

Using Digital Storytelling to Stimulate Discussion in Army Professional Forums

Dr. Anna T. Cianciolo
Command Performance Research, Inc.
Champaign, IL
acianciolo@cpresearch.net

Mr. Dominic Cianciolo
Auteur Media
Los Angeles, CA
takeonea@earthlink.net

LTC (Ret) Michael Prevou, Ph.D.
Strategic Knowledge Solutions, Inc.
Leavenworth, KS
mike@strategicks.com

Dr. Rick Morris
Computer Sciences Corporation
Leavenworth, KS
rmorris27@csc.com

ABSTRACT

Online communities of practice cannot achieve organizational impact without member activity – discussion that leads to knowledge sharing, social network development, and strengthening of the professional community (Cianciolo, Heiden, Prevou, & Psotka, 2005; Schwietzer, 2003). Several guidelines exist for facilitating ongoing, “organic” discussion, which stems from requests for information made by forum members. However, there do not exist formal guidelines for designing and using “built” opportunities to participate in conversation (Dixon, Allen, Burgess, Kilner, & Schwietzer, 2005). Built opportunities for discussion, such as book reviews, storytelling, and polling, may foster the impact of online discussion forums through tacit knowledge sharing and shared learning experiences (Dixon et al., 2005). The present research explored the design and development of digital stories as built opportunities for discussion in Army professional forums. Digital stories are the combination of narrative, visuals, and audio in a short vignette that communicates a particular message, such as one’s values, knowledge, or visions for the future (Denning, 2005; Freidus & Hlubinka, 2002). Lessons learned about the characteristics of effective digital stories, how to support the storytelling process, and the type of discussion generated from digital stories will be presented.

ABOUT THE AUTHORS

Dr. Anna T. Cianciolo is the president and senior behavioral scientist of Command Performance Research, Inc (CPRResearch). Prior to founding CPRResearch, Dr. Cianciolo conducted research supporting Army training and professional development during two years as Senior Scientist of Instructional Technology at Global Information Systems Technology, Inc, and as a 2-year postdoctoral research associate at Yale University. Specifically, she has studied individual and collective training performance assessment, knowledge management intervention (e.g., digital storytelling) and assessment, and educational program evaluation. Dr. Cianciolo also is an adjunct assistant professor of the Institute of Aviation, Human Factors Division, at the University of Illinois, Urbana-Champaign and serves on the editorial board of the *Journal of Experimental Psychology: Applied*. She earned her Ph.D. in engineering psychology from the Georgia Institute of Technology.

Dominic Cianciolo is an award-winning director and producer of 3D-animated and live action entertainment. Through his company, Auteur Media, Dominic has created content for Discovery Health Channel and the National Geographic Channel. His films "Bounty" and "Jane" have screened at film festivals in the U.S. and Europe. As a member of the firm Proof, Dominic recently provided pre-visualization services for a new, top-secret animated feature film being produced by Dreamworks SKG.

Michael (Mike) Prevou, Ph.D, Co-Founder, Strategic Knowledge Solutions works with highly-complex, high stakes organizations to improve expertise and learning. He is currently supporting the U.S. Army Battle Command Knowledge Systems Program at Fort Leavenworth, KS as well as commercial and U.S. government organizations that need to improve learning and performance. He specializes in developing integrated knowledge solutions and designing experiential learning environments using community of practice platforms, collaboration tools and interactive simulations. He is the co-founder of numerous communities of practice and a well published author and speaker on educational innovation. Dr. Prevou has 24 years of military service with recent combat experience and is an Adjunct Professor at the Roland Tseng College of Extended Learning, California State University, Northridge helping to develop and deliver a masters program in Knowledge Management.

Dr. Rick Morris is the CSC Program Manager for the Army's Battle Command Knowledge System. He created Army Knowledge Network in 1991-1995, led AKN into the Center for Army Lessons Learned, and served as Deputy Director of CALL from 1995 until 2002. During 2002-2005, he developed the foundations for Army knowledge management applied to training, leader development and military operations as Chief Knowledge Adviser / Integrator in the Army CIO / G-6. His work in Army KM and in furthering Army adoption of web services and Semantic technology has contributed significantly to the development of knowledge-based, net-enabled land power and has influenced business and the academy. He is a PhD and MA in modern European history (and former tenured college and university associate professor), a Master Certified Knowledge Manager, a Six Sigma Green Belt, a Lean Sensei and a Six Sigma Black Belt in Training.

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ARMY KNOWLEDGE MANAGEMENT AND PROFESSIONAL DISCUSSION

As recent news articles indicate (Brown, Miller, & Barrett, 2005; Galvin, 2007; Turnipseed, 2005), knowledge management in the U.S. Armed Forces has gone well beyond the pilot phase. Knowledge management is the practice of turning the knowledge of organizational members into value through individual behavior change and enhanced social networks. It comprises the capture, storage, codification, and exchange of information, practical solutions, and best practices. Programs such as the Army's Battle Command Knowledge System (BCKS) reflect the momentum that knowledge management has gained across the services as the military adapts to wide dispersion across rapidly changing operational environments. Analogous to civilian online communities of practice, Army professional forums form the core of the Army's knowledge management initiative (see Crager & Lemons, 2003). In addition to the BCKS professional forums, the components of Army Knowledge Management include Army Knowledge Online and knowledge repositories such as the Center for Army Lessons Learned.

Communities of practice are defined as "groups of people that share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 4, Wenger, McDermott, & Snyder, 2002). Communities of practice may be co-located, as in local gardening clubs or support groups, or distributed, as in web-based interest groups. Army professional forums are, in essence, online communities of practice that allow geographically distributed warfighters to share practical solutions, generate new ideas, and exchange lessons learned from operational experience. Army professional forums (like civilian communities of practice) are distinguished from knowledge

repositories by the presence of asynchronous discussion and social networking among forum members (see Schweitzer, 2003).

A widely recognized challenge in computer-mediated collaborative environments is stimulating exactly this kind of participation (e.g., Kreijns, Kirschner, & Jochems, 2003). Discussion and social networking in an online discussion forum are not simply a matter of selecting the right collaborative technology, but also are a matter of creating opportunities for conversation and shared experience (Dixon, Allen, Burgess, Kilner & Schweitzer, 2005). Conversation and shared experience give rise to personal meaning and investment in the community (Burgess, 2006).

Most of the claims about the organizational impact of online discussion forums are anecdotal, but studies formally analyzing the means by which forums can have organizational impact highlight the necessity of member activity to the development of social and intellectual capital (Cianciolo, Heiden, & Prevou 2006; Lesser & Storck, 2001). Methods for stimulating and focusing activity in Army professional forums provide a direct link between organizational investment and individual learning. Therefore, such methods provide an indirect link between organizational investment and impact. The present research explored the design and development of digital stories as one such method.

WHY STORIES?

Generally speaking, Army professional forums provide two types of opportunity to engage in conversation: "organic" opportunities—questions or comments posted by forum members or facilitators—and "built" opportunities, such as collaborative book reviews and shared problem-solving exercises, in which discussion is centered on a specific object or event. Although there exists guidance on facilitating organic discussion,

relatively little is written about how to use built opportunities to stimulate activity in an Army professional forum (though see Dixon et al., 2005). Stories, however, are widely recognized as an effective means for supporting knowledge management and learning in organizations through collaborative discussion and reflection (Denning, 2005; Freidus & Hlubinka, 2002; Swap, Leonard, Shields, & Abrams, 2001).

Stories as Tools for Knowledge Management and Individual Learning

Organizational knowledge management generates impact through individual learning both by disseminating employees' explicit knowledge and by fostering the exchange of more elusive tacit knowledge. Tacit knowledge is knowledge that is learned informally from experience and is difficult to articulate once it is acquired (Wagner & Sternberg, 1985). It therefore is not easily codified and exchanged as explicit procedures, practical solutions, or best practices. Yet, tacit knowledge has been demonstrated to be an important determinant of occupational success (Tan & Libby, 1997; Wagner & Sternberg, 1985; 1990).

Stories serve organizational knowledge management as vehicles for the exchange of tacit knowledge, particularly about non-technical aspects of work performance (Swap et al., 2001). Such non-technical aspects include dealing with difficult subordinates or superiors ("leading upward"), meeting the conflicting demands of work and family, cross-cultural communication, and so on. Addressing non-technical learning objectives through stories can help military personnel to gain knowledge about important aspects of leadership not addressed by doctrinal field manuals, training plans, and formal education. At a time when the actions of individual soldiers and leaders can have strategic impact though their influence on public opinion, non-technical tacit knowledge is especially important and costly to learn on the job.

Storytelling facilitates less costly informal learning by providing vicarious, contextualized experiences. That is, tacit knowledge can be acquired in a relatively consequence-free environment where the storyteller and the audience learn together by reflecting on the story's learning points, its unique conditions, and its similarity to other personal experiences. Learning in this way bridges the gap between reading abstract doctrinal manuals and learning on the job, fostering more rapid development of expertise.

Finally, stories facilitate the development of storytelling skills and reflective practice, which are important leadership and professional capabilities (Cianciolo, Antonakis, & Sternberg, 2004; Denning, 2005; Freidus & Hlubinka, 2002). Enhanced storytelling capability in the context of professional forums stimulates future discussion, tacit knowledge exchange, and social networking, thereby increasing the development of social and intellectual capital and the organizational impact of the forum.

WHY DIGITAL STORIES?

Digital stories are the combination of narrative, visuals, and audio in a short vignette that communicates a particular message, such as one's values, knowledge, or visions for the future (Denning, 2005; Freidus & Hlubinka, 2002). As with conventional stories told in organizations, a digital story does not necessarily include such components as a character arc, turning point, and resolution (Denning, 2005). Rather, such stories typically are brief, open-ended sketches, and their components vary depending on the message (e.g., Denning, 2005). For example, if the explicit purpose of the story is to convey knowledge the story may depict a sequence of events in which something went wrong because critical knowledge was not held by the story's protagonist (see, e.g., Zbylut & Ward, 2004). To share values, a story may depict a difficult decision point that reflects the protagonist's adherence to a particular set of values as opposed to some other set of values.

Effective digital stories can be difficult and potentially costly to create. The advantage of using digital stories therefore must be clear in order to justify the time invested in developing storylines, creating compelling narratives, choosing the appropriate media, and implementing the story. The primary advantage of the digital story is that it can be easily shared in online discussion forms and rapidly transported and shared outside of the forum context (e.g., in classrooms, peer-to-peer exchange, etc.). Moreover, digital stories provide more elaborate, detailed context than conventional verbal stories, which produces a higher-fidelity narrative and facilitates tacit knowledge exchange and use (Dixon et al., 2005). For this reason, digital stories also may also be more emotionally stimulating and memorable than conventional verbal stories, thus stimulating the learning process (Zbylut, Metcalf, Kim, Hill, Rocher, & Vowels, 2007; Swap et al., 2001).

OUR STORY – TROUBLE AT CHECKPOINT 4

In the present research, we used 3D animation to tell the story of a U.S. Army sergeant (SGT Ash) who is manning a checkpoint in Iraq along with a young specialist (SPC Sondelli). The specialist demonstrates negative attitudes toward Iraqis in a conversation with the sergeant. These attitudes come to a head when an Iraqi civilian claiming to be a sheikh refuses to get out of his car to be searched. As the story unfolds, it addresses aspects of interpersonal leadership and cultural awareness.

The purpose of the story was to expose viewers to the toxic mix of low morale and cultural difference that can characterize the environment during counterinsurgency operations. Our goal was to stimulate discussion on these topics, thereby fostering the sharing of insight, reflection, and personal experience.

The Critical Incident

To maintain consistency with current best practice in shared problem-solving and discussion in professional forums, the format of our digital story, *Trouble at Checkpoint 4*, was based on the situational judgment testing format, which also is used to assess tacit-knowledge (Sternberg, Forsythe, Hedlund, Horvath, Wagner, Williams, et al., 2000). Consistent with the tacit-knowledge assessment format, *Checkpoint 4* features a critical incident that presents a practical problem, but is open ended (i.e., a resolution is not provided). It is left up to the viewer to determine what went wrong and what should happen next by rating the quality of response alternatives and answering reflection questions.

To develop our story, we interviewed veterans of Operation Iraqi Freedom and reviewed the memoirs, blogs, and other reflections written by such veterans. We began by creating a storyline that would serve as the basis for dialogue and sequencing of visual events. Our intent was to develop a narrative that would be (a) relevant to current Army professional forum members; (b) sufficiently complex as to elicit differing opinions about how to handle the experience; and (c) relatively straightforward to depict visually (i.e., it did not require access to classified information or other resources that are very difficult to access). The storyline was short, relatively undetailed narrative depicting the general action of the story, and could be considered analogous to the text-based Command

Challenges occasionally presented on the Army professional forum for company commanders called *CompanyCommand.mil* (see Dixon et al., 2005). The storyline follows:

While manning a stationary checkpoint, a search team of one SGT and one SPC encounter an Iraqi civilian who refuses to have himself and his car searched, claiming that he is a sheikh on important business. The Iraqi civilian was sent to the search team, however, because the type of vehicle he is driving was described on the unit's be-on-the-lookout (BOLO) list. When the SGT calmly insists that the Iraqi civilian must get out of his car to be searched, the Iraqi becomes belligerent, demanding to speak with the leader in charge of the search team. Public relations (and therefore intelligence) in this area haven't been good because the locals have not developed the level of trust with the current unit that they had with the previous unit. In addition, the Iraqi civilian's car is an Opel, which is very common in Iraq, and license plates do not always stay on the same car. The SPC on the search team isn't buying the Iraqi's story and aggressively confronts him, who responds in turn by spitting at the SPC's feet. A cultural blunder with a key leader in the area would set the unit back a great deal, and the situation is rapidly falling apart...

The Medium

Next, the method for presenting the story was chosen. We considered the tradeoffs of using a "PowerPoint-like" presentation of still images and audio versus using 3D animation. Three-dimensional animation was chosen because this medium could most effectively depict the story's action, content, learning points, and drama.

After writing the storyline, a detailed dialogue script was prepared (e.g., containing character names, interpersonal interactions, background and other situational detail, location information, etc.) and visuals to support the animation were collected. Visuals came from multiple online sources, including unclassified Army photos, milblog photos, and doctrinal images. A small group of subject matter experts reviewed the script and imagery for accuracy prior to implementing the animation.



Figure 1. Screen Capture from Trouble at Checkpoint 4

The animation production team consisted of seven 3D animation specialists, a visual development artist, a sound designer, and two actors. All artists had substantial experience in the animation field, with most having at least a Bachelor of Fine Arts degree in their chosen specialty. The production process was the same as is used by major animation studios. The breadth and depth of the process' scope was reduced, however, due to budgetary and time constraints on the production process.

Production began with the visual development artist, working under the director's supervision, transforming the visual research and subject matter expert input into a coherent on-screen design for the film. Her work became the blueprint for the 3D animation specialists. With the visual design in place, the 3D animation specialists began constructing the necessary models and characters.

Separately, the voice-over performances were recorded. They were edited together as a preliminary soundtrack so that the director could judge the film's pacing before beginning the animation process. The final production stages were lighting and sound design. Both elements were critical to creating an immersive storytelling environment and maximizing the emotional impact on the viewer. Figure 1 above shows a screen capture from *Trouble at Checkpoint 4*.

Facilitating Discussion and Reflection

To facilitate discussion and reflection on the story, response strategy options and discussion questions were created. As described briefly earlier, response strategy options are used commonly in tacit-knowledge assessments. After reviewing the critical incident in the story, an individual uses the response strategy options to rate the quality of various alternatives in order to indicate how they would handle the problem situation. In group settings, public quality ratings are intended to stimulate discussion about the rationale behind people's selections and to allow people to compare how they would have responded to the solutions of others. Such discussion can help reveal underlying assumptions about what the events in the critical incident mean and about the appropriate action to take in a given situation.

Response strategy options for *Trouble at Checkpoint 4* were created in collaboration with a subject matter expert consultant who reviewed the critical incident and provided suggestions for alternate ways to handle the problem presented. Other resources used to create response strategy options include the Army professional and institutional literature related to the topics featured in the critical incident.

The response strategy options for *Trouble at Checkpoint 4* (i.e., what SGT Ash could do to handle the situation) were as follows:

- Immediately request the lieutenant's presence to talk to the Iraqi civilian
- Remove SPC Sondelli and the Iraqi from the search area and finish the search alone
- Promise the Iraqi that he will be compensated for his trouble at the checkpoint
- Radio the platoon sergeant for additional personnel to conduct the search
- Maintain a unified Army front with the Iraqi civilian and go with SPC Sondelli's actions
- Apologize to the Iraqi and let him leave the checkpoint without being searched

Discussion questions were created on the basis of previous scientific research examining the link between reflection and tacit-knowledge acquisition (Cianciolo, Antonakis, & Sternberg, 2001; Mayer, 1999). Like response strategy options, discussion questions are addressed by the individual after he or she has reviewed the story's critical incident. The purpose of discussion questions is to facilitate reflection on how one arrived at his or her judgment about the problem presented in the critical incident and about the outcome one would expect if the preferred response was enacted. Public reflection can help the individual to examine how his or her judgments compare to those of others.

The discussion questions following *Trouble at Checkpoint 4* are presented below:

- What could have been done to prevent this situation from happening?
- When did SGT Ash first lose control of the situation?
- Was SPC Sondelli right to question the Iraqi's identity as a sheikh?
- What cues introduced ambiguity with regard to the Iraqi's identity as a sheikh?
- What cues did SPC Sondelli give SGT Ash that he would not interact constructively with the Iraqi civilian?
- What effect could the interaction at this checkpoint have on troop safety?
- What have successful units done to build civil-military relationships in their area of operations after replacing another unit?

IMPLEMENTING CHECKPOINT 4 ON NCONET

As an initial exploration of the effectiveness of digital stories, *Trouble at Checkpoint 4* was posted in *NCONet* on February 16, 2007. *NCONet* is a discussion forum designed to support professional conversation, knowledge sharing, and virtual community development among noncommissioned officers ranging in rank from corporal to command sergeant major. At the time of this writing, *NCONet* has close to 27,000 members and approximately 95 ongoing discussions. One of the forum's lead facilitators posted *Checkpoint 4*, making an announcement of the new knowledge object, presenting the response strategy options and discussion questions, and inviting forum members to discuss the problem posed in the story.

Conversation Stimulation

Within 48 hours (18 February 2007), *Trouble at Checkpoint 4* was the highest ranked contribution of 5705 knowledge objects posted in the forum, receiving approximately 4,000 views. Conversation stimulated by the digital story also was the highest ranked discussion among approximately 44 ongoing discussions. Within this same 48-hour period, 152 discussion posts were made in response to *Trouble at Checkpoint 4*.

Although 4,000 views and 152 posts in a forum of approximately 27,000 members may seem like a small number, it should be noted that other knowledge objects in *NCONet* receive, on average approximately four discussion posts. Moreover, the core group of active community members is generally recognized to comprise approximately 15-20 percent of the total community population (Wenger et al., 2002). The number of views was well within this range, with the number of posts approaching 6% of the community population within the first 48 hours.

Since its launch on *NCONet*, *Trouble at Checkpoint 4* has been requested and/or used for cultural awareness training outside of the professional forum context (e.g., classroom settings and unit training).

Conversation Content

We analyzed the content of the discussion posts made within this 48-hour period in order to determine whether contributors identified the key learning points of the story. We also wanted to gain an understanding of what new insights and discussion the story stimulated.

Contributors identified both of the main learning points of the digital story: leadership (knowing how to deal with readiness shortfalls) and cultural awareness (understanding the appropriate escalation of force). The matter of leadership came up the most often, with cultural awareness a close second. Tactical points (checkpoint setup and conduct) also were raised as a distant third.

Contributions reflected “both sides” of the issue of how best to ensure force protection. That is, collectively, the contributors noted that cultural sensitivity is important to winning the populace and reducing attacks against U.S. forces. However, they also recognized that the Iraqi citizen portrayed in *Trouble at Checkpoint 4* could very well not be a sheikh and that it is critical to always maintain a defensive posture.

The sequence of discussion posts stimulated by the digital story indicated that contributors were reading each other’s comments such that the conversation somewhat built upon contributions rather than it just being a series of unrelated comments. This is in contrast to what has been observed in other professional forums (Cianciolo et al., 2006), however the conversation stimulated by *Trouble at Checkpoint 4* was more a reflection of individual input rather than common dialogue. One contributor attempted to summarize the conversation at the time he encountered it.

Some of the individual input contained seeds for new, related conversations on training challenges, combat stress, and dealing with the reserves. A small handful of contributors (around 4 or 5 or so out of 152) felt that the behavior of the culturally insensitive subordinate (i.e., SPC Sondelli) was not out of line, and gave the impression of harboring some bitterness toward Iraqis. All of these conversation posts were professional, reflecting the diversity of opinions and experiences during deployment in Operation Iraqi Freedom.

LESSONS LEARNED

Recommendations for Effective Digital Stories

We found that the key characteristics of our digital story that stimulated discussion were relevance and controversy. Stories featuring relevant occupational problems generate discussion by speaking to the interests and concerns of those who encounter them. Relevant topics play a role in meeting immediate needs. Therefore, they are subjects considered in more depth by more people (see also Zbylut et al., 2007). Relevant topics also are more likely to motivate discussants to

take the time to contribute, either by sharing experience or asking for advice. The critical incidents featured in digital stories for Army professional forums therefore should be highly relevant to the current concerns and interests of soldiers and leaders. They should present common, persistent challenges and include conditions, such as ongoing mission tasks, social/political climate, and geographical areas, which reflect the conditions present the contemporary operating environment.

Controversy, or disagreement, stems from the existence of multiple workable solutions to, or perspectives on, the same problem. Controversy generates discussion by soliciting differing, often strongly held, opinions on a subject. Disagreement is only productive, however, to the degree to which it achieves new understandings through synthesis or a mutual respect of differences. In order to balance disagreement with learning, the critical incidents featured in digital stories should present common problems that nevertheless evade a common solution because of substantial environmental complexity. These problems are more likely to tap into real experience, as opposed to opinion, than more abstract or academic problems, and they are more representative of the kinds of challenges warfighters face than are simpler problems. Such challenges might include cultural barriers when dealing with host nation civilians or increasingly diverse friendly forces and issues of morale and/or well-being.

Controversy should be coupled with relevance so that conversation stemming from a particular digital story is productive with respect to some developmental goal. Discussion must be related in some way to the goals of the organization in order for a forum to have an impact beyond the individual level (Cianciolo, et al., 2006). To a large degree, discussion on relevant topics will simultaneously improve individual effectiveness and achieve organizational excellence. However, relevance without controversy will fail to generate much discussion because there is wide agreement. Controversy without relevance may generate heated debate, but will not aid in the solution of immediate problems and the enhancement of organizational effectiveness.

Although such topics might seem important to discuss, digital stories generally should not feature critical incidents that are highly sensitive in nature. Stories based on sensitive topics likely will not generate a great deal of discussion because discussants may be reluctant to reveal opinions on a topic that they believe could threaten their reputation. In addition, because sensitive topics likely involve low-frequency occurrences, many

people may feel that they do not have anything knowledgeable to offer to the discussion.

Digital stories also must have a high degree of accuracy in the portrayal of people, places, and vehicles and equipment. Although many viewers of digital stories are capable of suspending disbelief (and there is tremendous variety in people's experiences), inaccuracies can stimulate conversation in an unproductive direction relative to the story's learning points. Multiple subject matter experts should be involved in developing the story, particularly when writing dialogue and creating visuals, in order to ensure accuracy.

Choosing the Right Medium

Choosing the medium for presenting a digital story has implications for development time and cost. For these reasons, the medium must be chosen to match the content and learning goals for the story. Sequences of still images and audio are better suited to depicting occupational problems that unfold over relatively long periods of time, that involve the presentation or review of 2D artifacts such as maps, planning products, memos, etc., and that do not have dramatic interpersonal exchanges as central events. Practical problems amenable to representation via a "PowerPoint-like" multimedia presentation include such intrapersonal challenges as managing one's workload, prioritizing multiple tasks, structuring one's work environment, etc.

Three-dimensional animation, in contrast, is better suited to depicting problems that unfold in real time and that involve significant interpersonal interaction or dramatic emotional content (Zbylut & Ward, 2004; Zbylut et al., 2007). In addition, 3D animation better represents the dynamic, non-verbal cues that people use to make judgments about the emotional state of others. Practical problems amenable to 3D animation include such interpersonal challenges as navigating cultural differences, diffusing tense interpersonal situations, or displaying courage in a combat situation.

Alternatives to 3D animation that also may depict such problems successfully include 2D animation and live action. Live action may be a more cost-effective alternative than 3D animation where there is easy access to the story's setting (e.g., an office), the number and diversity of characters is limited, and the story's action does not require destruction (e.g., explosions).

All of these methods may be combined to achieve the optimal learning impact. Such combination likely is

more appropriate for longer stories, with 2D elements depicting artifacts and the passage of time and 3D elements depicting interpersonal interactions.

Creating Meaningful Response Strategy Options

Although digital stories do not need to conform to the tacit-knowledge assessment format, open-ended stories based this format should include response strategy options. Response strategy options focus the viewer on the kinds of options that may be available in the operational environment. That is, these options do not contain a single correct or even best answer. Rather, they reflect the lack of easy (or sometimes even satisfying) choices that characterize working life.

Response strategy options should reflect plausible approaches to addressing the incident presented in the story because the goal is to create shared experience, facilitate mutual understanding, and support learning. Quality response strategy options enhance story effectiveness by challenging the viewers' currently held perspectives and peaking their interest in the responses of others.

Response strategy options should feature solutions that vary with regard to their immediacy, comprehensiveness, relevance to the critical incident, involvement of others, duration of applicability, and/or conformity to organizational norms, among others. Importantly, the different response strategy options should be at least somewhat valid and should reflect a known range of possible problem solutions. "Strawman" response strategies should be avoided because they do not reveal meaningful differences in perspectives and approaches and may damage the credibility of the vignette as a whole.

Creating Discussion Questions that Stimulate Reflection

Because digital stories achieve impact through conversation that reveals tacit knowledge and facilitates reflection, discussion questions should lead participants to articulate the link between the conditions present in the story and successful action (Cianciolo et al., 2001). In addition, the questions should guide discussants in exploring the implications of this tacit knowledge to related problems and to share relevant experience with others (Mayer, 1999). Given the limited time that members of a professional forum have to participate in conversation, the discussion questions should focus on the aspects of the critical incident and response strategy options that have the most direct link to achieving success outside of the forum.

Facilitating Story Discussion

Based on our observations of the *NCONet* discussion of *Checkpoint 4*, we see many opportunities for forum facilitators to leverage the momentum in the discussion stimulated by digital stories. Facilitators should actively monitor and participate in the discussion, enabling digital stories to better serve as tools for organizational knowledge management and individual learning. Below are some suggestions for how facilitators can shape the discussion in ways that will have impact:

- Facilitators should encourage contributors, via a responding discussion post or via an individual email, to share their own related stories.
- Facilitators should work with contributors who share stories to turn them into an engaging digital product.
- Facilitators should ensure that conversation touches on the response strategies and reflection questions so that reading the discussion thread has pedagogical value.
- Facilitators should encourage contributors who make comments on what went wrong in the story to provide descriptions, sketches, or other knowledge products that show what they would have done (or have done in the past).
- Facilitators should encourage contributors who recognize training shortfalls in the story to share good resources for developing training in those areas (e.g., existing exercises, briefings, books, etc.)
- Where the story content relates to the “softer,” more interpersonal aspects of leadership (e.g., combat stress, low morale, etc.) or where discussion posts reflect negative attitudes, facilitators should draw the conversation in a direction that explores these issues further.
- Facilitators should summarize the conversation themes in order to make them serve as a useful instructional tool and stimulant for further discussion.
- To build future stories or other built opportunities for discussion, facilitators should capitalize on the momentum and survey contributors to see what other opportunities they’d like to see in the forum.

CONCLUSIONS

This paper describes an initial effort to explore the use of digital stories as discussion stimulants and learning tools in online discussion forums. The results of this effort were positive, however there is much work to be

done before digital storytelling can achieve optimal impact with the military’s training and education dollars.

First, further research is required in order to determine the right balance of story content and medium. The present effort only explored the impact of a 3D animated story situated in an online discussion forum. It is unknown what role the content versus the medium played in stimulating so much discussion and interest. Such knowledge is critical to understanding how to trade off the cost of expensive media with the expected benefit for a particular forum and its members.

In order to tease apart the role of different content and media, a controlled study should be conducted in which the same story is presented in different formats and the impact on discussion, learning, and viewer ratings analyzed. Alternatively, and perhaps more feasibly when conducting a field study, the content of stories presented in different formats could be carefully equated on their level of interest and then analyzed for their impact on discussion and viewer ratings. An additional study could explore the impact of advanced presentation media on story content of varying levels of immediate interest to forum members.

Second, more research is required to understand the potential impact of digital stories. More stories should be created in order to explore with forum members the impact that stories have on their professional life. Stories may help forum members identify experts in an area. They may help forum members to better understand themselves or their professional community. They may provide alternative solutions to difficult problems. Although it is generally recognized that stories are vehicles for sharing tacit knowledge and building professional communities, the mechanism by which this happens is not yet well understood.

It appears that we have only scratched the surface of the use of digital stories in online discussion forums. This area would benefit greatly from rigorous, systematic research in order to achieve the greatest learning and organizational impact from these potentially powerful learning tools.

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