Complexity storytelling

The science of complexity within the art of communication

Abstract

The art of communication and the science of complexity are intriguing areas of thought and practice that can be examined through storytelling. In an increasingly complex world with many voices, a deeper understanding of complexity communication provides opportunities for researchers and practitioners. This paper discussion centers on Complexity Communication, and the Complex Responsive Processes within the storytelling environment. Complexity theory explores how independent agents interact with each other. Complexity is different from chaos and emerges through a process of human interaction, which is best seen through the art of storytelling. This article explores storytelling and the social construction and discursive elements within the process of human interaction. This discussion advances the call from Hoffman (2008) to embrace the ideas within complexity communication.

Introduction

Think for a moment about the stories communicated in the three very complex words: *I Love You*. Hearing those words for some might immediately release the first blush of a new relationship, maybe the memory of a wedding day, possibly the wet-kiss of a toddler, or the ending of every phone call from far-off family member. Used at different times the communication of these specific words engage different stories that emerge through a process of interaction among individuals agents. These three words provide an important starting point when discussing the art of communicative storytelling and the science of complexity. From a perspective as a communication scholar, examinations may center on the symbols used or how sense-making is created through shared meaning. From the angle of storytelling the characters can be identified and action examined seeking how the narrative connects individuals or how values are transmitted. In the world of complexity the words *I Love You* may contribute to an understanding of the process that is engaged and the patterns that emerge through human interaction. The three seemingly simple words of *I Love You* actually form a very complex web of discussion, debate, and understanding. This article attempts to trace a path from a perspective of communication through the science of complexity and the art of storytelling. In an increasingly complex world with many voices, a deeper understanding of complexity communication provides opportunities for researchers and practitioners. This paper centers on the mystery of interaction and the space developed between individuals when considering complexity communication[1], the complex responsive processes[2], and the storytelling environment[3]. Suggestions and possible avenues for continued thought and discussion will be offered across discipline lines specifically in the areas of social construction and the discursive elements of communication.

Complexity and communication

Complexity theory

The science of complexity is often confused and misused in literature. A brief historical review begins with the mention of the term emerging in the organization and management literature in the 1980's. Broadly defined complexity is a field of research that explores how independent agents interact with each other in a variety of ways[4]. Often the terms *complexity* and *chaos* are used as interchangeable concepts; they are similar but distinct ideas. Chaos is deterministic, linear, and has precise mathematical meaning[5]. Complexity emerges through a process of human interaction and may be nonlinear and take surprising turns[5]. Think about the complexity and process of getting to the words *I Love You* in human interaction. If said too early in a relationship a surprising turn could impact future interactions for the positive or negative. It is the position of this discussion that this interaction is based on a process of communication and human interaction that may take months or even years to accomplish.

Thinking deeper about complexity, two thoughts seem to dominate the conversation. The challenge appears to focus on the concept of systems thinking and how this is used in human interaction and organizations. Stacey (2000) argues that "When one focuses attention on the 'system', one tends to lose sight of the centrality of the process of interaction" (p. 4). Salem[6] echoes this thought in communication studies and suggests that a shift from an external perspective to an internal perspective and

focus on the interaction is important. Two perspectives appear to dominate the complexity conversation: complex adaptive systems (CAS) and complex responsive processes (CRP). Complex adaptive systems (CAS) appear with an external perspective and rooted in the thought of systems thinking. The models point back to chaos within the existing system. From the leadership literature, Uhl-Bien, Marion, and McKelvey[7] point out the existing "neural-like networks of interacting, interdependent agents who are bonded in a cooperative dynamic…"[7]. Salem[1] points out that communication studies rely on this foundation of system thinking. While this appears to be the dominate thought in the current literature a shift in focus to Complex Responsive Processes (CRP) is realized when working with communication.

By contrast to CAS and systems thinking, Complex Responsive Processes (CRP) "focus on the actual processes of our interdependence"[8]. Stacy suggests that just like ants, "complexity, as a paradox of stability and instability, refers to patterns that emerge across a whole population of agents in the interaction of those agents" (personal communication, March 6, 2012). Back to the words *I Love You*. As an independent agent those words have been used countless times, in countless ways, among countless additional independent agents. Within human interaction there is tension stability and instability when those words are used and how they are used in the complex work of communication.

Complexity communication

Within communication the ideas and perspectives of complexity are being explored by just a few authors. Grant[9] suggests that "communication is itself a factor of complexity which can only ever be stabilized momentarily for the purposes of interaction"[9]. This is an interesting idea to explore within the communication literature that has been rarely touched since the concept emerged in the 1980's. Several ideas come from the work and the delineation between big 'D' and small 'd' of discourse communication[10]. From a philosophical standpoint, Russian philosopher Mikhal Bakhtin suggested that dialogue and the verbal utterances between individuals is the most fundamental form of human communication. Compared with the traditional perspective of Platonic communication in which many voices display one idea or thought in a series or row, Bakhtin's dialogue is polyphonic in which "every voice presents its own unique idea"[11]. Instead of communication that is ordered so that all actors take a turn and follow a straight, linear progression, Bakhtin dialogue is seen as many voices contributing from many spaces and many perspectives. In Platonic dialogue, synthesis is the goal; while in Bakhtin dialogue, emergence is the goal with every voice contributing and involved in a shared or coconstructed understanding. This cocreated phenomenon "refers to the idea that the practical and aesthetic outcomes are not things-in-themselves but are made, or created, in communication"[12]. A recent addition, Salem[1] offers his book *The Complexity of Human Communication* which is a foundational work for this paper.

Previous models of communication highlight a linear sequence between speaker and listener with various squiggles to delineate barriers and feedback loops. Most previous models of communication fail to highlight the complexity of communication. Dance's helical model of communication is forwarded as a model of communication that seems to adequately explain this complex phenomenon. Dance[13] suggests that a helical model which looks like the diagram of a tornado or funnel can be used. Salem[1] offers this model as well with the caveat that bracketed moments of communication for research and inquiry is a challenge. The key elements outlined regarding complexity communication is that the process is: *iterative* – repeated so that each unit represents some time; *recursive* – outputs from one are the inputs for another; *multiplicative* – which means that they are nonlinear and based on interaction; and *parameters* which mean the values seem to be the same within the interaction. In reality no communication can ever stand by itself. Events and previous conversations all inform and drive the current discussions and understanding. Back to the three words of *I Love You* and the further understanding from this section, those words are very different when used at the beginning of a relationship, at a wedding ceremony, or after 40 years of marriage. These words contain a story that is a tension between stability and instability, between being created and emerging, at the different times and throughout the ongoing process of human interaction.

Storytelling

Foundation and background

The ancient art of storytelling is gaining renewed attention in modern literature by practitioners and academics across disciplines. A modern understanding of storytelling comes from several sources and is a multi-disciplinary approach[14]. Foundational "work includes research conducted by folklorists, anthropologists, sociologists, communication and organization theorists"[14]. Growing interest in the field has resulted in special issues among publications like: *Organization* (2009), *The Journal of Family Communication* (2010), and *Emergence, Complexity and Organization Journal* (2010). An exciting development is that writing in both academic publications and the popular press is contributing and expanding specific theories, knowledge, and the practice of storytelling. From the popular press, Taylor[3] describes the healing power of stories through community and individuals. Simmons (2006) contributes by sharing practical advice on effective presentations of stories. Denning[15] suggests that stories can contribute to more effective and radical leadership. In academic publications storytelling is being used to advance theories in leadership[16,17,18,19]; co-construction of meaning[20,21]; sense-making[22]; change (Brown, Gabriel, & Gherardi (2009); and the learning environment (For example:[13,24]). These distinct fields and many others not

identified in this brief review are finding new considerations through an understanding of story.

Storytelling definition and debate

One of the current debates concerns defining and delineating between the distinct terms of *storytelling* and *narrative*. While *narrative* seems to be the popular term in the academic literature, *storytelling* appears to be the more acceptable term in the popular press. One of the key questions in the debate is the participation and role of the author/presenter. Narrators stand outside and relate the series of events to a group of listeners while providing direction and structure. Stories suggest that the author is present and acting within story. This paper intentionally focuses on this idea of the actor being in the story because of the knowledge and understanding generated by the individual. Denning reminds readers that[15] "In common usage, story is a large tent, with many variations within it" (p. xxiii) and in this paper presentation the terms: storytelling, narrative, myth, saga, fantasy, parable and others will be treated as synonyms.

Clark[25] is acknowledged as the first who attempted to re-define the re-emerging concept of storytelling under the term *organizational saga*. Several others through the years have also offered suggestions including Kaye[26] and Yolles[27] whose definitions do not seem to recognize the complex nature of communication within the storytelling environment. Boyce[22] appears to address the complexity with the idea that story is a "symbolic form by which groups and organizational members construct shared meaning and collectively centre on that meaning"[22]. Throughout time the concept of a story has been viewed from a literature perspective and was narrowly confined to an event that is casual related with a beginning, middle, and an end. This paradigm remains an important underpinning although this understanding is being reconsidered. Boje[28] has introduced the concept of ante narrative which recognizes that stories are made up of many voices, from many directions, over time. Shaw (2002) also offers the idea of 'collective storytelling' which recognizes the self-organizing sense-making that occurs in the human interaction (p. 105). These recent ideas seem to offer an avenue of understanding the storytelling process that connects with complexity communication.

Distinctive elements of storytelling

Storytelling has been around since the creation of the universe and humans have been immersed in story from the beginning. For evangelical Christians the first words of the Bible begin the first story ever told. "In the beginning God created the heavens and the earth" (Gen. 1:1). Taylor[3] suggests that "We live in stories the way fish live in water, breathing them in and out, buoyed up by them, taking from them our sustenance, but rarely conscious of this element in which we exist"[3]. This total immersion in the stories of life continues today with the simple phrase on Monday mornings at the coffee pot 'How was your weekend?' This simple question begs for a story that is shared through a process of communication and the ongoing interaction of co-workers. A better understanding of the role of stories as seen from a view of complexity communication has the opportunity to impact individuals, groups, organizations and communities.

Storytelling and complex communication

An additional distinctive element of being human is the ability of stories to engage the whole person while also connecting to other individuals through patterns of relationship. Taylor[3] suggests that "Stories engage me as a whole person – intellect, emotion, spirit, and body"[3]. Stories provide a whole person experience which engages the social and individual elements of life. Through the communicative action of storytelling humans are able to better understand a dynamic and constantly changing world. Storytelling provides connections and possible answers on why phenomena may link together.

From a cognitive process storytelling has the ability to connect both sides of our brains. Humans desire to know the *what* of life and *'why'* these are linked. Denning[29] offers the idea that storytelling cannot exist alone and must complement existing empirical data. "It needs to be kept steadily in mind that storytelling is a tool to achieve business purposes, not an end to itself"[29]. In the data driven world of quantitative analysis there is also a deep desire to understand how these facts connect to life. Standing around the coffee pot in the morning at work and learning that a Vice President was fired from the organization over the weekend is an important fact. Hearing the story that he has been fired because of a disagreement over a recent meeting about organizational strategy may play an important role in how an individual may strategically move up the corporate ladder within the company. Simmons[30] suggests that facts and storytelling can work together. "A good story helps you influence the interpretation people give to facts. Facts aren't influential until they *mean* something to someone"[30].

Future areas of research and consideration

Boyce[31] suggests that the family tree of storytelling research continues to grow from a strong theoretical foundation in the areas of: social constructivism, organizational symbolism and critical theory. While Boyce's critical review specifically focuses on the use of storytelling in organizations the review highlights the ease of interdisciplinary research that can be conducted through an examination of storytelling. Specific research conducted in the past has primarily revolved around the work of social construction

and sense-making.

Within social construction the focus in the research highlights the interaction between individuals that provide an important basis for storytelling. It is within this communicative interaction that social construction specifically focuses and examines the process of finding shared meaning between individuals. Gold[14] comments that "The use of language to describe, define and explain our world has an important power to shape our experience and behavior"[14]. Verbal and nonverbal communication makes up this interaction in which understanding is co-created by the individuals through a process. Every utterance and nonverbal gesture makes up co-constructed reality. Complexity theory and specifically the Complex Responsive Processes of relating as outlined by Stacey[5] offer a link to this foundational element of human interaction.

An interesting perspective within the storytelling environment that has not received much attention involves the listener. "In just listening to stories, our personal experiences mingle with what we hear and then see. As listeners, we are co-producers with the teller of the story performance"[32]. As a listener there is the choice to engage with the story or co-construct a different story though the communicative interaction. Simmons[30] notes that a listener comes to a story through their own free will. While this voluntary mingling is a benefit and can be a joy in storytelling there is also a caution. With the countless offerings of different perspectives and viewpoints Driscoll and McKee[33] offer the reminder that it is important to connect and integrate stories that have a moral and spiritual component that can transform organizational culture. Storytelling from the perspective of social construction offers the idea that individuals through their interaction with each other co-construct and negotiate the meaning of the ideas together.

Another area of research in storytelling suggests that "storytelling is the preferred sense-making currency of human relationships among internal and external stakeholders"[32]. Sense-making and meaning-making are similar constructs within the storytelling literature and both of them seem to focus on the same concern of sharing information. Forster, et al[34] suggests that story contributes to sense-making by providing "a vision that is a shared view of the future…to be effective, it should reach hearts and minds"[34]. Adamson, et al.[35] shares the practical advice of storytelling within this perspective:

> *"If you want your change message to take hold – if you want it to transform how things are done in your world – then weave your message about the new strategy into a compelling and memorable story. When more leaders immerse their employees in compelling and inspirational strategy stories, more companies will thrive happily ever after"*[35].

Communication scholars have been slow to accept the ideas about complex communication and this view among social scientists has received a mixed reception (Eve, 1997). In regards to storytelling and the link to complexity communication theory, it is important to consider a different angle. Storytelling is a growing field of examination and research across multiple disciplines and around the globe.

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