When she opened her eyes, University of Southern California student Allison Begalman found herself on a beautiful street corner in Aleppo, Syria. While taking in the breathtaking scenery, dust filled the air and she heard screams all around her as a mortar strike hit. NPR of January 25th, 2015 clarifies Allison's virtual reality experience was the product of an experiment called Project Syria. Created by filmmaker and journalist Nonny de la Peña, Project Syria aims to use virtual reality as a medium for teaching *empathy*. It's easy for us to lose sight of tragedies a world over, but Project Syria is the first of many solutions. This type of experience uses a first person perspective to place people in scenarios they would otherwise only read about. And it turns out we need this now more than ever. Time on November 6<sup>th</sup>, 2014 points out we are losing our ability to empathize at an alarming rate, and virtual reality is already starting to reverse that trend. By placing people in foreign settings, virtual reality is revolutionizing the way we empathize with others. So let's look at the background, applications, and implications of what the Harvard Business Review calls "ubiquitous, affordable, and transformative." It's Harvard. Trust them, they're really smart.

While the first uses of virtual reality were in video games, entertainment, and the military, its ability to teach empathy is just now emerging. Let's break this down further by first looking at the technology itself, and second how it applies to empathy.

First, in the past, virtual reality was ineffective because it lacked the technology to make scenes appear realistic. It started in the 1950s, but considering color TV had just come out, technology wasn't quite there yet. A **November 14th, 2014 New York Times article** says today, technology is finally at the point where virtual reality can be both immersive and accessible. **BBC of March 27th, 2014** praises Google for its makeshift virtual reality device known as the Google Cardboard. It's cheap because it's literally made out of cardboard, and it's easy to use. Just place your smartphone inside the cardboard headset, and you're all set. If you

want to experience it for yourself, see me after the round and I'd be more than happy to let you try it. Virtual reality used to be poor quality and too expensive, but those days are over. It looks great and it's available to all of us.

Second, empathy. Empathy, or the ability to step into the shoes of another person and understand their feelings, plays a key role in our society. We've all got it, but as the aforementioned Time article argues, we're pretty bad at using it, and it's only getting worse. Levels of empathy have dropped 50% in the last three decades. And that's pathetic. Not to be confused with empathetic! Time goes on to say the wealthier you are, the less empathic you're likely to be, and that's a growing concern as the inequity gap continues to grow. So why are empathy levels in a free fall? According to Live Science, June 30th, 2015, as technology rises, empathy drops. There is just too much information for us to take in. Our brains can't handle the barrage of stories told to us, and this destroys empathy. Ironically, technology may be saving us, from technology. Virtual reality is working to fix this by teaching empathy in a way that's not only affordable, but effective. A headset blocks out the barrage of information, and connects us to one story, one person, and one struggle.

Allison Begalman's classroom experience on the virtual streets of Syria brings to light two applications: first, education and second, journalism.

First, when looking to teach empathy more effectively, where better to start than right here in schools? As reported by **The Telegraph on March 30th, 2015**, over a quarter of students don't go on field trips because they can't afford them. Instead of being denied this immersive experience, virtual reality gives low income students the next best thing.

**TechCrunch of May 28th, 2015** points to one of Google's latest apps: Google Expeditions, built for shared virtual reality field trips. It lets a teacher lead a class through a constantly growing list of locations. For those kids, the sky's the limit. They can be exposed to new ideas, new cultures,

and new experiences just by putting on a headset. And experiences like this can spark deeper learning for a generation raised on a screen. **According to the January 2015 Trends in Cognitive Science**, immersive VR is a richer and more stimulating learning experience. While lectures and guest speakers can boost cognitive learning, the simple ability to remember facts, immersive VR will lead to affective learning, or more simply, a *passion* for the subject matter. And as every educator will tell you, their ultimate goal is affective learning, because that's where the real magic happens.

Second, virtual reality is in the process of redefining journalism. The aforementioned journalist Nonny De La Peña has pioneered this under the motto: "Inspire People to Care".

Forbes of May 29th, 2015 argues the best way to generate empathy is by putting the user inside of a news story. For example, Peña's virtual reality film "Hunger in Los Angeles" places the viewer in line at a food bank, when one of the people collapses in a diabetic coma. A July 20th, 2015 Huffington Post article explains while the user obviously isn't there, it still creates a powerful embodiment of starvation in Los Angeles because the user is "witnessing it" rather than only reading about it. By adding an entire new level of interactivity, virtual reality is paving the way for a new era of journalism.

There are countless uses for these new applications of virtual reality. Using it to teach empathy is a step in the right direction, but offers both negative and positive implications.

Initially, virtual reality does pose a few negative implications. **The Atlantic of February 18th, 2015** points out not physically being in the scenario means the viewer's experience isn't the same as those being portrayed. In many cases, the virtual experience may not do justice to the real life version it's based off of. Additionally, **PopSci of January 19<sup>th</sup>, 2015** notes emulating the suffering of others poses an ethical dilemma. While it looks to effectively teach empathy, it relies on viewers fully immersing themselves in a scenario. But having the luxury of taking off

the headset at any time limits the authenticity of that experience. We can only see so much from behind a headset, so while it is an incredibly useful tool, it doesn't compare to physically experiencing cultures different from our own.

Finally, teaching empathy is the future of virtual reality and it could put the word act back in activism. Lobbyists, non-profits, and humanitarian efforts have a new tool to help us better understand the plight of others. In an April 2015 TED Talk, virtual reality developer Chris Milk dubbed virtual reality "The Empathy Machine", since it evoked an emotional reaction from almost every user. Even the *feeling* of being there is enough for most users to empathize with those being portrayed. Tech Crunch on February 1st, 2015 notes most users said they wanted to do more to help those in need *after* their virtual experience. Reading about a tragedy in the news is unfortunate, but when we experience those stories personally, we become inspired to not just talk about it, but actually do something about it.

Virtual reality holds the key to unlocking a world of possibilities, and after exploring the background, applications, and implications, it's clear the "empathy machine" has no limits.

Project Syria was a profound and powerful experience, and others are following suit. Virtual reality has the potential to bridge the gap between technology and our own humanity, and make us better people for it.