Adaptive Learning Solutions

Dignitas adaptive learning solutions provide a modular, open-source framework for building, deploying, and managing adaptive training content. We specialize in integrating web-based, adaptive learning solutions with Live, Virtual, Constructive and Gaming (LVC&G) military training and mission rehearsal applications. Current focus areas include mobile applications, team tutoring, virtual human integration, commanders' intent (dashboard) and improved real time and concurrent assessment authoring.

Adaptive Learning

- Dignitas adaptive learning solutions provide an individual and/or team training method which orchestrates the allocation of human and mediated resources according to the unique needs of each learner
- Computers adapt the presentation of educational material according to students' learning needs, as indicated by their responses to questions, tasks and experiences
- This type of adaptive learning combines the previous generations of rule-based, simple machine learning, and deep learning approaches to machine intelligence

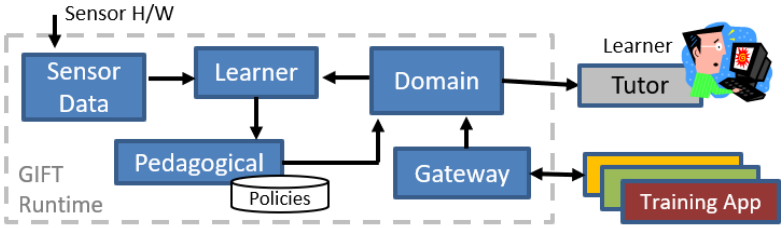
Generalized Intelligent Framework for Tutoring (GIFT)

- Dignitas adaptive learning solutions are based on domain and training application agnostic, SOA- based framework and tool set, called GIFT
- GIFT is not only a platform for the creation of intelligent and adaptive tutoring systems but can also be leveraged as a Computer-Based Training (CBT) toolset

Benefits

- Captures best practices of automated instruction and enhances the effectiveness of instructional strategies
- Reduces the time and skills needed to author tutors
- Adaptable to various levels of trainee proficiency and trainer applications

- Used for authoring courses, managing instruction and assessing the effect of computer-based tutoring
- Deployment models include desktop and cloud production and development configurations
- Full Government Purpose Rights (GPR) for software produced via federally funded contracts
- Learner module includes ability to interact with Machine learning, deep learning, text mining, and predictive analytics external platforms such as Rapidminer
- Domain module includes ability to interact with external assessment engines



- Gateway module provides API to facilitate integration with different training applications
- Learning Management System (LMS) is currently included with GIFT, but also able to connect a production LMS system

Product/Services Available

- Dignitas provides engineering services to integrate adaptive learning solutions with different training applications. Current use cases include intelligent After Action Review and individual and team collective training tasks to include marksmanship and construction equipment virtual training tasks.
- Specific engineering services include development of new condition classes to add to reuse database, domain specific authoring, interface with new LVC&G training application, and research of new topics requiring technology maturation.

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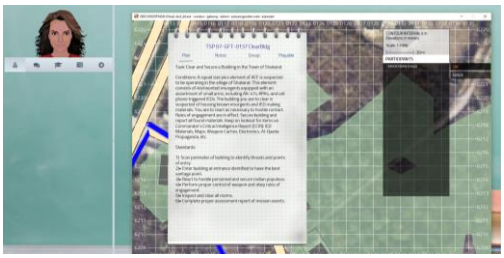
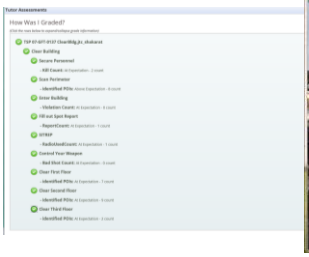
Adaptive Learning Use Cases

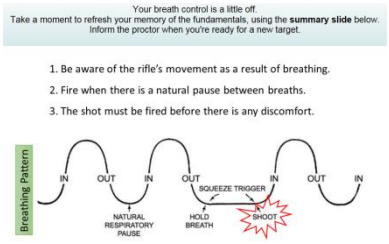
Collective Virtual Training

- Individual or team training consistent coaching and performance assessment using virtual training applications such as VBS2/3 and UrbanSim


Marksmanship Training

- Automatically assesses marksmanship performance, providing ratings to an instructor or observer
- Assessments consider data from sensors (e.g., breathing, trigger squeeze, position, aim)

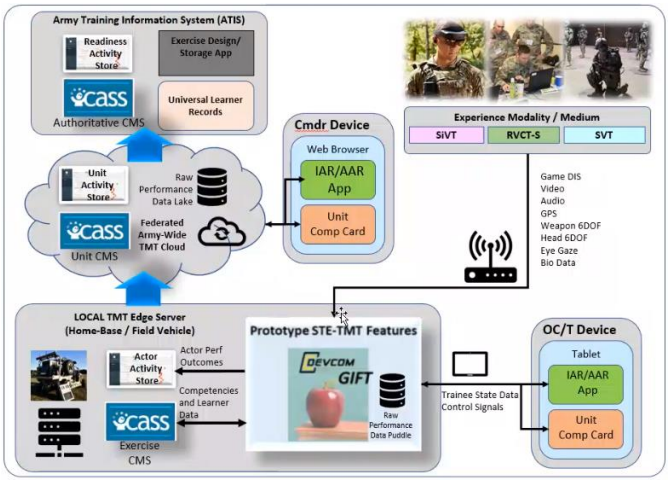



Intelligent AAR

- Provides intelligent assistance and automation for After Action Review (AAR) content generation
- Extensible framework that can be used in a variety of simulations across, Live, Virtual and Constructive domains

Synthetic Training Environment (STE)

- Applying GIFT to provide performance assessment of individuals and teams within the Army's next generation training environment
- Research and development to provide persistent performance and readiness tracking within STE
- Incorporating an artificial intelligence driven perspective recommender engine that guide training at the individual and unit level
- Establishing data interoperability strategies for standardizing measurement and assessment reporting



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