



ADL-R Support Final Report

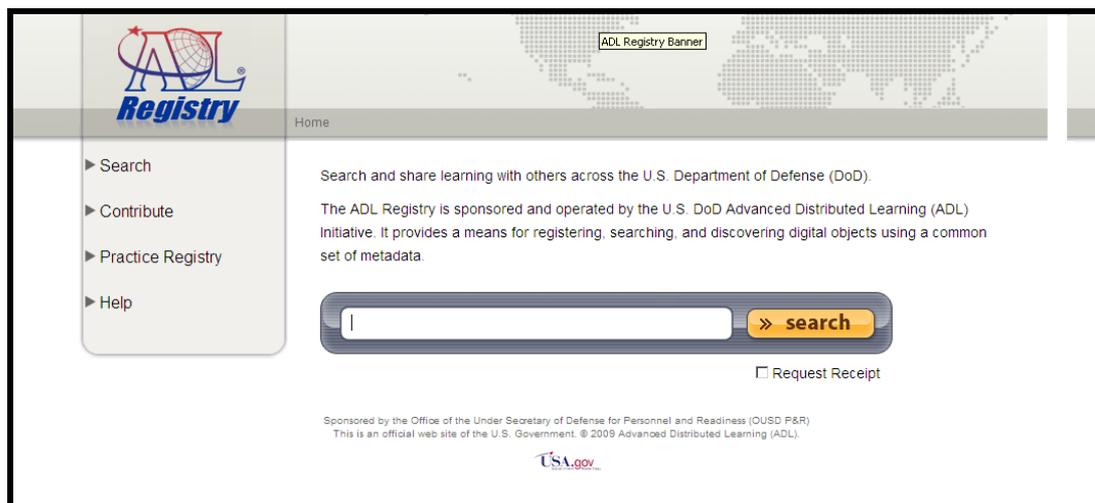
April 9, 2010

Agenda

- Purpose
- Background
- Approach
- Findings
- Recommendations with Stakeholder Feedback
- Strategy
- Decisions

Purpose

- Provide high level review of findings
- Summarize feedback on recommendations
- Outline strategy for moving forward



The screenshot shows the ADL Registry website. On the left is a navigation menu with links for Search, Contribute, Practice Registry, and Help. The main content area features a search bar with a 'search' button and a 'Request Receipt' checkbox. Text on the page describes the registry's purpose and sponsorship by the U.S. DoD. The footer includes a USA.gov logo and copyright information.

ADL Registry

Home

ADL Registry Banner

Search and share learning with others across the U.S. Department of Defense (DoD).

The ADL Registry is sponsored and operated by the U.S. DoD Advanced Distributed Learning (ADL) Initiative. It provides a means for registering, searching, and discovering digital objects using a common set of metadata.

» search

Request Receipt

Sponsored by the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD P&R)
This is an official web site of the U.S. Government. © 2009 Advanced Distributed Learning (ADL).

[USA.gov](#)

Approach

- Conducted two user surveys
- Performed test cases
- Inventoried ADL-R
- Documented key processes
- Identified and assessed successful registries/repositories
- Compared ADL-R to successful registries/repositories
- Identified features and functions along with key technologies
- Developed recommendations
- Solicited stakeholder feedback on recommendations
- Developed strategy for moving forward

Findings



User Survey Findings

- Factors determined to have the greatest impact on ADL-R use
 - Quantity
 - Quality
 - Accessibility
 - Usability

- Ranked factors that impact decision to use ADL-R

Current Users	Non Users
1. Accessibility	1. Quality
2. Quantity	2. Usability
3. Quality & Usability tied	3. Accessibility
	4. Quantity

Review of Best Practices: Business Models

- Financial Incentive
 - NSF requires all who receive funding to contribute
- Free/No Financial Incentive or other apparent incentive
 - Community based approach...more like a pot luck dinner or Co-op
- Charge for the Service:
 - Texas Digital Library—use DSpace—charge a fee goes toward a human resource to manage the “library”
 - Affiliate Membership: \$25K, access to TDL institutional and faculty services
 - Associate Membership: \$50K, 1 F/T employee
 - Founder Membership: \$100K, 2 F/T employees, access to institutional and faculty services

Successful Strategies

Clear Focus

- Repositories are discipline-based or subject-specific

Accessibility

- Intuitive to use with standard search methods similar to common internet search engines

Content

- Large quantities of content available for users

Rating/Commenting

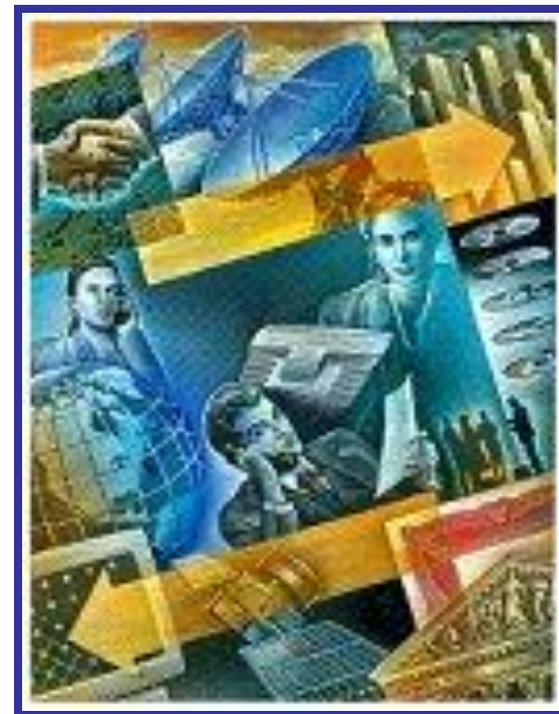
- Rating and comment system to rate the quality and value of digital content

Social Networking

- Elements of social networking either through connections to existing social networking sites or internal social networking tool

Architecture

- **Four** of the successful registries/repositories used an Open Archives Initiative (OAI)
- Proprietary or unique standards/architectures were used for the other systems under review
- All systems reviewed with exception of WorldCat and ADL-R are actually repositories with an embedded registry function



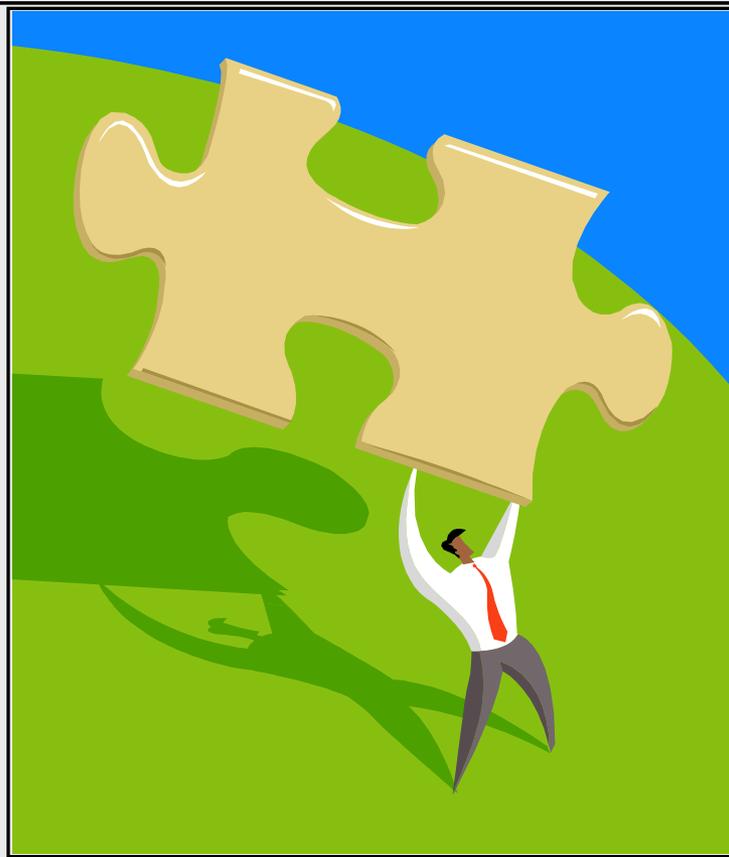
Open Archives Initiative

- Reasons for success
 - OAI-PMH: Widely known and well used protocol since Jan 2001
 - Tools and implementations built by industry and researchers
 - Examples of implementation to leverage
- Found use by additional 30 organizations
 - Universities
 - Libraries
 - Corporations
- Only one had the vision to incorporate SCORM for levels of granularity of objects: NSDL (2004)

Gaps

- There is a large gap in performance between the ADL-R and non-DoD successful registries/repositories for accessibility and quantity
- Most sites had methods for ensuring quality
- ADL-R does not offer the features and functions provided by “top performers”
- ADL-R does support the concept of content packaging (granularity of objects)

Recommendations



Written Feedback from Recommendation Webinar



	Recommendation	Yes	No	Maybe
1	Launch Community Based Repositories	1	1	1
2	Employ A New DoD Governance Model	1		1
3	Establish Common Business Rules	4		1
4	Implement Corrective Action Reporting	3		1
5	Build a Core ADL Repository	2		1
6	Adopt Open Architecture Initiatives Framework	2		1
7	Adopt a Turbo Squid business model which includes RT versions, pay as you go/pay per usage, advertisements, transaction/subscription fees.		2	1
8	Emphasize assets by building a website that largely supports the categorization and discovery of assets	2	1	1
9	Establish and include IP and data rights contractual clauses	2	1	
10	Provide customized web interface for different users and then a general area for all users	4		1
11	Provide analytics for both administration and users	4		
12	Provide more user-friendly documentation	4		
13	Provide registry validation/management tools	2		1
14	Provide technical consultation	4		

Comments: Launch Community Based Repository

- Could restrict pro-active base level efforts if the larger community as a whole shows little or no interest in another organizations requirements. The proposed communities are at too high of a level. For military services, communities would be better served at a MAJCOM level (maybe).
- Naval Aviation have a Repository MEDIATRAX owned and operated by the Govt. Perhaps you could explore using this with some modifications to save Tax Payer dollars with new development or licensing fees. (no preference indicated therefore it is not included in the yes/no/maybe tally below)
- This would be difficult to manage depending on granularity. (No)

Yes	No	Maybe
1	1	1

Comments: Employ A New DoD Governance Model

- Currently, e-learning guidance in general too parochial - Need DoD standard for ALL - Registry, Asset management, SCO definition, Rights management. (yes)
- Depends on the level set. Similar to prior question. Even at a MAJCOM level there are too many stove piped organizations that only have concerns for their affected personnel (maintenance, supply, procurement, logistics, etc). Unless there is a central identified MAJCOM organization that is given the authority for the working group will make little process. (maybe)

Yes	No	Maybe
1		1

Comments: Establish Common Business Rules

- Currently, e-learning guidance in general too parochial - Need DoD standard for ALL - Registry, Asset management, SCO definition, Rights management. (yes)
- Same issue with high level working groups that may not share or have knowledge of the effect decisions made will have at a base or wing level. It might be better suited to request feedback from the lowest levels, on these issues and then create DoD rules that everyone follows. One of the keys to making repositories work will be to define a meta data standard everyone uses based on the LOM. (maybe)

Yes	No	Maybe
4		1

Comments Continued

Implement Corrective Action Reporting

- Naval Aviation has this in place. (yes)
- Just good, sound system management, but it depends on the definition. (yes)

Yes	No	Maybe
3		1

Build a Core ADL Repository

- Makes much more sense for a truly “purple” military training community. (yes)
- Why not look at using or adopting the MEDIATRAX. (didn't indicate yes, no or maybe and therefore it is not included in the tabulation)
- Would only be useful for generic content. Screening would need to be set up to verify SCOs and assets loaded are not sensitive. (maybe)

Yes	No	Maybe
2		1

Comments Continued

Open Architecture Initiatives Framework

- Depends if IT security will accept. (maybe)
- Open Architecture should always be stressed IAW DoDAF and other Enterprise Network. (yes)

Yes	No	Maybe
2		1

Adopt a Turbo Squid Business Model with pay as you go

- This concept does nothing to help the services and only benefits the vendors. The DoD is NOT a “business”, we have already learned enough lessons about this misguided initiative. (no)
- This is a great idea but how would it be managed? (maybe)

Yes	No	Maybe
	2	1

Comments: Emphasize assets

- Assets can include anything from an explosive train diagram of the space shuttles exploding bolts to a simple next button or smiley face. How do we separate the items of value from the clutter? (maybe)
- Although I agree in principle, the Joint Combat Camera is an example of good asset management; However, current SCORM design philosophies followed by all services do not support discovery and access down to the asset level, and won't without a major shift in design policies (e.g., each service having a few standard player shells for both HTML and/or flash-based content and course content is supplied as aggregation packages that can play within those standard players so each service "Brands" the course to themselves when compiled into a SCORM PIF in THEIR LMS. (no)

Yes	No	Maybe
2	1	1

Comments: Establish & Include IP and data rights contractual clauses

- Where applicable, I believe this to be necessary although previous iterations of DoDI concerning IMI is that the DoD should "own" the content and ensure that they do not enter into licensing agreements which are not in the best interests of the service. So it seems this tacit understanding of this and the current mindset of certain courseware vendors are at odds - we should establish data rights to the benefit of the DoD users/owners NOT Vendors. (yes)
- Should depend on data type. If data is something that can be used in a commercial or academic area then it would be OK. However if data is DoD specific (weapon system, data system, etc) then DoD or the affected service would be provided all data to included source code. For example if a contractor provides a flash based course on a weapon system but only provides the .swf files, then no changes can be made to update the content without hiring the contractor that built the course. There by eliminating the possibility of organic changes and setting up an unfair competition if changes are to be contracted out. (no)

Yes	No	Maybe
2	1	

Comments: Provide customized web interface for different users

- Are you talking about a customizable interface like dot net nuke?
(maybe)
- Don't know if this is really necessary if legitimate users are validated up-front. Let valid users see all, but display based on the initial immediate requirements they have. E.g., have them choose why they came to the site today, then use that for subsequent visits until they change it. So, in a way, yes, but not based on permission levels or User levels but need-driven. (yes and maybe)

Yes	No	Maybe
4		1

Comments Continued

Provide analytics for both administration and users

- Yes, needed for admin and leadership to justify funding and manpower requirements - however, should NOT be interpreted as punitive for anyone, including ADL personnel (which it seems to have been on occasion). (yes)

Yes	No	Maybe
4		

Provide more user-friendly documentation

- ADL-R transaction documentation needs to be more in-depth with clear examples and step-by-step procedures, otherwise less technical IDs and Course POCs will NOT participate, even if mandated by DODI (Case in point, DoDI 1322.26). (yes)

Yes	No	Maybe
4		

Comments Continued

Provide registry validation/management tools

- Absolutely!! Whether online or provided as a desktop application, Metadata entry by course developers/POCs, mandated searches, and ADL-R transactions and responses should have one application to manage it with. Lots of options to make this possible. (yes)

Yes	No	Maybe
2		1

Provide technical consultation

- Has been ADL Initiatives marching orders for some time, why should this change? (yes)

Yes	No	Maybe
4		

Feedback from Webinar (spoken comments)



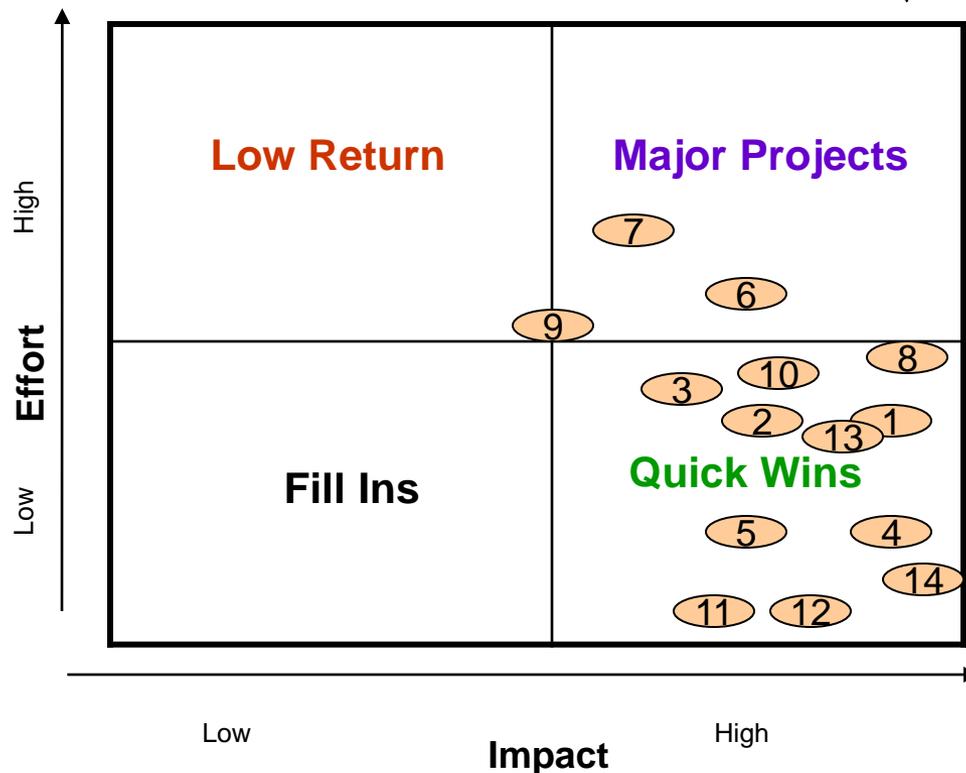
	Recommendations	Interest?
1	Launch Community Based Repositories	Yes
2	Employ A New DoD Governance Model	Yes
3	Establish Common Business Rules	Yes
4	Implement Corrective Action Reporting	Yes
5	Build a Core ADL Repository	Yes
6	Adopt Open Architecture Initiatives Framework	?
7	Adopt a Turbo Squid business model with RT versions, pay as you go/pay per usage, advertisements, transaction/subscription fees.	?
8	Emphasize assets by building a website that largely supports the categorization and discovery of assets	Yes
9	Establish and include IP and data rights contractual clauses	?
10	Provide customized web interface for different users and general area for all users	Yes
11	Provide analytics for both administration and users	Yes
12	Provide more user-friendly documentation	Yes
13	Provide registry validation/management tools	Yes
14	Provide technical consultation	Yes

Strategy

- Implement selected recommendations based on decision matrices, not just the feedback from the webinar
 - Addresses performance issues with ADL-R.
 - Demonstrates to users that ADL listens and takes actions.
- Use pilots
 - Tap into those who want to lead efforts
 - Start on small scale, revise, prove, and implement on broader scale
- Solicit leads and teams via BAA
- Modify current tasking to have ICF/Novonics support for implementation

Recommendations

1. Launch Community Based Repositories
2. Employ A New DoD Governance Model
3. Establish Common Business Rules
4. Implement Corrective Action Reporting
5. Build a Core ADL Repository
6. Adopt Open Architecture Initiatives Framework
7. Adopt a Turbo Squid business model with, pay as you go/pay per usage, advertisements, transaction/subscription fees.
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13. Provide registry validation/management tools
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Strategy Considerations

	Recommendation	Yes	No	Maybe
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2	Employ A New DoD Governance Model	1		1
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The recommendations that offer the greatest potential for impacting accessibility and quantity were not necessarily endorsed in the limited feedback via the written responses from the webinar.

For #1, which impacts accessibility and quantity, we received positive feedback during the webinar and from discussions with Dr. Jan Cannon-Bowers.

It is clear that those items with 4 positive responses should be pursued, but other recommendations should be implemented, especially the quick wins.

Community Based Repositories

Recommendation

- Each has a Champion/Community leader and a repository leader
- Develop a charter/agreement outlining the expectations, roles and responsibilities for all participants
- ADL designates a staff member for each Champion/Community leader
- Survey the community to identify the immediate and long term needs for reusable content and opportunities for reuse
 - Form a coordinating committee
 - Develop a short term and long range plan
- ADL would provide incentives in terms of:
 - Funding for prototypes as cost shares
 - Best Awards
 - Competition for Universities (based on what advertising industry does)

Next Steps

- Review list of potential communities
- Set up meetings with each potential lead to brief them on the concept and see if they are willing to serve as the leader; select leaders
- Assign ADL staff member for each community pilot (no more than 2 initial pilots)
- Develop draft charter/agreement template
- Determine technical approach:
 - Assess current system
 - Develop approach leveraging current resources (content, LCMS)
 - Identify missing components (additional metadata; repository to make content accessible under current ADL architecture)
 - Consider other recommendations that could be combined into pilot
- Develop community survey template
- Develop short and long range plan template
- Initial incentive is the development of the Community Portal by ADL plus thought leadership

Potential Communities





Healthcare Community Registry

Search



[Home](#)

[Communities](#)

[Reuse](#)

[Research](#)

[Best Practices](#)



Health Community Registry Update



Review papers from the latest **IITSEC conference** including presentations on Medical Team Training, Successful Use of Simulation for Critical Care Air Transport Team Training... learn [more](#)



Featured SBIR Phase II--3-D Multimedia Battlefield Trauma Training Kit with integrated visual 3-D computer models, video recording of actual treatments, and an interactive virtual patient for Army, Air Force, and Navy medical personnel... learn [more](#)



Reuse in Action....Federal Pharmacy Technician Training: A Collaborative Initiative Between the Veterans Administration and DoD....learn [more](#)

Stats...



Total:
• 1500 Objects
• 311 members

Since last visit:
• 18 new objects
• 5 new members

[More...](#)

News...



Latest:
• New DOD Guidelines
• ADL in the News

**Conferences
Events
Associations**
[More...](#)

View By Collections

- Assets (15)
- Games (35)
- Learning Content (135)
- Medical Scenarios (115)
- Medical Images (423)
- Simulation (11)

View By Content

- A thru C
- Arch/Air Evacuation
- Burn Classification
- Burn Management
- CCATT
- D thru G
- H thru L
- M thru Q
- R thru U
- V thru Z

Marketplace

- Vendor Information
- Content for Purchase
- Tools
- Virtual Worlds

Your Recent History [\(what is this?\)](#)

Recently Viewed Items

- Placeholder Text
- Placeholder Text
- Placeholder Text
- Placeholder Text

Recently Searched

[Patient Simulation \(All Collections\)](#), [AFMS \(Simulations\)](#)

Continue Viewing: Members who downloaded items in your recent downloads also viewed



[Idweo](#) By Kirueiaw rueolir Yiruea ueirouie ueiarueue reuawrue ao



[Poreawiruea](#) By Biere euuo Dieuraw rui ueawu uiorueo rueurueuiaao urieoa prue



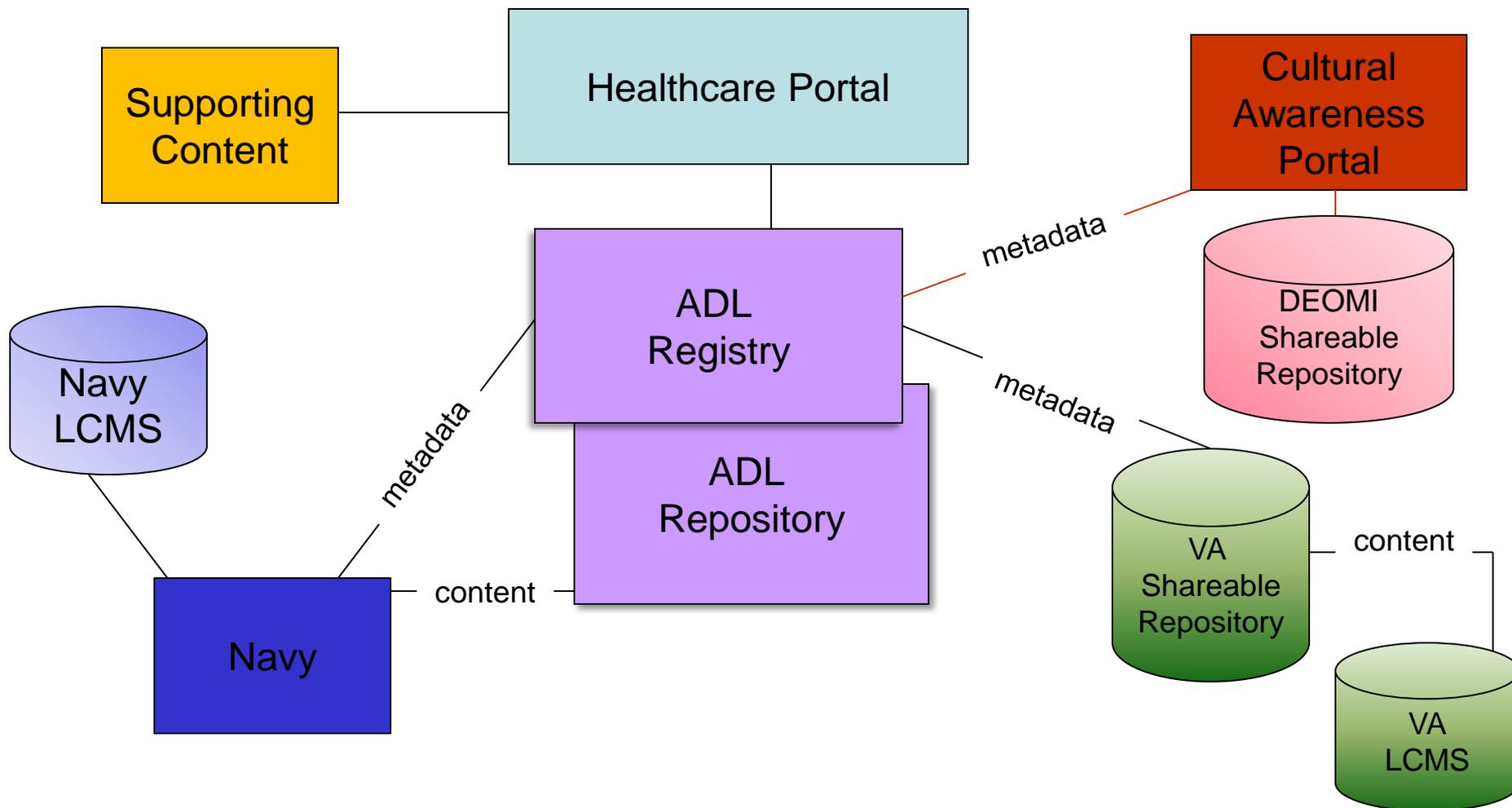
[Stear eawoio](#) By Biere euu Hiewoaw euio aurei aueiu ureiaa



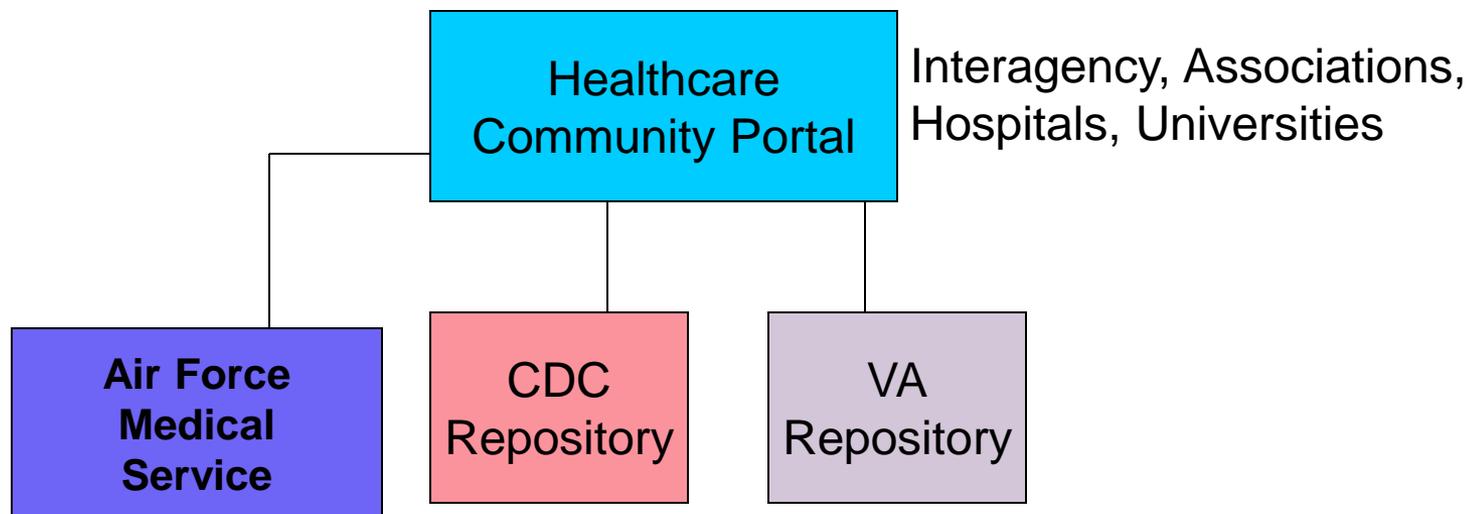
[Teiuaaru eaiureoiaue](#) By Bi Sieure aurioe auio uiroeua



Notional Community Architecture



Relationship of Global Portal to repositories/registries...each could have its own customized portal with links to the Global Portal



Restricted

Information accessible
Only by AF personnel
AF unique information and
templates

There will be federated repositories and registries, especially to address security issues where not all content should be accessible to all.

There is there the option of using the ADL Repository as opposed to having to provide one's own repository, but there are business conditions associated with this service.

DoD Governance Model

Recommendation

- Establish Service/DoD Proponent—Service Leader
- Establish Repository Manager
- Assign ADL Staff member who is the customer service manager
- Service/DoD component convenes working group of training organizations
- Develop charter
- Develop short and long term plans based on needs
- Service/DoD Proponents share plans via DADLAT to identify opportunities for co-development and reuse
- OSD supports funding requests
- Set quarterly goals and monitor progress

Next Steps

- Review potential Service candidates to serve as pilot—could have more than one—USMC, Navy?—not more than 2 unless all Services wanted to participate as an initial pilot
- Assign ADL Staff member to be the lead for the Service who volunteers to be the pilot
- Develop charter and work with the Service Proponent to convene working group of Service training organizations
- Develop template for short and long term plans and provide to Service Proponent(s). Work with Service Proponent to populate template.
- Service Proponent shares integrated plan with DADLAT. OSD facilitates co-development and reuse opportunities, including funding for joint projects.

Common Business Rules

Recommendation

ADL will work with the Services/DoD Components through working groups to develop business rules on the following topics:

- Re-Use
- Maintenance of links and metadata
- Publishing of plans to develop content
- Standard contract clauses
 - SCORM packages
 - Metadata
 - Intellectual Property Rights
- Taxonomy structure

Next Steps

- Must address current issues with not being able to access content by developing rules and protocols for access within current architecture
 - Example: Navy E-Learning—leverage JFSC request form
 - Make the “get object” link work
- Have an email option for users to alert ADL-R staff to address accessibility issues until Corrective Action Reporting system is in place
- Expand inventory/tests of ADL-R to identify broken links and inaccurate/incomplete metadata
- Coordinate sharing of Service Plans for developing content via DADLAT and Content Developers Group
- Form working group to develop standard clauses and taxonomy structure

Corrective Action Reporting

Recommendation

- Documents processes for users to follow
- Allows users to report problems or suggestions for improvement
- All actions are assigned, tracked, and addressed in a timely fashion
- Source for identifying and tackling systemic problem areas and also opportunities for improvement

Next Steps

- Document processes in clear, easy to follow, consistent manner
- Develop electronic Corrective Action Reporting System
- Assign administrator

Core ADL Repository

Recommendation

- ADL Repository
 - Houses content that is unclassified
 - Can be replicated for restricted access content (SIPRNET/NIPRNET)
 - Addresses Accessibility

Next Steps

- Build the repository
- Develop the business rules
- Pilot and revise as needed

Recommendations 8, 10, 11-14

Recommendation

10. Provide customized web interface for different users and then a general area for all users
11. Provide analytics for both administration and users
12. Provide more user-friendly documentation
13. Provide registry validation/management tools
14. Provide technical consultation

Next Steps

- These recommendations are fairly straightforward.
- Nevertheless, they should engage focus groups or user tests to ensure that the end goal is achieved.

Major Project Recommendations

OAI

Recommendation

- Develop ADL repository
- Define the structure for domain repositories to be instituted by the Services (federated systems)
- Work with LCMS vendors to identify current support of OAI and to get them to develop tools to support “cooking content” and metadata extraction
- Leverage Air Force Research Lab work on OAI Implementation
- Develop DoD OAI-ORE/SCORM plug-in (1 year effort)
 - ADL would add benefit of SCORM granular level object description to OAI
 - OAI users leading to a Win-Win

Next Steps

- This concept needs to be vetted with the broader ADL technical community to ensure buy-in.
- It should be briefed at the ADL Registries and Repositories Summit.

Turbo Squid (#7) and IP Rights (#9)

Recommendation

- Adopt a Turbo Squid Business Model with RT versions, pay as you go/pay per usage, advertisements, transaction/subscription fees
- Establish IP and data rights for business model

Next Steps

- This concept needs to be vetted with the broader ADL community to ensure buy-in.
- It is recommended that it be briefed one on one to people who are forward thinkers and who will give candid feedback.

Questions, Decisions, and Feedback

Your thoughts?

Back-Up Slides

Registries/Repositories Reviewed

Repository	Accessibility	Quantity		Quality
		Objects	Repositories/ Contributors	
ADL-R	Limited	2,514	19	Undefined
Texas Digital Library D-Space	Full	17,208	5	High
OER Commons	Full	24,000	120	High
WorldCat	Limited	1.4 B	10,000	High
NSF National Science Digital Library	Full	115,000	113	High
IMS Learning Object Discovery and Exchange	NIA	NIA	NIA	NIA
GLOBE	Limited	NIA	10	Full Range
MERLOT	Full	21,582	13	High
MarineNet	Limited	290	3	High
DAU LEADR	Limited	300-500	4	High
AFDLO	Limited			High
JKDDC	Limited	332		High