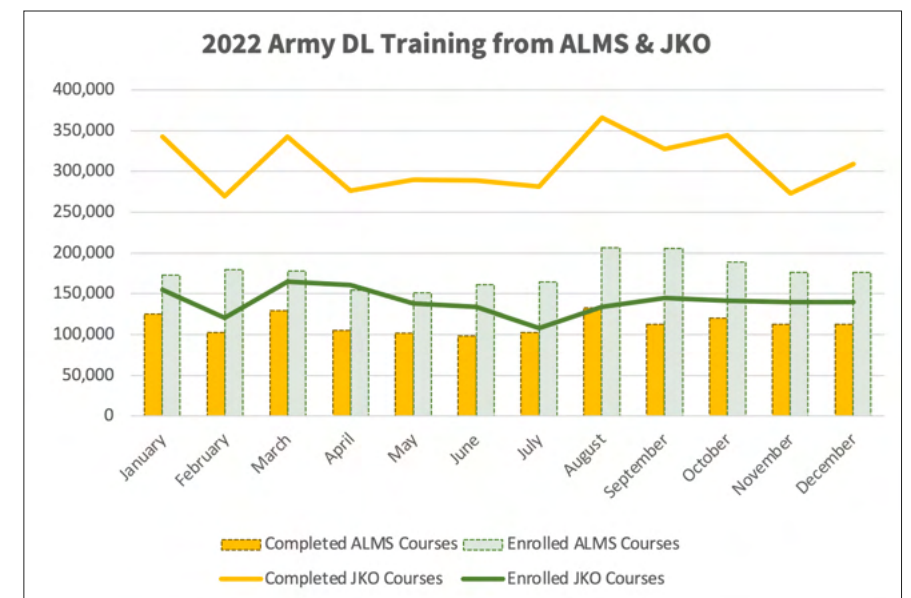**Michael Holt,** Director, TADLP

The Army Distributed Learning Program (TADLP), also designated as the Office of Vice Provost for Digital Education (VPDE), operates under the Army Training Doctrine and Command (TRADOC) and the Army University to support personnel access to DL education and training.

During the CY 2022, the Army combined two available Learning Management Systems (LMS) which resulted in the completion of an estimated 5,068,333 DL courses and enrollment of over 3,797,012 DL courses. These two LMS(s) are the Army Learning Management System (ALMS) and the Joint Knowledge Online (JKO) Learning Content Management System (LCMS).
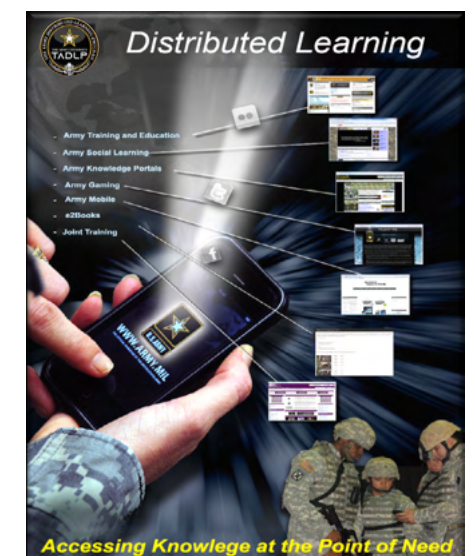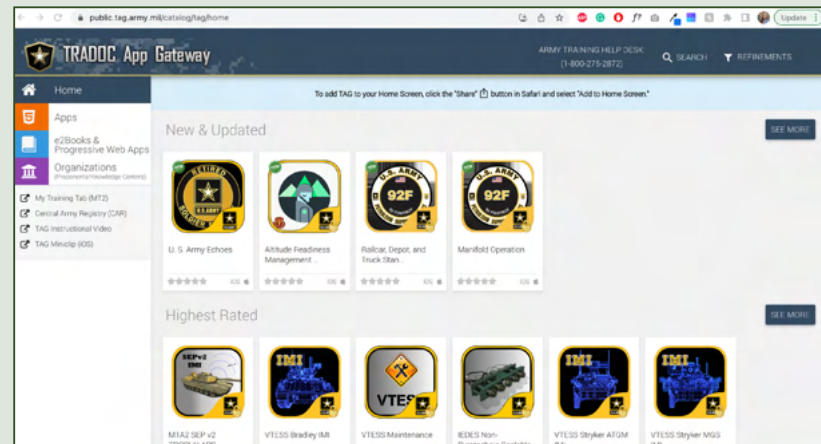
Mobile Innovation

One successful approach has been integrating mobile learning into the Army's education and training programs. TADLP develops products, including audiobooks and mobile publications, that leverage emerging learning and mobile technology trends. TADLP's Mobile Division (MobDiv) manages the Army-wide process for developing, managing, registering, and hosting mobile learning products and serves as the go-to resource for Army smartphone apps (available through the TRADOC Applications Gateway).

Above: Note - Report timing required the December detail be statistically estimated.
Below: Mobile Innovations

MobDiv is executing cutting edge of training delivery to meet the learning needs of the next generation of warfighters: 1) Performing mobile learning research and managing standards and specifications, 2) Developing and providing innovative mobile learning solutions, and 3) Conducting mobile application vetting and onboarding of Department of Army, TRADOC, Combined Arms Center, and ARMYU mobile applications. An example of this effort includes a Fort Rucker mobile application. This app serves as an educational tool and resource to reduce high-risk behaviors with the goal of eliminating sexual harassment and sexual assault amongst our ranks. The app provides its users who are aware of, witnessed to, or involved with a high-risk behavior with points of contact and resources readily available with one click of a button.

The TRADOC Application Gateway (TAG) is a site used to host and track mobile apps. The TAG offers both public and restricted access to apps and iBooks.

Access at
https://tag.army.mil/

Learning Management System Modernization

The Army began refreshing and modernizing its ALMS platform as a centralized training system with improved ease of use. These capabilities enable efficiencies in blended learning and leverage best practices along with coalition and multinational training.

The ALMS 5 will track training and distribute data with Army operational interfaces supporting

1. Army Training Requirements and Resource System (ATRRS) for Student Completions
2. General Fund Enterprise Business Systems (GFEBS) for Role Courseware Completions
3. Digital Training Management System (DTMS) for Courseware Completions
4. Army Career Tracker (ACT) for Courseware Completions
5. Army Research Institute (ARI) for Raw Assessment Data. Moodle will be the underlying platform used to support the ALMS

TADLP Distributed Learning Operational Impact 2022

Army Learning Management System		Joint Knowledge Online (JKO)	
ALMS Registered	ALMS Completions	JKO Registered	JKO Completions
2,114,832	1,355,701	1,682,180	3,712,632
Top Three Courses		Top Three Courses	
1. Threat Awareness and Reporting Program (TARP) 2. Information Security Program Training 3. Army OPSEC Level I		1. Level I Antiterrorism Awareness Training 2. DoD Cyber Awareness Challenge 2022 3. SERE 100-2 Level A Education and Training	

**Michele Harrison,** Strategy, Innovation, and Voluntary Education Director
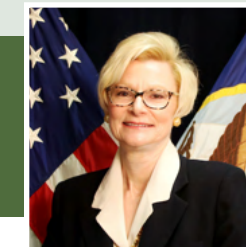
Naval Education and Training Command (NETC) is the Force Development Pillar under MyNavy HR, which is headed by the Chief of Naval Personnel. NETC is comprised of Officer Warfare Specialty Schools and Enlisted Technical Schools to support the fleet. MyNavyLearning is one of NETC's flagship projects, which transitioned during the past year from research and development to an operational phase by working with the different program offices to implement the TLA concept. MyNavyLearning is a delivery mechanism for Ready, Relevant Learning (RRL), which is one of the Navy's major training modernization efforts.

Ready, Relevant Learning has three lines of effort:

1) Career-Long Learning Continuum

2) Modern Delivery at Point of Need

3) Integrated Content Development

**https://www.netc.navy.mil/RRL/**

RRL enhances fleet mission readiness by continually improving Sailor performance and ensuring every Sailor has the knowledge and skills to compete and win across the spectrum of conflict. The RRL effort operationalizes the TLA to tie together various systems into a learning ecosystem.
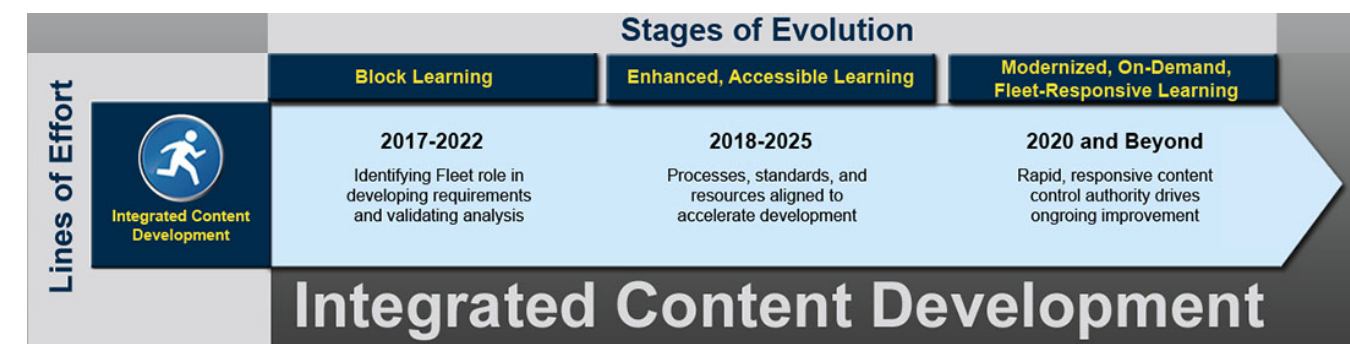
The MyNavyLearning platform provides a dynamic interface to enhance the Sailor experience with access to adaptive training and tailored resources throughout the Sailor's career. There is a built-in capability to analyze and provide feedback on individual Sailor performance and the effectiveness of training. This adaptive approach features an artificial intelligence (AI) assisted recommender engine, a competency management system, data analytics, and an effective User Interface/User Experience (UI/UX) to provide dynamic access to training and career resources through the Sailors' careers.

Core MNL Components
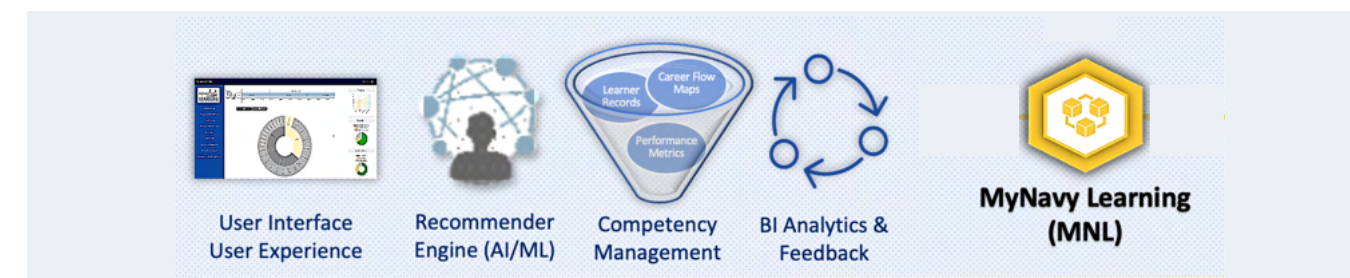
CaSS and the Navy

One key component of MyNavyLearning's adaptive learning for Sailors is Competency and Skills System (CaSS) which is being used by NETC for future learning capabilities development. CASS provides an infrastructure that enables competencies, competency frameworks, and competency-based learner models to be managed and accessed independent of any given learning management system, course, or training program.

CaSS can be leveraged by the Navy for many different functions, including promotions, credentialing, HR, skills assessments, and tailored training. NETC is using CASS in coordination with the Sailor's learning records and AI software to identify learning gaps and make recommendations to address identified weaknesses. This system can also be used to recommend training to maintain a level of proficiency needed for Sailor's career and to meet specific performance requirements for the job.

The Navy Can Leverage CaSS for

- Adaptive Training Recommendations
- Credentialing
- HR
- Skills Assessments
- Tailored Training
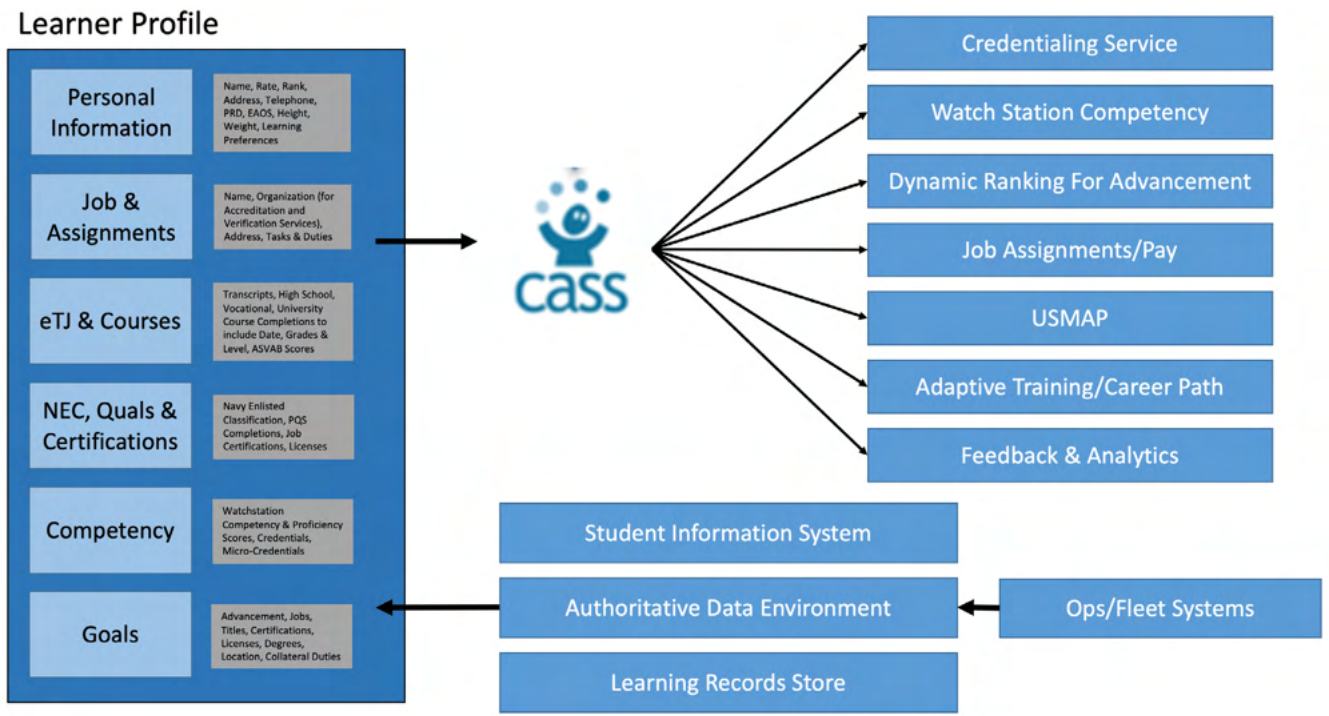
CaSS funding started in 2016 and is widely adopted by industry, academia and government. There are approximately 350K credentials available in a credential engine via CaSS-driven infrastructure.

More on CASS at **https://adlnet.gov/projects/cass/**

Air Education and Training Command (AETC)

Floyd McKinney, Chief, Learning Services Operations

Air Education and Training Command (AETC), one of the nine Major Commands of the United States Air Force, includes Air Force Recruiting Service, two numbered air forces, and the Air University. AETC is successfully pursuing its anytime, anywhere, any device learning vision with the new myLearning operating environment. This interoperable and secure platform, which replaces the legacy Advanced Distributed Learning Service (ADLS), provides education/training courses, content, and testing to airmen and guardians. It is used to manage student and faculty information, including learner records, certifications, and credentialing, and also supports reporting and analysis. What makes the myLearning platform valuable is the ability it gives the US Air Force to deliver, manage, track, and report on mission readiness training, maximize preparation during force generation cycles, and reduce overall cost by using shared services.

The myLearning platform, referred to as a "Dynamic 21st Century Learning Services Hub," provides a cloud infrastructure and a first-ever enterprise Learning Data Warehouse to power innovation and modular/scalable capabilities to meet US Air Force mission needs. Air Force personnel can access integrated virtual classrooms for blended learning and courses across different platforms. The Learner Record Store (LRS), which was integrated in April 2022, is an important addition to myLearning because it enables the gathering of data from different touchpoints and allows for discovery of xAPI verbs (verbs define the action taking place in the xAPI statement) across the content to get a better understanding of the learning taking place by airmen and guardians.

| myLearning Platform	
Active Users	Online Courses
794,000	1,699
Course Completions	
8.24 Million	

AETC also integrated a non-CAC secure access solution for the myLearning platform with multi-factor authentication. Initially, access to Impact Level 2 (IL) content is being offered followed by IL4 content in the future. AETC is taking a phased approach due to limited IL4 content currently available compared to IL2. The system is mobile-friendly using Moodle's mobile capabilities to maximize education and training opportunities, and giving choices to learners on how to access content. The Office of the Secretary of Defense was briefed on this solution which is under review for approval to be accessed and utilized by the other Services.

Marine Corps Training and Education Command (TECOM)

Larry Smith, Marine Corps University Director of Ed Tech/College of Distance Education and Training Technical Director

TECOM's goal is to provide a one-stop-shop for all digital education and training content that Marines can use throughout their time in service by leveraging the MarineNet video-based training delivery system. Under TECOM leadership, the Marine Corps' College of Distance Education and Training (CDET) is expanding the capabilities of MarineNet to provide a learning environment that supports the creation, distribution, and tracking of digital content, and analysis of student performance. A modular system-of-systems approach is being used, with open-source tools, commercial off-the-shelf systems, and government off-the-shelf systems in alignment with the TLA.
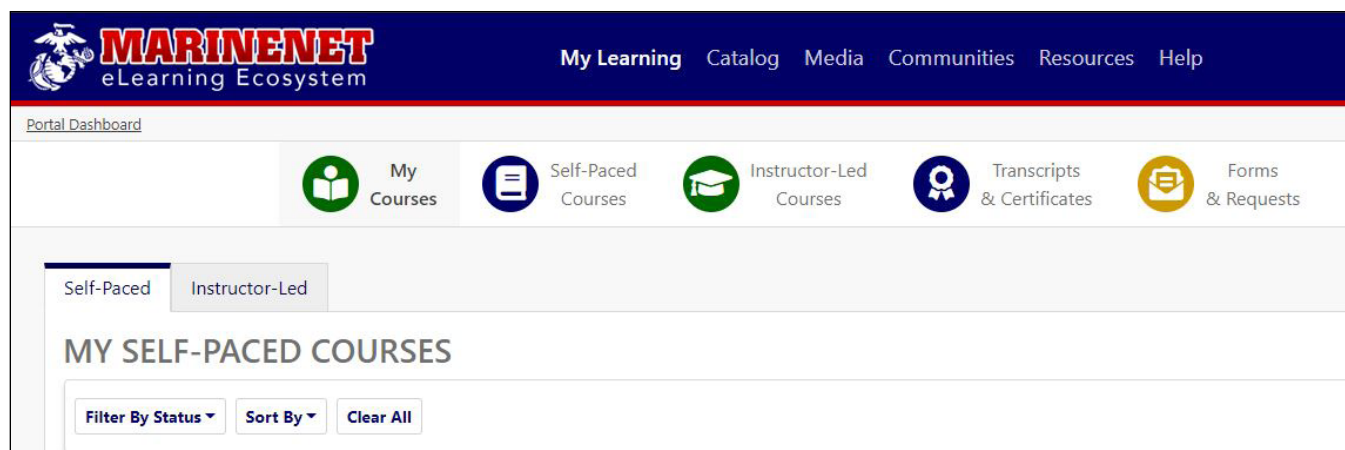
Above: MarineNet is the one-stop shop for online Marine Corps training and education products.

TECOM is launching a "communities of interest" approach for structured collaboration focused on education and training, including the use of a multi-functional community platform featuring Q&A and discussion forums, blogs, wikis, calendars, a media/file gallery, chat, and gamification capabilities. Also included is a Rustici content controller, QuestionMark OnPrem, an AEM XML Plugin, and a LRS. The Rustici Content Controller is being used to provide content creators from various organizations with the ability to create and distribute content across the ecosystems, this includes testing and versioning of content.

The Marine Corps has invested in the development and refinement of numerous Commercial Off The Shelf (COTS) tools in order to support the state-of-the-art Wargaming and Analysis Center (MCWAC) at Marine Corps Base Quantico. The Brute Krulak Center for Innovation and Creativity is developing a cloud-based repository for hosting commercial wargames. CDET is working toward the integration of the MCWAC to provide wargaming capabilities to distance learners. Games can be played in a synchronous or asynchronous environment with recording of student performance in accordance with instructor-determined metrics.

Joint Staff J7, Joint Knowledge Online (JKO)

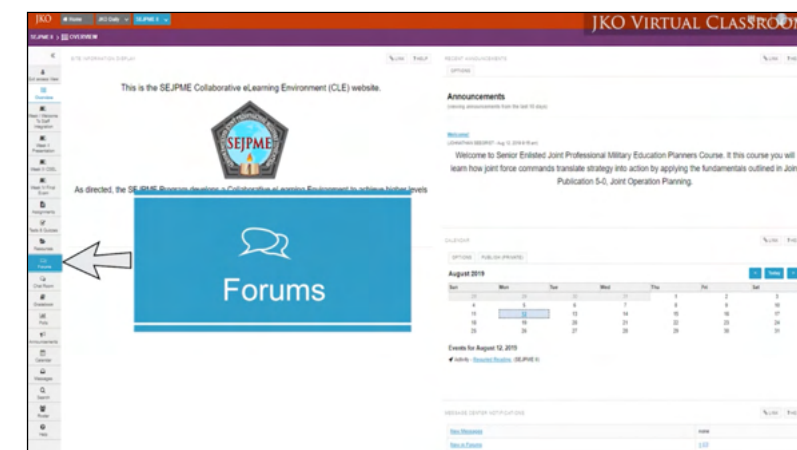**Howard "Tank" Thorp,** Chief, JKO Division

In 2022, JKO made progress in enhancing its learning environment for personalized student learning. Specifically, JKO successfully demonstrated its Adaptive Learning Engine built on top of the ADL Initiative's Sharable Content Object Reference Model (SCORM®)2004 4th edition. JKO's adaptive learning approach is designed to use advanced analytics and AI to provide tailored, personalized paths for personnel to achieve their learning objectives. This new approach is expected to shorten the time required for learning and career advancement.
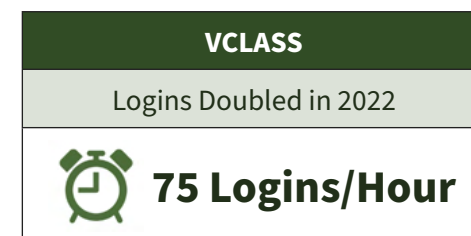
JKO is now building an adaptive learning course for one of its customers using this technology. In addition, JKO delivered two software builds enhancing functionality of the JKO LMS and several patches to further secure the site. New content this year featured leader development, counter-threat finance, and digital currency awareness courses in addition to updates to joint fundamental courseware. JKO utilized the learning category feature of the LMS to group online courses for combatant command exercises to facilitate exercise planners' ability to select and recommend relevant pre-requisite courses.

Above: The JKO Virtual Classroom, VCLASS, is an interactive classroom environment for academic course work, seminars, continuing education, training, and more located inside of the JKO LMS.

VCLASS
Logins Doubled in 2022
⏰ **75 Logins/Hour**

JKO's virtual classroom (VCLASS) doubled in daily average logins compared to the same period last year. VCLASS offerings expanded to include live stream and video capture of academic sessions, chat rooms, blended synchronous and asynchronous capabilities, and both learning and collaboration activities. VCLASS courses can be linked to the JKO LMS to track course completions in the student's training history. Using this system, instructors can assign and evaluate coursework, facilitate online class collaboration, and provide feedback in real time as well as offer remediation support. New VCLASS utilization this year includes Defense Health Agency Medical Education Training Center, Joint Artificial Intelligence Center, Chief Digital and Artificial Intelligence Office (CDAO), Joint Staff J4, Joint Logistics Course, USAF, Office of Special Investigation, and USAF, Intel School House, and Goodfellow AFB.

JKO's new public website, **https://jcs.mil/jko,** is far exceeding expectations in terms of traffic, student self-help utilization and training content awareness and interest. Other organizations are beginning to link to and share JKO informational content on their sites.

1.9M VISITS	2.45M PAGE VIEWS	30.1K DOWNLOADS	98% DESKTOP 2% MOBILE	26 ARTICLES PUBLISHED	7 VIDEOS RELEASED

DoD Instruction 1322.26 References Update

DoD Instruction (DoDI) 1322.26 governs the implementation and oversight of distributed learning for the Department. The Instruction also includes fungible references, i.e., appendices that can be regularly updated by the DADLAC without requiring revisions to the DoDI. These references outline the most current technical information for DoD learning, such as guidance on software specifications and file types.

DoD Components should refer to the DoDI and its references when acquiring or implementing distributed learning systems. The ADL Initiative and the DADLAC update these references as needed, typically one to three times annually.

Updates in 2022

Standards Acquisition Guidance/Report: Acquisition language based on past successful efforts that can be used by DoD acquisition personnel, as well as a series of recommendations and requirements to aid in acquisition of standards-based content, systems, and authoring tools. This language initially focuses on xAPI and cmi5, and will be updated periodically to address other DL acquisition needs.

Use of the cmi5 Test Suite: The cmi5 Test Suite is formally recognized as software that should be used in any cmi5 acquisition.

Personally Identifiable Information (PII): Clarity in rules surrounding PII, particularly with the DoD ID Number being PII and related risk for possible identity theft, and guidance on xAPI solutions not using any PII except for the DoD ID.

Zero-Trust Architecture (ZTA): Encouragement to consider ZTA data management operations to improve how data is handled by systems.

P2881 Learning Metadata Elements: Current use case descriptions for learning metadata and how to create data to align to the "soon-to-be" standard. This includes how to contextualize "instances" or "events" of Learning Objects, such as courses, so that maximum applicability can be achieved for learners.

Competency Definitions/Outcome-based Learning: Introduction of the foundations of competency-based education solutions, also known as outcome-based learning in the DoD. Instruction is provided on data requirements that need to be followed as competency frameworks are created.

The following topics are under consideration for 2023

- Enterprise Course Catalog (ECC)
- Federated Data Catalog (Using the ELRR)
- P2881 Learning Metadata Requirements
- IEEE 1484.20.3 Shareable Competency Definition Requirements
- Introduction of Enterprise Learner Record Elements (IEEE P2997)
- Coordination with DoDI 1322.35 for Military Education

Please note: Not all community feedback could be addressed in 2022 and will be considered for follow-on update efforts in Spring 2023.

Communications with the Community

DADLAC Water Cooler Meetings

This series of open forum meetings provided members of the distributed learning community the opportunity to discuss top-of-mind topics throughout the year. At these meetings, DADLAC members received updates on the latest Pentagon initiatives, policies, and activities and shared updates on products, projects, and programs from their organizations, as well as raised issues to address as a community. These meetings also featured updates from the ADL Initiative on its R&D portfolio and presentations from DADLAC members. Contact Anne Marie DiNardo at anne.m.dinardo.ctr@mail.mil to request copies of the briefings or to suggest discussion topics for 2023.

Two water cooler meetings were held in 2022. The December Water Cooler meeting was attended by over 50 members and featured a discussion on how DoD's Software Modernization strategy is being applied to the Moodle LMS in support of the DLE. Mr. Brent Smith (CTR), who serves as the ADL Initiative's R&D Principal, briefed on the software modernization taking place to underpin the overall EDLM reform and how to build a data strategy based on the data being collected for training and education programs. He also provided a demo of Moodle 4.0 which is a key components of the DLE. Moodle can be leveraged to create, deliver, and manage courses that support a variety of training and education organizations within the DoD. DADLAC members shared insights on how their respective organizations are leveraging Moodle and provided tips on using Moodle, for example help desk availability.

Left: ADL Initiative R&D Principal Brent Smith (CTR) demonstrated how Moodle is used as part of the DLE.
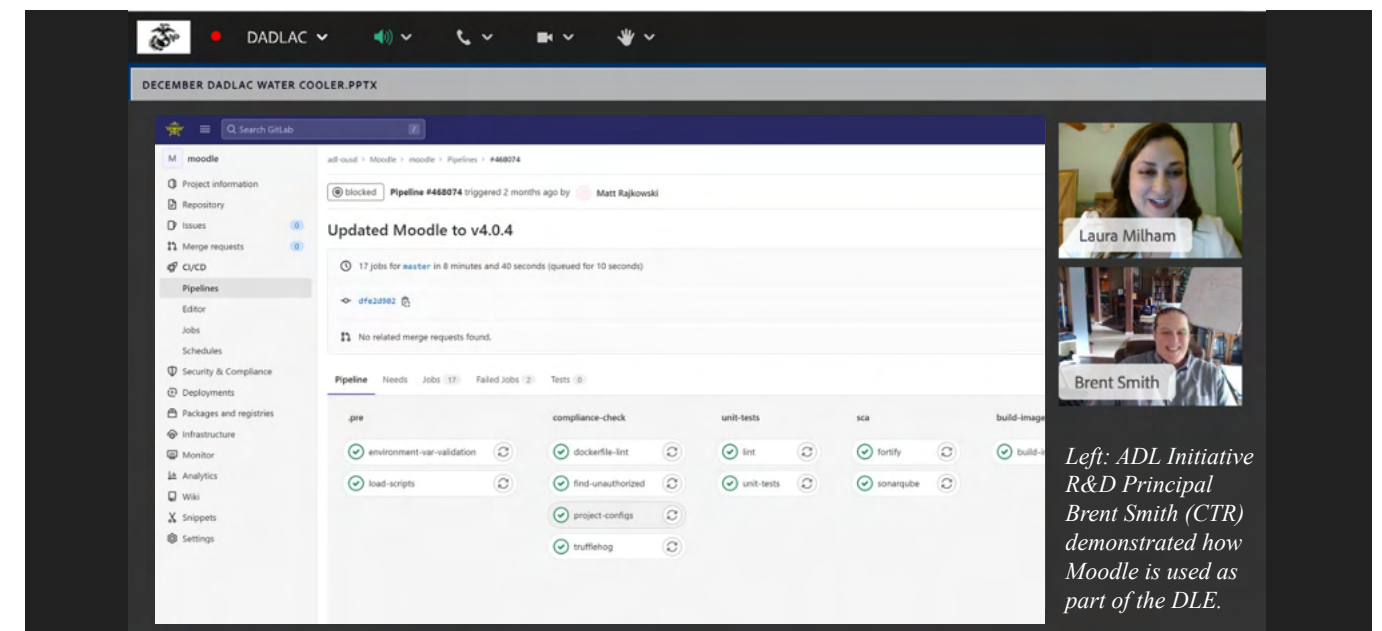
DADLAC Digest Emails

The ADL Initiative sends digest emails regularly, summarizing new policies and sharing both resources and member updates for the DADLAC community. These emails are one of the primary ways the community shares information. Members are encouraged to review and forward relevant materials to their teams and colleagues as well as provide information to share. Contact Anne Marie DiNardo at anne.m.dinardo.ctr@mail.mil to be added to the distribution list.

Policy

2022

DADLAC members help their respective distributed learning organizations implement and ensure compliance with policies. In 2022, DoD and Federal guidance focused on software modernization, interoperability, and talent development. See below for snapshots of some of the latest policies and other guidance impacting DoD distributed learning programs.

DoD Software Modernization Strategy

This document, released in February 2022, reinforces the use of DevSecOps and enterprise-level software modernization initiatives—particularly in support of interoperable data. The **DoD Software Modernization Strategy** provides the approach for achieving faster delivery of software capabilities in support of Department priorities such as Joint All Domain Command and Control and AI.
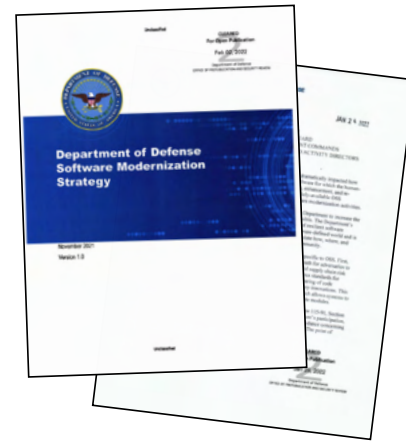
DoD Software Development and Open Source Software Memorandum

This **memorandum**, released in January 2022, reinforces the Department's preference for using open-source software, particularly through a Modular, Open-Systems Approach (MOSA), and provides guidance for acquiring and securing open-source components. The Federal Government also has a corresponding government-wide open-source software policy. open-source software policy.

2022 National Defense Strategy

The **2022 National Defense Strategy (NDS)** details the Department's path forward into a decisive decade—from helping to protect the American people, to promoting global security, to seizing new strategic opportunities, and to realizing and defending our democratic values. According to the report, "The Department is establishing a new framework for strategic readiness, enabling a more comprehensive, data-driven assessment and reporting of readiness to ensure greater alignment with NDS priorities."
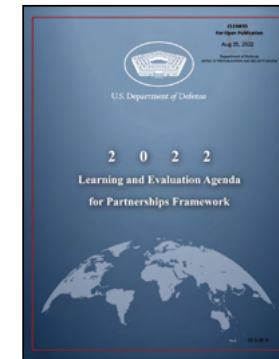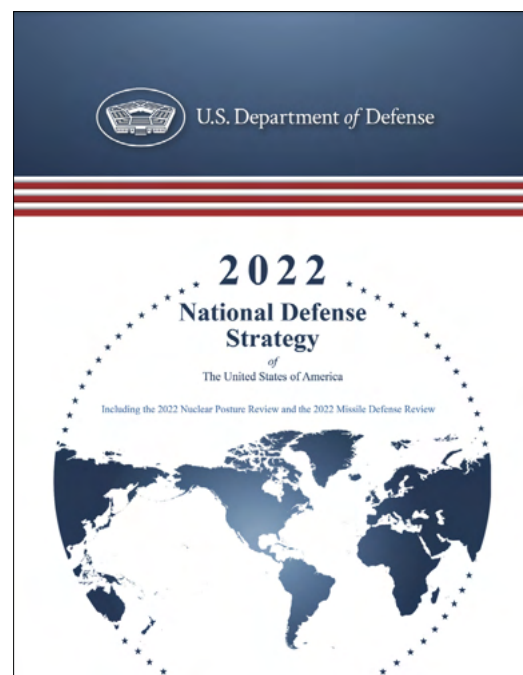
Right: The LEAP framework aligns with Office of Management and Budget standards and best practices for evidence-based policymaking.

2022 DoD Learning and Evaluation Agenda for Partnerships (LEAP) Framework

In Fiscal Year (FY) 2022, the DoD started transitioning from an annual strategic evaluation plan to a comprehensive learning agenda framework. **The LEAP Framework** builds on existing DoD processes and guidance, streamlining security cooperation (SC) learning and evidence-building under a common framework to increase coordination, collaboration, and deconfliction across the SC community.
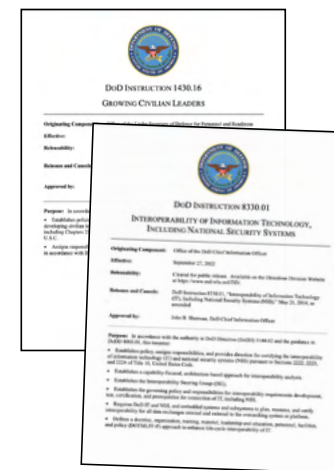
DoD INSTRUCTION 1430.16: Growing Civilian Leaders

This new **Instruction,** issued April 23, 2022, establishes policies, assigns responsibilities, and describes procedures for educating, training, and developing civilian leaders below the executive level in the DoD.

DoD INSTRUCTION 8330.01: Interoperability of Information Technology, Including National Security Systems.

This new **Instruction**, issued September 27, 2022, establishes policy, assigns responsibilities, and provides direction for certifying the interoperability of IT and national security systems (NSS). It also establishes the governing policy and responsibilities for interoperability requirements development, test, certification, and prerequisites for connection of IT, including NSS.

Visit **https://adlnet.gov/policy/** for additional information on policy impacting distributed learning.

EDLM Advancements

> Through the Enterprise Digital Learning Modernization reform, the DoD is creating an interoperable system-of-systems that optimizes learning and development (and ultimately personnel readiness) across the Department by leveraging data-centric advanced technologies at scale. Established on 25 July 2018, EDLM sets forth to create an enterprise learning ecosystem for more effective digital learning implementation while improving acquisition and maintenance of DoD digital learning systems.

January 2022: EDLM Innovation Workshop

From 12-13 January 2022, The Chief Innovation Officer in the DoD Office of the Chief Information Officer (CIO), in collaboration with the ADL Initiative, hosted a virtual workshop in support of the EDLM reform. The purpose of the workshop was to articulate and catalog the organizational barriers, opportunities, and corresponding actions for implementing enterprise-level digital learning interoperability across DoD. Over 135 attendees from across the military branches and DoD organizations including members of the DADLAC community came together to understand how interoperability can be achieved, how EDLM can benefit their respective programs, and to collectively identify barriers to interoperability for leadership to address.

Various trends and roadblocks surfaced through the process and were presented at the March DADLAC Water Cooler meeting. Furthermore, findings and recommendations for how to advance EDLM to achieve DOD-wide interoperability were shared in a paper titled, Technology is the Easy Part: Transforming Business Processes for Interoperability, during the Industry Training, Simulation, and Education Conference (I/ITSEC) in December. Check out the **publications section** of ADLnet.gov or the **I/ITSEC website** to download the paper.

> Howell, A., Johnson, A., Dinardo, A. M., Schatz, S., Muchmore, L. (2022). Technology is the Easy Part: Transforming Business Processes for Interoperability [Paper presentation]. In Volume 2022 (Eds.), Proceedings of the 2022 Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC). Orlando, FL: National Training and Simulation Association.
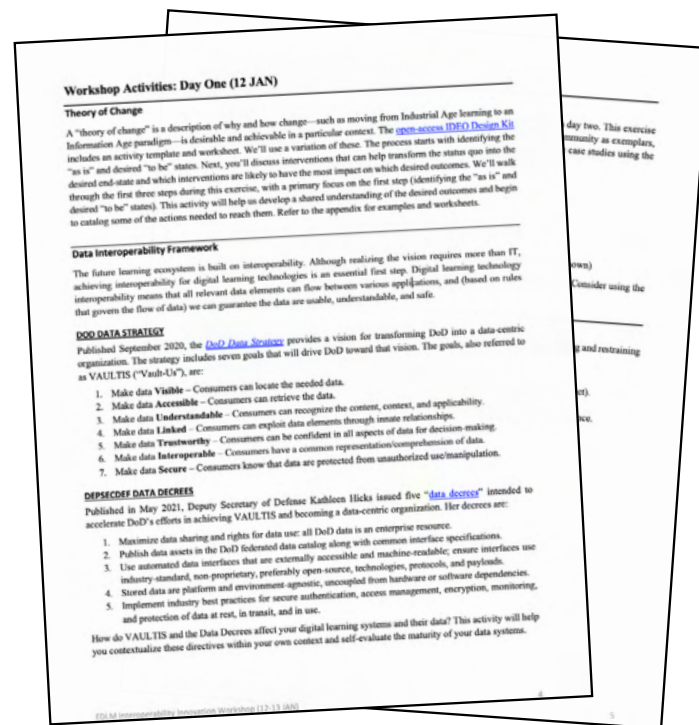
Top Seven Trends Identified by Workshop Attendees

1. **Acquisition:** Shared services (digital platforms, courses, LMS) as well as support resources to aid acquisition.

2. **Workforce Education and Training:** Expanded workplace competence, including both general job abilities and specific technical knowledge, skills, and attitudes. This can be accomplished through talent management and taking different approaches to competency-based learning.

3. **Data Governance and Cybersecurity:** Consistent and overarching data governance strategy—to not only increase data sharing but to also promote confidence in the data being produced and shared.

4. **DoD Technology:** Standards development and policy to help facilitate the sharing of data and technology resources, for example, updating DoDI 1322.26 to articulate other key standards and how to handle legacy systems.

5. **Data Usage:** Data analysis and the ability to obtain actionable data from these analyses for improved decision-making. Semantic interoperability was also identified as an important trend and the technological necessity to enable a modernized ecosystem that functions across DoD while still being useful for each subordinate organization.

6. **DoD Coordination:** Strategic coordination within and across the DoD in achieving modernization, for example, technology guidance both in terms of easily locating tools, policies, information, and support needed to achieve modernization success, as well as a unified vision and instructions for how these guiding documents should be implemented within organizations.

7. **DoD Culture:** Addressing cultural resistance and involving stakeholders at every level of the organization from those implementing the change at the tactical level, as well as management and leadership to ensure buy-in for modernization efforts.

TLA PlugFest: Hands-on Exploration of New Learning Ecosystem Interoperability Standard

From 22-23 June, members of DL community came together for the TLA Plugfest workshop held in Alexandria, VA to participate in plug-and-play interoperability testing with commercial applications and to explore use cases for xAPI, cmi5, competency frameworks, learning metadata, learner profiles, and other elements of DoD's future learning ecosystem.

The purpose of the workshop was to accelerate the adoption of data-driven learning technologies that will enable an interoperable digital ecosystem. DADLAC member organizations were in attendance including TADLP – US Army, NETC – US Navy, AETC – US Air Force, TECOM – US Marine Corps, Defense Acquisition University, and the National Geospatial-Intelligence Agency.

Above: TLA PlugFest graduates.

Workshop sessions addressed standards and applications for learner metadata tracking, learner records and learner profiles, migrating from SCORM to cmi5 for online learning activities, competency-based learning and competency frameworks, and integrating these technologies for DoD-wide interoperability.

Attendees participated in hands-on demonstrations and tutorials assisted by ADL Initiative developers and application vendors. In addition, the workshop featured reviews of the Learning Ecosystem Maturity Model to measure the degree of maturity of participating organizations' distributed learning processes.

Left to right: Specifications and Standards Manager, Andy Johnson (CTR), event participants, and R&D Principal, Brent Smith (CTR), leading exercises at TLA PlugFest in Alexandria, VA.

Technological Developments in 2022

The next generation of warfighters are demanding new tools and technologies to help prepare them for the challenges of the future. EDLM is addressing these demands by accelerating the adoption of new capabilities to help meet the evolving needs of DoD learners. EDLM can be leveraged to support servicemembers as they adapt to changing circumstances in the field as well as foster the emergence and strengthening of learning organizations across the DoD.

The following four applications of the DoD Learning Enclave (DLE)'s data management infrastructure are currently on the path to certificate to field:

- **Enterprise Course Catalog (ECC):** The ADL Initiative is building an ECC to enable a defense-wide inventory of all DoD training and education resources. The ECC is not simply another course catalog. Instead, it enables a global search capability that identifies information from decentralized local catalogs across the DoD and aggregates the content into a single, defense-wide portal.

- **Enterprise Learning Record Repository (ELRR):** A federated ELRR provides the ability to look across many distributed learner records as if they were from a single source and enables the sharing of local and global learner data across the DoD.

- **Enterprise Competency Registry:** The open-source Competency and Skills System (CaSS) is being deployed as a competency management resource for the DoD. It enables the design, development, and linkages between sharable competency definitions, frameworks, and credentials.

- **Enterprise Linked Data & Schema Server:** A defense-wide capability to generate linked data vocabularies with unique identifiers and schema mapping services to provide immutable Internationalized Resource Identifiers (IRIs) for each term and schema that all DoD technologies can reference.

The following applications were further developed in 2022 as part of the DLE shared services offerings:

- **EDLM Portal:** The EDLM portal provides a common access point for all EDLM systems. This centralized login connects users to EDLM onboarding workflows, Enterprise Course Catalog (ECC), the Enterprise Learner Record Repository, the Enterprise Competency and Credential Registry, the Linked Data and Schema Server, and the Learning Technology Warehouse (LTW).

- **Moodle 4.0:** Moodle is an open-source, online learning management system that enables DoD organizations to create, deliver, and manage courses that support a variety of training and education organizations within the DoD. The Big Blue Button virtual classroom is integrated into Moodle to allow virtual, instructor-led training in an xAPI-enabled environment.

- **cmi5 Player plugin:** The ADL's cmi5 Player is being deployed as a Moodle plugin and is being integrated into the deployed version of Moodle. This plugin unlocks the power of cmi5 within Moodle to help migrate SCORM courseware to an xAPI-enabled ecosystem of instructional content that is no longer tied to the browser.

- **Learner Record Store:** The LRS is responsible for receiving, storing, and providing access to learner records. A noisy LRS collects raw learner records from a connected activity. The transactional LRS collects a rollup of learner performance using the TLA Master Object model. The authoritative LRS stores validated competency assertions that support credentialing.

- **TLA Core Services Portal:** TLA Core Services Portal provides a local TLA tenancy that includes TLA data sources, data management tools, and dashboarding capability. This is used within the DLE to allow users enhanced analytics using TLA data.

The interconnected infrastructure created through EDLM will enable the DoD to adapt to new ways of delivering education and training.

EDLM enables the optimization of learning and development (and ultimately personnel readiness) by leveraging data-centric advanced technologies at scale. This is critical to ensure data can be shared across current and emerging devices/platforms to provide personalized learning and training customized to the warfighters career path. The DLE makes digital learning technologies available across the DoD that are driven by data to provide more effective, equitable, and modern learning opportunities across military, civilian, and DoD intel personnel.

During the past year, efforts have been made to develop and harden the TLA conformant tools and technologies that deliver training and education content to the warfighter. Focus has also been placed on improved analytics and dashboards that aggregate learner data from multiple applications. A DevSecOps approach to the DLE provides for innovation and efficiencies by enabling Continuous Integration and Continuous Deployment of IT solutions (i.e., to ensure these IT solutions are secure). The DLE supports the instantiation of these applications in a secured environment. Currently, DLE applications are composed of open source solutions. As this capability matures, the ADL Initiative will identify approaches for including commercial applications that adhere to DoD modernization guidance.

> **To modernize smartly and cost-effectively, avoiding unnecessary redundancy or reengineering, it is imperative to share strategic directions, priorities and timelines among enterprise partners.**
>
> **Howard "Tank" Thorp**
> Chief, JKO Division

Air Force — The value proposition of EDLM and the data interoperability it brings is tied to mission readiness. There is a need to communicate to senior leadership that modernizing the learning infrastructure directly impacts preparing the workforce to fight in the high-end competition. AETC is changing the way leaders are thinking about distributed learning and the delivery of services, and increasing interest as well as understanding through the myLearning operating environment. Over time, AETC realized that one single LMS was not enough, and a LRS was needed to handle the integration of data. AETC explained to leadership how this effort was tied to mission readiness, and that the goal is not only to deliver the content, but to completely change how AETC delivers and assesses students' learning. AETC is working to modernize the environment, such as implementing the LRS; however, the challenge is that the legacy systems are not modernizing quickly and are unable to work with an LRS. The key question is how to become interoperable with these platforms. AETC is implementing a service bus for legacy systems that are not capable of managing and sharing the data, and is trying to make the environment more open to the legacy systems.

Marines — TECOM is building its TLA which is an investment in learning technology, but many people still do not understand what that means. Some of TECOM's daily discussions are around what new technology is available, how it can be used, and how they can leverage that technology and bring it to the learner. We need to look forward and understand what the new technologies are, how these technologies can be used, how to leverage technology to enhance learning, and take the technology to the learner where it is needed.

JKO — It is extremely important to keep aligned with ADL models, standards, and system maintenance best practices. One big effort is getting the systems to talk to each other and gain a mutual understanding of the language to exchange information, record progress, and gauge student involvement. JKO continues to work with its partners to advance data-sharing. JKO currently shares course completion data with the US Army, US Navy, Defense Enrollment Eligibility Reporting System, and Defense Health Agency. As we modernize and move toward best-of-breed systems, we still need to get through the early phases of the future learning ecosystem model and determine how to best utilize the learning data.

DCPAS — As leaders of the Talent Development CoP, DCPAS chairs monthly DoD Chief Learning Officer Council (DCLOC) meetings attended by chief learning officers and senior training representatives from across all DoD Components and Fourth Estate organizations. The intent is to discuss relative topics, initiatives, best practices and lessons learned, and to further the professional connections that are vital for mutual success pertaining to the development of the Department's 900,000 plus civilian workforce.

On several occasions, ADL Initiative representatives shared insights and awareness about EDLM progress with DCLOC members during 2022. This provided terrific support for not only the entire DCLOC community, but also the DoD Chief Learning Officer for the civilian workforce (DCPAS Talent Development Director) who is a DADLAC member and counted on this information to advise and prepare the Executive Steering Committee for upcoming EDLM-related reform initiatives.

EDLM in Action...

DoD Language Center Becomes DoD Learning Enclave Trailblazer

The Defense Language Institute English Language Center (DLIELC) and the ADL Initiative launched efforts this past Fall to implement a tenancy in the DLE for the DLIELC. The DLIELC provides world-wide English language training and resident cultural immersion to enable US military and international partners to communicate in support of Department of Defense Security Cooperation objectives.

The purpose of this collaboration is to take the first steps toward modernization by bringing extant courses online. Specific DLE systems to be leveraged by the DLIELC include a dedicated tenant of the Moodle LMS and the SQL LRS that stores all user/learner data. This project builds on lessons learned from the recent ADL-US Army Special Operations Command demonstration and will serve to codify nascent processes for onboarding new DLE tenancies as well as importing and developing instrumentation for extant content.

Joint Services Transcript (JST) Leverages the Power of the ELRR

The ADL Initiative is working with the Defense Activity for Non-Traditional Education Support (DANTES) to leverage the ELRR for the development of a prototype JST that leverages TLA standards. The JST is an official record of the military schools, training, certifications, and experiences that Service members and veterans have completed throughout their military careers. The JST enables a suite of tools and capabilities that Service members and veterans can use to manage their professional development within the Military Services and prepare for their transition after serving. DANTES manages and sponsors the Military Training Evaluations Program (MTEP) which provides evaluations of military training, education, and experiences to transform DoD's human capital investments into American Council of Education (ACE) recommended credits for academic institutions. DANTES also manages national Credit-by-Examination testing programs to document college credit equivalencies through assessed prior learning. For both programs, participant data are provided and transcribed on the JST. This prototype effort started in the Fall 2022 and is intended to create a JST Minimum Viable Product to be made available within a DoD IL4 environment and integrated into the DoD's EDLM data management infrastructure. Additionally, the JST prototype will result in a refactored JST that aligns with DoD best practices for software development, meets Defense-wide privacy and security controls, and enables an improved user experience that meets Service member requirements.

EDLM Executive Steering Committee (ESC)

In 2020, the EDLM Executive Steering Committee was established to provide oversight of implementing the EDLM reform. Specifically supporting the

1. effective acquisition, implementation, and spending management of all learning (education, training, certification, and professional development) products and services;

2. enterprise-wide digital modernization and integration of learning systems; and

3. enterprise course catalog and enterprise learning record repository functionality for all DoD personnel and contractors.

Key functions of the ESC include overseeing outcomes of the EDLM reform to ensure the broadest integration with DoD training and education systems to facilitate the capability to share learner data according to DoD-wide interoperability standards and overseeing EDLM policy development and implementation for effective and efficient acquisition, implementation, and spending management across all DoD learning products and services.

This year, the ESC charter was further developed to reflect its evolving role and relationship with the DADLAC to undertake EDLM with the expectation to finalize early next year. Representatives from the U.S. Army, U.S. Air Force, and U.S. Navy were identified and joined the ESC in Fall 2022, and will provide awareness and incorporation of Department-wide requirements into the development, operations, and sustainment of the EDLM learning ecosystem and assisted acquisition.

> **AETC has positively benefited from the cross-component relationships facilitated by the DADLAC. The DADLAC provides opportunities for agencies to collaborate on and improve DL capability delivery as well as to maintain synchronization with the DoD EDLM strategy. Without the DADLAC, it would be considerably more challenging to establish and maintain the same relationships with our counterparts across DoD.**
>
> **Floyd McKinney**
> Chief, Learning Services Operations, Air Education and Training Command (AETC)

Success Stories

Maximizing Skills Development with Microlearning

The ADL Initiative conducted a study with the Army University, Army Combat Capabilities Development Command (DEVCOM) Soldier Center, and the Army's Sabalauski Air Assault School (TSAAS) to evaluate the PERvasive Learning Systems (PERLS) prototype with the 101st Airborne's "Screaming Eagles" air assault teams. PERLS, an open-source platform designed to support self-regulation and microlearning (e.g., quizzes, flashcards, etc.), supports skills-based learning, taking advantage of unplanned time during a learner's daily schedule to enhance and reinforce learning.

Above: Upon graduation of the Air Assault course, each Soldier will be able to perform skills required to make maximum use of helicopter assets in training and in combat to support their unit operations.

As part of an instructor-led training program, TSAAS recruited students to participate in the study, with 108 using PERLS and 218 assigned to a control group. The PERLS students took advantage of anytime-accessible features allowing them to review content, watch videos, and self-assess through quizzes and flashcards designed to supplement the TSAAS classroom training.

The project examined attrition rates, warfighter capability (performance on knowledge and performance tests, and confidence to perform air-assault tasks), and learning behavior generalizable to future learning opportunities. The results confirmed that PERLS and microlearning can be effective training tools: soldiers who used PERLS had a 25% higher course completion rate, higher test scores in one element of the TSAAS training, and outperformed their peers by 13% in another.

More information on the ADL Initiative website at **https://adlnet.gov/news/2022/06/06/PERLS-Air-Assault-Evaluation/**

Soldiers Who Used PERLS
25% Higher Completion Rate
Outperformed Peers by 13%

DAU and ADL Initiative Collaboration Demonstrates the Power of TLA Interoperability

Defense Acquisition University (DAU) and the ADL Initiative collaborated on creating a prototype that served as a test case for how to incorporate TLA tools, technologies, and standards within a learning ecosystem. As part of this effort, the ADL Initiative worked with DAU to identify approaches to leverage learning data standards to maximize education and training opportunities for the Defense Systems Management College (DSMC) ecosystem. The DSMC is a branch campus of the DAU located in

Above: DSMC Scott Hall, Fort Belvoir, VA

Fort Belvoir, Virginia, and is chartered to provide executive-level, international acquisition management, and requirements certification training. Since 1971, DSMC has been a source for advanced project management training for the DoD. Advanced project management courses use teams of students to analyze and prepare case studies, share lessons from their experience, and provide feedback to their colleagues with the goal of preparing them to take on the most critical, expensive, and high-visibility projects in the DoD.

The Total Leaning Architecture (TLA) Standards Integration Prototype Project focused on de-veloping use cases, workflows, and demonstrations using the data interoperability standards recommended in DoD Instruction 1322.26 for Distributed Learning. The ADL Initiative worked with DAU to define requirements, expected outcomes, and technical approaches used to implement TLA data standards. The resulting prototype informed workflows and data collection strategies used in a DMSC pilot.

The base year of work started in the Fall of 2021 and focused on developing a prototype capability to deliver a section of the DSMC's reimagined curriculum using xAPI and other TLA standards. The DSMC currently uses DAU's Information Technology which includes Microsoft Office 365 for Education (O365 for Edu), the Kaltura Video management system, and the Cornerstone on Demand LMS to provide access to courses and materials. When the pilot started, DAU had recently acquired the Veracity LRS and was working to get that capability deployed for use by DAU. The prototype system helped demonstrate different approaches for instrumenting DAU systems with xAPI once the LRS became operational.

The prototype built upon previous collaborations between ADL Initiative and DAU on the DAU Innovation Sandbox where DAU's researchers and staff are able to experiment with different learning tools to help create an xAPI data strategy that can be implemented within the DAU / DSMC learning technology stack. Central to the prototype was the instrumentation of Microsoft Teams for Education with xAPI. To reduce costs, the prototype utilized open-source components in place of the commercial tools currently used by DAU. The prototype used the Moodle LMS, the Learning Locker LRS, and DAU's existing experience management software.

The project, which was completed this year, is aligned with the ADL Initiative's TLA effort to enable personalized, data-driven, and technology-enabled lifelong learning across the DoD and lays the foundation for the future development of systems using TLA standards.

DEVCOM Soldier Center Supports the Army's Synthetic Training Environment Program In Leveraging Learning Data For Competencies

During the past year, the US Army continued to mature the STE Experiential Learning for Readiness (STEEL-R) data strategy, which leverages core components of the TLA. Efforts included building out the data strategy to align with skill acquisition theory. The following accomplishments derived from this research demonstrate progress being made in collecting evidence-centered performance metrics from synthetic training scenarios:

- A prototype of the STEEL-R data strategy in the Infantry Squad domain

- The first hierarchical team competency model implemented in Competency and Skill System (CaSS)

- Integration of STEEL-R and the Generalized Intelligent Framework for Tutoring (GIFT) with the Unity-based Rapid Integration and Development Environment (RIDE), managed out of University of Southern California's Institute for Creative Technologies (ICT).

STEEL-R's usage of xAPI is playing a critical role in persistently tracking performance and stimulating competency frameworks in Competency and Skill System (CaSS). The Army has created an open xAPI Profile aligned to GIFT's Domain Knowledge File (DKF) which enables auto-creation of xAPI statements defined in GIFT's task model and its underlying performance metrics. (A DKF is an XML file that contains the information needed to execute on a single lesson.) GIFT is applied to monitor and translate data from a training environment into context-specified performance statements that are used to build assertions within an established competency framework. This enables xAPI at the formative and summative assessment level, with a focus on building traceable, evidence-centered observations across the interactions, behaviors, and processes of an executed task.

STEEL-R is currently working with the New Jersey Army National Guard's 254th Regional Training Institute and collecting data across the execution of the 11B Advanced Leadership Course (ALC) program of instruction.

GIFT is an empirically-based, service-oriented framework of tools, methods and standards to make it easier to author computer-based tutoring systems.

The **Rapid Integration & Development Environment (RIDE)** is a simulation environment that unites many DoD simulation efforts to provide an accelerated development platform and prototyping sandbox that will provide direct benefit to the Army's Synthetic Training Environment (STE) as well as the larger DoD simulation communities.

https://gifttutoring.org; https://ride.ict.usc.edu/

This includes knowledge assessments, practical exercises, sets and reps across multiple simulations, and a culminating Live Situational Training Exercise. This work continues into the new year with the next data collection anticipated in March 2023. STEEL-R presented a paper at I/ITSEC 2022 focused on extending the TLA to support experiential learning and evidence-centered design practices which won Best Paper for the Policy, Standards, Management & Acquisition (PSMA) Subcommittee.

> " Participating in the DADLAC is an important activity for my team and our research program. There is a lot of enthusiasm in our community, especially with respect to how the TLA can support our research and acquisition objectives. Being able to engage with colleagues across the Army and other services has paid dividends, with specific attention to lessons learned, recognizing shared research interests and investments, and building collaborations that can accelerate our collective progress.
>
> **Benjamin S. Goldberg, Ph.D.**
> Senior Scientist, Adaptive and Intelligent Training Systems (AITS) Team,
> U.S. Army Combat Capabilities Development Command - Soldier Center

DCPAS Modernizing Learning Efforts Scale Up and Increase Reach

The Defense Civilian Personnel Advisory Service (DCPAS) Talent Development Directorate is charged with leading a Community of Practice (CoP) nested within the Human Resources Functional Community. As such, the team maintains a mission to oversee, execute, and influence the purposeful growth of an agile, diverse, highly-skilled, and future-focused civilian workforce; leveraging training, education, and professional development opportunities in alignment with national defense strategies and DoD human capital planning.

In 2022, the Directorate's Innovation and Transformation Team seized the initiative to compete for and earn funds provided by the Undersecretary of Defense for Personnel and Readiness for Research, Studies, Surveys, and Analysis Proposals. They successfully established a relationship with one of DoD's 14 University Affiliated Research Centers (UARCs). The team engaged the services of Georgia Tech Research Institute to help explore ways to leverage expertise outside of DoD to advance the cause of DoD learning and development into the future. As part of multiple lines of effort that were developed, one focus was on assisting our enterprise leader development programs to digitize program management methodologies and data collection as part of a pilot program. This aligns well with an emphasis on the Data Science Hierarchy of Needs and DoD VAULTIS goals -- aims we must achieve to become data-centric, etc.

This UARC relationship was also focused on pursuing integration of the ADL Initiative's EDLM tools into our enterprise level talent development program management and execution. In particular, the integrated Moodle LMS/Big Blue Button, ELRR, and ECC efforts offer direct and substantial potential to leverage technology to significantly enhance planning and execution of our programs. This effort was seen as a flagship initiative in modernizing our learning infrastructure, and one of the reasons The ADL Initiative called DCPAS an "early adopter" well before publication of the 2022 National Defense Strategy.

Working with both our UARC relationship and the ADL Initiative team is helping DCPAS keep aligned with the larger strategy.

This strategy includes the following relevant excerpt:

"We will bolster support for our unparalleled institutions, both UARCs and federally-funded research and development centers...to ensure we produce and sustain the full range of capabilities needed to give U.S., allied, and partners forces a competitive advantage..."

Mark Your Calendars!
This Year's Plans
2023

DADLAC Water Cooler Events (Optional)

DADLAC members are invited to attend these open forums to discuss distributed learning topics and receive updates on the latest DoD initiatives and policies. These meetings are held throughout the year on select Wednesdays, 1300–1430 ET, and representatives from each DADLAC organization are encouraged to attend. These meetings are open to military and civilian personnel, and DADLAC representatives may invite their direct, on-site support contractors, with permission. Outside vendors are not invited.

Water Cooler Events

Save the Date!*
08 March
17 May
13 December

*Date tentative - calander invites to be sent.

2023 Formal DADLAC Meetings (Required)

Two formal meetings will be held in 2023 to enable community members to participate in in-depth discussions and problem-solving based on a hands-on activity. Dates to be announced in the new year.

Formal Meetings
Stay Tuned!

REQUEST— Community Input

Help us share knowledge across the DADLAC community! We are looking forward to sharing your resources, opportunities and announcements at upcoming meetings. Is there a DL topic you would like addressed at future meetings? Send requests and ideas to Anne Marie DiNardo at **anne.m.dinardo.ctr@mail.mil**.

Your Voice Matters
Share with the community!

> " DMMSO values its participation in the DADLAC because it provides a collaborative environment for stakeholders to discuss current projects and upcoming requirements, which ensures that DMMSO is not only aware of these initiatives, but also headed in the right direction.
>
> **Ruben Garza,** Chief
> Defense Medical Modeling & Simulation Office (DSSMO)