Storytelling as a Primary Leadership Tool

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***Abstract*—Storytelling is a foundational activity in every human culture, and the stories humans tell emanate from and result in each culture's unique history and mythology. Storytelling can also be an effective business tool for the creation of workplace culture. In the hands of capable leaders, storytelling can build strong culture, resulting in high employee engagement, which leads to high performance organizations.**

In this paper, we establish that there are three fundamental types of internal business communications, which address the questions of "what do we do," "how do we do it," and "why do we do it." We next establish that storytelling is well-suited to motivate and inspire employees. We briefly summarize the five different types of stories, and establish that, while several types of stories are routinely told in the business environment, mythologies are well suited to motivate and inspire employees by answering the deeper, more meaningful questions around why our business exists. Next, we present an integrated view of storytelling from three perspectives: Jungian Depth Psychology, Mythology, and Neuroscience. We establish that Jungian Depth Psychology describes all humans as having common, universal mysteries to explain, and that they use common symbols to represent their understanding of these mysteries. Mythological stories and culture then emerge as a result of these common mysteries, coupled with unique group history and environment. We next establish that emerging neuroscience shows that storytelling is powerfully received in the human brain, and engages our brains more profoundly than other methods of communication. Finally we present a simple framework for leaders to use storytelling within their organizations. This framework includes practical thought models to use when driving cultural change or amplification via storytelling.

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1. INTRODUCTION

Today's business environment is fast-paced, efficient, and connected. Information sharing technology has permeated the business environment, making it easier than ever to exchange information immediately, pervasively, and painlessly. A recent worldwide report [1] showed that in 2012, businesses sent an average of 89 billion emails per day (exclusive of consumer emails), and that the number of business emails exchanged is expected to grow to 144 billion per day by 2016. Clearly, we are now connected in a way that could never be considered without the invention of email.

There is extraordinary value in email as an asynchronous data and information exchange medium. Email works well for the transactional exchange of information, data, and files. The danger of email's pervasiveness is that it has become a hammer, and every communications need then appears as a nail*. When there is a need to motivate people, improve employee engagement, or drive cultural change, transactional communication cannot make that happen. We don't get inspired by reading a PowerPoint deck, looking at scatterplots, or reading the "all employee" email from the boss; humans are inspired by stories.

Human beings are sense-making machines. We need to have context around *why* something happened. When detached from technology, people naturally exchange stories as a primary way to communicate. Think of the campfire. That circle of people around a fire has, for thousands of years, resulted in the telling of stories: funny stories, sad stories, stories of triumph or defeat, or of past shared experiences. The photograph, radio, movie screen, and the television were the next technological progressions in storytelling. It's not likely that many are moved to tears by the latest strategy slides, but many have been moved to tears by the powerful emotions evoked through great storytelling.

* Referencing the old adage "If the only tool you have is a hammer, every problem looks like a nail."

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The point is this: When people need facts and data to complete a task, modern technology offers us efficient, effective ways to facilitate that exchange. However, when people need vision, inspiration, and connection, they need what we have always needed: a meaningful story, as told by a good storyteller. In this paper we answer several fundamental questions:

- When are stories appropriate in a business setting?
- What kinds of stories do people tell?
- Why are stories so universally appealing?
- In a business context, who should tell the stories?
- How do we, as leaders, become better storytellers?

2. STORYTELLING VS INFORMATION SHARING

There are many reasons to communicate within a business. Employees regularly exchange information, ask questions, build reports, initiate new projects, or change the direction of their teams, to name a few reasons for communication. Business-driven communications can be classified into three distinct categories based on the desired outcome of the communication. First, there is a desire to inform or direct. Second, there is a desire to discuss or understand. Finally, there is a desire to inspire or motivate.

When seeking to inform or direct, email is an efficient and effective tool. Email, in this domain, is of the spirit of the "avoid verbal orders" documents that managers used to employ for precise written direction to employees. Because email is direct, pervasive, written, and stored long-term, it is an excellent vehicle for "avoiding verbal orders" and should be a primary method for this type of communication. Because these communications must be focused, short, and directive, storytelling is not appropriate in this context, as it is likely to only cause confusion for the recipients of the message. The communicator should, in this case, focus on simplicity of language, brevity of message, and the use of commonly understood business-specific terminology, to drive the directive/informing message home. The focus in these types is messages is the "what" (what do I have to do now?).

When seeking to discuss and/or understand, email is less effective, because normally an exchange of information and ideas is required between at least two people. While this can happen via email, we've all seen the endless confused exchanges that can result as people attempt to come to a common understanding via cryptic emails. Typically a faster, more efficient way to come to common understanding is to meet face-to-face (or via telephone), so that information can be refocused, reformatted, and recommunicated real-time to increase understanding. While the use of analogies might be useful to aid people in understanding your message, this again is not a likely home for storytelling, as the goal is common understanding of a very well-defined task, project, or effort. A storyteller in this context is likely to be viewed as off-course, meandering, or a bore, as again, the focus is alignment of employees around a focused objective. In this case, the communicator should again seek to explicitly define common language and meanings, and to bring forth examples or analogies that help to put the current effort into a context they already understand. The precise focus of these types of communications is the "how" (how am I going to do this?).

We find the home for storytelling whenever we seek to inspire, motivate, and engage our employees. The reason storytelling fits precisely into this category, is because when we are trying to inspire and engage others, we have to do it by explaining "why" (why do we need to do this?). [2] Profound stories, are by their very nature, descriptions of "why." When we seek to inspire and motivate employees to give their best, produce visionary work, and to fight for our higher cause, we need to tell them why it is in their interest.

When we speak of storytelling within the business context (within this paper) we are specifically referring to internal communications with employees, rather than external marketing-type communications to customers.

3. THE BUSINESS CASE FOR STORYTELLING

Whenever we ask a leader to spend time on any task, it is prudent to understand the returns we expect to receive for the leadership time and energy invested. The case is no different for storytelling. As such, we must ask what storytelling contributes to the business bottom-line.

Given the premise that the primary goal of storytelling is to engage, inspire, and motivate employees, we have only to correlate these attributes to positive business results to understand the return on investment for storytelling.

Fortunately, there is extensive research that demonstrates that engaged employees influence stronger outcomes, particularly with respect to higher customer satisfaction, business growth, and safety, and lower turnover and absenteeism. [3]

Gallup has conducted employee engagement research for decades. They have demonstrated that when employees are actively engaged with their companies, they perform better, give their all, and are more likely to contribute additional discretionary effort in order to make their company successful. In other words, engaged employees are a strong asset to any company.

Foundational to their research is the Gallup Q12.[3] The Q12 is a set of twelve "yes or no" questions, which are believed to be a true measure of employee engagement

level. By the authors' review of the twelve questions, at least half of them are questions about the meaning of work, the quality of work, and personal growth and development; in other words, questions about the ultimate meaning of what you do for a living, or what you want to do for a living. If storytelling can help define these things in a positive way for employees, there is clear return on investment for telling the stories.

4. TYPES OF STORIES

There are many stories that have been told over the thousands of years that humans have been telling stories to each other. While the casual listener may not realize it, each kind of story has a different, specific purpose.

Stories can be classified into five types, each having a well-defined framework and purpose for the story. The five types of stories are: saga, fable, folk-tale, fairy-tale, and myth. [4][5] These five story types, along with a description and typical usage for each, are displayed in Table 1 below.

Story Type	Description	Use
Saga	Long narrative about family, group, or dynasty	Historical legends explaining the emergence of a group or culture
Fable	Short story using anthropomorphic animals	To impart practical lessons about life
Folk Tale	Short story handed down orally in a local culture	Describe cultural norms and expected behaviors
Fairy Tale	Short stories about magical beings acting on behalf of good people	Magical stories explaining how the good are rewarded and the wicked punished
Myth	Grand stories around fundamental human questions	Proposes answers to the unanswerable questions like "what is my purpose in life?"

Table 1: Types of Stories

A saga is typically a very long narrative about a family, group, or dynasty. It is based largely on true characters and events, but may be embellished with some imaginary characters or events. One can also think of sagas as legends. They typically contain stories well-known within a culture, have a historical context, and are heroic stories that help define the emergence of the group. Sagas are written in prose; an epic is a saga written in the form of poetry. Well-known examples include the Iliad and the Odyssey.

A fable is a short story which typically involves anthropomorphic animals in key roles. They speak to each other, and are driven by the same motivations as humans. The purpose of a fable is to impart wisdom to the reader for very specific situations. When a fable imparts its message well to the reader, it delivers a "slogan" that is then easily remembered and applied to specific examples in life. Many people are familiar with Aesop's Fables and the lessons they teach. "The Tortoise and the Hare" is an example that is familiar to many people, and the takeaway is remembered as "slow and steady wins the race."

A folk-tale is a story that is typically handed down from generation to generation by a local group or culture. Folk-tales are generally an oral tradition, and are imaginary or embellished stories that address the hopes and fears of a local people. These stories may also describe cultural norms and behaviors. These hopes and fears are reflected in these stories, and these stories help to define the beliefs and norms of that group or culture. Since all humans have the same basic needs, desires, and fears, we can find similar types of folk-tales across diverse groups and locations.

Fairy-tales are stories about imaginary, magical beings (fairies) and how they interact with humans in our world. Fairy-tales are typically told to children, and describe how fairies might engage to help the poor or mistreated. The fairies in these tales are typically good, and benefit a good person; the fairies do not engage in punishment of the wicked, but simply allow fate to determine the outcomes for the wicked.

Myths are grand stories which explain things that early humans could not understand. They are stories that tackle questions about life, death, the creation of the world as we know it, and the purpose of humans in the world. Because these questions are universal for every human across time, we see the same common themes and storylines repeated across cultures and time. Common mythological themes include gods as masters of the world, floods, how the universe came into being, heaven and hell, and death and resurrection. These profound myths often form the basis of spirituality and religion. We often are led to believe that myths are only "leftover" stories from ancient peoples who lacked the scientific method and tools to understand the universe as we do today. However, humans today still grapple with profound questions like how the universe began, and there are many current mythological beliefs about it.

Given the variety of different forms for storytelling, which of these five story types typically appear in a business setting?

Fables and fairy-tales are not typically told in a business setting (at least not in their pure form). Since fables involve animals as substitutes for humans, and fairy-tales involve magical beings, they are not typically the center of corporate culture.

Sagas may be a strong part of business culture. Sagas describe (mostly) true events for a group of people. Sagas can be a particularly strong part of a business culture for family-owned businesses, and when multiple different businesses are merged into a single company. In the case of business mergers, company subgroups may cling to their "heritage" company culture, and continue to tell the stories of that heritage company. It is not until a larger saga is created that these subgroups can be merged into a new culture with a single saga. Sagas mostly represent true company history; if that history is profound, the saga can be used as a story to inspire or motivate employees.

Folk-tales exist everywhere within businesses, although perhaps not understood as "folk-tales." These business folk-tales emerge as stories defining day-to-day life within the company, and include stories told about others who made mistakes, or recovered a serious error. These folk-tales emerge as "best practices" and "lessons learned" and as oral traditions for what is acceptable behavior within the company. New employees quickly learn these company folk-tales around the water cooler. It is these folk-tales that carry cultural currents throughout the company. Certainly a tale of extraordinary human effort and success is, for example, a powerful story to tell within a company, but the main objective of telling these kinds of "inspirational" stories is to define norms and behaviors that leaders would like to see more of. Leaders might typically tell folk-tale-style stories at all-hands events to describe some project that went well, or some person's particularly strong efforts that enabled great results.

Folk-tales are pervasively found at all companies; they are the colorful stories about life in that environment that people tell. Folk-tales are a mainstay for communicating company culture (among employees), and for driving company culture (by leaders). Details around the creation and telling of these stories are commonly found in top-down business communications strategies, and, while culture can be moved by these efforts, folk-tales are still not the story type of interest when seeking to inspire and motivate employees.

Myths are stories that try to answer the profound questions of existence, and myths are a primary type of story that is useful to inspire and motivate employees.

In every known culture on earth, for as long as records exist, humans asked and answered the same basic questions about their own existence through myths. The very nature of myths is to inspire, as they give meaning and hope to humankind. Typical questions of myths include:

- How did the world/universe get here?
- What happens after we die?
- What powers control the universe?
- What is good and bad?

These questions have always existed, and still exist today. We are all familiar with these questions, and with the answers we have been taught through our own mythologies, which emerge in the form of our religions and belief systems. Humans find questions like "why am I here?" and "what is the purpose of my life?" to be very compelling, and these questions constantly reappear within different contexts during our lives. One of those contexts in which all of us ask ourselves (consciously or unconsciously) these questions is with respect to the work we do for a living.

It is likely that all of us have at some point had reason to consider those deep questions around our chosen work. While these deep questions look different when applied to our work rather than to the world, they are still very meaningful questions to ask:

- What is the purpose of this company?
- Is what we do redeeming to the world?
- Why am I here, doing this?

When we can answer these questions about our work in a redeeming way, we find purpose in our work, and are inspired to give everything we have to that work. It is for this reason that storytelling, in the form of myths, is a primary tool for leaders to inspire and motivate their employees.

One problematic issue around storytelling for many scientific professionals is that it may feel like soft, emotional, "touchy-feely" leadership. This is directly in opposition to their training in the scientific method, which avails the use of unambiguous, repeatable, reliable data to convince people that they are on the right path (and that they should be followed).

We next present three different, but related, explanations of the power of storytelling from the perspectives of psychology, mythology, and neuroscience. These three fields each explain storytelling in different, but useful, and compatible ways. We begin the discussion with Jungian Psychology, follow with a discussion around Mythology, and finish with a discussion of the findings of neuroscience regarding storytelling. Our hope is to convince the technical leader that there is a significant body of scientific knowledge that demonstrates the power of storytelling.

5. THE PSYCHOLOGY OF STORYTELLING

A complete discussion of Jungian ("Depth") Psychology is out-of-scope for this work; instead we present a brief overview of the key tenets of Depth Psychology as they relate to storytelling.

It is foundational in Depth Psychology that there are aspects of our own minds that are known to us, and other aspects of

our own minds that are unknown to us. Jung viewed the human psyche (psychological construct) as made up of three separate, but interacting systems: the ego, the personal unconscious, and the collective unconscious. [6][7]

The ego is viewed as the "known" part of the psyche, and represents the things a person knows about himself. The ego contains all conscious thoughts, memories, the personal identity, and the personal history (as remembered in personal narratives).

The personal unconscious represents that part of the human psyche that contains things experienced, but "forgotten" or "repressed." Jung believed that "complexes" are formed by related thoughts, feelings, memories, and attitudes which have been repressed. The more of these things that were related in a complex, the stronger the dysfunction that would emerge from the person.

These first two parts of the psyche, the ego and the personal unconscious represent well-established psychological theory. The ego, in the form presented here is just a definition of who we know ourselves to be, while the theory of complexes is a basis for well-founded and effective Jungian analysis performed by many psychologists today. The more interesting aspect of the psyche, with respect to storytelling, is what Jung called the Collective Unconscious.

Jung's theory of the unconscious includes the collective unconscious, which is perhaps best described as evolutionary memories that are imprinted (but not directly accessible) onto every human's psyche. Jung believed that these evolutionary memories were imprinted, like instincts, onto the human brain as a part of our evolutionary history.

Without a construct like the collective unconscious, it is difficult to understand how certain common psychological traits appear in humans around the world, and appear in humans at a very early age (before one could reasonably have had direct experience to embed these traits). Simple examples include fear of the dark, fear of snakes and spiders, and fear (or uncomfortableness) with heights. Slightly more advanced examples include fear of change, and the desire to form cooperative tribes. In these cases, it is straightforward to construct simple arguments, based on Darwinian evolutionary theory, that possession of these traits better ensured survival, so humans without these traits naturally became extinct, thus embedding this advantageous traits in the remaining human race. It is also essential to recognize that these evolutionary memories appear early in life, and occupy a range of levels of sophistication. For example, hunger and crying is primitive, fear of snakes is more sophisticated, and the desire to form tribes is yet a higher level of sophistication of these evolutionary memories.

Jung proposed that the collective unconscious also contains much more sophisticated models and symbols: the archetypes. The archetypes represent very rich and complex concepts, universally understood by all humanity. The archetypes are subsystems of the psyche that help us to understand the world we, as humans, live in. The archetypes have both worldly and spiritual meaning, and are often accompanied by rich symbolism. The archetypes emerge to consciousness through dreams and active imagination (waking dreams) and appear universally in the art, literature, and religions of humanity. Examples of archetypes include: Mother and Father, Hero, Trickster, and Child.

The archetypes are critical in storytelling. They represent fully-embodied, deeply and universally understood concepts through simple language and symbols. When you use the archetypes to tell a story, you can quickly and effectively communicate very complex concepts and meanings through simple language and symbols, and in a way that is foundationally "wired" into the brains of your audience. For example, the archetype of "The Quest" can be used to explain your company's journey. The archetype of "The Warrior" and "The Knight" are often used to represent those who give of themselves in the fight for the greater good, or in the defense of others. President Reagan described the Soviet Union of the 1980s as "The Evil Empire," a reference that needed little clarification for most Americans who were already very familiar with the film "Star Wars" and its archetypal patterns of Good/Evil, and Light/Dark. Common archetypes can even be portrayed through the use of culturally well-understand symbols. For example, the white and black hats in American western genre films help the audience to instantly create deep meaning and motivations of the cowboys on the big screen: the cowboy with the white hat is the good guy, and the cowboy with the black hat is the bad guy. Moreover, the audience knows immediately not only who's good and who's bad, but also what character attributes each cowboy is likely to possess in the story.

In business we sometimes see archetypes used quite openly. For instance, the company name "Raytheon" literally translated means "light of the gods," while the Raytheon subsidiary BBN employs a rich archetype in the slogan "where wizards work,"† which is displayed in the lobby of their headquarters building. In answer to the question "does this way of communicating really work?" one only needs to ask: what vision appeared in your mind's eye when you read the BBN slogan a moment ago?

When seeking to inspire and motivate employees, telling a story employing the archetypes is perhaps the fastest way to communicate deep, rich, and meaningful ideas to a large audience.

6. MYTHOLOGY: HOW OUR STORIES DEFINE US

As stated earlier, humans are sense-making machines, and need to know the answers to questions. When they don't (or

† An image of this slogan appears at: https://plus.google.com/+raytheon/posts/Wvr5QcWsEcD

can't) know the answers, they frequently make it up, often unconsciously creating a narrative for which they have no evidence. [8] When the narrative they create answers a foundational question around existence and/or human essence, we have a myth.

Myths address many different questions. They answer the questions of how the universe came into being, how the Earth and humans came into being, who controls the universe/world, what happens after we die, and what is the origin of good and evil. An uncanny fact is this: these same questions are answered with different (but similar) stories across all cultures and geographies.[9] This strongly indicates that humans have always wondered about, and sought answers to, these questions. Answering these questions seems to have been a common theme in every culture that has some record of mythology.

It is important at this point to define a myth (for the purposes of this paper) as a story created to answer a foundational human question, for which there is no objective evidence to verify the validity of the story. Myths, by their very nature, answer these deep questions. There are many, many different myths that tell the story of the creation of the universe, and so far, not a single one of them can be *proven* true or false.[‡]

We tread lightly at this point, because often myths (as defined above) become beliefs, and beliefs become religions, and we do not wish to offend any religion or group inadvertently. By our definition above, all stories that address, for example, the creation of the universe, are myths, and there are distinct religions borne out of these myths. For example, there are very ancient myths (Egyptian and Hebrew) that state that the universe was created by a pre-existent god who simply spoke (declared) it to be so. Ancient Greek mythology describes the origin of the universe out of nothingness, with the spontaneous creation of the five elements (which happened to be five gods). [5]

If ancient peoples asked these fundamental questions, then what of modern people? Do they still ask (and create answers) to these questions? Of course they do. Compare the account given above by the ancient Greeks to the modern creation story the Big Bang Theory. Both explain the sudden eruption of the universe out of some sort of primordial soup, or single point, or nothingness. The only difference between the two is that modern people have never seen evidence of Greek gods, and there is current scientific evidence that the universe is expanding; this leads modern peoples to discount the Greek myth, and to create their own myth, based upon what they "know." But make no mistake; while the scientific evidence may lead to a conclusion that the universe was created out of a single point (with the Big Bang), and we can then attribute the origin of that to some mysterious singularity, nonetheless that singularity might as well have been born of a vomiting god as two colliding branes[§]. In all cases, it is advisable to clearly understand the difference between that which we *know* and that which we *believe*; that which we *know* is science, that which we *believe* is religion, and many modern scientists espouse religion when they make up myths about that which cannot be proven. As scientists we might state that we have no evidence to support *why* the Big Bang happened. As scientist/mythologists we might continue with a story of colliding branes. This is fine, as long as we don't confuse an invented story with objective scientific knowledge.[**] The essence of the argument is this: humans have always sought evidence where they could, and made up the rest. And we still do.

So how does this apply to the modern business setting? The answer is straightforward: humans have fundamental questions, and want someone to tell them the story. Even in business, there are some questions which are a mystery, in that they have many answers. Questions like:

- Why does this business exist?
- Are we doing good?
- Is my career redeeming?

There are many answers to each of these questions, and all of them (and none of them) are right, as they are all what we believe, not what we can know. In other words, the answers to all of these questions are myths. Remember, that we all have a need to "know" the answers to these questions; if the business leaders don't define a mythology for their business, each individual employee will. So which mythology will you have your employees believe?

7. THE NEUROSCIENCE OF STORIES

New understanding of the real-time functioning of the brain has been enabled by functional magnetic resonance imaging (fMRI) techniques.[10] These techniques have allowed scientists to understand which specific areas of the brain become active under different cognitive circumstances. Typically, researchers place a participant in an fMRI scanner, ask them to perform some sort of psychological experiment, and image the participant's brain to see what is happening as the experiment progresses.

While a thorough discussion of any of these experiments is out of scope for this paper, we present here some

[‡] And thus the eternal debate between different religions, and between religion and science

[§] For a short description of the story of branes in the origin of the universe, the reader may research "ekpyrotic universe scenario"

[**] This statement is not antagonistic. The Big Bang Theory, branes, and other modern creation stories are unproven extrapolations of empirical observables back to the beginning of time. They make sense and appeal to people today exactly as gods regurgitating the universe into existence appealed to ancient peoples.

particularly compelling information that has been gained in these studies that helps us to understand the power of storytelling to the human brain.

Thinking hard is hard work, and consumes calories. Given the tenuous grasp early humans had on survival, those humans whose brains could minimize energy consumption (become energy efficient) had a better chance of surviving to reproduce. Thus, the human brain has evolved complex operational schemes which cause it to minimize the energy required for minute-to-minute functioning. In a nutshell, the brain has evolved to become a prediction engine; when everything is happening as predicted, your brain just coasts along. Only when something novel happens does your brain snap attention to it (the reticular activating system helps us to detect novelty and focus attention).[11][12] This operational scheme means that, if your brain is experiencing what it expects to experience, it tunes out, but if your brain is experiencing something unexpected, it snaps attention on it. The objective of the brain is to "make sense" of the new, novel experience, so that this new experience is understood, and simply then becomes part of the prediction engine. Once this novel experience becomes something your brain can understand and predict, your brain can once again go into idle mode, waiting for the next novel experience. Our brains are wired to make sense of the world, and humans are sense-making machines.

When a master storyteller is at work, he is taking advantage of this mechanism. The master storyteller weaves a story that is a mystery to the audience, and the listeners cannot help but to lock onto the story to make sense of it, to solve the mystery. Once the mystery is revealed, the audience loses lock with the storyteller, and interest in the story, as now it is a predictable ending.

Another interesting fact is that the human brain (and some other mammalian brains) contain mirror neurons. Once again, fMRI studies have been performed to see how the brain operates under specific human interactions. For example, a study might image a participant's brain activity when he is smiling. Next, the same participant's brain activity is imaged when someone smiles at him. These types of studies have been carried out for many different kinds of activities, and the results are astounding. These studies all demonstrate the same result; that when I smile, or am smiled at, the same areas in my brain become active. When I raise my arm, or when I see you raise your arm, the same areas of my brain become active. It appears that the human brain is a simulation engine, and it is this capability which is believed to be at the heart of the uniquely mammalian capability to create feelings of empathy for another.[13] When outside events in the world happen, our brains simulate the same events in our brains, as if the events are actually happening to us. This is why we cry in sad movies. Logically, we know the people are acting, the words are scripted, and in fact we know that what we are watching is just a recording; but nevertheless, our brains engage our simulation engine, and we experience that which is displayed for us. It is why we laugh when others laugh, cry when others cry, or feel pain as we see someone embarrassed.

The master storyteller deeply engages the brain's simulation capabilities by using words and imagery that are rich and elegant. This causes the audience to actually simulate the story being told in their own minds, and to experience the unfolding of the story as a participant.

Another discovery of neuroscience is the synchronization of speaker and listener brain waves during storytelling. In these studies a speaker's brain activity is monitored as he tells a personal story *that is deeply meaningful to him*. At the same time, a listener's brain activity is monitored as she listens to the story. The researchers have demonstrated that the participants' brain activity patterns become synchronized, and that in some cases, the listener forms anticipatory, predictive brain patterns as she anticipates what is coming next in the story. The research demonstrates that the more highly correlated the brain activity is, and the more the listener exhibits anticipatory brain activity, the higher the level of retention of the story by the listener.[14][15]

This is similar to the previous results around the brain simulating the story, but adds the concept that the storyteller and listener's brains are actually in a sort of real-time dance that engages the two in a profound way.

Although it is often believed that the brain is capable of multi-tasking, it is not. The brain is powerful, but absolutely single-threaded; it can only do one thing at a time. It can task switch very quickly, but it cannot carry on more than a single task at once. The brain is better at handling non-interfering channels of information, while information coming from two sources on the same channel cannot be processed simultaneously.[16] For example, you cannot sing one song while listening carefully to another. You cannot listen to a speaker and read email at the same time (we've all tried, and we all know that the second we start reading, we completely lose the speaker's words). Moreover, thinking and sensing are in direct conflict. When you are intensely thinking about something, you lose connection to sensory input, and if you are processing sensory input, you aren't thinking deeply. We've all experienced this if we've tried to study while listening to music. Music with words is very distracting for most people, and makes it difficult to focus on studying, while classical music fades into the background as we deeply study the topic before us.

The master storyteller understands that people cannot think analytically and experience emotion at the same time; these are different operational modes in the brain. Once a bar graph or scatterplot is shown to your audience, you have lost their ability to emotionally connect to you, and instead have engaged their active, thinking mode. If your goal is to inspire and motivate, you need your audience to feel something so that they want to follow you. As a storyteller,

you don't want anything in front of your audience that will cause them to switch to analytical mode or to lose your words. For this reason, your approach to storytelling has to carefully avoid the common trappings of corporate presentations: PowerPoint presentations densely-packed with words for the audience to read, and data for them to pour over.

Some very practical, simple to understand frameworks have emerged out of the integration of much of this neuroscience research. For example, David Rock's SCARF model [17] is an interesting and practical framework for the practice of neuroscience-based findings in day-to-day leadership. The SCARF model is based foundationally on the idea that the human brain can only engage and form new ideas when it is in an "approach" mode; when the person is feeling unthreatened. When threats appear, the brain switches to fight/flight mode, and the prefrontal cortex shuts down, yielding control to the more primitive structures in the brain that we rely upon for survival.

The master storyteller ensures that the audience can be receptive of the story. Through overt gestures, and through tone and pace of speech, the storyteller sets the audience at ease.

8. An Integrated View of Storytelling

So how do we then pull all of this together into a compelling argument for storytelling?

The mythology-based arguments above tell us that all human cultures had myths, and that across time and space, those myths had common themes. The myths are humans' attempts to answer the unanswerable questions of human existence. The fact that all cultures have, for all recorded history, told myths demonstrates that, even if we have to make it up, we need to answer "why." And we all still need to answer "why," in very personal ways about the work we do. Business leaders need to answer "why" through mythology so that employees can feel that their work is redeeming for more than just the day-to-day activity they perform; in other words, myth can engage your employees.

Our arguments around Jungian Depth Psychology demonstrate that the archetypes are universally (consciously or unconsciously) understood, simple, and very powerful conveyers of meaning. When you include archetypes and symbols in your storytelling, you immediately convey powerful, rich conceptual ideas to your audience with few words required. You also directly and deeply connect into the psyche and emotions of your audience. The archetypes are incredibly "sticky" in our psyche, and can help to make your message "stick" in the hearts and minds of your audience.

Our exploration of neuroscience findings around storytelling demonstrate several things. First, that humans engage/focus/listen intently in storytelling because the human brain loves to solve puzzles and find causality. Well-told stories are unfolding mysteries, and your audience can't help but to stay with you because they've got to know what happens next. Second, well-told stories always include elegant, very descriptive prose to engage the brain. The more we describe in details how elements in the story looked, felt, smelled, sounded, and tasted, the more strongly we engage the full brain's memories and simulation capabilities. Audiences stop actively thinking, and simply get lost in a great story; their brains actively simulate the events of the story, and their brains activate in a way which makes it appear that the events are actually happening to the listener. This is, of course, the goal of every movie producer; to have the audience deeply engage and lose themselves in the story. Third, great storytelling actually synchronizes the brain waves of storyteller and audience. In other words, storytelling deeply connects people, and feels good in our brains. We enjoy hearing great stories, and stories deeply connect humans in a very unique, deep, and powerful way. Fourth, the brain is single-threaded and can only do one thing at a time; during your presentation, the listener's brain can think or it can feel. When trying to motivate or inspire, you'll want your audience to feel a strong emotion, as that is what engages people in your quest. Finally, in actually telling the story, you need to ensure your audience is in a brain-state that actually allows them to engage. The key here is to avoid cognitive fear and retreat, which can be accomplished by tending to the audience's cognitive needs.

In a nutshell then, as a leader, you need to:

- Answer "why" for your employees
- Use powerful archetypes, symbols, and adaptable myths that impart universal meaning
- Tell your stories in brain-friendly ways to deeply engage the audience

Storytelling isn't just for ancients, campfires, or movies anymore. Storytelling is a powerful human-based tool for engaging your employees, and gifting them with what they need in order to want to give you their best every day.

9. A Framework for Storytelling

The biggest hurdle to overcome in storytelling is believing that it is an imperative for leaders, and that it is in your company's best interest for you, as a leader, to build a rich mythology. The next step in the process is to build a rich storytelling tradition within your business.

It is important to remember that any of us can be storytellers, because we are all born great story lovers; we are human. All the ingredients you need to be a storyteller are already inside of you. In this section we describe a

simple framework anyone can use to identify a need for a story, flesh out the symbolic content you'll need in the story, and finally build and polish your story.

The path we'll explain looks like this:

1. Find the question
2. Choose the archetypes and adaptable myths
3. Create the story
4. Season the story
5. Make the story "yours"

Step 1: Find the Question

What questions remain unanswered for your employees? We've already considered many.

- Why does this company exist?
- How will we survive the coming challenge?
- Why is our work important?
- Are we doing good in the world?

This part is straightforward, and may be obvious, because if your company does not engage in internal storytelling, none of these questions are answered for your employees by the leaders. If that is the case, think about the stories employees are telling, then decide which one you'd like to change to a better story, and start with that question. The employee stories are hidden everywhere: at the watercooler, in the jokes they tell, and in the results of your annual employee engagement survey.

You might consider the next all-hands presentation you have to make. What key question do you want to ask, then answer with your mythology?

Step 2: Choose the archetypes and adaptable myths to use

Next you'll want to match some archetypes and adaptable myths to the question you want to answer. There are books, decks of cards, and websites available that list and describe the meaning of many archetypes, symbols, and adaptable myths.[18][19][20] You'll need some understanding of these concepts, but remember that you too are human, so the archetypes are already buried deeply within you. As you work through this process, you will lock onto an archetype or symbol and you will simply "know" that this is the one that calls to you.

Suppose the competitive environment is changing and you want to explain the situation to your employees. Perhaps you are encroaching into new business territory against an entrenched, dominant company. This might make your company David, and the competitor Goliath. Suppose you are the entrenched, dominant company, and the smaller startups are after your customers. This might make you the benevolent king, fighting off the marauders and bandits from his fortress.

Suppose that you are a technology company, and you want your employees to feel that the work they do greatly benefits the world. Then perhaps you are the Prometheans[††], giving great technological gifts to mankind.

Suppose you want your employees to pride themselves on the genius that they employ to create new, unimaginable technologies. Suppose you also wanted to create a story that would draw the best applicants to your door. Then perhaps you create symbols around a slogan like "where wizards work," as BBN did. What engineer or scientist doesn't want to be thought of as a wizard?

One of the authors created a role within his organization (many years ago) for two engineers. These two senior engineers were tasked to deep dive on programs that looked like they might be showing signs of trouble, and fix them. He openly called these two his "gunslingers," and everyone knew that when the gunslingers arrived, they were going to "clean up this town." What's more, the name and role "gunslinger" defined an attitude of "get it done" with the two engineers; it was a highly effective story.

Step 3: Create the story

The actual writing of a story that will engage and interest your audience can be quite straightforward. Storytelling may have a structure that resembles the familiar mono myth or hero's journey: struggling hero is unsatisfied and has a desire, struggling hero is called to greatness, struggling hero is challenged and does battle, and finally, hero emerges victorious and enlightened in new ways.[21] While this is highly simplified, it is the basic structure of many highly successful movies; the movies are different only because the details are different. Examples of stories that follow this framework include Star Wars, The Matrix, Interstellar, Rocky, Avatar, and many others.

In his book "The Anatomy of Story," [22] John Truby describes the seven critical steps in storytelling as:

1. Weakness and need
2. Desire
3. Opponent
4. Plan
5. Battle
6. Self-revelation

[††] In Greek mythology, Prometheus was the Titan who defied Zeus' wishes, and gave mankind the gift of fire.

7. New Equilibrium

The surprising fact is that we humans are drawn to the same story over and over again. We all know what it is like to struggle, and we want to hear stories about how others overcame their struggles and emerged victorious. This gives us all hope that we too can overcome our own struggles.

In the book "Made to Stick," [23] Chip and Dan Heath develop a framework that is useful in developing ideas (stories) that are "sticky." Sticky ideas stay with people for a long time, and drive them to take action. In their book, they use the acronym "SUCCES" to describe the elements of a sticky idea:

- Simple
- Unexpected
- Concrete
- Credible
- Emotional
- Story

This framework works well in the context of the ideas presented in this paper. Your message must be simple because you want your audience to experience, not analyze. When your message is unexpected, it leaves a mystery for the audience to understand, and strongly engages them in the unfolding of the mystery. Concrete ideas are well understood by everyone, which can be the realm of the archetypes. The audience will believe the storyteller is credible only if the storyteller is authentic and can connect to the audience. While emotions are not normally the stuff of corporate communications, passionate emotional communication engages the emotional centers of the brain of the listener, which will more deeply embed the message than will an analytic presentation. The final word in the acronym is "story," which is the premise of this paper; that storytelling is a sticky medium for the communication of complex, inspirational ideas.

Step 4: Season the story

Once you have a basic storyline built for your story, you need to embellish the story. All of us who are scientists and engineers are taught to remove flowery wording and overly descriptive prose from our writing, and to just stick to the facts. But remember that in this context, we are seeking to inspire and motivate, not to discuss and understand, nor to inform or direct. In this case, we need to create wordy, adjective and adverb-laden prose so that we get our audience's brains to switch out of analytical mode and into simulation mode. Most of us are too young to have experienced the pre-television family, gathering around the radio to listen to stories, but those wordy, engaging storytelling techniques are exactly what we need to resurrect for our storytelling within our businesses.

For example, let's suppose you wanted to describe a walk on the beach. How would you describe the feeling of the sand against your bare feet? Perhaps one would describe it as "soft," but that just isn't enough. Think carefully about how the sand felt. Was it hot and gritty? Perhaps it was cool and firm, or warm and powdery. When a listener hears those descriptive adjectives, his brain cannot help but to switch into simulation mode and unleash his own imagination (as your own brain probably just did when you read those descriptions).

Perhaps you might think of describing two men in a tense moment as:

"He sat across from me, and I was nervously waiting for his response…"

Or you could say:

"His fingers rested casually on the worn leather armrests of his overstuffed chair. My fingers tapped out a nervous rhythm on the flowery fabric of the couch beneath me…"

Both passages represent basically the same content, but the second passage allows the readers/listeners to form more rich imagery in their minds; the readers/listeners can begin to run their brains' simulation engines, and actually experience the events described.

5: Make the story "yours"

As a storyteller, you can create a story, tell a story of events that happened to you, or use someone else's story. It doesn't matter where the story comes from; what is important is that you make the story yours. This means that you have not only memorized the story, but you have connected the story to your own deep emotions and motivations. Only when you have connected deeply with the story, can you tell the story with the richness, depth, and meaning that is inspiring to your audience.

On a practical note, making the story yours also means that you have no need for distracting notes or slides. Wordy PowerPoint slides are not the stuff of great storytelling. Nor is reading a story from a script. In order to tell a great story, you must be a great storyteller, and that means the story is your own, embedded within you, and you can tell it without any aids. When telling a story, any aids you use will likely distract your audience, force their brains into executive decision making mode, and taking them out of their connection to you. When telling your story, you can't allow the audience to become distracted by giving them slides to read, and you have to know your story well enough that you aren't using slides as a crutch to help you through content that isn't deeply embedded within you.

If you feel compelled to have a presentation slide deck, make sure there are very few, if any, words on the slides. Use pictures or symbols to represent the ideas you are presenting, and to deeply link the images to the ideas.

Finally, rather than spending most of your time developing presentation slides and little time rehearsing, you'll need to flip that process. Spend almost no time building a formal presentation, and spend lots of time rehearsing your story so that your delivery is smooth and flowing.

One of the most powerful features of storytelling using archetypes and myth, is that the elements of your story are already well-understood by your audience. While the story you tell may mean something very specific to you, it means something different to each person in your audience. That is because you are dropping your story into a well-constructed network of understanding of the world that exists in each of your audience members' brain. Not everyone will take away exactly the same meaning; it is important to remember that your goal in storytelling is to inspire others to come with you on a journey; you are telling them the "why." If you follow up with an explanation of exactly what your story means, you rob your audience of the ability to find their own meanings, and more importantly, their own motivations. The details of the journey can be fleshed out later in different meetings intended to address the "how" and the "what."

SUMMARY

The objective of this paper is to create a compelling argument that storytelling is a primary leadership tool for communicating to employees.

We began with the argument that email's pervasiveness does not make it the best tool for every message that needs to be communicated. Next, we demonstrated that there are three primary leadership goals of communication: to inform/direct, to discuss/understand, and to inspire/motivate. These types of communications answer the fundamental questions of "what," "how," and "why" to employees. We demonstrated that businesses typically already have sound ability to communicate the "what" and "how," and that the "why" represents an obvious place for storytelling.

We next demonstrated that there is an extensive scientific body of knowledge that explains the power of storytelling. We outlined the specific theories and evidence that apply to storytelling from Jungian Depth Psychology, Mythology, and Neuroscience, and linked all three scientific branches into an integrated view to support storytelling. We argued that this body of evidence is compelling in establishing the legitimacy of storytelling in the business environment.

Finally, we discussed a practical framework for creating storytelling around the fundamental questions of business, and presented a summary of powerful techniques to use when actually telling the story.

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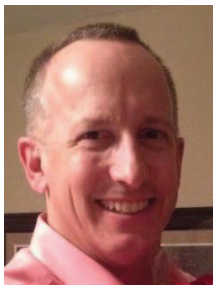
BIOGRAPHY



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