The Power of Visual Storytelling to Create Behavior-Change in the Workplace

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When an educational experience is positive, engaging, and inspiring, it can transform the lives of learners. The opposite, however, is far worse than simply students suffering boredom and can include liabilities to poor education and training such as lowered confidence, increased apathy, reduced productivity, and more frequent job turnover (Wlodkowski et al., 2001). In a poll, only a quarter of business leaders claimed that their internal learning programs measurably improved business outcomes (Smet et al., 2021). This paper will outline how story-based learning media can activate universal motivators and improve learning retention. By creating stories that leverage universal motivators, designers can produce curricula that transcend simple knowledge transfer—and instead, effect behavior change.

By definition, media are means of communication that reach and influence people on a large scale. As such, the goals of a multimedia-based learning designer are two-fold: first, to ensure that visual and audio tools are created to communicate cogent information in support of clear learning objectives; and second, to influence behavior in ways that achieve the desired learning/behavioral objectives of the curriculum.

The technological expressions of multimedia have evolved significantly over the years, but our brains have not—continuing to treat people, places, and things depicted in media as though they were real life (Reeves & Nass, 2006). Therein lies the potential of well-crafted stories and videos to affect learners' emotions, increasing the likelihood of new behaviors. Information paired with an emotional experience is retained longer in long-term memory than with simple, didactic information transfer (Wlodkowski, 2008; Tully & Bolshakov, 2010). By eliciting a heightened emotional state from viewers, stories naturally allow for longer-term memory encoding (Tully & Bolshakov, 2010; Jimenez et al., 2020).

This paper will explore the effectiveness of storytelling devices within visual media. It will illustrate how visual storytelling is a successful motivational tool and learning modality, and then offer strategies to integrate visual storytelling into your curriculum to create a robust learning experience. Finally, the paper provides motivational tools that will help to ignite personal investment in the story and curriculum by the learner, create a springboard for critical thinking, and inspire behavior change.

Visual Storytelling as an Inductive Learning Modality

Storytelling as a communication medium has been around for millennia, with pictographic narratives inside the caves of Chauvet dating back to 36,000 BCE (Neuendorf, 2016). As media evolved to include storytelling in various forms (video, audio, virtual and augmented reality), new opportunities arose to produce immersive and compelling learning experiences. There are distinct advantages that story-driven video content has over other learning modalities, particularly for a learning environment that requires learners to engage in critical thinking—the task of analyzing information in order to make a logical decision.

Storytelling as a learning design tool carries an

inherently inductive approach to knowledge transfer, rather than a deductive one. Deductive learning occurs when learners are given the operative rules of the topic and then are provided with examples of these rules as reinforcement. For instance, if biological taxonomy is being taught, the instructor would provide the learner with the accepted rules or hierarchy (e.g. Domain, Kingdom, Phylum, etc.) and then reinforce that rule with examples justifying why the taxonomy was created in its accepted form.

Alternatively, inductive learning provides examples first and then students must assume the underlying rules. Inductive learning is beneficial because mental strain is necessary for students to make new neuronal connections (Wlodkowski, 2008). Through predictions and guesswork, learners actively work at solving problems, rather than absorbing information passively through lectures, presentations, or other hallmarks of deductive instruction.

Continuing the example of biological taxonomy, an inductive approach may involve students taking the names of twenty different organisms and then organizing the creatures according to the learner's own sensible arrangement. While students are unlikely to come up with the accepted hierarchical taxonomic system, the exercise challenges them to exert mental strain in ways that reinforce learning. The instructor can then guide learners toward the accepted taxonomy framework, while providing support and rationale for its conception.

When one considers the anatomy of a well-told story, it naturally follows in an inductive approach that activates critical thinking. Most audiences would loathe a deductive approach to storytelling, where they are told upfront how the story ends and then given examples to justify that ending. Instead, audiences want to engage in the cognitive strain: a comfortable amount of not-knowing. When presented with mystery, most audiences will happily exert mental effort to develop and test hypotheses about what will happen next. By withholding overt explanations for a character's choices, storytellers allow for the audience to inductively make guesses until it is later confirmed. This approach keeps the audience actively engaged in a task that is cognitively straining and requires critical thinking.

Stories Lead to Higher-Order Thinking

Bloom's Taxonomy (see Figure 1) is a hierarchical classification of the different levels of thinking, and is often applied to course objectives as a litmus test for achieving educational goals (Bloom et al., 1956). The higher the level, the more potent and challenging the

learning task—and the more demanding the level of critical thinking.

Figure 1

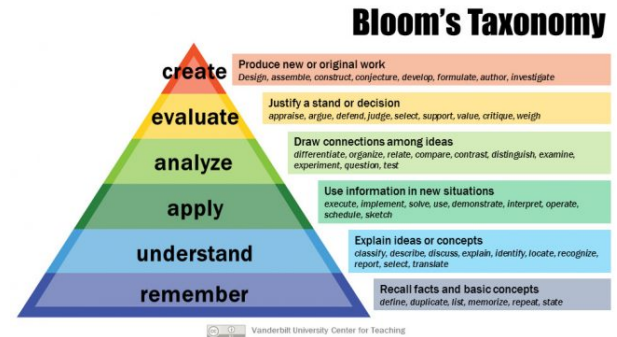Bloom's Taxonomy of Educational Objectives.

Diagram of Bloom's Taxonomy, a pyramid with different levels of thinking. The levels go from least demanding (bottom) to most challenging (the peak) and are as follows: remember, understand, apply, analyze, evaluate, and create.

Critical thinking consistently ranks as a top skill that employers desire from an employee (Dondi et al., 2022). Yet due to its inherent passive structure, deductive training and education rarely provide the conditions to strengthen the higher critical thinking tiers of Bloom's pyramid. To succeed in today's competitive work environment, modern learners must advance beyond the baseline requirements of remembering, understanding, and applying. The inductive approach of visual stories allows for the higher-order functions of analyzing, evaluating, and creating to occur. The highest tier of Bloom's Taxonomy is creativity. Teaching a pen stroke technique to a student who then uses it in a sword fighting match is an example of this creative synthesis.

A similar effect is produced with stories because they inherently leverage analogies that require translation through synthesis. The fables of Aesop or the Brothers Grimm act as conceptual shorthand, condensing complicated themes into symbols that may hold multiple meanings—even within the same story. For example, King Arthur's sword can represent many concepts, such as "accepting one's chosen fate" when he pulls it from the stone, and even "abandoning one's responsibility" when he returns it to the Lady of the Lake. Arthur's story is not about a sword, but the underlying meaning it represents—which requires synthesis to fully appreciate.

Because there can be multiple interpretations, audiences engage in more robust, critical thinking about what a story means. Storytelling affords listeners the opportunity to naturally cross-reference the events with underlying meaning as it applies to their own lives. Thus, they naturally exercise a synthesis of information, which corresponds to the "Create" level of Bloom's Taxonomy.

Motivation Through Storytelling

Despite the expectation that students and employees will attend a learning event motivated, keen in judgment, and studious, that is often not the case. Learners are human, and so carry a high degree of bias, forgetfulness, resistance to change, propensity for poor shortcuts, and illogical conclusions (Kahneman, 2015).

Rather than feeling frustrated by this reality, learning designers can apply findings from cognitive science research to address barriers that prevent instructors from reaching their learners, and create conditions that prime learners to adopt new behaviors. A useful framework for motivation comes from Self-Determination Theory.

Self-Determination Theory (SDT) is a theory explaining human motivation and behavior. The first assumption of SDT is that an inherent need for growth as a human being drives behavior. People are always actively seeking to grow and to improve (Deci & Ryan, 1985). Furthermore, SDT identifies the three psychological needs that must be fulfilled for optimal growth: autonomy, competence, and relatedness (Ryan & Deci, 2000). When these needs are met, a person is much more likely to be motivated to engage in a specific behavior.

Motivation

Motivation is, by definition, the reason(s) one has for acting or behaving in a particular way. It is the biological process by which our minds and bodies elect to take action toward or against a particular stimulus (Ratey, 2001). While motivation is multifaceted, we will focus on its two primary forms: extrinsic and intrinsic.

Extrinsic motivation comes from an external source, and is traditionally driven by the desire to gain a reward or avoid a punishment. The use of extrinsic motivators is very common within learning, such as obtaining a passing grade so that the student progresses to the next level or an employee earning a certification. Once extrinsic motivators have been obtained or are removed, the activity is likely to cease; therefore, extrinsic motivators tend not to be sustainable for long-term behavior change.

Intrinsic motivation is defined as, "...the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (Ryan & Deci, 2000). It is the internal desire to engage in an activity because of its inherent satisfaction. There is a wide range of research that examines the power of intrinsic motivation as a key driver in long-term, positive behavior change, but one notable study comes from Wlodkowski et al., (2008):

> In a study of adult learners in an urban university, researchers found that when adults perceived their courses as supportive of intrinsic motivation, they were likely to receive higher grades. (p. 6)

It was further observed that students in an environment supportive of intrinsic motivation felt better about the experience as a whole—including improved communication, reduced anxiety, and boosts in creativity and retention (Wlodkowski et al., 2001).

The beauty of the three psychological needs (autonomy, competence, and relatedness) is that they describe universal, human needs—regardless of education, social status, cultural background, or age. By creating a learning environment conducive to these three conditions, learning designers can produce stories and curricula that better access learners' intrinsic motivation. That is, to support a person's intrinsic development and growth, he or she needs to feel in control of his or her own decisions (autonomy), have meaningful social connections (relatedness), and have a sense of improvement, growth, or mastery (competence).

Autonomy

Autonomy is the desire to make decisions on our own terms, without any external coercion. People want to feel they are making choices on their own. In a teaching environment that is devoid of choice and autonomy, students suffer: they lose motivation, score lower grades, participate less, and do not learn as much (Ryan & Deci, 2000). In the workforce, employees also need to exercise autonomy. Without it, employees perform more poorly and ultimately resist external pressure from management or authority figures (Dobbin & Kalev, 2018).

There is an inherent autonomy when students are presented with a story as opposed to a set of facts, as author Dr. Jonathan Gottschall (2013) posits:

> Studies show that when we read nonfiction, we read with our shields up. We are critical and skeptical. But when we are absorbed in a story, we drop our intellectual guard. We are moved emotionally, and this seems to make us rubbery and easy to shape. (p. 247)

Therefore, storytelling maintains a learner's autonomy while still transferring the necessary knowledge in an inductive way.

Competence

Competence refers to our desire to control outcomes and experience mastery. It is the desire to feel accomplished at a task well done and seek attainable challenges that match and extend one's capabilities. When there is an optimal level of challenge presented to learners, it can facilitate intrinsic motivation (Deci and Ryan, 2000).

Methods for establishing competence can include skills demonstrations, testing, evaluations, self-assessments, and instructor feedback. Adult learners who can perceive progress and competence are more confident and more motivated to continue learning (Wlodkowski, 2008; Malone & Lepper, 1987). As will be discussed later, maintaining optimal challenge and curiosity are key to building competence and maintaining motivation—and storytelling is a perfect modality to foster curiosity at that optimal level.

Relatedness

Relatedness is the desire to interact with, be connected to, and experience caring for others (Deci & Ryan, 2000). Relatedness is not limited to being in front of other people, and media can have similar impacts on an audience's emotions and feelings of relatability as in real life (Reeves & Nass, 2006).

Legal compliance training regularly fails to leverage relatedness as a motivational tool—pitting learners against their coworkers, the company, and even law enforcement (Dobin & Kalev, 2018). In a hallmark research study, Dobin outlines why anti-harassment learning programs fail to reduce harassment:

> Typically [training is] mandatory, which sends the message that men have to be forced to pay attention to the issue (i.e., lacking autonomy). And it focuses on forbidden behaviors, the nitty-gritty, which signals that men don't know where the line is. The message is that men need fixing (i.e., lacking relatedness). (p. 51)

A potential solution to increase the efficacy of anti-harassment and other legally compliant training may be to shift the perception of inferred accusation to inter-relatedness. Dr. Sharyn Potter and her team at the University of New Hampshire's Prevention Innovation Research Center started with the assumption that learners, men in particular, were allies working to solve the problems of harassment—rather than potential aggressors. By leading with the assumption that everyone has good intentions and pivoting away from a confrontational tone of "don't do this or there will be consequences," Dr. Potter created an environment of relatedness that promoted learning and self-motivated advocacy.

Studies of audience interrelatedness support the notion of a shared, consistent neural response while watching certain visual stories. By using inter-subject correlation analysis, Hasson et al. (2004) found that a test audience had the same neurological experience across 65% of their cortex while watching an episode of Alfred Hitchcock Presents (Swanton & Hitchcock, 1961). Movies with a cohesive design and strong directorial intent create stronger relatedness among audience members.

Designing Stories to Teach and Motivate Behavior

How, exactly, does one create a compelling story-based learning program? The first critical step is translating the learning objective to follow a narrative structure. Describing your course's learning objectives is very different from how you would pitch what your latest novel or movie is about.

The Core Premise

Every story contains a lesson: an underlying moral that encapsulates the story's message. The authors refer to this underlying message as the Core Premise of a story, which is its moral -it conveys in a single sentence what the author wants the audience to learn. The most simplified structure of the Core Premise describes a causal trajectory of a character trait leading to a positive or negative outcome. For example, Othello (Shakespeare, 1993) has the Core Premise of "jealousy destroys the object of its affection." The long-running number one film on AFI's Top 100 Movies, Citizen Kane (Welles, 1941), could be summarized as "ruthless ambition leads to isolation." These pithy statements act as unstated learning objectives.

A Core Premise differs from themes or motifs within stories, in that the latter two are broad, expansive, and open to interpretation—yet the Core Premise is a singular, affirmative or negative statement that can cover multiple themes (Rush, 2012). Citizen Kane (Welles, 1941) may have themes of betrayal or infidelity, but all of these ideas support the Core Premise of ambition leading to isolation.

By translating a learning objective into a Core Premise, instructional designers align their language to function more like that of a storyteller. The learning objective then becomes the moral of the story, and the next task involves hiding this moral so that it is not overt. Learners are much more amenable to accepting advice when they think they have discovered it for themselves rather than

sitting through a sermon disguised as a story (Gottschall, 2012). By concealing the Core Premise, it is also much easier to appeal to learners' curiosity in ways that elicit intrinsic motivation. This approach is the basis for inductive learning.

To convert the learning objective into a Core Premise, the learning designer must first decide the story's ending. Fundamentally, there are two types of endings: happy or sad. Typically, sad or tragic endings are best utilized as cautionary tales, whereas happy endings are better suited for aspirational means. That is, if you want your learners to critically analyze a dangerous situation, choose a tragic outcome; if you want them to take action through inspiration, pick a happy one.

Next, determine the degree of your ending. If happy, how happy? If sad, how tragic? List all possible outcomes a learner can expect from adopting or ignoring your training. Some examples may include death, ruin, waste, humiliation, abundance, respect, fulfillment, or joy. We have found greatest success in choosing stakes that are high but not so extreme as to be either traumatic or not applicable. An office employee would not expect death to be the outcome for disregarding compliance training, whereas a fisherman on a high-risk boating expedition could reasonably expect to die if training is ignored. Find an outcome that would resonate with your specific audience demographic. Thorough research and interviews with the intended audience will help to guide this decision.

In storytelling, endings result from the direct actions of the main character. The character has choices about how to achieve his or her desired outcomes within a story. Endings are happy when the character adopts a desirable trait (virtue) or sad when the character fails to overcome a toxic trait (vice). Alternatively, a character can fail to adopt a virtue (sad ending) or successfully overcome a vice (happy ending). A simple matrix of possible endings with respective character traits (virtues or vices) looks like this:

HAPPY ENDING	SAD ENDING
Adopts Virtue	Fails to Adopt Virtue
Overcomes Vice	Succumbs to Vice

Once an ending is decided, one has only to identify the specific virtue or vice that would lead to your chosen outcome. What will happen if a learner does or does not heed the advice inherent in the learning objective? What virtue do they need to adopt to succeed? What vice do they need to avoid or overcome to prevent failure? The objective in picking a virtue or vice is to create a cause-and-effect relationship between a learner's choice and an outcome. In the example of a safety training the Core Premise could be, "if you are distracted, it will lead to

disaster." The vice of distraction is now inductively linked to disaster, and we suggest that the brain subtly treats this as a causal connection.

What virtues (i.e., behaviors) does the company want its team to adopt? Alternatively, what vices does it want them to avoid? Since the story's conclusion is cautionary and will result in injury, it is recommended to focus on a vice. What negative character trait would cause a person not to behave in a safe manner—such as ignorance, complaisance, laziness, or arrogance? Let's assume the company is concerned with people being too agreeable, to the point where people are not speaking up when they notice safety risks. In this case, a suitable character trait would be complaisance. The Core Premise, therefore, would simply be "complaisance leads to injury."

The job of the learning-designer-turned-storyteller is now to write a narrative that proves the Core Premise without stating it outright. If a proper needs analysis was performed, the learning designer may already have a plethora of company stories about a time when someone was so accommodating that it led to a disaster.

Often, training films are created in ways that are far too deductive, leading to boredom and an inability to suspend disbelief. Characters tend to state exactly what they are thinking and what they want, which is the antithesis of storytelling and is not how most people communicate in the real world. This lack of realism pulls learners out of the immersive experience and, as Gottschall (2012) mentioned earlier, the shields go up. Even if intuition insists that characters must spell out the point of the lesson, resist the urge to rob the learner of the inductive experience of discovering the point for themselves.

How Stories Trigger Motivation

A learning designer's primary task is not only to deliver new knowledge but also to motivate learners to behave in a new way (Seidner & Brown, 1998). In order to influence learners effectively, designers must understand what motivates students to stay engaged and to challenge themselves even when they encounter the mental strain necessary to make long-lasting neuronal connections. How do we know that the effect of visual media results in neurobiological changes? Hasson et al. (2008) found that,

> Brain activity was measured using functional magnetic resonance imaging (fMRI) during free viewing of films, and inter-subject correlation analysis (ISC) was used to assess similarities in the spatiotemporal responses across viewers' brains during movie watching. Our results demonstrate that some films can exert

considerable control over brain activity
and eye movements. (p. 1)

This may seem counterintuitive to designing according to SDT's framework. However, visual stories trigger a high degree of relatedness while not setting off any triggers that would compromise a viewer's sense of autonomy. We can watch a movie and enjoy it without noticing that, behind the scenes, we are being subtly influenced by the storyteller.

There are many methods to catalyze intrinsic motivation, but two critical ones involve curiosity and fantasy. By developing the skill of incorporating these aspects into a learning story, learning designers can create programs that satisfy the conditions necessary to engage learners' intrinsic motivation.

Curiosity

Curiosity is likely the most direct link to creating an intrinsically motivating environment (Malone, 1981). Learner curiosity can only be satisfied by finding the solution that inspired it to begin with, and the reward to finding the solution is the satiation of that curiosity. Traditional theories of curiosity suggest that curiosity is driven by an optimal level of complexity (Berlyne, 1968, as cited in Malone, 1981, p. 337) or optimal level of challenge (Buchanan & Csikszentmihalyi, 1991). As will be covered below, visual stories provide a designer with the opportunity to optimize that challenge to stimulate learner curiosity.

Fantasy

Fantasy is the act of imagination. For the purposes of this paper, it means giving an audience the opportunity to ideate how they would act in particular scenarios. Imagine a frustrated viewer yelling at the clumsy victim of a horror film who continues to open the wrong doors, when the correct one is blatantly obvious. Audiences constantly test outcomes from a personal narrative. Designing elements of fantasy into a learning story offers a safe space for participants to practice scenarios and play with complicated themes in ways that are low-risk. Fantasy has the added benefit in training of allowing for previsualization - a powerful technique that's used in goal-setting and simulated learning. By mentally walking themselves through the process, learners improve their chances of success and more concretely encode essential knowledge into long-term memory.

Techniques to Motivate Through

Story

Below is an abridged list of techniques that can stimulate intrinsic motivation within a learning film or story.

Cold Open

A cold open is a technique used in television and films; in novels, it is referred to as a prologue. It is an action-filled sequence designed to get audiences engaged immediately, even before opening credits or main characters are introduced. It is a technique designed to capture attention immediately and create the curiosity necessary to keep a viewer watching or reading. Popular programs that regularly utilize this technique include Breaking Bad (Gilligan, 2008-2013) and Stranger Things (The Duffer Brothers et al., 2016-present).

Story Loops

A story loop is a story device that introduces new characters, dilemmas, or side stories which bring about new questions for the viewer. Opening a story loop presents the audience with a "Why" question: "Why was Rosebud his final word before he died" (Welles, 1941), "Why were those climbers killed" (Schmidt, 2003), or "Why are there creatures coming out of this mysterious mist?" (Darabont, 2007). Story loops can involve the overarching plot as well as less significant plot twists. By continually opening new story loops, the designer suggests the promise of an answer and, thus, maintains curiosity throughout the story. Alternatively, the popular TV series Lost (Abrams et al., 2004-2010) suffered significant backlash from its audience because the writers opened many intriguing story loops but then failed to close them at the conclusion of the series.

Withholding Information

After opening a story loop, curiosity and attention can be maintained by withholding information that would close the loop (Suckfüll, 2020). This is done by withholding information and answers. "You do not keep the audience's interest by giving it information, but by withholding information," writes Robert McKee (2006). There is a limit for how long audiences will maintain interest when information is withheld, but the urge to rush a learner through a story-based learning unravels the value of the modality.

One effective technique to withhold information is to switch plotlines at the height of tension. Movie director John Sturges referred to this technique as "Meanwhile, back at the ranch…" (Zhou, 2015). A viewer would watch the main action build to a crescendo and then, before the tension would resolve, the filmmaker cuts away to another plotline in a different part of the story world

(e.g., the ranch). Here, tension would build up within this subplot and, at its height, switch again—either back to the main action or to another subplot. And the process would repeat over and over again.

Designing Principle

The designing principle is the story's overall metaphor—combining a story's process with an original execution (Truby, 2008).When tasked with creating a learning video to teach negotiation tactics to executives, it is common to have a scenario of two people sitting in an office, negotiating over the purchase of a product or service. Yet, once the learning objective has been translated into a Core Premise, the designer/author is now free to create any story world that conveys that objective. Continuing the example of negotiation training, the story could be told from the perspective of a mother "negotiating" with her toddler to go to bed. This is "the difference between a premise, which all stories have, and a designing principle—which only good stories have" (Truby, 2008).

Having a designing principle helps to abstract a story world away from the day-to-day environment of learners and leverages analogies within the story's design. In order to apply the Core Premise back to their personal reality, learners must exercise critical thinking and engage in the top four rungs of Bloom's Taxonomy (Apply, Analyze, Evaluate, and Create). Furthermore, this critical thinking is autonomous, motivated by a learner's curiosity about how a story applies to his or her experience.

Limitations of Storytelling for Learning

In a study by Heider and Simmel (1944), participants watched an animation of three geometrical figures moving around the screen. The majority of participants anthropomorphized the set of shapes and, based on their movements and relationship to each other, attributed human motives ranging from infidelity to domestic abuse to child abandonment. This study demonstrated the human inclination to assign narratives to random events through the use of suspended disbelief, assumed causality, and inference.

As we can see in the above experiment, even when an overt story is missing, we tend to "narrativize" what we witness: making connections between unrelated or random events, finding inherent relevance to us, and fitting all the pieces into a continuous, sensible narrative. Narrativizing helps us to make sense of the complex world around us. However, it is not a perfect system, especially when dealing with nuanced or complicated topics, and so there is inherent liability when telling stories.

What we call "Story Liability" refers to the negative effects of an audience taking away unintended meaning from a story. The author has a desired feeling or interpretation he or she wants the story to produce, but the listener draws a different (often counterproductive) meaning.

For example, in the book Tree Story: The History of the World Written in Rings, author Valerie Trouet (2020) paints the scene of her waiting in her hotel room for a critical piece of data to arrive in her inbox. She is delirious with an illness and growing stir-crazy awaiting the email—confined to her hotel room. Despite her flu, she goes to a cafe with her laptop. When the email finally arrives, she audibly cheers—confusing the patrons and embarrassing herself. The takeaway is two-fold: the average person does not understand the small joys of a dendrochronologist, but the story liability that lingers is that she knowingly went to a public place while gravely, contagiously ill. The story's liability diminishes her main point—the small joys of the scientist—because audiences (often subconsciously) read into other, tangential details that interfere with the main narrative.

Story liability is often the result of having an unclear Core Premise or including aspects of the story that do not fully support the Core Premise. This is why it is critical to employ a storytelling structure that restricts the narrative to support only the key message. In a learning context, a controlled narrative ensures that learners properly infer the learning objectives through causal, inductive reasoning. Otherwise, a learner may make false assumptions about the meaning, glean the wrong points, disengage from the training, or even act in counterproductive ways.

The two ways to avoid Story Liability and keep your story-based training effective is to 1) maintain clear "directorial intention" with your choices about what you want your audience to feel, know, and ultimately do (Hasson et al., 2008); and 2) ensure that your Core Premise aligns with the learning objective, based on the aforementioned exercise.

Other limitations of storytelling within a learning context include cultural differences and familiarity with media. Film theorists regularly suggest the universality of movies as a cultural unifier, yet neuroscience discoveries and more stringent testing have confirmed that these previous, intuitive findings do not hold up.

For example, the famed "Kuleshov Effect" is a cognitive phenomenon where audiences assign emotions to a neutral expression based on the image that precedes it. In the original experiment, Russian actor Ivan Mosjoukine stared blankly offscreen followed by a series of images in

his eyeline (a bowl of soup, a girl in a child's coffin, and a woman getting dressed). The montage would return to Mosjoukine's expressionless face after each insert image, but Kuleshov claimed that audiences perceived emotions (hunger, grief, and lust, respectively), despite the two expressions being identical. When this experiment was repeated among first-time movie viewers in northern Turkey, the Kuleshov Effect was not present (Ildirar & Ewing, 2018). Additionally, Carrière (1995) found that prisoners who were incarcerated for more than ten years could not follow the inherent editing logic of mainstream movies. Film continuity and emotional interpretations of stories in media appear to be learned.

Conclusion

The responsibilities of learning designers continue to extend beyond teaching. Duties like proving return on investment and measuring behavior change are more frequently included in job descriptions. Therefore, more resources are needed in our figurative toolboxes. While new and continually emerging media will help do the heavy lifting, it is critical for learning designers to go beyond technological tools. A foundation in both the psychological motivators of their audience and a strong approach to storytelling will move media like video, VR/AR, and interactive games beyond novelty to become truly robust learning tools. Pairing these rich media tools with compelling stories will make it easier and more effective for learning designers to communicate, inform, motivate, and drive new behaviors.

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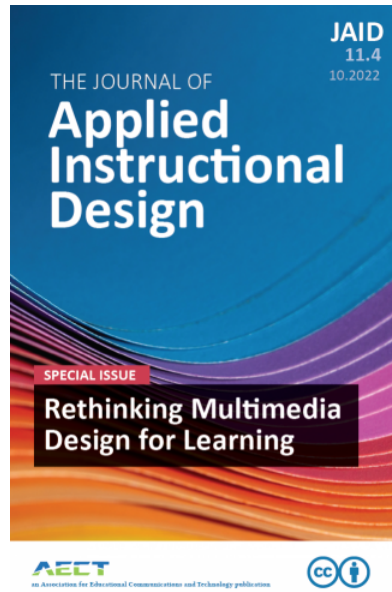
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