Overall Classification of this Briefing

**UNCLASSIFIED**

Innovating Command and Control Training Using Virtualization Technologies

Lt Col Gerald “Jay” Gendron
The Need

NSWU: Naval Special Warfare Group; SFG: Special Forces Group; SOCPAC: Special Ops Command, Pacific; SOG: Special Operations Group

UNCLASSIFIED
Joint Staff Officer Project

- Two-year study by Joint Staff Joint Exercise and Training Division (2008)
- Validated by 2010 House Armed Service Committee
- Findings:
  - Respondents \( \rightarrow \) first… Staff assignment
  - Joint assignment
  - Time working with diverse workforce

- Resulting in: frustrated personnel, higher error rates, and lower productivity
- Did not train fundamental skills: coordination, processes, tools, and interpersonal skills
Situation – “As-Is”
Desired Situation – “To-Be”

Constraints
Rehearse complex scenarios
...within current resources
Alternatives

Computer Based Training

Immersive Learning Environments

“...learning situations that are constructed using a variety of techniques and software tools including game-based learning, simulation-based learning and virtual worlds”

-Rozwell (2008)

Live Training
We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn.

—Peter Drucker
Talkin’ ‘bout my generation

1946-1964
1965-1980
1981-2000
...2014
Arrival of Gen-Y

It's one of nature's way that we often feel closer to distant generations than to the generation immediately preceding us.

—Igor Stravinsky
Exploratory Learning is characteristically...

- Task oriented
- Time constrained
- Primary goal is **task performance**
- **Learning** is a secondary aspect

- Rieman, Young and Howes (1996)
Social Networks: new, really?

facebook

2004: Facebook
Technology Forecast

Gartner, 2010
Pairwise Comparison

**People/Process**
Adapting training to use methods common among Gen-Y

**People/Technology**
Thoughtful needs analysis of future generations to determine tech adoption strategies

**Process/Technology**
Assess how emerging tech (ILEs) may impact training strategies
Further Analysis

➢ First group of Gen-Y officers will arrive in Joint Staffs and Combatant Commands around 2013

➢ As company-grade officers, they were formed in the crucible of Iraq and Afghanistan

What impacts may this have for how senior leadership develops training in the coming decades?
What is the role of technology in enabling new processes and relationships?
## Bringing it together...

### Immersive Learning Environments

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Years to Mainstream Adoption</th>
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<tbody>
<tr>
<td></td>
<td>&lt; 2 yrs</td>
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<tr>
<td>Transformational</td>
<td>Web 2.0</td>
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<tr>
<td>High</td>
<td>Presence</td>
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<tr>
<td>Moderate</td>
<td>Blogs</td>
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<tr>
<td>Low</td>
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Decision Time

- SOC-Joint Capabilities has begun using ILEs
- ILEs are appropriate under these criteria:
  - Scenarios: engaging and feasible
  - Objectives: learners need procedural knowledge, practice with techniques, or explore scenarios not otherwise available
  - Purpose: scenario is important to mission outcomes or individual performance

-Rozwell (2008)
Risks

- Cultural Implications
  - Who is the audience?
  - How does audience differ from trainers?

- Social Implications
  - Interactivity with others and computers
  - Technology can make learning more “active, social, and learner centered – but the uses of IT are driven by pedagogy, not technology”

The Partnership

A coalition of the willing

A federation of believers
Building a Distributed Training Environment

 JKOServers

 Controller  JKO  White Cell

 Training Audience
SOCPAC Event Recap

**Mission:** Conduct a feasibility test of the Small Group Scenario Trainer in an operational command and control environment, investigating several perspectives:

- 3-hour event: routine procedure; disaster relief context
- Joint Planning Group - gained situational awareness
  - Roles included: J1; J2; J3; J35; J39; J4; J6
- Conducted mission analysis in response
User Response to SGST

SGST Usability

- Assessment Yielded:
  - Most Useful
  - Suggested additions
  - Least Useful

- Additional scenarios have been built
Mission Brief

As the J3 Current Operations, you are tasked to:

- Use the N-HOUR sequence (found in the Shared Workspace) and complete your tasks appropriate to this mission.
- Coordinate with the other staff members using the OPCEN log (found in the Shared Workspace) and chat (within SGST).

Note: You have sixty (60) minutes to perform these tasks.
Preparing Warriors Individually through Development and Distribution of

COA Development

The following screens will present content (situational awareness and tasks to be performed) related to the J3 Current Operations role you are playing in this exercise, HA/DR effort.

Some pointers as you proceed through this exercise:
- Utilize the tools available through the SGST, including:
  - Shared Workspace: References, templates and work products
  - Injects Received: Mentor and Alerts
  - Chat: Communication with other Players.

- Recognize that as you read through the content of the following screens that some information is provided for your own situational awareness, while other information may be requesting that your role perform a specific task and/or perform a collective task with other players within the exercise.

Mission Analysis

As the J1 Personnel, you are tasked to perform the following activity and work product development:
- Create a Personnel Slides for Mission Analysis (MA).
- Name the file “J1_Personnel_MA”.
- Upload the file to the Exercise Products area of the Shared Workspace.

Note: You have thirty (30) minutes to perform the tasks detailed on the previous screen and this activity.
An intriguing future...

Games are at the very beginning of their potential...eventually some form of conversation between real people and the computer-created characters will occur alongside the conversation among people

-Gee (2003)