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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 DoD Human Resources Activity **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603769SE / <i>Distributed Learning Advanced Technology Development (ADL)</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	50.120	10.692	10.771	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Project 1: <i>Advanced Distributed Learning</i>	50.120	10.692	10.771	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program will transfer to OSD P&R starting in FY 2017.

The ADL Initiative collaborates with the DoD, the Federal government, Industry, and Academia partners to shape the way people learn, grow, and perform. The ADL Program provides DoD, other Federal agencies, and international partners with innovative: (1) standards for training and education software, systems, and associated Web services that demonstrate the “art of the possible;” (2) prototypes and proofs of concept that harness the power of learning technologies, such as computer/Web-based training, serious games, virtual worlds, mobile technology, intelligent tutors, and other emerging learning technologies; (3) technologies and learning methods that empower learners; and (4) high-quality, easily accessible, adaptable, and cost-effective education and training.

The ADL Initiative’s R&D efforts improve efficiencies and reduce costs by (1) reducing the need for face-to-face instruction; (2) increasing interoperability--which enables discovery, retrieval, and reuse of distributed learning content; and (3) researching and prototyping methods of distributed learning with superior motivational and learning outcomes.

ADL’s research efforts resulted in the development of a Sharable Content Object Reference Model (SCORM), the current de facto internationally accepted standard for distributed learning interoperability. ADL is working in collaboration with our partners to develop the next generation training learning architecture (TLA). The TLA will modernize the way we learn by facilitating learning experiences that take advantage of current and emerging technologies based on new standards built on web services. ADL is conducting research on intelligent tutoring technologies that support the creation of a personal assistant for learning (PAL). The PAL will further empower learners with effective learning content that is more personalized and context sensitive. ADL was established by Executive Order 13111, with policy oversight by the Office of the Deputy Assistant Secretary of Defense (Readiness) (Training Readiness and Strategy).

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	10.692	10.771	0.000	-	0.000
Current President's Budget	10.692	10.771	0.000	-	0.000
Total Adjustments	0.000	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

**Change Summary Explanation**

This program will transfer to OSD P&R starting in FY 2017.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 DoD Human Resources Activity										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 0400 / 3					<b>R-1 Program Element (Number/Name)</b> PE 0603769SE / <i>Distributed Learning Advanced Technology Development (ADL)</i>				<b>Project (Number/Name)</b> Project 1 / <i>Advanced Distributed Learning</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Project 1: <i>Advanced Distributed Learning</i>	50.120	10.692	10.771	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program will transfer to OSD P&R in FY 2017.

The ADL Initiative collaborates with the DoD, the Federal government, Industry, and Academia partners to shape the way people learn, grow, and perform. The ADL Program provides DoD, other Federal agencies, and international partners with innovative: (1) standards for training and education software, systems, and associated Web services that demonstrate the “art of the possible;” (2) prototypes and proofs of concept that harness the power of learning technologies, such as computer/Web-based training, serious games, The ADL Initiative collaborates with the DoD, the Federal government, Industry, and Academia partners to shape the way people learn, grow, and perform. The ADL Program provides DoD, other Federal agencies, and international partners with innovative: (1) standards for training and education software, systems, and associated Web services that demonstrate the “art of the possible;” (2) prototypes and proofs of concept that harness the power of learning technologies, such as computer/Web-based training, serious games,

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<b>Title:</b> Advanced Distributed Learning	10.692	10.771	-
<b>Description:</b> ADL serves as the thought-leader for the DoD and other government agencies for learning science and learning technologies, enabling innovation, finding efficiencies, guiding customers into the future, and creating a shared vision and strategy for ADL’s partners.			
<b>FY 2015 Accomplishments:</b>			
<ul style="list-style-type: none"> <li>• Researched innovative methodologies to using Social Networking for solving problems in collaborative, disparate environments;</li> <li>• Demonstrated the application of the spacing effect to reinforce learning and improve long-term knowledge retention using current mobile technologies;</li> <li>• Continued to test advanced instructional methods for intelligent tutors for training;</li> <li>• Integrated proven concepts from FY14 research into application prototypes;</li> <li>• Began updating policies to support DoD’s Distributed Learning (DL) programs;</li> <li>• Continued to support the White House educational initiatives for the Learning Registry and Federal Game Guild;</li> <li>• Continued work with the DoD training community to develop new standards, common terminology, and best practices for developing and implementing efficient DL technologies across DoD;</li> <li>• Continued development of the TLA;</li> <li>• Continued to enable sharing of DL and 3D models used for immersive learning experiences;</li> <li>• Delivered tools that assist transitioning Service member to civilian jobs and/or educational opportunities;</li> </ul>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<ul style="list-style-type: none"> <li>• Participated in NATO Training Groups to increase the standardization and reuse of training globally;</li> <li>• Continued to support the Services investment in developing/maintaining SCORM content;</li> <li>• Continued to advocate open source initiatives by increasing awareness of open source and licensing policies.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>• Gain efficiencies in Learning Science and Technology (LS&amp;T) through publication of a research strategy and roadmap for future LS&amp;T topics;</li> <li>• Publish articles in leading professional journals on the integration of emerging learning technologies to enhance training;</li> <li>• Identify emerging concepts and showcase the art-of-the-possible through the integration of emerging learning technologies and learning science to enhance training and education;</li> <li>• Establish the next generation LS&amp;T research and development (R&amp;D) program by expanding research into Human dimension, Learner-centric technology-enabled training and education, Human performance assessment (data-driven learning), Learning organizations, and social computing and social learning;</li> <li>• Continue work with the DoD training community to increase sharing of DL resources, standardization of DL terminology, and best practices for developing and implementing efficient and effective DL technologies across DoD;</li> <li>• Partner across DoD and other government agencies to support LS&amp;T, enable knowledge sharing and coordinated investment of resources to reduce cost of training;</li> <li>• Lead policy and standards discussions to improve development, dissemination, and use of DL methodologies;</li> <li>• Facilitate transition, acceptance and adoption of new LS&amp;T by DoD and other agencies via policy, communication and transition support;</li> <li>• Support the White House educational initiatives as the DoD representative to the Learning Registry and Federal Game Guild;</li> <li>• Participate in NATO Training Group to influence global standardization of training.</li> <li>• Continue to support the Services investment in developing/maintaining SCORM content.</li> <li>• Continue to increase sharing of learning content among DoD and other Federal Agencies by making educational resources more discoverable and retrievable</li> <li>• Provided best practices and lessons learned in the use of mobile devices and cloud services in support of training and education within DoD;</li> <li>• Continue to advocate open source initiatives by increasing awareness of open source and licensing policies.</li> </ul>				
<b>Accomplishments/Planned Programs Subtotals</b>		10.692	10.771	-
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				

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**D. Acquisition Strategy**

Not Required.

**E. Performance Metrics**

In FY 2016, ADL will:

1. Deliver the next version of the xAPI, which is the first component of the TLA.
2. Publish results on initial field testing of a life-long learning assistant.
3. Influence key Service and International ADL meetings and conference reference the discovery, sharing and delivery of interoperable training content;
4. Increase the sharing of data among DoD, other Federal Agencies and state and local education departments throughout the U.S., by making educational resources discoverable and retrievable and also through the open source initiative.
5. Evaluate an Intelligent Tutor with the intent to determine the utilization of this technology for DoDEA.

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