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"Collective C2 in Multinational Civil-Military Operations"

Innovating Command and Control Training Using Virtualization Technologies

Topic 10: C2, Management, and Governance in Civil-Military Operations

Topic 5: Collaboration, Shared Awareness, and Decision Making

Topic 2: Approaches and Organizations

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14. ABSTRACT

Special Operations Command Joint Forces Command (SOCJFCOM) trains joint force commanders and their staffs to integrate conventional, multinational, and special operations forces in planning and execution, with a particular focus on command and control (C2). The command conducts strictly face-to-face staff events. The six geographic combatant command training audiences are each allotted a 40-hour event per year due to fiscal and manpower constraints. This level of training is insufficient to maintain optimum staff performance levels. However, recent advances in virtual world technologies may be used to improve the situation. SOCJFCOM collaborated with Joint Knowledge Online to field training events using the Small Group Scenario Trainer. Small staffs collaborate in various C2 configurations to develop courses of actions after receiving global and role-specific scenario triggers. This new capability allows the command to deliver and observe live, distributed C2 training and rehearsal events. It increases customer contact hours and reinforces skills learned in traditional face-to-face training courses without additional travel costs. SOCJFCOM can observe the event and provide post-event feedback from its headquarters location. Training audiences like this distance learning methodology because it enhances their knowledge of C2 doctrine, increases rehearsal opportunities for operations, and maintains optimum staff performance levels.

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Abstract

Special Operations Command Joint Forces Command (SOCJFCOM) trains joint force commanders and their staffs to integrate conventional, multinational, and special operations forces in planning and execution, with a particular focus on command and control (C2). The command conducts strictly face-to-face staff events. The six geographic combatant command training audiences are each allotted a 40-hour event per year due to fiscal and manpower constraints. This level of training is insufficient to maintain optimum staff performance levels. However, recent advances in virtual world technologies may be used to improve the situation. SOCJFCOM collaborated with Joint Knowledge Online to field training events using the Small Group Scenario Trainer. Small staffs collaborate in various C2 configurations to develop courses of actions after receiving global and role-specific scenario triggers. This new capability allows the command to deliver and observe live, distributed C2 training and rehearsal events. It increases customer contact hours and reinforces skills learned in traditional face-to-face training courses without additional travel costs. SOCJFCOM can observe the event and provide post-event feedback from its headquarters location. Training audiences like this distance learning methodology because it enhances their knowledge of C2 doctrine, increases rehearsal opportunities for operations, and maintains optimum staff performance levels.

Introduction

In 2009, the Special Operations Command Joint Forces Command (SOCJFCOM) teamed with the Joint Knowledge Development and Distribution Capability (JKDDC) Joint Management Office. The objective of this partnership in Suffolk, Virginia was to increase SOCJFCOM's ability to conduct command and control (C2) training for other theater special operations commands (TSOCs) using a distributed, real-time technology developed by JKDDC called the Small Group Scenario Trainer. One of JKDDC's key competencies is its ability to prepare individuals for duty before and after deployments and exercises. Small Group Scenario Trainer is one tool in their inventory to accomplish this by providing real-time connectivity to staffs, trainers, and critical knowledge management resources (USJFCOM, 2010). SOCJFCOM hopes to transform its method of delivering training to the TSOCs by harnessing emerging distributed training technologies like the Small Group Scenario Trainer and programmed follow-on efforts like virtual worlds.

Statement of Need

Automation applied to an inefficient operation will magnify the inefficiency.
–Bill Gates

Many challenges exist today for training command and control in a multinational and civil-military interagency environment. Even within the military context, active duty members and augmentees from Reserve and National Guard units do not have the capability to regularly rehearse together across the spectrum of joint planning requirements due to their distributed locations. The lack of this capability reduces staff performance and hinders the effective employment and integration of joint enablers like intelligence, fires, and interagency coordination. From an "As-Is" perspective, SOCJFCOM training consists predominantly of live classroom presentations. Nominally, each of the six TSOCs receives a single 40-hour, live training event per year. As a result, staff performance levels degrade during the year between training sessions because SOCJFCOM lacks the ability to reconnect with TSOCs. This is primarily due to fiscal and manpower constraints.

A primary outcome from innovating command and control training using virtualization technologies is the ability to rehearse complex scenario planning within existing resource levels. This must not be a blind adoption of new technology, but rather a thoughtful assessment of how current and future workforce members could improve their readiness through technology. A thoughtful adoption of new tools would enable SOCJFCOM to supplement live training events using a distance learning approach. Distance learning opportunities could provide two to three additional training events per TSOC per year, thereby doubling or tripling SOCJFCOM's annual support to customers with no associated increase in travel budgets and negligible impact to personnel tempo.

Available Alternatives

> *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

Two broad categories of training alternatives are available: traditional training and immersive learning environments. Traditional training encompasses a host of training tools and methods ranging from computer-based training, to live training, and written material. SOCJFCOM currently utilizes all of these methods of training. Training audiences have the means to accomplish a Level I training course using the Joint Knowledge Online learning environment. This is a prerequisite for attendance at Level II training conducted in live events throughout the year. The command also publishes insight reports promulgating best practices. These include lessons learned in command and control. A pro of traditional training is its familiarity among trainers and training audiences. Most people in the joint community have been working as professionals in their Services for a decade or more. During this time they have likely come into contact with training exercises and grown accustomed to the current training methods. There is ample history which may indicate traditional training is effective. Years of command and control during operations ranging from humanitarian assistance to combat point to a trained and ready cadre.

However, there are cons related to traditional training. Budget constraints and demanding operations tempo among trainers and the training audience restrict live training offerings to a small number each year. In most cases, this translates into a single training event. It is arguable that the indirect costs are substantial. These costs range from poor readiness among the workforce to an unintended inertia hindering new techniques in command and control. While computer-based training is more sophisticated than written material, it does not instill a high degree of interaction among users. According to Windham (2005), live classroom training is valued because it satisfies a desire for interaction among students. This craving for interaction will persist into online environments. For this reason, computer-based training's lack of interaction places it in a class similar to written materials.

Immersive learning environments (ILEs) comprise the other primary training alternative. ILEs are "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, p. 2). ILEs have begun to arrive within government organizations over the last few years. Examples of ILEs include the CyberProtect information assurance trainer developed by the Defense Information Systems Agency and virtual worlds developed by Defense Acquisition University. These games or worlds harness simulation-based learning to drive a scenario for the audience. Many pros of ILEs can be found in the literature. McNeely (2005) notes students often learn things best by doing. Gee (2003) argues that what people "are doing when they are playing video games is often good learning" (p. 199). There are, however, cons associated with ILEs. They can be more costly and sophisticated than traditional training methods. This requires a more thorough needs analysis to ensure developing an ILE provides a better training

experience than some other method (Rozwell, 2008). Nonetheless, it is believed ILEs will eventually serve as the basis for future command and control training within SOCJFCOM.

A Framework for Innovation

The dogmas of the quiet past, are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise -- with the occasion. As our case is new, so we must think anew, and act anew. We must disenthrall ourselves, and then we shall save our country.
—Abraham Lincoln (December 1, 1862 in Message to Congress)

The world of C2 is one of rapid change. Although President Lincoln was discussing the war gripping our country in the 1860's, his statement rings true of all generations—we must be willing to shed old dogmas in light of the present and "think anew". Another President and chief executive, Thomas Jefferson, stated, "Every generation needs a new revolution." What does that revolution look like in the world of information and C2 and what must we think anew?
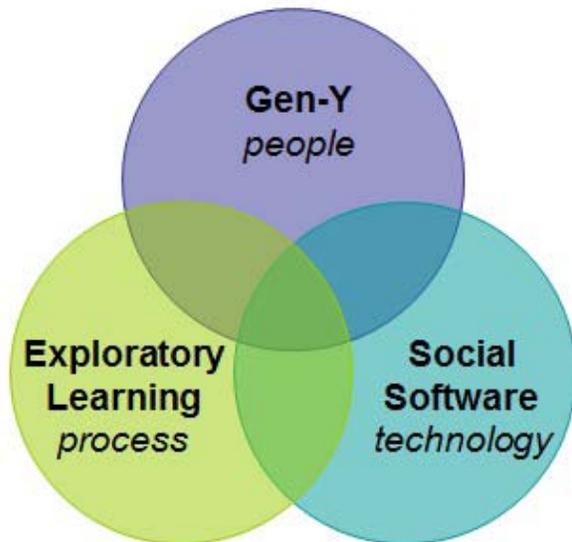

Figure 1. Framework for innovation. Three elements of people, process, and technology.

Three drivers of change are offered here as being most influential to C2 training today: Generation-Y, exploratory learning, and social software. A three-factor framework common to information technology professionals is used to consider these drivers. That framework focuses on people, process, and technology (Institute for Enterprise Architecture Developments, n.d.).

Figure 1 shows a three-circle Venn diagram representing the primary framework elements (people, process, and technology). At the primary level lie the drivers to change—the things fundamentally revolutionizing the way C2 training must be managed in this changing world.

These three drivers (Generation-Y, exploratory learning, and social software) align well within the framework and invite consideration of the interactions between them, as depicted by intersecting portions of the Venn diagram. This paper will investigate the three primary elements of the framework as well as the first-order interactions among those drivers using pairwise comparisons.

People

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

Odds have it that most people working with and receiving training on command and control tactics, techniques, and procedures belong to one of the three predominant working generations: Generation Y (18-30 years old), Generation X (31-42 years old), or Baby Boomers (43-65 years old). These generations have been characterized and categorized—from workaholics to easy going, from self-focused to concern for a greater cause. The younger members of our teams grew up with the internet and hyper-mass-media. Today they are voracious users of social networks and are comfortable with online coursework. Hewlett, Sherbin, and Sumberg (2009) wrote an article directed towards Generation X and the Baby Boomers in mid- to upper-management positions. Their purpose is to begin to educate that group about those entering the workforce in increasing numbers—Generation Y. What might management learn about change being driven by Generation Y?

Based on the forecasts and characterizations from the last decade (Belsie, 2001; Cole, Smith, & Lucas, 2002) it appears that as Generation X takes over managerial responsibilities from the Baby Boomers, it must thoughtfully consider change being driven by Generation Y. Their approach to leading and training will determine how well the newest generation will become productive and contributing members to national security. In the case of the Small Group Scenario Trainer, aligning people becomes the central consideration. Generation Y members are comfortable in social networking scenes. They relate to others and the ideas in these networks. This phenomenon has profound implications on how they will contribute to the organization. Tapscott (2008) advises managers to determine how to harness social network techniques and tools and give Generation Y the ability to bring high-performance to the organization. This one area may have already taken a toehold in the government via wiki pages, but social networking—or at least the lessons and concepts from them—can be vastly increased in the workplace to adapt to the people.

Process

> *We seek a free flow of information...we are not afraid to entrust the American people with unpleasant facts, foreign ideas, alien philosophies, and competitive values.*
>
> *—John F. Kennedy, February 1962*

The second factor driving change and falling in the category of process is exploratory learning. Learning is a process, and a primary driver of change in the modern training and readiness arena is the new generation's mode of learning. Some in academia have described the modern preferences for acquiring knowledge as exploratory learning. Rieber (2003) characterizes exploratory learning based on four principles:

- Learners can and should take control of their own learning;
- knowledge is rich and multidimensional;
- learners approach the learning task in very diverse ways; and
- it is possible for learning to feel natural and uncoaxed, that is, it does not have to be forced or contrived.

Rieman, Young, and Howes (1996) describe the term exploratory learning as a combination of problem solving and learning. "It is a task-oriented, time constrained process, whose primary goal is performance of the current task, with learning as a secondary aspect" (pp. 743-744). They discuss training as it relates to users learning new software applications, noting that the large number of features and the differing needs of each user prohibit a comprehensive instruction on all aspects of any piece of software. Rather, users will focus on portions of the application they need to accomplish the job.

These descriptions of exploratory learning provide an interesting characterization of today's command and control training. There is an abundance of knowledge and experience captured within the variety of C2 systems, techniques, and procedures. Compounding this is the sense that mission needs will dictate new requirements to exploit systems and techniques well before they can be incorporated into training. Rieman, Young, and Howes (1996) offer typical strategies used in exploratory learning: (a) trial and error; (b) asking for help from other users; and (c) looking for information in printed and on-line documentation. These and Riebar's principles provide a theory of learning useful in considering the future of training people about command and control.

Technology

> *The way of the world is meeting people through other people.*
> *—Robert Kerrigan*
> http://www.finestquotes.com/author_quotes-author-Robert
> Kerrigan-page-0.htm

Consider the complexity and detail of this third factor driving change in the world of command and control training—technology. Social networking has become the most common subset of social software technology, but other forms of this technology exist and have a future role in training. In fact, there has been a continued evolution of social networking over time. When did social networking first appear? Was it the advent of MySpace and Facebook? Perhaps the emergence of email? Nickson (2009) believes it began with bulletin board systems in the 1970s. Others indicate generations have loosely used the term "social network" for over a century to discuss interrelationships of people. For instance, Freeman (2004) points to the work of Georg Simmel among the early twentieth century social thinkers as developing the core of what is considered social network analysis. Simmel spoke in terms of a "system of relations" and a "network of lines between men". An article in *Mediterranean Historical Review* examines the ancient Romans in light of social networking in an article entitled "Libanius' Social Networks: Understanding the Social Structure of the Later Roman Empire" (Sandwell, 2007). Social networking has been around, yet the high-tech form of an age-old activity is riding high on the technologies allowing more people to connect in more ways over

more mediums than ever before. What does this mean to the future of training?

Figure 2. Social software Hype Cycle for 2009. Technologies supporting social interaction.

A review of the literature provides a perspective of emerging and stabilizing technologies in the area of social software. Figure 2 is an excerpt from the 2009 edition of the Social Software Hype Cycle produced by Gartner (2009b). Gartner publishes annual hype cycles on a number of technologies to assist IT professionals develop strategies. All hype cycles use a common framework to present the maturation of technologies starting at a Technology Trigger, moving up to a Peak of Inflated Expectations, and into a Trough of Disillusionment. Those technologies still viable enter the Slope of Enlightenment, and finally reach the Plateau of Productivity. This Hype Cycle on social software shows a flood of technologies at the front of the cycle, evenly distributed among those maturing two to five years and five to ten years in the future. These technologies are just emerging and do not have as much understanding within the marketplace. At the other end of the cycle lie more mature and commonly understood technologies like blogs, wikis, immersive learning environments, and public virtual worlds. This is the fabric of the future which managers and leaders must consider when addressing change in training development.

Pairwise Comparison

Technology does not run an enterprise, relationships do.
—Patricia Fripp, Award-winning speaker / Author

Three drivers of change within the context of command and control training have been considered. First-order effects of people, process, and technology provide some guidance as to the future trajectory of training development, but second-order interactions are useful in shaping a broader perspective to inform future strategies and resourcing decisions. Table 1 summarizes the results of a pairwise comparison of each of the three change drivers: Generation Y, exploratory learning, and social software. Interactions among the drivers point toward a future where current assessment work with the Small Group Scenario Trainer would evolve into the use of virtual worlds for the next generation of operators training command and control concepts. This forecast aligns with all three elements of the framework.

Consider that the first officers from Generation Y will begin to arrive in joint positions at the Joint Staff and combatant commands as early as 2013. These majors and lieutenant

Table 1

Summary of Key Considerations in Pairwise Comparison of Framework Elements

	Process (Exploratory Learning)	Technology (Social Software)
People (Gen-Y)	• Adapting current readiness training processes to incorporate methods common among Generation Y	• Conducting thoughtful needs analysis of the current and next generation workforces to determine technology adoption strategies
Process		• Assessing how emerging technologies

(virtual worlds) may impact current training development strategies

commanders most likely will have used and tend to prefer learning methods like exploratory learning. This generation has a great many skills and experiences to draw upon. As company-grade officers they grew up in the crucible of the wars in Iraq and Afghanistan. Additionally, they have learned by doing—helping to form doctrine where there was little before. All these experiences were enabled by social networking skills and multitasking (Hewlett et al., 2009). What impacts may this have for how the senior leadership develops training in the coming decade?

A study conducted through The Ashridge Business School indicates Generation Y has had a different experience growing up and has some skill gaps. Figure 3 presents a skills map called the Learning Journey showing what Generation Y has learned and what they still need to learn.
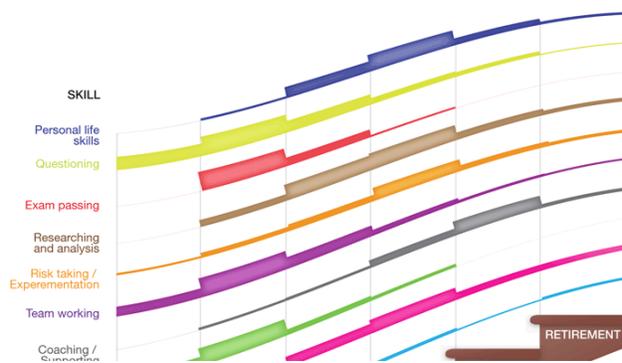

Figure 3. Gen Y Learning Journey. Illustrates research results on shaping of Generation Y from birth towards maturity.

It may be argued that Generation Y members who joined the military have learned risk taking and experimentation already, as well as coaching. However, they likely still need to hone researching and analysis skills such as those they will encounter in staff positions. They have the social and technological backgrounds to acquire these skills. It would be wise to match training development processes and technologies to the people who will be a primary training audience.

What is the role of technology in enabling new processes and relationships? Gartner produces a Priority Matrix which accompanies their Hype Cycle reports. Their intent with any Priority Matrix is to help leaders identify transformational technologies and prioritize their entrance and investments in them. Figure 4 shows the Gartner Priority Matrix associated with two 2009 Hype Cycles on emerging technologies (2009a) and social software (2009b). Technologies in the upper left regions have greater returns on investment and Gartner urges adoption in these areas. The impetus to invest wanes as one shifts down and to the right within the Gartner matrix. Technologies like Web 2.0, blogs, and wikis are becoming more common in government enterprises. With these technologies, Gartner cautions leaders to "implement controls when appropriate, but beware of negating the benefits by imposing too much control" (Gartner, 2009a, p. 40). Two other interesting technologies which the Generation Y crowd will both relate to and help drive are presence and virtual worlds. Gartner's Hype Cycle on Social Software (2009b) defines presence as "a foundation

Figure 4. Gartner Priority Matrix. Forecasts benefits and timing of technology adoption.

technology that provides an application, such as instant messaging, conferencing, e-mail or a mobile device, with indications of the status and availability of contacts" (p. 62). They advise leaders to appreciate the power of this to speed up decision making and improve collaboration. Virtual worlds are emerging within the government as a technology with utility beyond gaming. Professional environments are being developed in virtual worlds. In fact, National Defense University, Defense Acquisition University, and the Joint Knowledge Development and Distribution Capability have begun to explore virtual world technologies for training development. These initiatives are in various beginning stages. It will likely become more important for senior leaders to be aware of the technologies that develop relationships through social networking and consider how to implement them as appropriate.

<div align="center">Innovating Command and Control Training Using Virtualization Technologies</div>

Immersive Learning Environments

SOCJFCOM is exploring immersive learning environments to discern their role in the future of training. The desired end-state is a training program melding the best of the traditional training methods with the features of immersive learning environments which may satisfy future challenges. According to a Gartner report (Rozwell, 2008), organizations should use ILEs when these criteria are met:

- Scenarios: include routine organizational activities, engaging and feasible to create.
- Objectives: learner needs include procedural knowledge, practicing techniques, or exploring scenarios that cannot be assembled in the real world.
- Purpose: the scenario is important to business outcomes or individual performance.

ILEs can expose the audience to simulated situations impracticable to achieve with real-world assets but are essential to maintain readiness for mission execution.

There are benefits to using ILEs. Immersive learning environments have features that distinguish them from other learning methods: (a) realistic, simulated scenarios; and (b) environments that foster interaction with others to practice skills (Rozwell, 2008). These are both very important characteristics which could be improved in traditional learning approaches. Working and training within an ILE environment provides connectivity between the trainers and the training audience. Ted Vera of Northrup Grumman notes, "Immersive training offers a much richer opportunity than training manuals do" (Linden Lab, 2009, p. 2). Additionally, Gartner forecasts that use of ILEs is increasing. They expect this increase to continue as trainers shift their emphasis to opportunities which explore new concepts, and prices drop for simulation and gaming development tools (Rozwell, 2008). Implementing this strategy requires an appreciation of individual and group dynamics. Gartner (Rozwell, 2008) provides useful recommendations to launch ILE projects:

- Invest in simulations or games when there is a high degree of interactivity required.
- Develop learning objectives suited for simulations and interactions with others.
- Seek opportunities to reuse scenarios and thereby reduce costs.

Each of these recommendations provides a logical decision point when considering ways and means to incorporate ILEs into command and control training.

Cultural and social implications.

From a people perspective, there are two aspects of risks – cultural and social implications. Cultural implications focus on *experiences* of the team while social implications focus on *interactions* of the team. Cultural implications result from the impact of status quo on culture. Mitigation of this risk is guided by a framework for determining how to style learning to match the training audience: (a) who is the audience—more than demographics, understanding how they view their environment; and (b) how does the audience differ from the trainers—differences in culture and experiences (Oblinger & Oblinger, 2005).

Social implications stem from people and their interactivity with others and computers. Changes in training methods could have a negative impact on acceptance. Mitigation of this risk is again guided by the work of D. Oblinger & J. Oblinger (2005). First, determine what activities learners find most engaging. The authors note, "It isn't technology per se that makes learning engaging for the Net Gen; it is the learning activity" (p. 2.16). Second, use technologies to make learning more successful. When properly used, technology can make learning more "active, social, and learner centered—but the uses of IT are driven by pedagogy, not technology" (p. 2.16).

According to McNeely (2005), the current generation of ILE users desire learning technology that is relevant and interactive "whether it is with a computer, a professor, or a classmate" (p.4.7). Rozwell (2008) notes there are fewer stigmas associated with playing technology-based games these days. They have also increased their ability to reuse scenarios and ease the development of products. Finally, Thomas and Young (2009) note commercial game producers have learned that games make less money if they are harder to learn. The industry has become very skillful at putting all necessary instruction into the game. This enhances their ability to train.

Conclusion

SOCJFCOM has begun to evolve its training development processes to include distributed training technologies. This strategy has been adopted primarily for fiscal and manning considerations. However, this evolution is also consistent with the findings in this paper that indicate technologies are best used when taken in consideration of the people in the training audience. Over the next decade, those starting their first experience within the joint warfighting and planning environment will come from a different generation than the leadership. This generation also has differing preferences for learning and has had a differing exposure to social software during their education and early military service. Immersive learning environments like the Small Group Scenario Trainer and virtual world initiatives will complement existing training. Meanwhile, the benefits of immersive learning environments are expected to increase. Gee (2003) notes, "Video games are at the very beginning of their potential…eventually some form of conversation between real people and computer—created characters will occur alongside the conversation among people in their virtual and real identities" (p. 205).

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Special Operations Command Joint Capabilities

Innovating Command and Control Training Using Virtualization Technologies

AIRBORNE

Overall Classification of this Briefing

UNCLASSIFIED

Lt Col Gerald "Jay" Gendron

The Need

3,900 miles

1/1 SFG
353 SOG

HQ SOCPAC

IMPROVING COMMAND AND CONTROL TRAINING AMONG DISTRIBUTED TEAMS ...INSIDE OR OUTSIDE OF THE MILITARY

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

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 → first…*

Joint assignment
Staff 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"

Level of Performance (vertical axis)

Time (horizontal axis)

Desired Situation – "To-Be"

Sustained Performance

Constraints
Rehearse complex scenarios
…within current resources

Level of Performance
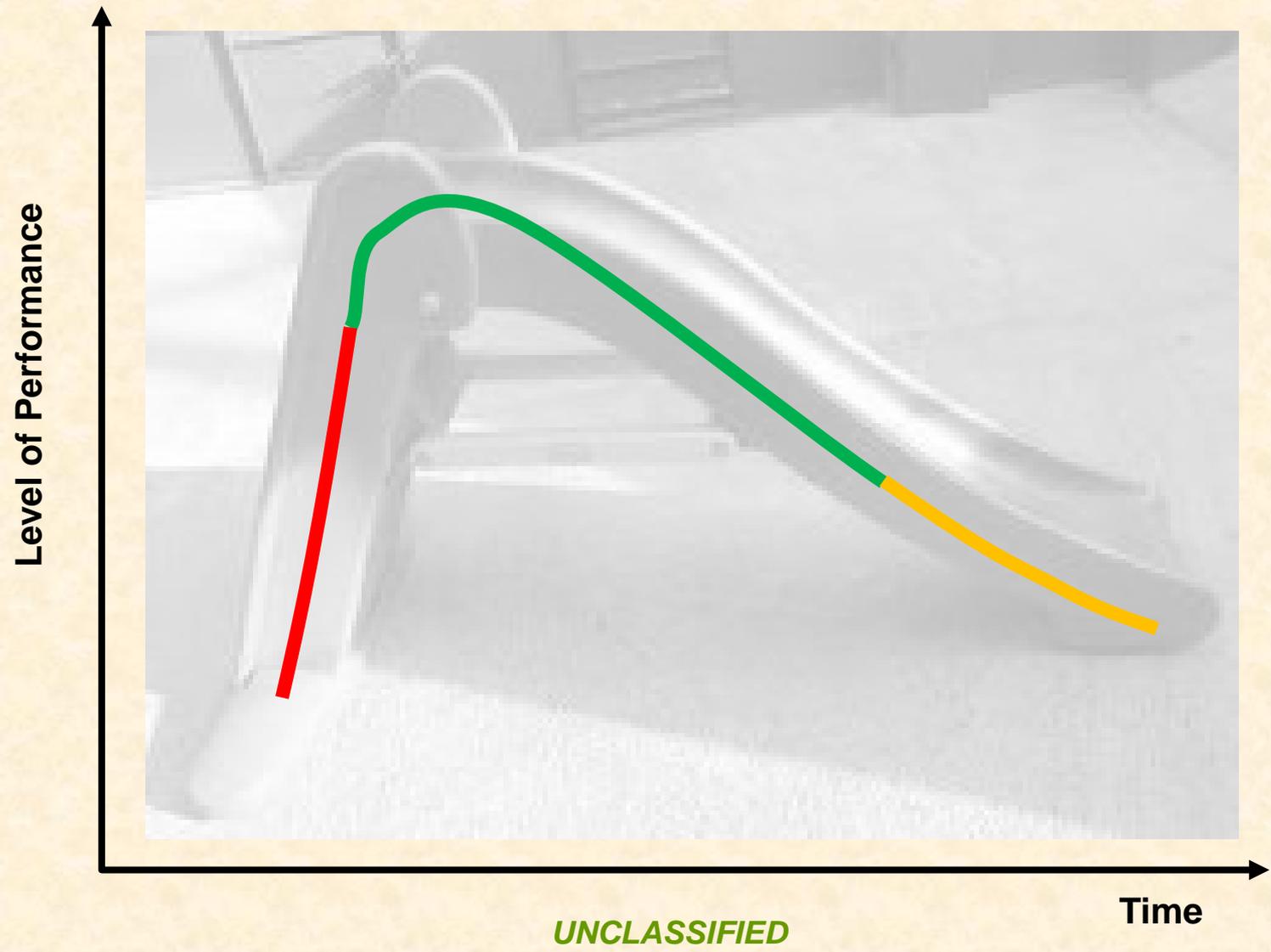
Time
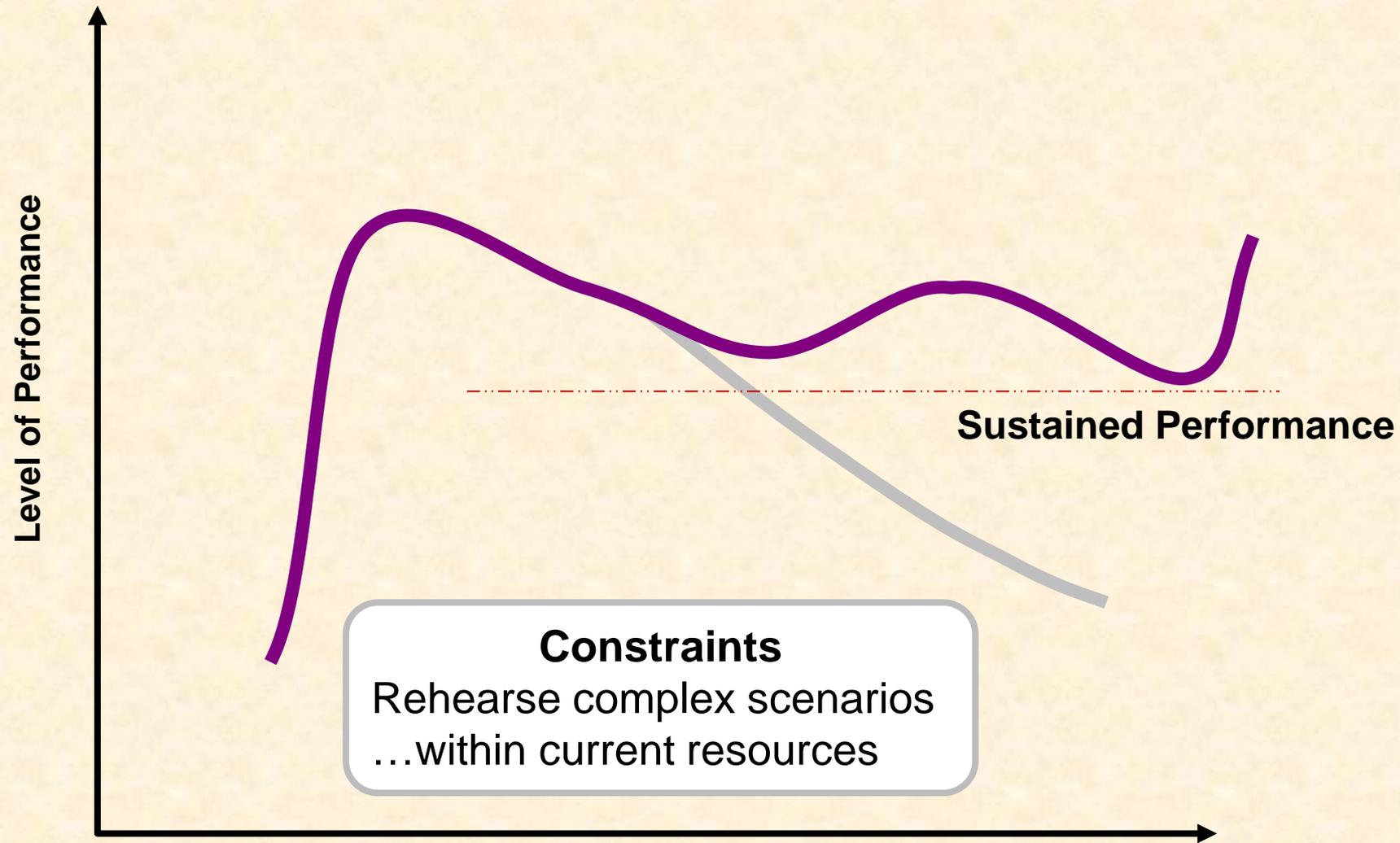
Alternatives

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
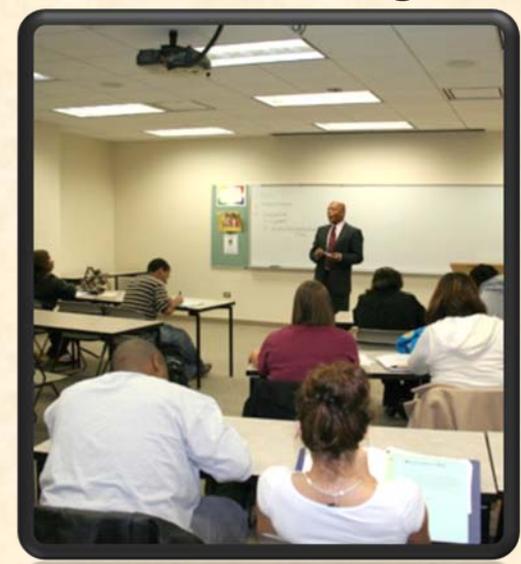
A Framework for Innovation

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

Gen-Y
people

Exploratory Learning
process

Social Software
technology
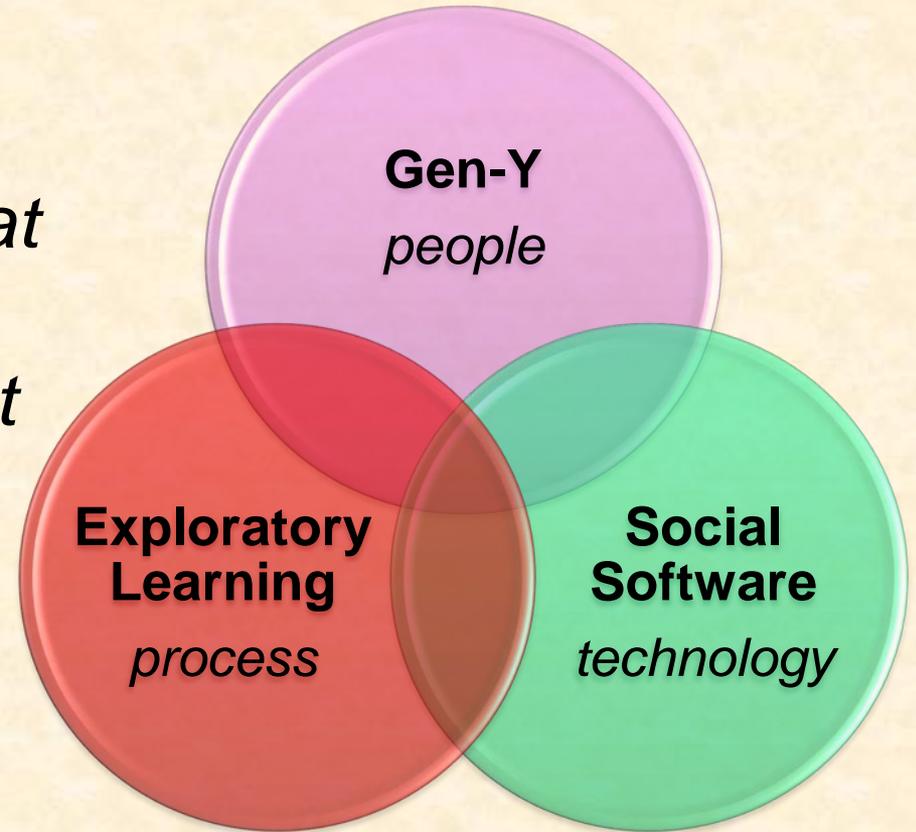
Talkin' 'bout my generation

| 1946-1964 | 1965-1980 | 1981-2000 | …2014 |

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

—Igor Stravinsky

New Learners New Styles
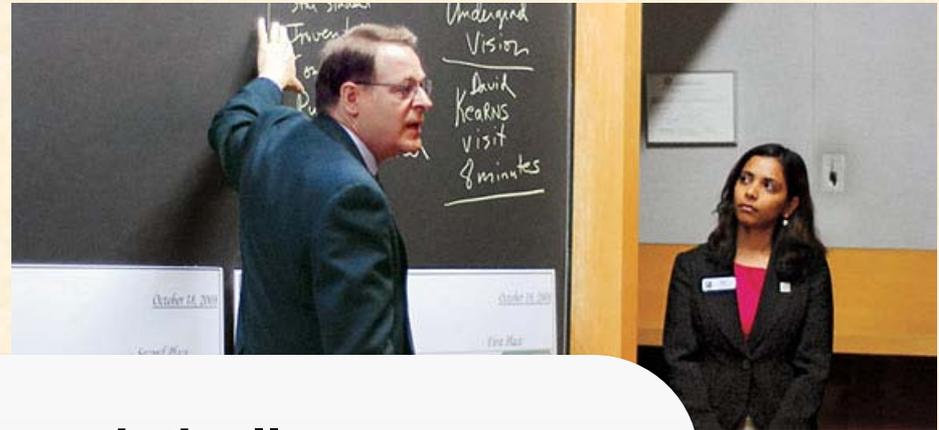
Exploratory Learning is characteristically…

- **Task oriented**

- **Time constrained**

- **Primary goal is <u>task performance</u>**

- **<u>Learning</u> is a secondary aspect**

                              - Rieman, Young and Howes (1996)

Social Networks: new, really?

facebook   *2004: Facebook*

Technology Forecast

Hype Cycle for Emerging Technologies, 2010

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?

Further Analysis
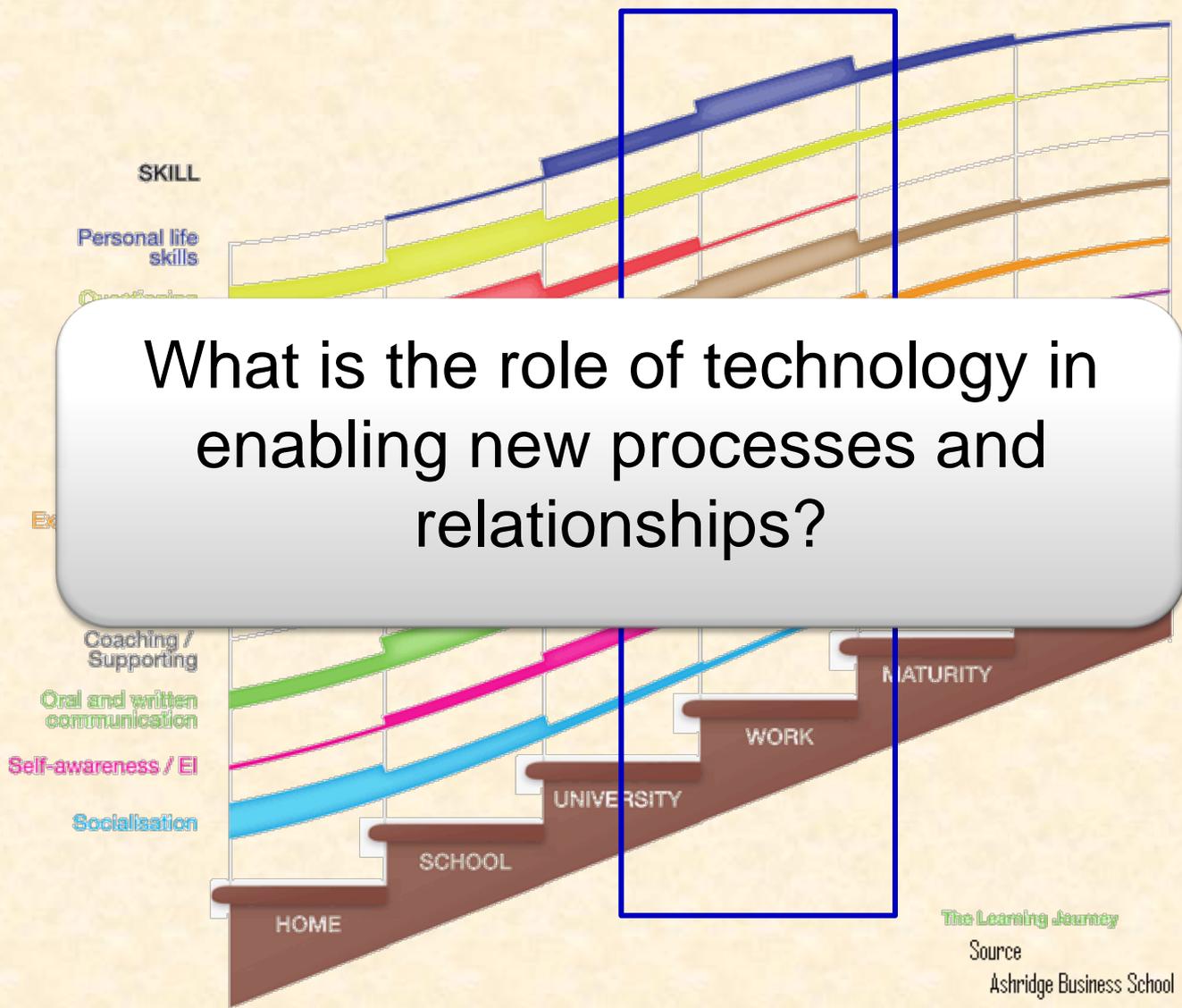
What is the role of technology in enabling new processes and relationships?

Bringing it together…

Immersive Learning Environments

Benefit	Years to Mainstream Adoption			
	< 2 yrs	2 - 5 yrs	5 - 10 yrs	> 10 yrs
Transformational	Web 2.0	Virtual Worlds		
High	Presence			
Moderate	Blogs	Wikis Tablet PC		
Low				

Reference: excerpted from Gartner Priority Matrices for
(i) Emerging Technologies (2009) and (ii) Social Software (2009)

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 <u>others</u> and computers*

 ➢ *Technology can make learning more "active, social, and learner centered – but the uses of IT are driven by pedagogy, not technology"*

 -D. Oblinger & J. Oblinger (2005)

The Partnership

A coalition of the willing

A federation of believers

Building a Distributed Training Environment

JKO Servers

Controller

JKO
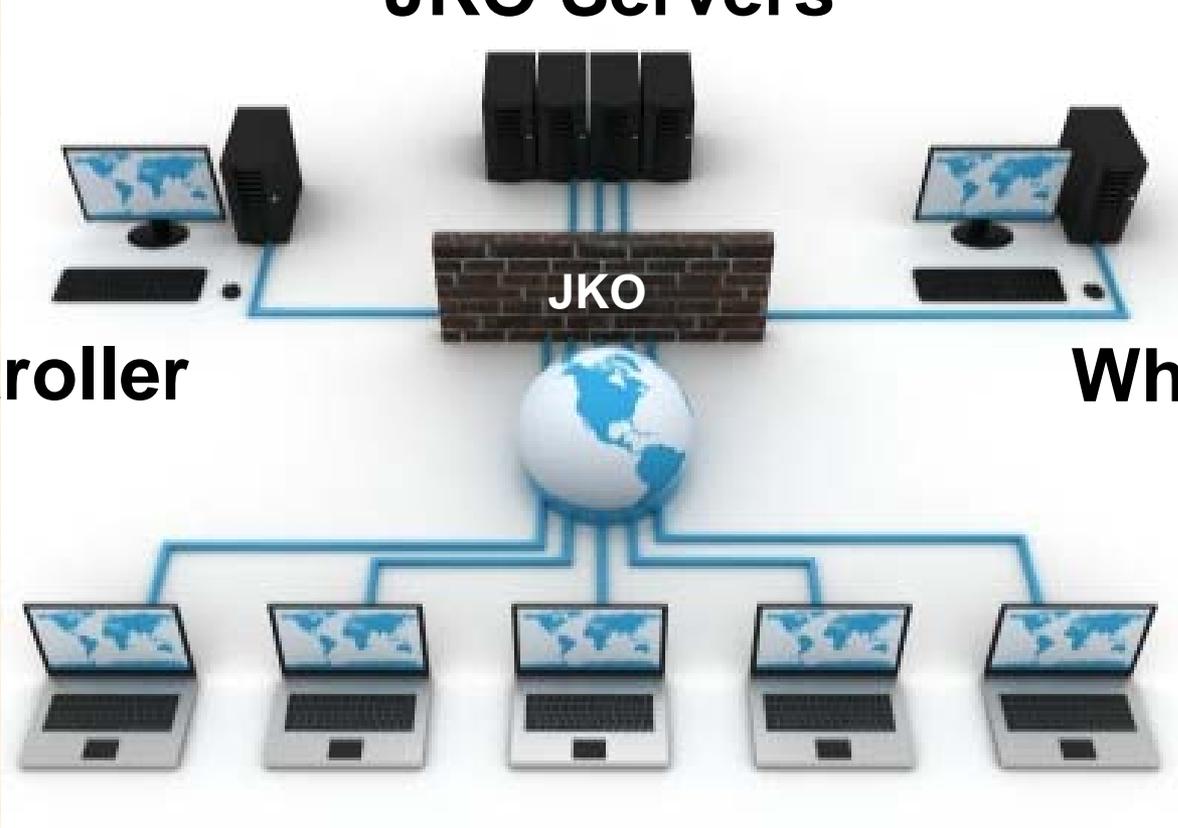
White Cell

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

Chart legend: ■ 1.0 - 2.0 ■ 3.0 - 4.0 ■ 5.0
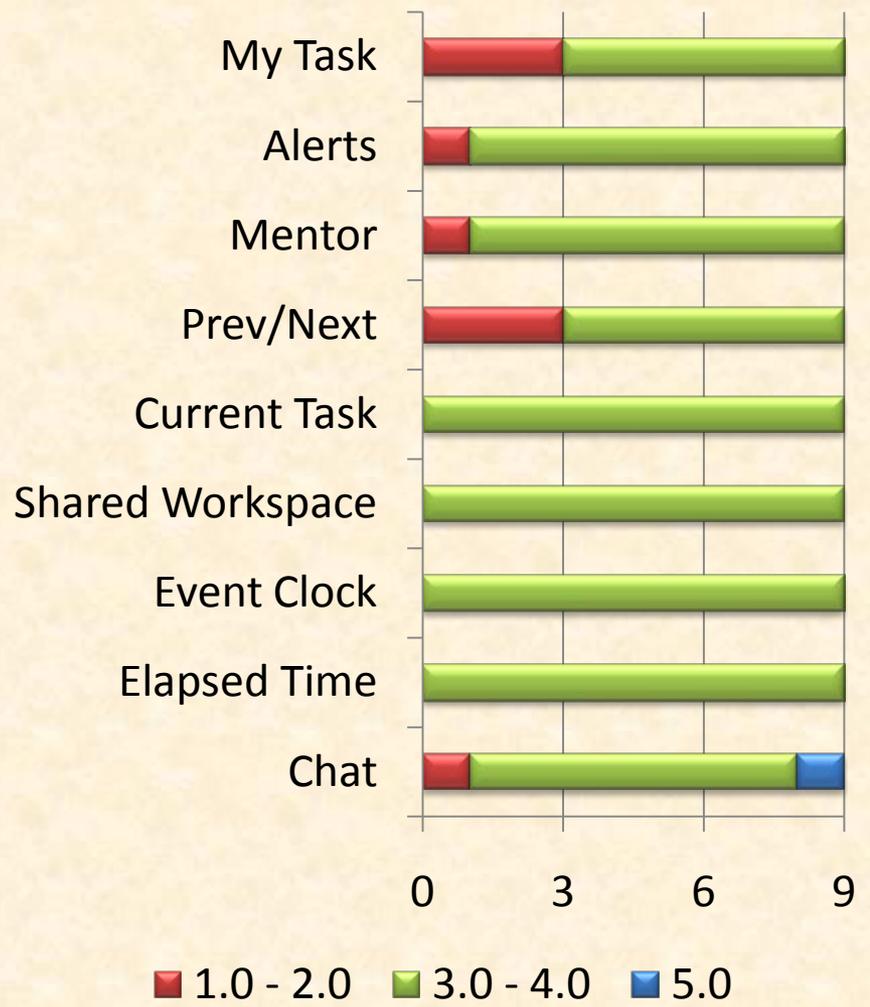
- **Assessment Yielded:**
  - **Most Useful**
  - **Suggested additions**
  - **Least Useful**
- **Additional scenarios have been built**

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.

UNCLASSIFIED

1

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.

SGST Player - SOC JFCOM HADR Phase 1 v18 - Windows Internet Explorer

http://iles.ctc.com/sgst/(S{kdbs4m230oj1ss2fqpy0n455})/Protected/Player/default.aspx

SGST Player - SOC JFCOM HADR Phase 1 v18

- SOC JFCOM HADR Phase 1 v18
  - Situational Awareness
    - Take Training
  - J1 JPG Standup
  - J1 Mission Analysis
  - J1 COA Development
  - J1 Mission Brief
  - End

Chat

Preferences

Name
D'arcangelo, Stephanie (J1)
Interval, April (J39)
Knobloch, Kristy (J4)
Pachucki, Joy (J3)

stephanie.darcangelo(J1-13:00:41): Determining ComAir schedule for PSAT/LNO Team to drive time-line.
kristy.knobloch(J4-13:04:30): Determining the status of JTF airlift support and will advise J3/SCC.
joy.pachucki(J3-13:04:43): Roger. I'm preparing OPCON/TACON of Forces message and will send soon.
april.interval(J39-13:05:24): Developing and coordinating preliminary Public Affairs Guidance.

Enter Chat Message Here   Send

Overview of Exercise

Welcome to the Special Operations Command, Pacific (SOCPAC) Small Gr[oup] Scenario Trainer (SGST) online exerc[ise].

Today's exercise consists of five [exercise] phases and is programmed for th[e] hours. The exercise is designed [around] SOCPAC N-Hour sequence and [is focused] on Crisis Action Planning.

The objective of this exerc[ise is to] Provide new staff membe[rs with an] environment in which t[hey can become] familiar with staff processe[s and standard] operating procedures (SOPs).

Crisis Action

You are a member of a Crisis Action Planning [effort] broken down into the four [phases].

[i]t is expected that [y]our units' SOPs. To the [extent] [SG]ST has been designed [with fea]tures of the JTF 510 [portal, and the Center for] Disaster Management & [Humanitarian As]sistance portal.

1. Situational Awareness
2. Stand-up of the JPG
3. Mission Analysis
4. Course of Action Develo[pment]
5. Commander's Estimate

Note: All of the events have deliv[ered] exercise can be paused by the Ex[ercise] based upon your specific training o[bjectives].

When Ready, Select Next T[ask]
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Previous Task   3 of 4

Preparing Warriors Individually through Development and Distribution of

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)