

**The Power of Global Collaboration**  
Defense | Government | Industry | Academia

# ADL Initiative Overview

## iFest 2012

Dr. Kristy Murray, Director, ADL Initiative



# Serving the DoD Community



## Provide policy

- DoDI 1322.26, “Developing, Managing, and Delivering Distributed Learning Content”
- Guidelines, Best Practices, and Tools for the implementation of ADL across DoD.
- Open communication with the Services and other DoD agencies through the Defense ADL Action Team (DADLAT).
- Provide assistance and expertise.





# FY 2011 e-Learning “Iceberg”



**Army, Navy, Marine Corps, Air Force, &  
Joint Course Completions FY11  
17.4M**

- Other DOD agencies
- Other Federal agencies



# SCORM\* - Today's Capability



SCORM enables an interoperable e-learning environment that has become the de facto global learning standard

The grid contains logos from numerous organizations, including:

- aleo**, **BRITISH AIRWAYS**, **olive garden**, **TOYS R US**, **NORTHROP GRUMMAN**, **intel**, **ESTÉE LAUDER**
- Caribou**, **Campbell's**, **HF**, **R**, **univision**, **ADP**, **Medtronic**, **CHRYSLER**
- GM**, **The University of Iowa**, **BT**, **virginia media**, **vodafone**, **NOVARTIS**, **AgustaWestland**, **SIEMENS**
- Walgreens**, **ABM-AMRO**, **Credit Suisse**, **BMO Bank of Montreal**, **Scottish Water**, **virginia mobile**, **Lufthansa**
- Coca-Cola**, **BMW**, **University of West Florida**, **salix homes**, **THE UNIVERSITY OF ARIZONA**, **LIC DAVIS AGGIES**, **UnionBank**, **University of Lethbridge**, **unicef**
- LOCKHEED**, **&frank**, **Sprint**, **Standard Chartered**, **UNITED**, **WESTJET**, **UNISYS**, **Abbott Spine**
- SAINT BARNABAS HEALTH CARE**, **xerox**, **Swedba**, **symantec.**, **TOSHIBA**, **Swagelok**, **VANCOUVER AIRPORTS**, **AVNET**, **firstcolgary**
- MAYO CLINIC**, **P&G**, **Booz | Allen | Hamilton**, **CDW**, **CALGARY**, **ARAMARK**, **WORKFORCE CENTRAL FLORIDA**, **AFT INTERNATIONAL CORP. INC.**, **AMD**
- Am Red**, **Cargill**, **BIC**, **Comcast**, **NASM**, **national express**, **NISSAN**, **QANTAS**
- Con-way**, **HYATT**, **DOW**, **HOSKINS BAY CO.**, **PILATUS**, **NRCA**, **O'REILLY**
- MILTI**, **Kimberly-Clark**, **InfoTrends**, **KeyBank**, **Rolls-Royce**, **The King of Sushis SUSHI ZUSHI**, **Whirlpool**
- TERANET**, **Westpac**, **VAIL RESORTS**, **Taco Bueno**

\*Sharable Content Object Reference Model



# ADL Labs & Centers



**Four U.S. and Eight International Sites**



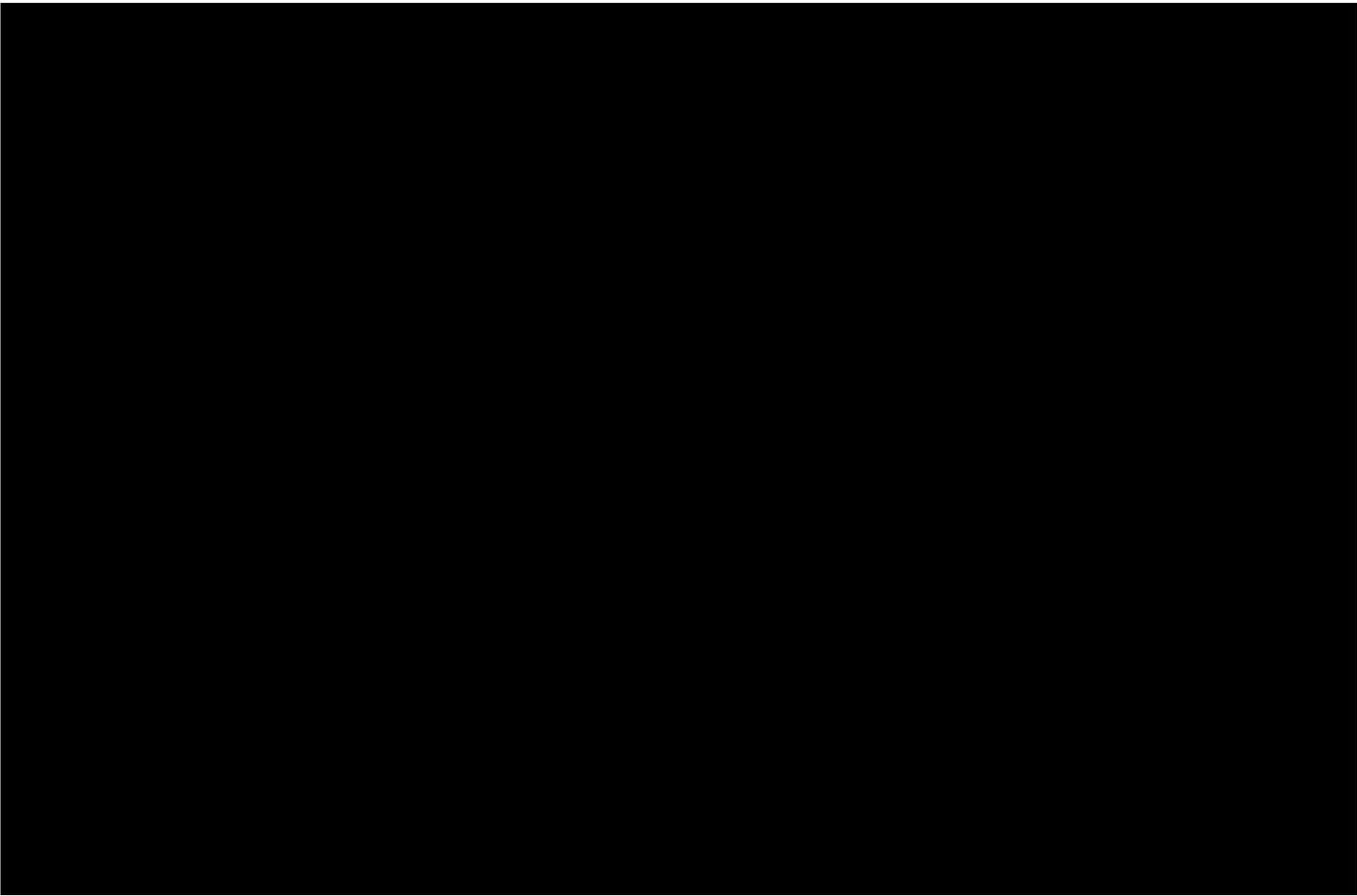
# ADL Vision



Provide access to the highest quality education and training,  
***tailored to individual needs,***  
delivered cost effectively, anywhere and  
anytime.



# PAL – Tomorrow's Capability





# PAL – Tomorrow's Capability

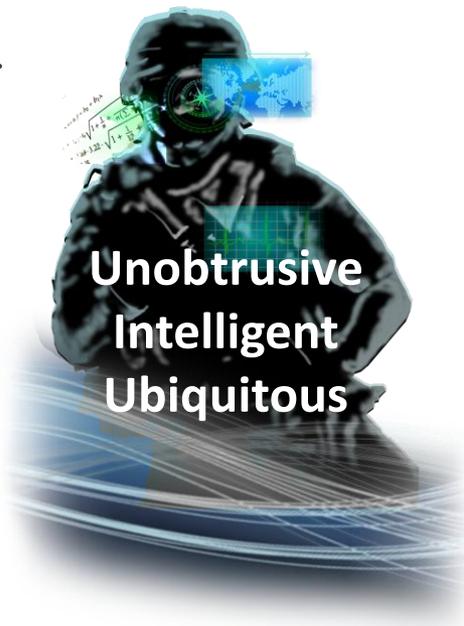


## Personal Assistant for Learning

*Sharing information across multiple platforms*

**Networked** to facilitate mentoring and peer-to-peer communications

**Integrated Artificial Intelligence (AI) System**



**Unobtrusive  
Intelligent  
Ubiquitous**

**Dynamic Learner models** for individuals and teams

*Personalized content*

**Transparent interface** to enhance user experience

**Assess and track learner performance**  
**Anytime & Anywhere**



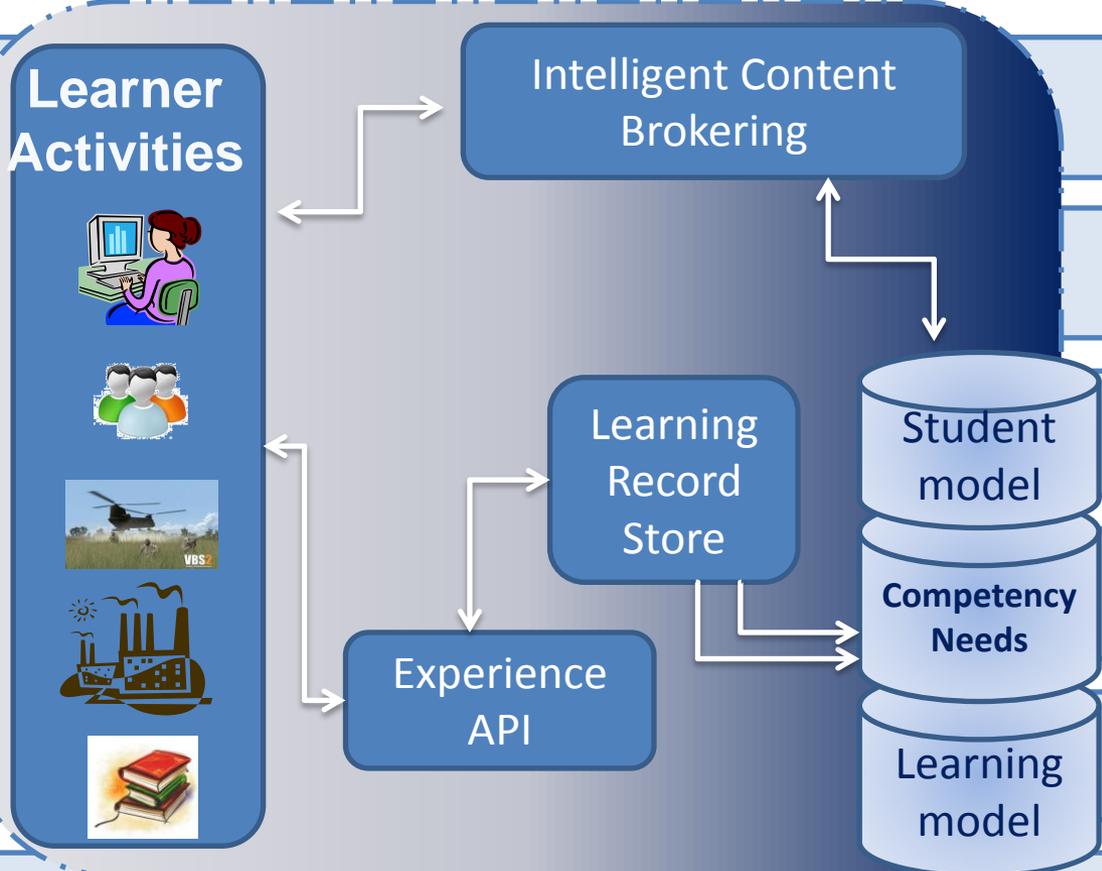
# Enabling the PAL



Today

Tomorrow

-  Limited Input and Output
-  Standard DL (not adaptive)
-  Stove-piped ITS & serious games
-  Disconnected Content Registries and Repositories
-  Social networks not linked to learning



SCORM

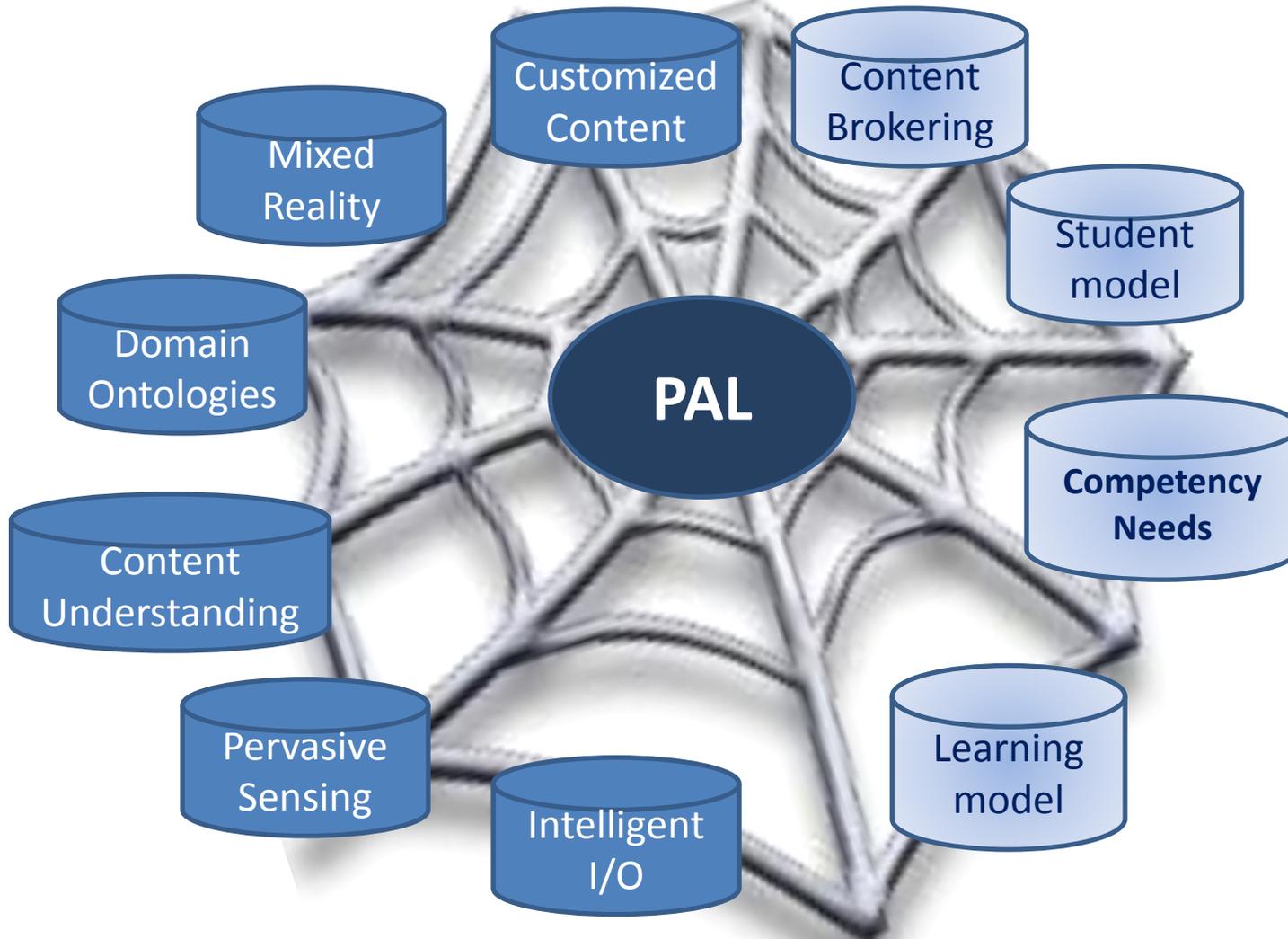
TRAINING AND LEARNING ARCHITECTURE



# Enabling the PAL



## Future





# Current Projects



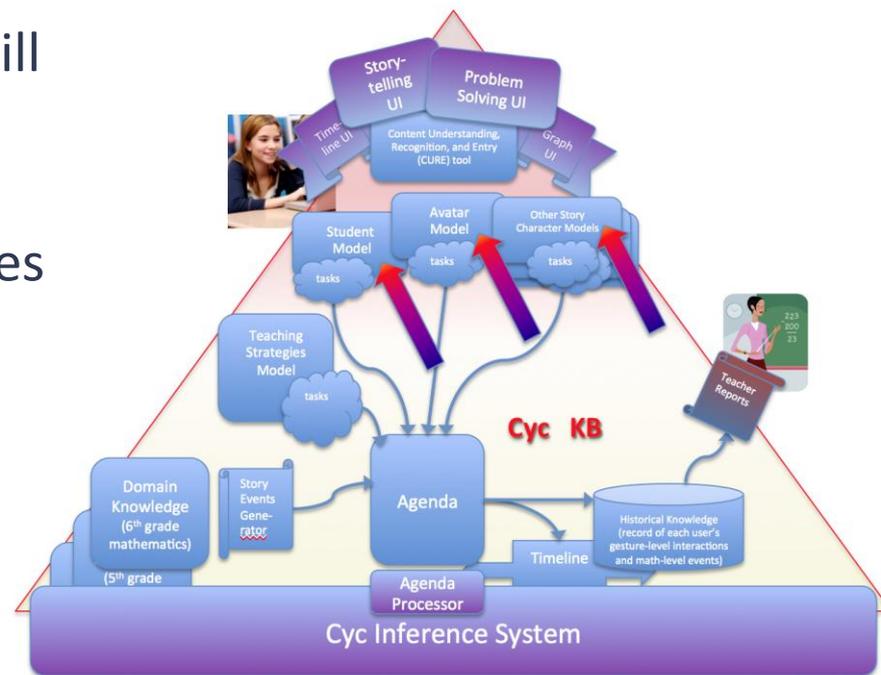
## AT&LT: Tutoring and Games (2013)

- A tutoring capability integrated with educational game architectures.
- Students work through real-world problems to advance through the scenario.
- Facilitates instruction, assesses student's progress, and remediates as necessary.
- Deployed in Virginia Beach Public Schools and Ramstein AFB in DoDEA schools for testing (formative evaluation)



## Cycorp: Teach to Learn (2014)

- “Learn by teaching” – Students will be prodded to teach the AI math skills and in the process gain an “understanding” of math principles
- Built on top of Cyc, a knowledge-based reasoning system, with an inference engine and several natural language understanding and generation components.
- Mixed initiative dialog between student and teachable agent.





# Current Projects (cont'd)



To better understand how game design affects cognitive adaptability

- Experimental study using Portal II -5 design features in video games that may increase cognitive adaptability
- 39 Airmen ages 17-24 from Sheppard AFB

Compared Solitaire, Minesweeper, Freecell, and Mahjong (does not have the features) to Portal II

Cognitive and metacognitive data collected before and after play

Results not yet final

- Initial look may be positive
- Final results presented at I/ITSEC 2012





# Current Projects (cont'd)



## Understanding Adaptive Performance in Young Learners

How will younger learners interact with a PAL when thinking through problems together?

- Study inside the virtual environment on a mission of discovery.
- Coping with ambiguity or unpredictability.
- Using effective interpersonal and nonverbal communication skills.



*The Imaginarium*



## Mobile Applications to Supplemental Learning Objects (MASLO) – University of Wisconsin

- An easy and rapidly deployable tool that supports mobile learning content creation that was developed in coordination with ADL's Academic Co-Lab

## Learning Environment (MoLE) Collaboration

- Collaboration and support of the Coalition Warfare Program MoLE project focused on the delivery method component of the mobile learning infrastructure.

## Experience (Tin Can) API Mobile Prototype

- An interface that enables cross-application communication for simple and adaptable learning event tracking.



# ADL Mobile Learning Resources



- ADL Mobile Learning Weekly Newsletter (Ongoing)
- ADL Monthly Website Articles (Ongoing)
- ADL Mobile Learning Handbook (Ongoing)
- The Effectiveness of Mobile Course Delivery (2011)
- Mobile Learning Literature Review - TSWG (2012)
- Mobile Learning Vendors - TSWG (2012)
- Interagency Mobile Working Group (2012)
- Mobile Access to Supplemental Learning Objects (2012)
- Assessment of ISD Principles, Agile Methods, and Pedagogical Models for mLearning (2012)
- Next Generation SCORM for Mobile & Experience API (2012)
- Mobile Decision Support Tool (Kicked-Off July 2012)

<http://ml.adlnet.gov>



# ADL Mobile Learning Guide (App)



[Get E-mail Updates](#) | [Contact](#)



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[Mobile Apps](#) > ADL mLearning Guide



## ADL mLearning Guide

Office of the Under Secretary of Defense for Personnel and Readiness (OUSD P&R)

**iPhone**

Download Now

**Android**

Download Now

**Mobile Web**

[mlearn.adlnet...](#)

The purpose of the ADL Mobile Learning (mLearning) Guide is to provide a universal resource on all topics pertinent to mobile learning. This resource is intended to provide you with an introduction and will explore the following topics about mobile learning: the basics, planning, learning content, development options, and design considerations. This app was developed by the Advanced Distributed Learning (ADL) Initiative's Mobile Learning Team. ADL is sponsored by the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD P&R). This is an official app of the U.S. Government ADL Initiative.

**Tags:** ADL, Advanced Distributed Learning, mLearning, mobile devices, mobile learning

<http://apps.usa.gov/adl-mlearning-guide/>



# Questions



The screenshot shows the ADL website with the following content:

- Header:** ADL logo and tagline "Advanced Distributed Learning The Power of Global Collaboration".
- Navigation:** HOME, OVERVIEW, CAPABILITIES, CONTACT US, HELP. Search bar: "Search ADL Wordpress".
- Current Date:** ADL Attends I/ITSEC December 2011.
- Main Content:** "ADAPTIVE TRAINING" graphic with terms like MANOWAR, INTERNET, COMPUTING, METAMATERIALS, SUPERFLUIDITY.
- Out & About:**
  - 2-4 August: ImplementationFest 2011
  - 5 August: Distance Learning & Teaching Conference
- Announcements:**
  - ADL Mobile Learning Handbook Released:** ADL Mobile Learning Handbook released to public at ImplementationFest 2011. This set of guidelines for developing mobile learning is an enhanced version of the mLearning Guide for mobile devices that was released previously. The downloadable Guide and the new online Handbook are both available. See the ADL Mobile Learning Capability for more details.
  - ImplementationFest 2011:** ImplementationFest 2011 is happening August 2-4 in Orlando, Florida. Visit the event site for the agenda, registration and lodging information.
- Recent Presentations:**
  - Choosing Authoring Tools:** The purpose of this white paper is to help those involved in the process of...
  - Buttons: View All Presentations, Newsletter

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