The Ethics of Immersive Journalism:
A rhetorical analysis of news storytelling with virtual reality technology

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Abstract
This paper provides background on and raises ethical challenges in regard to virtual reality technology as a journalistic tool. The realistic and empathy-generating nature of 360-degree filmed news story experiences arguably changes the role and responsibilities of both the journalist and the viewer participating in the story. Using *Clouds Over Sidra,* an award-winning long-form VR documentary as the model for analysis, this paper examines how VR may change cultural communication. The influence and impact this new medium may have are important to examine for its impact on the way that subjects portray, journalists capture, and consumers learn about news.

"The medium is the message" — Marshall McLuhan

The scene is eight minutes, 34 seconds long. The giggling laughter of kids playing punctuates the sounds of a quietly lethargic encampment surrounding me. Rows of ramshackle tents and sheds expand outward over a barren, windblown terrain that stretches into an indiscernible horizon.

For these eight minutes, 34 seconds, I am immersed in an alternate world of 360 degrees in which I can swivel my head in any direction. I am no longer accompanied by my lanky, five foot, eight-inch shadow. Instead, I am fixed in place at changing heights: first attached to the ceiling of a room and then on a desk of a makeshift school. Bound to these predetermined vantage points, without agency over my limbs to touch, reach, or acquire autonomous mobility besides my omniscient fish-eye gaze, I am a passive observer of this distant world. I expect, however, to feel the warm breeze across my arm hair or to smell the smoky dirt in this chillingly real world. I observe and I anticipate the moment when maybe I'll surpass this perceptual boundary. For now, I'm still cognizant of the musty, humid downpour back in my reality beyond the headset.

Suddenly, a wave of small, laughing, jumping children materializes at the pixelated horizon. These children run straight toward me. As they approach, I turn to look down and find myself encircled by little dusty brown-haired heads as they grab me and examine me with curiosity and excitement. I try to reach out, but my hand doesn't appear in sight. I spin around: more children come from the expansive tent-city. I try to move, but my body doesn't respond. The herd of kids continues to laugh and run, dispersing into the distance. I swiftly spin to look behind me to view other parts of my surroundings. Jolting my head, the scene blurs and the world is in double vision — the phone slips out of the headset. Upon removal of the headset, I'm startled by the reality around me — only feeling a little bit more real than the fabricated world of the eight-minute, 34-second experience.

I received the world of a 12 year-old girl named Sidra, the world of Za'atari, a Syrian refugee camp in Jordan. But it wasn't given by Sidra. Instead, this world — "Clouds Over Sidra"—is really the reality of director Chris Milk, his spherical camera, and United Nations Senior advisor Gabo Arora (Vrse, 2015). This world is a lens onto Sidra's, a condensed rendering of her life in Za'atari—controlled and produced by the United Nations in partnership with Samsung.

This ethical analysis begins with an omission: mind the camera.

In "Clouds Over Sidra", neither the cameraman nor his camera are in sight—not even a shadow. Save the occasional confused glance or captivated stare by refugees being filmed in the camp, there's little indication that anyone but the observer is present in Za'atari.

Here arises the first ethical quandary: what is the omission of the camera in "Clouds Over Sidra" doing to the relationship between the viewer and the life of Sidra? Is it ethical to erase the mark of the journalist who still has a large stake in the orchestration, construction, and communication of her narrative?

This intentional omission of the camera through carefully planned angles speaks to a larger aim of virtual reality (VR) technology: to establish a sense of presence. As applied to journalism, the erasure of the journalist is only one technique that arguably makes the viewer feel as though the event they are witness to is real and that they are a participant in it. In his 2015 TED talk, Chris Milk (2015) describes the real-feeling experience of his production of "Clouds Over Sidra", saying: "When you look down, you are sitting on the same ground she's sitting on … You feel her humanity in a deeper way, you empathize with her in a deeper way." Unique to the VR medium is a newly acquired storytelling capacity to almost fully embed the viewer into another reality to explore. As Milk (2015) describes, the perspective-taking nature that the technology permits makes VR a curious and rapidly expanding technology. This new form of representing narrative hints at a new type of involvement from the viewer in receiving, understanding, and acting on a story.

Drawing from the epigraph, "the medium is the message", Marshall McLuhan (1967), a professor whose studies include philosophy and communication, shows how the medium of communicating content alters the reception of said content. The new medium of virtual reality technology changes the way in which society interacts with information from news stories (NY Times, 2015). Through incorporating multiple sensory aspects and surrounding the viewer in the story, a news story achieves a novel effect of realness, which changes the relationship between viewer and content. This technology creates a real effect that shifts the role of the journalist and the viewer, raising important ethical questions to consider in the implementation of this new journalistic tool.

VR relies on the fundamental principle of psychological relativity—the theory that every individual has their own conception of the world and how they fit in it (Bailenson, 2016). Through spherically filmed documentaries displayed in VR like "Clouds Over Sidra", news sources capitalize on the immersive and realistic nature of the technology to relate the distant reality of one individual to another. Immersive journalism employs this theoretical framework in news storytelling to effectively convey perspectives through visceral images and emotive content to make more persuasive and informative stories (de la Pena, 2015).

While virtual reality is a new technology, it is not a new idea. Around 1965, the Vietnam War, also termed "the living-room war," was the first war to utilize televised footage of the war to transport and embed Americans at home into the graphic atrocities of the overseas conflict (Hallin, n.d.). TV, unlike radio used in World War II as an example, was unique in letting Americans witness the events, having an "intimate

acquaintance with Vietnam" as dark imagery uncovered a more gruesome war reality than the American government was divulging (Rowe & Berg, 1991, p. 96). The raw images provided through news outlets were seemingly more reputable to citizens than the government's foreign policy decisions shrouded in false optimism; by many accounts, the words of famous CBS newscaster Walter Cronkite began to carry more weight than those of incumbent president Lyndon Johnson (Mandelbaum, 1982). By 1969, dissent towards the war was clear: troops began to be withdrawn and LBJ announced that he would not run for reelection the following year: "It was the first time in American history a war had been declared over by an anchorman" (Halberstam, 1979, as cited in Hallin, n.d., p. 1).

The unedited portrayal of the war changed people's views on the military, foreign policy, and their trust in the government (Mandelbaum, 1982). The Vietnam War is historical proof of the effect immersive media can have on real events and demonstrates the importance of medium in storytelling. As virtual reality technology—which creates a similar "real" effect as television—increasingly integrates into news media, it is important to pull from these highly consequential events of the past in observing how technology can impact perspectives, opinions, and decisions in reality.

In November 2015, VR in the news took a ubiquitous turn with the New York Times' release of over 2 million Google Cardboard headsets (Manly, 2015). Joined by other VR companies like Vrse, RYOT, and Jaunt, these VR journalism producers largely create news stories through immersive but non-interactive two-dimensional films capturing 360-degree rotations of video—an experience that is like watching video feed of a fully-circumscribing panorama photo. The other type of immersive journalism, primarily seen in the work of Nonny de la Pena (2015), involves animated scenes based off of real video and audio footage that the viewer inhabits through the moveable embodiment of an avatar.

The architect Bernard Tschumi (1986), in writing about the relationship between drawn plans of an architectural form and constructed building from those plans, pointed out that there can be a discrepancy between "representational reality versus experienced reality" (p. 145). This concept applies to journalism, as there can be a gap between what the journalist paraphrases in writing and photography compared to the real-time event. The gap, Tschumi says, is an inevitable byproduct of translation of a story (or in Tschumi's case, a building) from one medium (reality), to another (print, radio, photography, virtual reality, etc.). The gap takes the form of voice and ethos in a newspaper article, the in-text citations representing the amalgam of outside resources the journalist relied on to tell the story, or the edited grouping of photos capturing an event. Milk describes the hard work in conventional journalism to bridge this gap: "So much of journalism is conveying a place and time that existed, to someone at a later date: giving a person the context and trying to make them feel as informed as if they were actually there" (Milk as

cited in Dredge, 2015). With the application of VR technology to journalism, however, journalists can instead rely on many sensory dimensions permitted by VR to tell the story for them in an accurate way without paraphrasing. "Fundamentally," Milk says, "[virtual reality] is taking out the middleman…and making you feel as if you were actually there." I argue that news stories told through the mediums of spherical video and three-dimensional animations shrink this gap with an improved "realness" factor which reduces the sense of mediation in the telling of the story (Manly, 2015).

Both the 360-degree video and animated techniques of immersive journalism create a new type of sensory experience beyond type on newsprint. The evolving medium by which information is translated adds new dimensionality, dynamics, and realism with components of audio, visual, and now haptics entering all facets of communication. Just as black and white video in the Vietnam War drastically changed the treatment of the war, it is important to question what access to all of these new and simultaneous sensory capacities can do to the viewer and the story. Even with the injection of color into film at the advent of Technicolor, video narrative took on a new emotional layer: "Gray, blue and purple are associated with tragedies; while yellow, orange and red complement comedy scenes. Red was the color that best accentuated scenes of great dramatic intensity" (New York Times, 1937, p. 1). While Technicolor provided a new outlet for mood to be conveyed, sophisticating the experience of the film, VR "is bigger than color … bigger than sound. It's literally inhabiting the narrative," Milk says (Chocano, 2014). The augmentation of emotional messages through sensory feedback—whether that be with the invention of Technicolor, or the VR headset—better approximates reality and taps into emotional wells that make stories through many mediums more compelling (Lafrance, 2015).

According to the Media Richness Theory, the richer the media is in sensory detail—the basis for narrative information—the greater the experience of presence or the feeling of "being there" (Daft & Lengel, 1986). By this theory, VR technology permits greater feelings of engagement in the reality as sensory information supplements the intake of the narrative (Bailenson, 2012). As I observe Sidra sitting in her room at eye level, her sulking posture and somber tone carry implicit information about her sense of demoralization and hopelessness in Za'atari. If I were to read Sidra's story in a newspaper, this subtle detail would be absent. Therefore, VR makes reality more readily available by filling in natural communicational limits that other forms of media like print or audio journalism have in capturing gestures, facial expressions, or details of the environment. As Milk explains, this sense of presence in a far-away reality changes the observed experience into something resembling a real memory: "With virtual reality, you're essentially hacking the visual-audio system of your brain and feeding it a set of stimuli that's close enough to the stimuli it expects that it sees it as truth" (Chocano, 2014).

Researchers at Stanford University studied this potential for VR experiences to manifest "as truth" due to the media richness. Two conditions were studied on elementary school children— one in VR in which they swam in a virtual ocean with whales, and the other in which a narrative of this whale-swimming experience was read to them (Bailenson & Segovia, 2009). Results revealed that five days after the experiment, children more frequently recalled their whale-swimming experience as real memory if they experienced it in VR (as opposed to being read a narrative). This powerful capacity for VR environments to plant false memories demonstrates how believably real VR worlds can feel due to the strong sense of presence.

As the highly controlled realness of the environment works its way into the depths of my long-term memory, Sidra's life and mine coincide into one—even if it is only for a fleeting eight minutes and 34 seconds. The creation of presence through sensory details and the obsolescence of the journalist in VR culminate in a powerful feeling of emotional connectedness and empathy. The power of VR experiences to be integrated into real memory makes the narrative more significant as a distant news story becomes a personally relevant lived experience. As connected as I may feel as the viewer to the very believable world though, I am not alone. "It's a machine," Milk (2015) says, "but through this machine we become more compassionate, we become more empathetic and we become more connected, and ultimately, we become more human."

VR technology rethinks the fundamental way in which a story can be told in journalism by changing the responsibilities of the journalist. The impact and potential repercussions of these changes should be scrutinized. While the sense of presence contributes to the deletion of the middleman, the addition of the new sensory facets of video, audio, and movement in VR give many new creative choices and responsibilities to this middleman in choosing how to represent the narrative. "Clouds Over Sidra", for example, is a much more complex and multifaceted construction than the seamlessly told narrative seems. Direction Gabo Arora of "Clouds Over Sidra" called it art—admitting the creative agency he had in its telling (Arora, as cited in O'Niell, 2015). To produce a VR experience, journalists consider: camera height, camera movement, directional sound, framing of the subject, background music, narrators, captions and text, fade in transitions, jump cut transitions, and more. The producer becomes a conductor using his sensory instruments like sound and camera height to orchestrate the sensory pieces of Sidra's life into one harmonizing narrative. With more moving parts, however, storytelling becomes more complex and also more ethically weighty—the invisibility of the journalist in VR can be a dangerous illusion in the consumption of media when viewers begin to analyze, relate to, and act on the stories they consume.

The filming of "Clouds Over Sidra" involved a laborious and risky process of spherical filming in which Arora placed the camera on location,

hit record, and proceeded to run away out of view of the camera (O'Niell, 2015). This technique is contrasted by typical documentary filmmaking techniques, for example, in which the director actively chooses, frame by frame, the subject of the view and the events being captured on film. Arora (as cited in O'Niell, 2015) says this "purity to the process" eliminates awareness of the mediation on both sides of the lens: refugees theoretically become normalized around the presence of the camera, which is important for the integrity of the piece, and viewers consequently feel more integrated into that world. This integration, however, is ethically precarious because behind the convincingly present sensation of a VR experience is the orchestrating journalist. In the construction of "Clouds Over Sidra", the producers had major regulatory power about what aspects of the refugee camp the viewer sees, hears, and experiences. Presumably, the editorial choices they made were to make the story more effective in communicating its message.

The success of VR technology is predicated on using this machine to garner empathy which in turn can make news stories more persuasive and impactful. Oculus markets their headset with "Step into Rift," Google: "Experiences like you're actually there", and Jaunt: "Experience it to believe it." Empathy becomes the rhetorical tool of choice by VR companies and journalists alike—emotionally compelling stories sell the technology (for the companies) and the subject of the narrative (for the journalist). The telling of Sidra's story was a collaboration between Samsung, the United Nations, and Vrse filmmaker Chris Milk—each with their own intent and audience to influence (Vrse, 2015). Debuted at the World Economic Forum in Davos, Switzerland, the film aimed to influence global decision makers and "has the ability to inspire the message of hope amongst not only the millions displaced but also those motivated to act" (Arora, 2014). While the intention of "Clouds Over Sidra" were clearly philanthropic in illuminating a forgotten population of people, one has to consider how much of the "empathy" it garners is truly a marketing ploy for the distribution of the Samsung headset, the diplomacy of the UN, or the attention for Vrse.

Under the realism of VR experiences, it is easy to forget as the viewer that the story is being told and constructed with intention. As the viewer develops a personal stake within another reality through an empathy-engendering machine, the viewer becomes emotionally vulnerable. Just as video footage during the Vietnam War was effective in changing foreign policy and the outcome of the war, VR has this same potential to change beliefs and outcomes in the world. Because of the actionable impact news can have—especially news told in compelling mediums—news media in the past has notoriously been used as an outlet for propaganda (Bernays, 1928).

Edward Bernays (1928), a writer in the field of public relations and psychology, described the fundamental process of "engineering consent" behind propaganda. This is achieved by the construction of persuasive

environments that shape perceptions of the world and provide a space for people to voluntarily act in the way that the creator, or "engineer", of the environment desires. Purpose draws a fine line between persuasion and propaganda; although journalism aims to be as objective and factual as possible, the differing perspectives of news sources inadvertently alter the framing of a story (Jowett & O'Donnell, 1992). Upon examination of the highly realistic and believable environments in VR and the role the journalist plays in its construction, one has to take pause at the medium's resemblance to propaganda.

In addition, the immersive nature of VR through the physical aspect of putting on a headset into an incredibly realistic and seemingly credible environment may change the way that viewers gather news. When the typical process of newsgathering may involve the perusal and amalgamation of several news sites and media, upon putting on the headset, the viewer is dissuaded to interrupt the highly detailed, credible virtual all-in-one experience (de la Pena, 2015). By encouraging viewers to only rely on one news source, this facilitates the control a news source has in shaping views.

VR environments could very well become incubators for propaganda and exploitation, and for this reason, being unaware of the journalist orchestrating highly persuasive content can be dangerous. The creative liberties available in VR insidiously make VR persuasive and change the consumption of the story. Music, directional sound, composite scenes with audio and visuals from separate times and more all are aspects of the production that have to be constructed by discretion of the journalist. This prompts the question: how accurate to the real reality should virtual story be? Is it ethical to abbreviate an experience to only incorporate the most impactful moments? In the natural consolidation of details reality into a story, the threshold for ethical manipulation is hazy (de la Pena, 2015).

In "Clouds Over Sidra," subtle somber background music supplements the imagery and narration by Sidra. Imperceptibly, the music became another sensory cue to establish the tone of the piece. Music, in a way, does some of the empathy work for me. In addition, the scene in which the masses of children rush toward me was in fact fake, simply a product of the virtual world to make the viewer feel like a member of Za'atari rather than a distant spectacle. Gabo Arora describes how he orchestrated the gathering of hundreds of refugee children: "Of all the scenes, I staged one. The one with the kids running at you and encircling you in slow motion? I herded about 200 kids. I was like the pied piper" (Arora as cited in O'Niell, 2015). It was a smart but deceitful empathy-generating manipulation to give a false sense of humanism.

In the making of an evocative VR news story, some argue that these creative choices push up against sensationalism. Comments on the NY Times VR stories express frustration that the new immersive medium trivializes realities by their brevity and voyeuristic nature. As one commenter says: "These are real people in these 'virtually real' photos,

not objects for gawking with pity" (NY Times, 2015). While this new storytelling format may provide an outlet to feel closer to a story, the way in which it enters into a reality may generate a false or fleeting empathy (McMullan, 2015). It is important that producers use the novelty and the ability of the technology for impact rather than entertainment. With such close entry into the intimate life of another, does the moral obligation of a viewer to act change with a near-embodiment of an otherwise distant reality?

At this turning point in technology at the journalistic crux of the opinions, ideas, and events of today's world, it is important to think about the implications of this advancement and how it could change the transmission, the reception, and the understanding of news around the world. During the Vietnam War, the technological advancements of the United States might have also been its downfall in the war. Johnson even suggested that we likely would have lost past wars had they been televised (Mandelbaum, 1982).

The verisimilitude of digital realities might be too real. The stealth the technology permits to a journalist makes the constructed story seem perfectly unadulterated. This immersive technology has similar obstacles that other news mediums have in its invasive nature of the camera and the need for directing by the journalist. Immersive journalism, however, seemingly a primary source in its realness, is fraught in many more complex ethical quandaries because of its claim to authenticity due to the nature of VR technology. As seamlessly real as these stories appear and feel, they are just representations. In translation, noise by the storyteller's decisions disrupts the purity of the conveyed reality.

Skepticism for and awareness about these believable new mediums should be encouraged. As I hesitantly put the virtual reality headset back on, I heed to Milk's warning about the engrossing nature of VR and "remind [myself] not to believe," with the knowledge that the escalated sense of presence could cloud my critical consumption of the story (Milk as cited in Chocano, 2015). Just when I start thinking I might actually be in the swamp of South Sudan, on the stage of a Paul McCartney concert, or living in a refugee camp in Jordan, I'll hope that following behind me is a shadow of a leggy tripod with a spherical camera head—a reminder that I'm still grounded in my own reality, voluntarily choosing to be transported to someone else's.

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