

“DoD Training – Impact of Gaming Technologies”



Comments by Dr. Robby Robson

Chair, IEEE Learning Technology Standards Committee

President, Eduworks Corporation

Consultant / Researcher, Institute for Defense Analyses

Maintaining the Edge

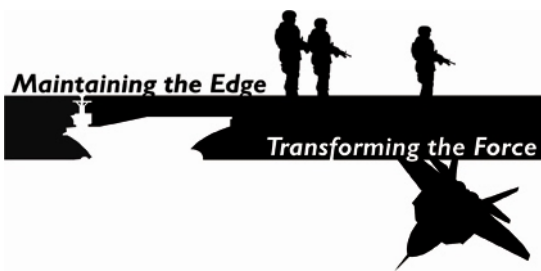
Transforming the Force



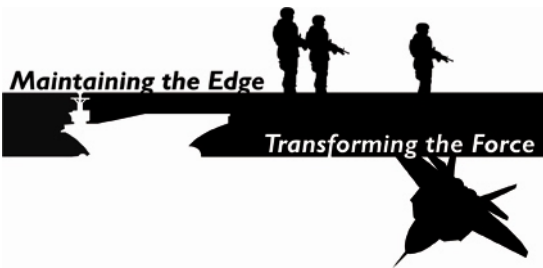
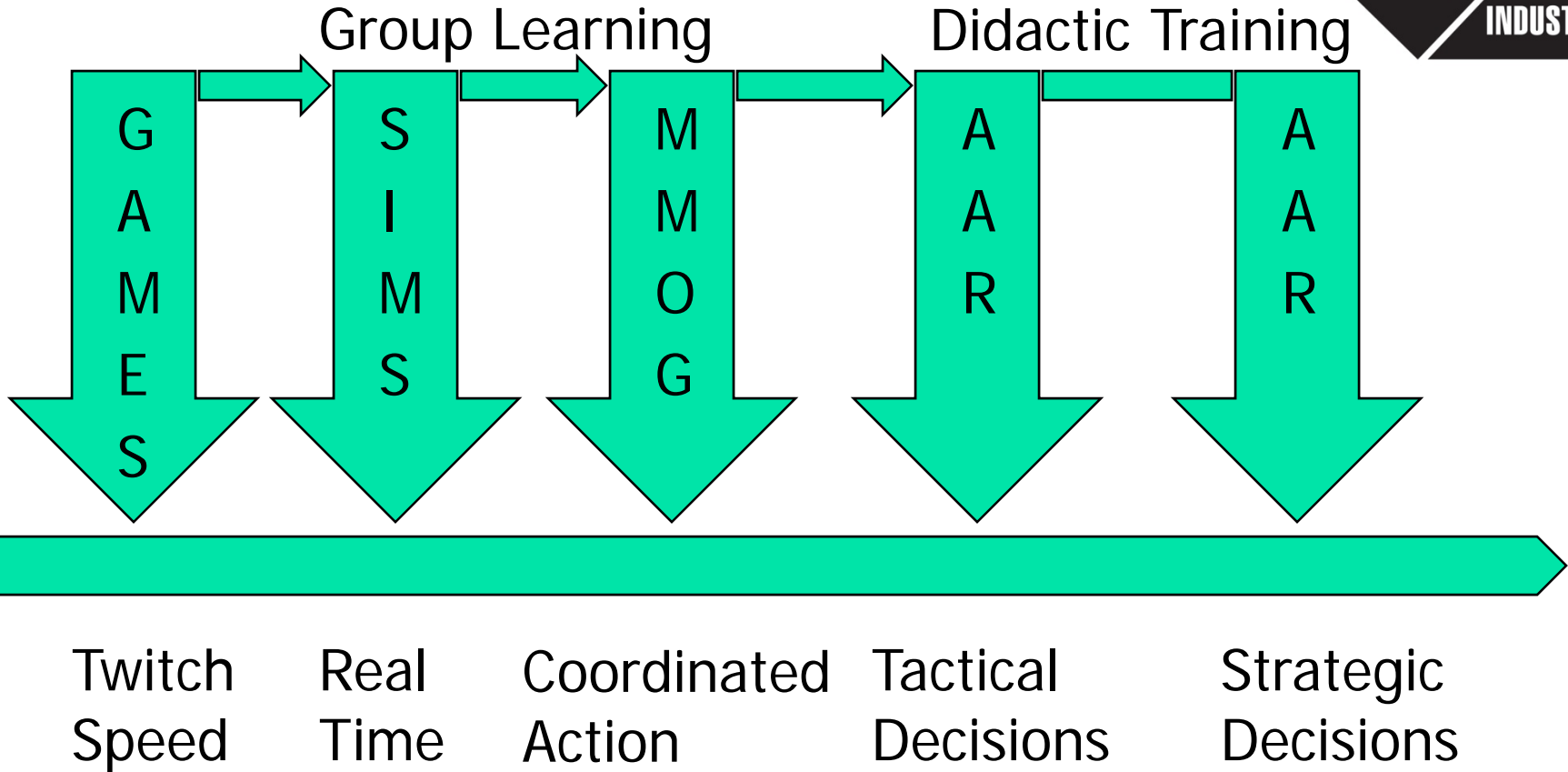


The Role of Serious Games

- It's how we all learn
- It's how young men and women learn best
- It's what we do now
 - Advancement through testing
 - Rewards through achievement
 - Enjoyment as motivation
- "E-learning" focuses on individuals and knowledge transfer. Success depends on teams and knowledge acquisition.



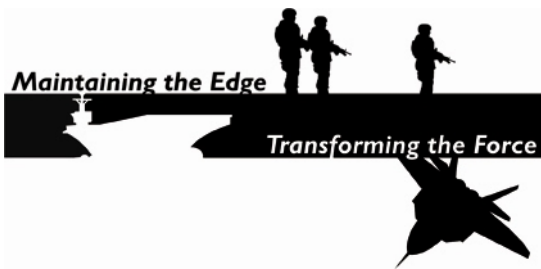
Time Scales (Not Scientific)





Specific Issues

- **Implementation** depends on distributed, real time technology
- **Functionality** depends on standards for
 - Competencies & Results
 - Personnel and Players
 - Scenarios and Contexts
 - Multi-player interactions
- **Acceptance** depends on measuring and demonstrating *real world* results and impact (which ties back to having standards for recording the results!)
- **Availability** depends on new business models

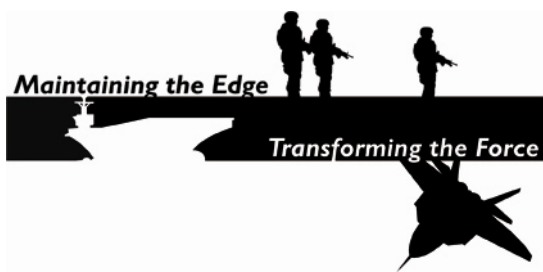




Where Standards are Going

- Significant uptick in standards development:
 - SCORM = basis for content *portability*
 - CORDRA = basis for content *discovery*
 - COMPETENCIES = basis for *measurement*
 - SCORM 2.0 = basis for *distributed systems*
 - SCORM 2.0 = basis for *interactivity*
 - SCORM 2.0 = basis for *customization*
 - SCORM 2.0 = basis for *real reusability*
- **The standards community needs input from the Services!**

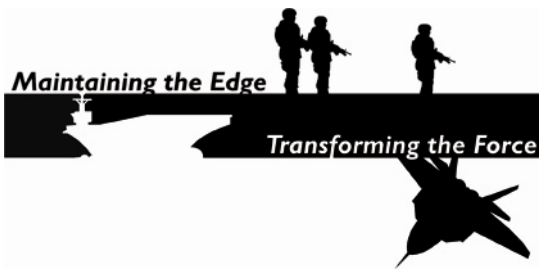
AICC
IEEE SC's
ADL
LETSI



Tools: Training Systems look like this



- Complex
- Old models taken to extremes
- Big on functionality
- Weak on solutions



When they *should* look like this ...

- Lightweight
- Elegant
- Built for the network
- Fun to use
- Portable
- Focused on solutions



Maintaining the Edge



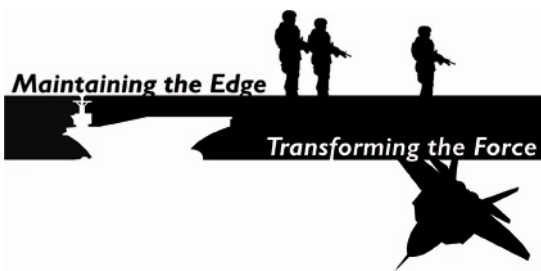
Transforming the Force





Business Models

- Leading edge technology is viewed as a "research problem."
 - *The knowledge is there. Applying it is the hard part!*
- R&D business models are ... so last century
 - *SBIR programs take 3+ years and are underfunded.*
 - *Applying for \$ takes more work than doing the research*
 - *"Government Rights" models don't make sense for software*
 - *Payment is based on time, effort and quantities instead of value, quality and impact.*





Summary

- Do away from proprietary formats
 - In distributed environments every component must speak the same language
- Build infrastructure for handling data and tools for performing tasks and providing solutions
 - Data: Content, Competencies, Context, Results
 - Tools: Authoring, Finding, Repurposing, Teaming, Reporting, Deploying ...
- Evaluate games based on training *outcomes*
- Pay contractors based on *value*

