Training and the Future Classroom: An Overview of the Joint ADL Co-Laboratory and the ADL Prototypes

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Director

Joint ADL Co-Laboratory

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Advanced Distributed Learning

Joint ADL Co-Lab Goals and Function

Support implementation of ADL in the Department of Defense by

- **Developing ADL prototypes**
- **Assembling guidelines for creating effective web-based learning**
- **Serving as consultants to the Services on ADL**
- **Collecting and disseminating lessons learned**
- **Coordinating ADL programs to facilitate re-use**
- **Evaluating ADL products such as learning management systems**

JOINT ADL Co-Laboratory

- Coordinates with the R&D community
  - Helps identify gaps in current capabilities and technologies for ADL implementation
  - Provides a “testbed” for conducting R&D
  - Works with industry to evolve commercial products to address defense requirements
- Works with the acquisition community to:
  - integrate commercial specifications into government acquisition process
  - Identify costs and benefits of changing current practices

Joint Advanced Distributed Learning Co-Laboratory

AFHRL

Office of the Secretary of Defense

Readiness & Training

U. S. Coast Guard Liaison Office

Chief of Naval Education & Training

AMEDD

Naval Air Warfare Center Training Systems Division

Located at:

U.S. Army Intelligence Center & Fort Huachuca

U. S. Marine Corp Program Office

University of Central Florida Institute for Simulation & Training

U. S. Army Simulation, Training & Instrumentation Command

U. S. Air Force Agency for Modeling & Simulation

CINCLANTFLT

U. S. Army Research Institute

AIR FORCE INSTITUTE FOR ADVANCED DISTRIBUTED LEARNING

www.adlnet.org

Purpose of ADL Prototypes

- Encourage use of Advanced Distributed Learning
- Support innovation
- Foster collaboration
  - Test reuse process
- Get feedback on implementation issues
  - Identify recommended changes to the SCORM
  - Uncover problems so that they can be addressed
- Collect and share lessons learned

Criteria for Selection

- ✓ Interservice Participation
- ✓ Leveraging of Resources
- ✓ Support of ADL “ilities”
  - ✓ Accessibility
  - ✓ Reusability
  - ✓ Interoperability
  - ✓ Adaptability
  - ✓ Durability
- ✓ Use of SCORM
- ✓ Implementation
- ✓ Value

Prototypes

- Six rapid prototypes initiated in FY 00
- Call for prototypes issued in FY 00 and 01
  - In FY 01, requested proposals in three areas:
    - Medical
    - Performance Support
    - Use of entertainment and gaming technology
  - In FY 01, used two phase process with white papers submitted initially and reviewed
  - All proposal must be submitted by military organization; partnering encouraged
- Call for prototypes in FY 02
  - Emphasis on “A” in ADL; collection of data

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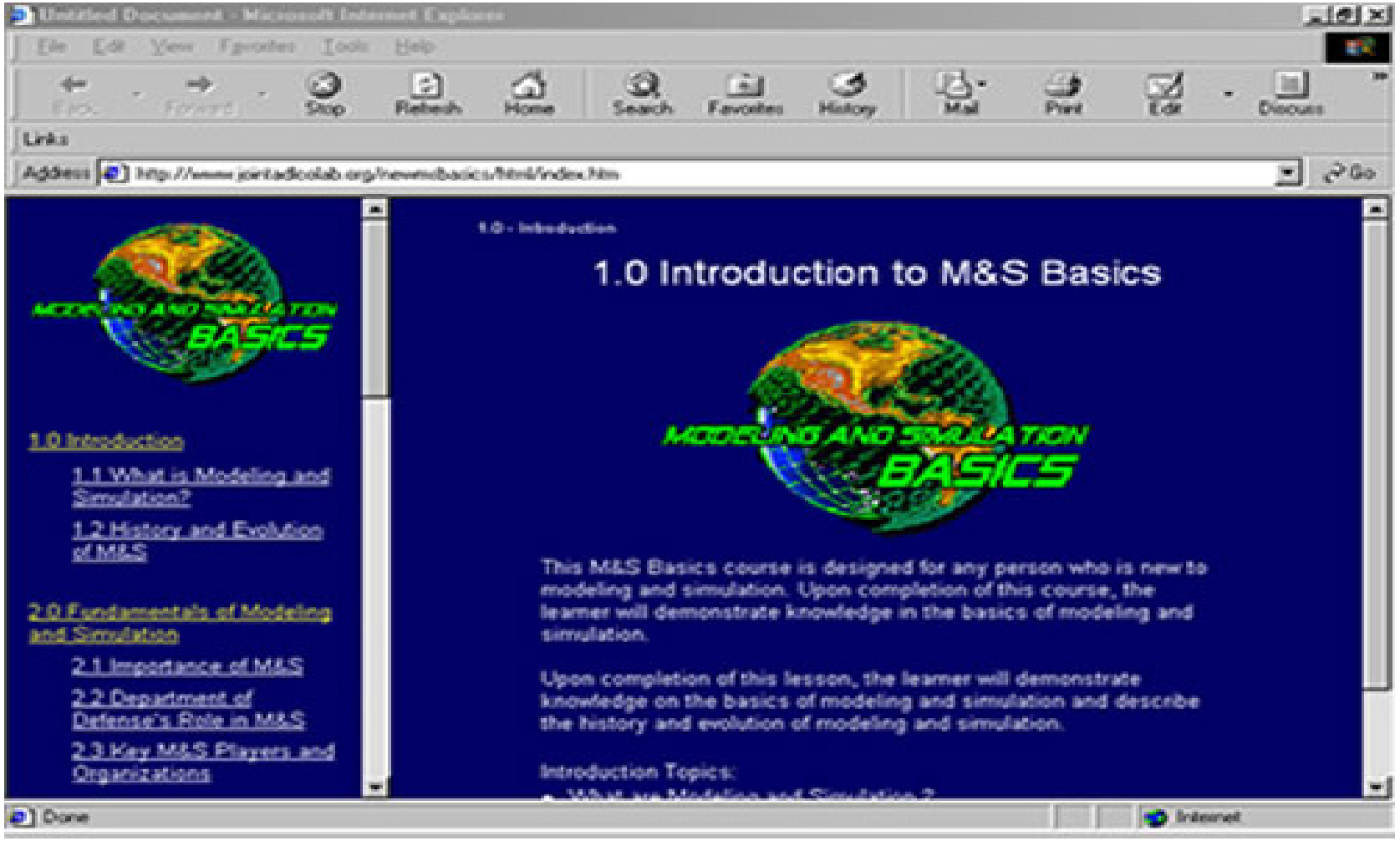
Overview of Prototypes

- 26 Prototypes funded through the FY 01 and 02 calls
- Represent a mix of new starts and converting legacy content from:
  - Classroom
  - Traditional computer based training
  - Web

What's Different

- Instructor isn't physically present
- Can allow learner to progress at own pace
- Wide distribution
  - Can enable broader access to training
- Can be easily combined with performance support tools
- Not locked into an instructional hour
- Can reuse content
- Good design is critical…can't adjust on the fly to student feedback

Modeling and Simulation Basics Course



- **Objective**: To provide DoD M&S basics information.
- **Target Audience**: Personnel new to Modeling & Simulation.

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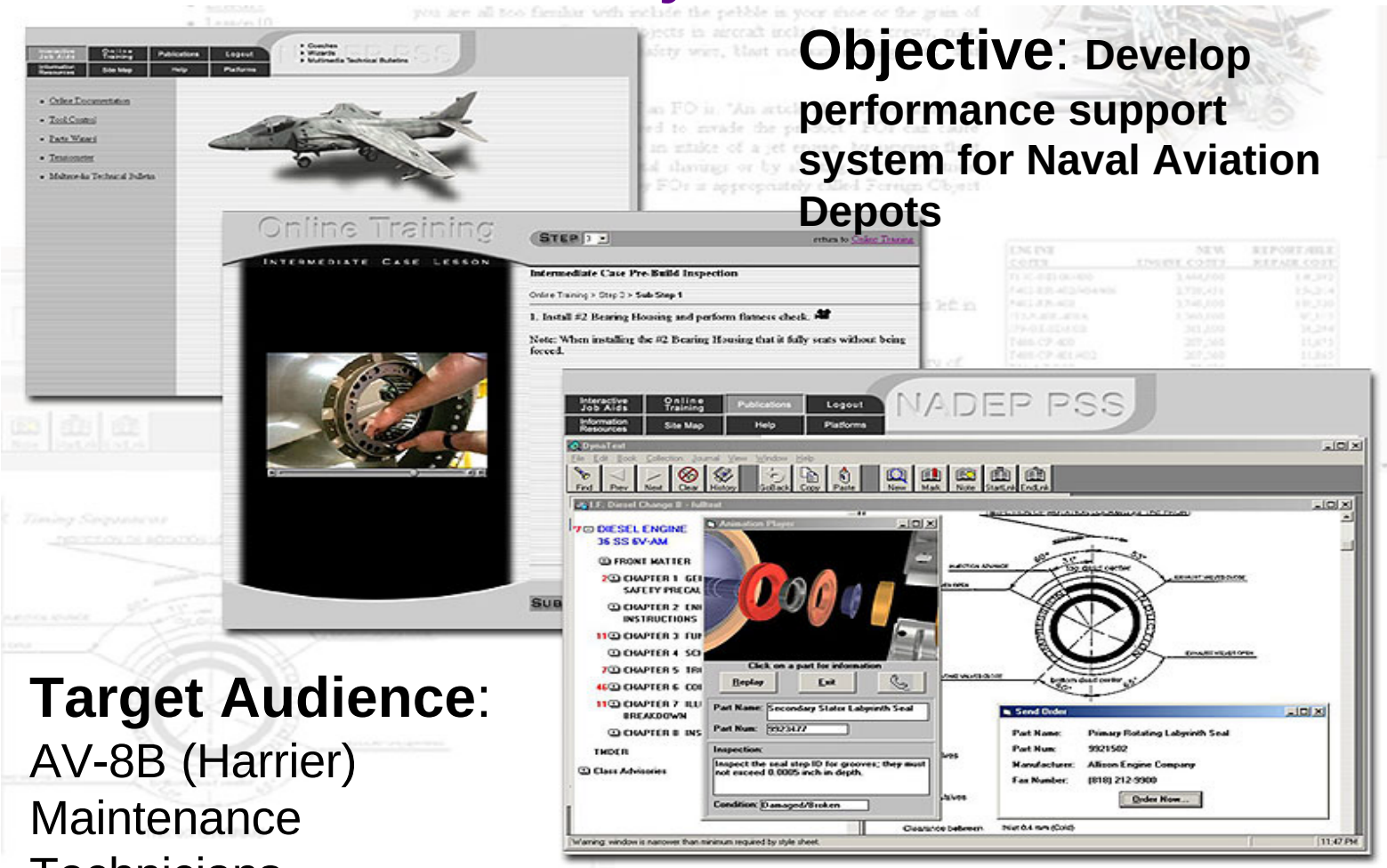
Naval Aviation Depot Performance Support System



Objective: **Develop performance support system for Naval Aviation Depots**

Target Audience:
AV-8B (Harrier) Maintenance Technicians

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Combat Casualty Care Training

- ***Objective:*** To provide critical skills thinking and decision making in combat trauma management
- ***Target Audience:*** Physicians, nurses and other health care personnel

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Distributed Joint Force Development

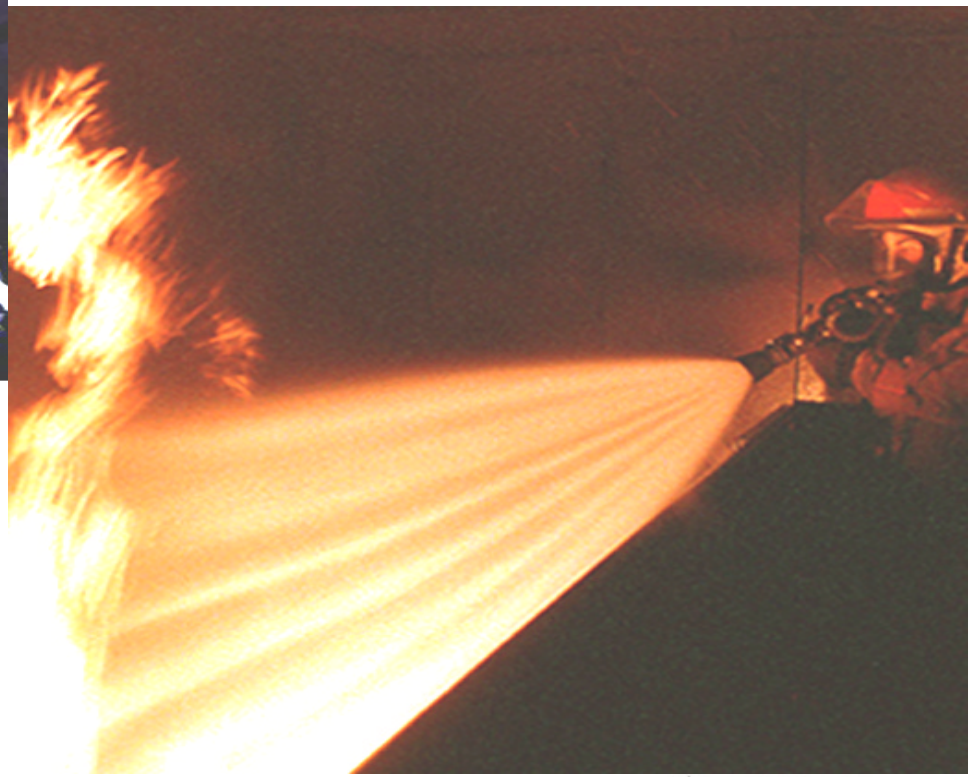
- **Objective:** Demonstrate force vs force play of Joint Force Employment over Internet and LAN Network
  - Cooperative play of one team against another team or computer
  - Air or Land components against computer
- **Target Audience:** Joint Warfighters

Reserve Component Professional Military Education

- **Objective**:
  - Conversion of existing Armed Forces Staff College Joint Professional Military Education(JPME) courses into a format suitable for Advanced Distributed Learning for use in a Joint Planning Course.
- **Target Audience**:
  - Reserve and active component officers going to joint assignments .

ADL for Damage Control Repair Party

Objective: Enhance sailors knowledge of Damage Control/Firefighting on ships



Target Audience:
Navy ship's force and Coast Guard

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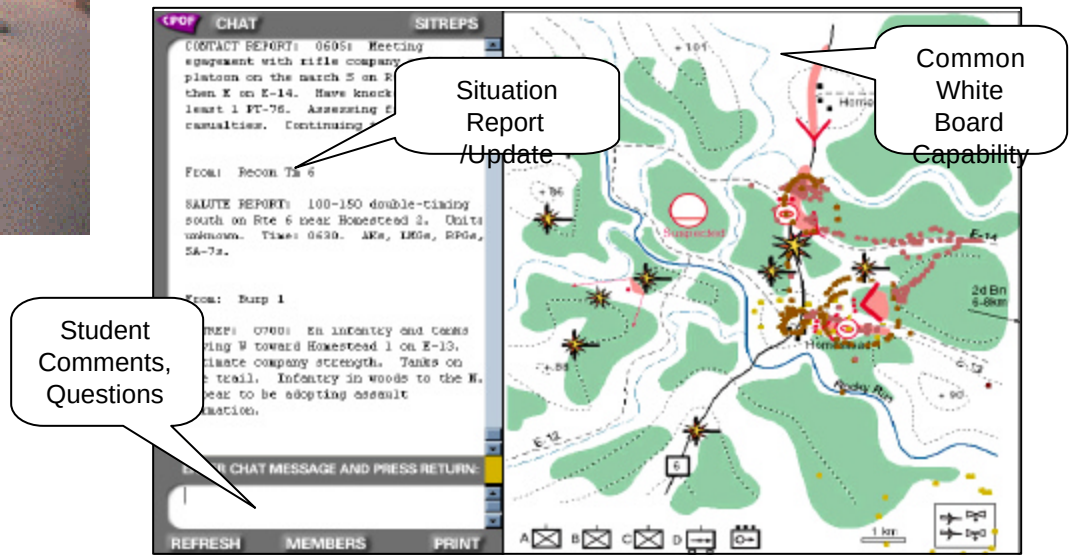
Electronic Tactical Decision Game for Training Joint Peacekeeping Operations (OOTW)

Objective: To increase readiness prior to deployment—accelerate teamwork and team decision-making skill development by developing automated learner/instructor support tools.

Target Audience:
Army Command and Control



eTDG4-Battle of Rocky Run Hollow

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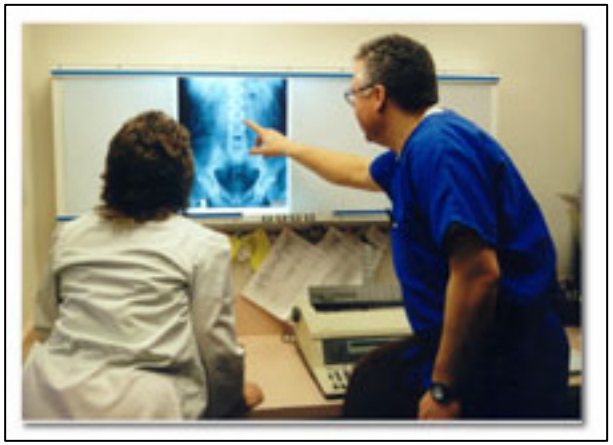
Sharing Medical Case Information

Old Method

Interesting cases in filing cabinets



Faculty Instruction At View-box

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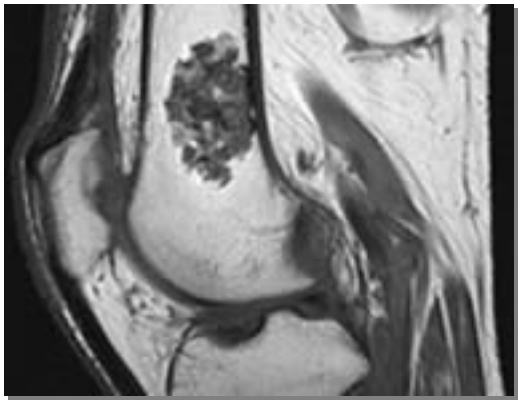
Sharing Medical Case Information: Bone Tumor Central Resource

Learning Interactions

- **Select from a list of 29 bone tumor types**
  - Description
  - Classic Case
  - Pathology
  - Cases
- **Search for cases from the complete collection**
  - Search based on user selectable fields or request a random case.
- **Test (Random set of questions)**
  - True/False
  - Multiple Choice
  - Matching
  - Fill in the blanks
- **Play the Game**
  - "Who Wants to be a Bone Rad ?"
  - *Based on the popular Television show, "Who Wants To Be a Millionaire ?"*



Objective: Develop multi-media tool to train target audience in pattern recognition, diagnosis and medical problem-solving with focus on r

Target Audience: Medical students, residents and physicians

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- Home
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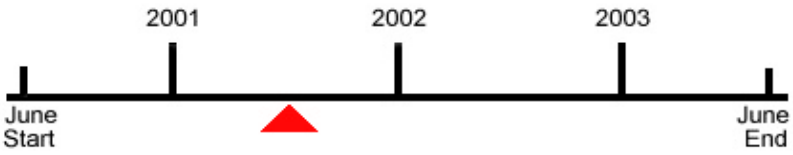
- Contacts
- Directions
- Newsletter
- ADL Prototypes
- Guidelines
- Partnerships
- Calendar
- Forums/Faq's
- Library
- Security Notice
- Webmaster

Advanced Distributed Learning Guidelines Version 1.5

- This site contains a set of evolving ADL guidelines with references.
- It includes checklists and user rating scales for evaluation.
- The guidelines are being applied to ADL prototypes.
- Your feedback will help improve the guidelines & make them more responsive to your needs.
- Return to the site periodically for updates.
- You can now print the entire set of guidelines and rating scales in one document.



Guidelines Project Summary (Text File)

"About the Guidelines" Brief (PPT 1.29 MB)

Register to view the guidelines

Login to View Guidelines

(Registration Required)

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Guidelines are based on educational and psychological research

and on best practices.

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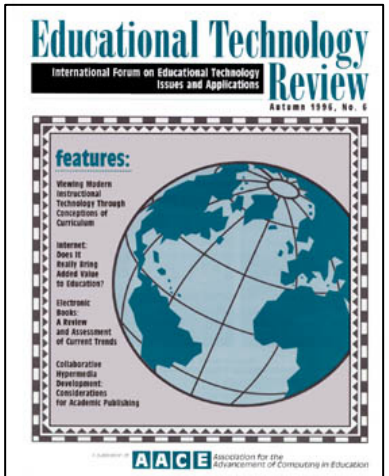
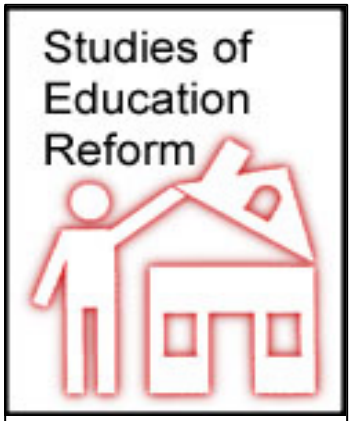
Sources



Theoretical articles and literature reviews

Large sets of guidelines already compiled by businesses or institutions



Articles on best practices or lessons learned

Smaller sets of guidelines on specific topics, such as "online conferencing"

Empirical research that establishes the authenticity of a guideline

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Evaluation

Two types of evaluation tools are being developed for evaluations of ADL prototypes:

Evaluation Checklists

Check of compliance with guidelines

User Rating Scale

User-learner ratings of usability, etc.

Possibilities for Collaboration

- Review prototypes and contact us if there are some that match your interests

  http:// www.jointadlcolab.org
- Use and provide feedback to the guidelines
- Applications for training in the testing community
- Creation of sharable content object reference models that are based on testing data

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ADL Co-Lab FY 00 Prototype Matrix

Projects	New	Legacy		
		Classroom	CBT	Web Based
Introduction To Modeling &Simulation		✓		
EA6-B Training (Adaptive Learning)			✓	
Depot Maint/ Trng Sys for AV8-B Maint (Performance Support)			✓	
Civilian Supervisory Training		✓	✓	
Armor Captain's Career Course				✓
Smart Cruiser	✓			
Air Force M&S ADL Model Program	✓			
Model ADL Repository	✓			

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ADL FY 00 Co-Lab Prototype Matrix

Projects	New	Legacy		
		Classroom	CBT	Web Based
Joint SOF Education			✓	
Reserve Component Joint Professional Military Education	✓ ✓			
Distributed Joint Force Employment		✓		
Joint Services ADL Instructor Training				✓
Learning Mgmt System for "SMART" Center		✓ ✓		
ADL for Damage Control Repair Party			✓	✓
Financial Management				

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ADL FY 01 Co-Lab Prototype Matrix

Projects	New	Legacy		
		Classroom	CBT	Web Based
Dismounted Warrior	✔		✔	
AF Online Career Development Course		✔ Paper-based		
Sharing Medical Case Information	✔ Game/Entertainment		✔	
SCORM Compliant AU's from Synchronous Distance Learning Efforts			✔	✔
Electronic Tactical Decision Game for Joint Peacekeeping Operations (OOTW) in a Distance Learning Environment				✔

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ADL FY 01 Co-Lab Prototype Matrix

Projects	New	Legacy		
		Classroom	CBT	Web Based
Situational Crisis Response Agents and Master Blackboard Logistics Environment (SCRAMBLE)	✔ Job Performance Aid			✔
Validated Training Objects Re-purposed for Job Performance Support Application			✔	
Asynchronous Combat Casualty Care Training			✔	
Common Source Database Applied in a School House and in Performance Mentoring	✔		✔	
Naval Aviation Depot Performance Support System (Phase III)			✔	

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Current and Planned Projects

- Current Projects
  - Prototypes (6 complete out of 25)
  - Guidelines
  - Learning Management Evaluation completed for Chief of Naval Education and Training's Navy E-learning
  - Collection of Lessons learned (on-going)
  - Additional prototypes (egress training, SCORM course, use of human subjects, project team training)
  - Small Business Innovation Research projects
- Planned Projects
  - FY 02 Prototypes
  - Repository development and evaluation