

Storytelling—Plots of resilience, learning, and discovery in emergency management

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ABSTRACT

Almost everyone can relate to the experience of telling a story. This article explores how storytelling is being used to identify risks and create hazard mitigation strategies, as well as how it can promote learning within the field of emergency management. Storytelling is both a pedagogical tool and an invaluable resource for practicing emergency managers. This article illustrates the ways in which the process of telling a story enables participants to talk about stressful concerns, internalize complex concepts, and even have fun.

The article explores how storytelling drove the public process leading to the adoption of hazard mitigation plans, and how eight types of stories, as defined by the American humorist Kurt Vonnegut, can strengthen emergency management education. This article also explores how research suggests that storytelling can provide an effective way for both the tellers of story and their listeners to find meaning in events, provide context to what is being taught, transmit emotion along with information, develop a professional identity, build empathy and compassion, and help with remembering events and lessons learned. The authors have a long history of utilizing storytelling and present this article in order to share and explore storytelling as applied to the discipline of emergency management.

Key words: resilience, community resilience, disaster, panarchy, preparedness

INTRODUCTION

Storytelling seems to be an approach to which most can relate. When someone mentions storytelling,

others' ears perk up as they listen for intriguing characters, challenging journeys, critical cross-roads, the challenges, and glorious triumphs. It is a space where our creative, emotional, and logical minds can work together, reacting to the environments presented, logically contemplating the uncertainties and possibilities, and following the path of the characters with hope and anticipation. The purpose of this paper is to share and explore storytelling as applied to the discipline of emergency management. The contributing authors have been attracted to and experimenting with storytelling to enhance the emergency management practice, deliver content in the college classroom, and capture the story in emergency management related research. This article shares their experiences, as well as provides an overview of some of the relevant literature.

Bob Freitag begins our story in the Northwestern corners of the United States. His inspiration and awakening to the power of storytelling came from experiences with Alaskan indigenous communities. This revelation of the story as a pathway for community engagement imprinted in his mind, and nearly two decades later, he tells us another impactful resilience story by the community of Everett Washington. This idyllic port city serves as the setting for examining and learning how we can become authors of our community story. Freitag shares how this community looked at the elements of the story, the characters, the threats, the possibilities, the values, and the choices that could be made to craft a plot line that was inclusive, informed, and engaged.

This paper will then take our story into the classroom and into the hands of teachers to bring alive the teaching. Dr. Thad Hicks has been inspired by fiction and storytelling, specifically the works of the legendary Kurt Vonnegut. Dr. Hicks provides us with the power of stories to promote learning through an explanation of Vonnegut's eight story types. Dr. Hicks has brought these storylines to his classroom and also served as a leader in teaching others how to teach emergency management with stories.

Finally, the story of this paper will take us to the land of research and learning. Dr. Alessandra Jerolleman will take us not only to dip our toe in the water of how learning occurs through stories, but will also begin to explore the use of stories in qualitative research. She will examine how adult learning, sometimes referred to as andragogy, can benefit from the use of stories in emergency management education, research, and training. Our story will then close with possibilities for future examinations of how we can capture the stories and share these stories from the classroom, from the field, and from the research community.

BEGINNING IN THE FIELD

Alatna and Allakaket Communities, Alaska

Storytelling became intriguing to Freitag as a way of discussing risks, and internalizing and resolving problems while working in Alaska with indigenous communities. Floodwaters destroyed the villages of Alatna and Allakaket in the mid-1990s, and these residents faced the need to redesign their communities. All was gone and the river was altering course. There were no easy solutions and understandably, considerable grief and confusion followed. FEMA was funding recovery and Bob had a mitigation role. These communities were relocated to higher ground. However, the public process that led to this solution was as intriguing as was the solution.

The restorative and the community redesign processes proceeded through storytelling. At first, community stories focused on healing and a clarification of tribal values. As more was learned about the flooding threat, the hazard and related impacts became a thread woven into descriptions of personal

experiences. As conflicts emerged, alternative solutions drove the stories.

There were unusual aspects inherent to these communities. The remote traditional community context was certainly unique where storytelling was an accepted way to communicate. Village elders were artful in seeing that all expressed their voice, and because of the flood recovery effort, storytelling was often conducted in more formal gatherings, called by an elder, often at the encouragement of a FEMA program officer. There were fewer outside activities, leaving tribal members with the time to participate in storytelling. However, even with these differences, their public process offered many advantages and were worth exploring.

The flood and resulting impacts drove their story initially. Conflicts emerged and stories became less descriptive over time. Plots changed and the focus of the stories began to address planning issues and alternative risk reduction measures. At times FEMA drove the plot, and conflicts often arose with FEMA's need to adhere to specific scope of work timelines. Storytelling seemed to focus discussion on resolution and unpackaged suggested approaches from preconceived ideas and personal differences.

Resolution emerged when the community reached an agreement as guided by the elders. The stories established the context, resolved the conflict, and determined a resolution—a course of action with consensus. The tribe defined the story—their resolution story of what needed to be accomplished.

Everett, Washington

Flipping to the last page of the story, we find that Everett Washington citizens, assembled to help draft a community Hazard Mitigation Plan (HMP),¹ offered the following:

We really enjoy our waterfront. We also are concerned with being isolated within the Port when there are emergencies. Let us create open spaces within the Port. This would provide more opportunities to enjoy the waterfront. These spaces would be available for farmers markets, picnics, and

enjoying our Ocean views. These spaces could also provide places of refuge following an earthquake, tsunami or a Port related fire.

What a great statement of a desired resolution! Let's go to the front of this story and find out how we got there. This gathering of neighbors suggested ways to resolve community risks, while they were suggesting much more. Unlike many risk-driven workshops, this exercise began with communities defining their values—what they enjoyed about their community and what values they embraced—not with lists of individual at-risk built capital. They did not begin this exploration of risks to their way of life by starting with presentations of Hazards US (HAZUS) global risk reports. They were suggesting ways to build on the assets of their community while making it safer and more livable. All was accomplished through telling stories.

The storytelling process used in Everett (Figure 1) began with an explanation of individual and community values and in identifying supporting assets. Threats to these provisional assets were identified and stresses to dependent values were noted. Suggestions on ways to strengthen and replace at-risk assets were offered, and where demanded, the community re-assessed values.

Their stories allowed for the integration of risk reduction measures with comprehensive planning objectives as well as their personal aspirations.

In our experience, storytelling has allowed us to put a personal face on risk and support open discussion. It has allowed us to unpackage preconceived beliefs and political noise.

The Everett City HMP was intentionally designed to follow a very similar story-telling public process. We could not take months to reach a resolution as described in the Alaska example above, but we could create a noncharged, positive atmosphere that was



Figure 1. Everett City community stakeholders developing hazard driven stories supporting the preparation of the Hazards Mitigation Plan. On the table are story templets having three columns for notes on community context (community values and supporting assets), changes (earthquakes), and resolutions (retrofitting vulnerable homes).

both fun and productive. We could apply appreciative inquiry processes that we had developed through a FEMA project.²

A storytelling approach was used in some form for all public meetings be they with city departments, neighborhoods or business interests. During larger meetings, participants were often divided into table groups representing different stakeholders, neighborhoods, and department divisions. The storytelling process typically involved three rounds of play with each round ending in a member presenting findings to the larger group. To present the story, we used a World Café³ approach with larger groups, and each round of play built on the preceding ones.

1. Context (values/assets)—All Everett meetings began with participants clarifying what was liked and disliked within their area of concern. We solicited verbs and adverbs from the group including walking, exercising, shopping, functioning, storing. We then asked players to assign assets to these values. Provisional assets included social, natural, and built infrastructures such as trails, health clubs, stores, and water reservoirs. During gatherings that were more formal, we encouraged participants to begin their stories with “once up a time...”

2. Conflict/plot (change agent or hazards)—Following the identification of values and provisional assets, we introduced the plot conflict as a change agent. Here, we relied heavily on Hazards US (HAZUS) to present probable changes. Existing and future risks were introduced as change agents driving the story plot.

Within round one we began with an identification of values and then the assets providing these values. Within this round participants first noted assets that were left standing as well as those damaged but with limited functionality. The driving

question for this round was “how can the participant embrace key values within the context of surviving assets?”

We encouraged participants to start their story from the beginning but later add this element with suspense: “And then...”

3. Resolution—Here, participants were to come up with three sets of recommendations. All involved resolving the conflicts and focused on their values and provisional assets. Where needed, we presented examples of mitigation approaches (retreat, accommodate and protect). The products of this round of play were:

- a. Ways to harden needed surviving assets (retrofitting existing structures).
- b. Suggested new assets that would similarly support values (creating open space commons within the Port).
- c. Mitigation measures that if instituted before the introduced change event, could have assured a better continuance of their stated values.

In reporting, as with previous rounds, participants were encouraged to lead to their resolution presentations by integrating material from previous rounds: “Once upon a time...”, “And then...”, “We resolved the issue by, and could have prevented losses by instituting these mitigation measures...”

It is interesting to note that we did not notice counterproductive openly partisan discussions that often accompany charged topics such as Global Warming. Debates occurred, but they focused on specific real asset-related issues driving participants’ values. Dealing with real issues in a friendly, fun, unthreatening storytelling format apparently uncoupled

decision making from politically charged rhetoric. This may be the greatest advantage of integrating storytelling into the public process.

Lately, Freitag has expanded the approach by asking participants to amend their in rounds—to alter the context, change profile or resolution, and retell the story with their revision. For instance assuming the community is rapidly growing where the original story assumed a loss in population. Or, assuming the flooding becomes increasingly frequent or of greater magnitude. Participants have also changed their resolution. One team changed the availability of FEMA buyout grants and decreased their emphasis on retreat. Also some story exercises have begun with an introduction of the community context while other participant feel it is more interesting to begin their story with the event—"it was a dark and stormy night"... sort of beginning. During one exercise, a student team began with a failed resolution and then backed their story into describing the responsible change agent and community context that led to the failure. This retelling of stories in rounds help support an investigation into alternative futures and in addressing uncertainties.

THE CLASSROOM STORY

While the concept of storytelling to communicate feelings, thoughts, and desires has long been in use, its use within emergency management is in its infancy. A story can be defined as the report of a situation, true or fictitious, designed to interest, challenge, amuse, instruct, and ultimately hook the hearer. Television as a way of communicating has been around less than 100 years, and radio just a little longer than that. Storytelling has been around since the dawn of time, and up until a few generations ago was the preferred way of communicating everything from a shopping list to a family history. Dr. Thad Hicks advised that he was unaware of a better method for risk communication than storytelling.

Not only is storytelling one of the oldest ways of communicating, it may be the most effective, and there is science to back this up. According to Lerner et al. in an issue of *The Journal of Neuroscience*, our brains become more active when we tell stories.⁴ Lerner

et al.⁴ further explained that when presented a typical academic PowerPoint presentation, packed with bullet points and short pithy sentences, certain parts of a hearer's brain get activated. Scientists call these the Broca's area and Wernicke's area. Overall, this type of presentation hits the language processing parts in the brain, where we decode words into meaning, etc. Apart from this decoding though, nothing else really happens. When we are being told a story though, things change dramatically. Not only are the language processing parts in our brain activated, but any other areas in our brain that we would use when actually experiencing the events of the story are also triggered.

Stories, if done well, can transport the hearer into the story where their brains are fooled into thinking that they are undergoing the events themselves. Lerner et al.⁴ describe how when someone tells us about how delicious a certain food was to bite into, our sensory cortex lights up. If it is about movement, such as swimming or running, our motor cortex gets active. Stories put additional portions of our brains to work.

When we tell stories to others who have helped shape our thinking and way of life, it can have the same effect on them. The brain of the person telling a story and the brain of the one listening to it can in a sense synchronize. When an individual tells a story and activates the emotional brain region, the listeners can too. By simply telling a story, the one telling the story can connect deeply with the listener, and this must be our goal as we look to connect with those who are hearing our story.

We need to communicate in a way that best connects to the person listening. A good storyteller takes people on a journey, leaving them feeling inspired and motivated. This is possible regardless of your topic, but it needs to be deliberate. Structuring your "story" to get your ideas across and keep your audience engaged all the way through the entire process is tricky. Time-tested techniques are required to get your message to stick, and luckily there are just a few. Individuals over the years have fluctuated vastly on the number of stories there actually are. Some would say that there are hundreds of different types, while others would say that there are fewer than five. Hicks feels the explanation given by American humorist

Kurt Vonnegut in his largely forgotten master's thesis is helpful.⁵ Vonnegut argued that there were only eight types of stories.

1. Man in a hole: where the main character runs into trouble and then gets out of it.
2. Boy meets Girl: where the main character gets something amazing, loses it, but then gets it back.
3. From Bad to Worse: where the main character begins in dire straits and things get worse.
4. Which Way is Up: where there is ambiguity as to whether what is happening is good or bad.
5. Creation Story: a deity provides incremental gifts.
6. Old Testament: a deity provides incremental gifts, but then humanity loses its good standing.
7. New Testament: a deity provides incremental gifts, good standing is lost, and then there is a blissful outcome
8. Cinderella: compared by Vonnegut to the New Testament model.

Vonnegut argued that every type of story since the beginning of time fit into one of these categories. Our minds are constantly trying to put things into a comfortable order. Everything in our brain is looking for the cause and effect relationship of something we've previously experienced. Whenever we hear a story, we want to relate it to one of our existing experiences. We are looking for the story. That is why metaphors work so well with us. With the existence of only eight types of stories, telling yours shouldn't be that hard.

In his college classroom over the last 10 years, Professor Thaddeus Hicks has been successful in

using these methods to better connect his students to the material. His students have employed different storytelling types when looking for the critical information. Storytelling has enabled his students to provide information in a way that is time-tested, and effective. The following section will lay out a few of these instances using Vonnegut's model.

Man in a Hole

When using this type of story, it is important to understand that it is relatable, and people are able to relate because they too have encountered trouble and been able to get out of it. Hicks was recently discussing this story type in class, and there seemed to be a disconnect. When he decided to compare it to *The Godfather*, the students instantly understood. When Michael shot and killed the police officer, things looked grim, but in time, the student was able to come back to the United States and assume his leadership of the entire crime family.

From Bad to Worse

From Bad to Worse is another approach that people seem to understand. Hicks spent some time in Haiti shortly after their Earthquake a few years ago, so it often comes up in his classroom. While trying to explain the multiple issues facing Haiti he decided to utilize the *From Bad to Worse* approach. Many of his students were huge fans of *Game of Thrones*, and anytime he was able to use this story he did. When discussing the book series and the TV show, Hicks explained how the situation for the main protagonists, the Starks never seemed to get better. In fact, their very family motto, "Winter is Coming" indicates things will never get better. The moment he connected the situation in Haiti with the *From Bad to Worse* story style found in the book, the lights came on, and they knew what he was saying.

Which Way is Up

Sometimes it is hard to tell in the moment if the situation we are in is actually good or bad. In fact, sometimes this feeling changes from experience to experience. Hicks taught an International Development class, and throughout the course, tried

not to let his bias show. It was vital to allow room for the student to develop their own feelings on the material which was ultimately used to guide them toward the facts. Hicks was constantly laying out situations and challenging his students to make assessments though. What he saw time and time again is that as we look at the life of some despot, there are times when the students like him, and times when they hate him. This is confusing to them, but when he brought up the television show, *The Sopranos*, and told them about the exploits of Tony Soprano, they get it. Using this story type enables him to drive home the idea that it's sometimes hard to know *Which End is Up*.

STORYTELLING AND LEARNING

This article provides practical examples of the use of storytelling in planning processes, as well as in the classroom. We have also shared some discussion around the science of storytelling: what we know about why stories help with communication and how. Storytelling is used both formally and informally in many fields, including in education. It can be a very powerful tool within organizations, such as corporations, nonprofits, and emergency management agencies. One of the reasons that storytelling is so powerful is its connection to tacit knowledge, knowledge that is otherwise very difficult to pass on.

Michael⁶ introduced the idea of tacit knowledge in 1958, using the term to describe the type of knowledge that is more difficult to transfer. Tacit knowledge is knowledge that cannot easily be written down or taught; it comes from practice and experience. Stories are a powerful way of transmitting tacit knowledge, within organizations, within families, and within communities. For example, stories may pass down tacit knowledge related to disaster preparedness from one generation to another. They serve as a means of creating a family identity and modeling behavior.

Emergency management has long relied on the use of narratives, although this is not always thought of as storytelling. Mechanisms that are frequently utilized include case studies and scenarios, where real or realistic events are utilized as teaching tools. In her own classroom teaching, Jerolleman, one of the authors of this piece, often relies upon stories that

follow the *Which Way is Up* format. These stories highlight the ambiguity that characterizes many of the scenarios that arise when dealing with wicked problems. For example, a community may choose to relocate in response to rising hazard risk and loss, a decision which has both very negative outcomes as well as positive. On the one hand, the community may have reduced risk, but they may also have lost social capital and a portion of their identity.

Case studies and scenarios are frequently used to transmit tacit knowledge and to model decision-making under uncertainty. These tools are codified in training guides, text books, and utilized anecdotally as well. Case studies are seen as a powerful teaching tool within classrooms, in organizations, and in the community. Another powerful tool is After Action Reports, in which a narrative is constructed following an event, in order to highlight what went well and what went poorly. Organizations can utilize these reports to learn from their mistakes as well as to teach.

The professions of nursing and emergency medicine have a long history of using these types of tools to communicate complex concepts, build empathy, and allow learners to apply their knowledge to a real-world scenario. Within nursing education, the idea of a narrative pedagogy, a teaching style based on the joint creation of narratives, has been explored in greater depth than in other fields.⁷ However, the underlying premise of narrative pedagogy, that communal thinking and sharing experiences are a means of both learning from instructors as well as from the lived experience of adult learners, is one that many emergency management educators have already discovered. One might say that it constitutes a type of tacit knowledge among skilled educators. Other professions, such as law and social work, have also relied on narratives within the classroom.

Research being conducted into the most effective ways to use narratives in adult education can provide us with some scientific knowledge to make better use of these tools, and to do so in a more structured way. Easton⁸ conducted research on the use of narratives in medical education. He found that stories and narratives served six key purposes: finding meaning in events; providing context to what is being taught;

transmitting emotion along with information; developing a professional identity; building empathy and compassion; and memorializing.

Storytelling is useful to educate professionals in a classroom or training environment, and also to educate the general population.⁹ Andragogy, or the study of the methods and practice of teaching adult learners, recognizes that adult learners are different from youth in some key ways. One of the primary differences, is that the prior experience of the learner is much more important in adult learning. In fact, the willingness of an adult to learn has a good bit to do with the value that they see in the material being presented. The motivation to learn is even more important for adults.

Narrative teaching models, where the learners bring their own stories and experiences, learning together with each other in a facilitated conversation, are far more effective with adults than efforts at teaching through rote and memorization. Adults seek meaning and significance from the materials being provided, both of which are inherent in storytelling.

LEARNING FROM STORIES

Stories and narratives from people within the field of Emergency Management, as well as from those who are impacted by disasters, can also be a powerful tool for research. Narrative research, a type of Qualitative Research methodology,¹⁰ utilizes narratives and stories that capture the experiences of individuals. These narratives might be spoken or written, and they usually provide an account of an event or a series of events. The analysis might look at themes, the structure of the stories, and also the intended audience.

Oral history projects are one means of capturing this type of data. Events such as 9/11* and Hurricane Katrina† resulted in several oral history projects, creating a set of accessible narratives and recordings that have been utilized by researchers. Other examples include biographies, auto-ethnography and life histories. The gathering of narratives, including those that simply showcase the lived experience of emergency management, can create a

*For example, see: 9/11 Museum Oral History Collection. <https://www.911memorial.org/oral-histories-0>.

†For example, see: Narrating Hurricane Katrina through Oral History. <http://hurricanearchive.org/collections/show/103>.

repertoire of data that future emergency managers can draw upon in their own research.

CONCLUSION

As the authors have argued, stories and narratives can be powerful tools supporting community planning, facilitating leaning, and helping with research. The use of stories enables the creation of empathy and compassion. This is tremendously important in communicating and understanding complex issues, or so-called wicked problems, where there is not one easy solution and a good bit of disagreement allowing for better understanding between individuals, who may be at opposite sides of a particular issue, but need to collaborate. Stories allow individuals to discuss the issues without personalizing the areas of disagreement.

Storytelling offers an approach most can relate to and a way to personalize and describe difficult information. They can be a pathway for community engagement and enhance the public process necessary in community planning. Communities can use storytelling to reduce risks, advancing opportunities. Through telling stories communities can resolve threats to their values and supporting assets, thereby helping community planners prepare strategies and plans.

Storytelling can be used in the classroom to bring alive the teaching on complex and often threatening subjects. As inspired by fiction and the storytelling used by Kurt Vonnegut, stories can take many forms and provide additional opportunities for learning.

And, did we mention that storytelling is fun and can help energize almost any public process?

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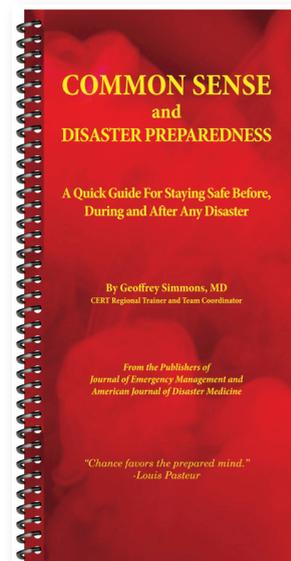
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