



To Boldly Go

Getting Ever Closer to the Final Frontier

JAKE MARION

Through allusion to the *Star Trek* saga and research on recent technological innovation, Jake Marion contends that humankind has cause to approach the future with hope, optimism, and goodwill. This essay was written for Writing I with Dr. Ben Wetherbee.

WHEN *STAR TREK* DEBUTED ACROSS America's TV screens on September 8, 1966, it began to spread ideas that would help to revolutionize the world and give hope that there was a bright future for humankind. However, in today's world, that future seems so much further away than it once was, and people are beginning to wonder if we will actually ever reach the lofty heights set by Captain James T. Kirk and Mr. Spock. The object of this essay is to prove that those heights aren't as far as they seem—and perhaps that we have already surpassed them many ways.

Some, such as Vivek Wadhwa, postulate that the possibility for massive economic inequalities, eugenics, and a jobless economy are all very real obstacles we could face in the near future. Technological advances would inadvertently bring these obstacles about, thus leading us down the path to a violent, dystopian future in which we would lose many of the advances we have made. It is important to

note that something like this is not impossible, as the fall of the Roman Empire lead to the Dark Ages in Europe, virtually undoing much of the technological progress made during the Empire's lifetime.

However, Wadhwa also points that we are coming upon an age where we are "capable of creating a world of tricorders, replicators, remarkable transportation technologies, general wellness, and an abundance of food, water, and energy." This is confirmed by the fact that, as of April 12, 2017, we now have a functioning tricorder prototype thanks to Final Frontier Medical Devices ("Final Frontier"; "Congratulations"). Wadhwa's statement is also proven correct when looking to Tesla's revolutionary electric sports cars and Elon Musk's Boring Company, which seeks to drill tunnels underneath major American cities to cut down on traffic problems.

David Batchler, an astrophysicist from NASA's Goddard Space Flight Center, notes in his article "The Science of Star Trek" what we have achieved and what can and cannot be achieved. Surprisingly, there are actual *Star Trek* technologies we have already surpassed, and there is the potential to reach several other twenty-third- and twenty-fourth-century advancements. Inventions such as the phaser are already on their way to development: the U.S. military already has what will likely be a precursor to phaser technology, although right now it is only capable of stunning an enemy. We've also surpassed *Star Trek's* communicator technology as, unlike the away teams on television, we can take photographs and video footage using our phones.

Unfortunately, some of the more exciting aspects of the show, such as the transporter and the replicator, are, as far as we know currently, impossible to achieve in the way we know them. As Batchler puts it, "barring a very unlikely demolition of Einstein's theory by revolutionary discoveries in quantum physics, warp drive can't exist." With that in mind, the warp drive can be checked off as yet another folly of science fiction. Beginnings of the holodeck, however, while we are not currently able to replicate it entirely, can be

seen in virtual reality technology, such as the Oculus Rift and the HTC Vive. Fittingly, people today can be transported to the captain's seat of a Federation starship in games such as *Star Trek: Bridge Crew*.

There is a greater bright side, too: since he penned the article in 1993, numerous advancements have brought several of the technologies Batchler considered unattainable within our reach. Technologies have made leaps and bounds since then, and with the advancements of artificial intelligence, we have seen them create their own language and even be granted citizenship (Bradley; Weisberger). In the past few years it has also been shown that while warp drive may be impossible to achieve, the impulse engines of the *Enterprise* are possible. It is theorized that a trip to Pluto would only take 18 months, and that Alpha Centauri, the closest star system to us, would only be 100 years away on impulse engine power, instead of the tens of thousands it would take on current rocket power ("Real-Life Version").

Of course, these technologies will only be allowed to continue and improve and reach the heights of *Star Trek* if we as a species continue to make the right decisions. These technologies can be used for good or for evil, and, as they continue to improve, they will very likely continue to change humanity both for better and for worse. However, the future is up to us and how we react to these changes. Will we continue to push forward towards the final frontier, spreading the prosperity that new technology can bring, or will we become dependent on it and let those in power use it to further their own private agendas? In the coming years it will become more obvious whether we are heading for Deep Space Nine from *Star Trek* or the Thunderdome from *Mad Max*.

The potential for our own Deep Space Nine is there, and with innovators like Elon Musk, Final Frontier Medical Devices, and Roger Shawyer beginning to push the limits of science to new frontiers, the future begins to look brighter with each step they take. We may not see ships jumping to warp speed, and we may not be able

to have a hot Earl Grey tea immediately ready whenever we ask, but the ability to get lost on a holodeck or interact with an android like Lieutenant Commander Data is right within our grasp.

When *Star Trek VI: The Undiscovered Country* was released in theaters, the Soviet Union was breaking apart and the United States and its allies found themselves forced to become friends with the same nations who for over forty years had been their enemies. Similarly, the movie illustrates the Klingon Empire breaking apart and the United Federation of Planets forced to become friends with peoples they had been at a cold war with for almost 70 years. During that time, in both the movie and the real world, humanity was entering a new age it hadn't seen before, and with that new age came numerous advancements in the geopolitical and technological spheres. The same is true now, as we crest a new chapter in our civilization. Captain James T. Kirk helped bring audiences to a new vision of the future; he is the role model many look up to now when they think of humanity in the future. Captain Kirk had lost his son to the Klingons and had for much of his life harbored a deep resentment against them. In the end, though, when he has the opportunity to save the Klingon Empire or let it be destroyed, he chooses to save it so as to create a mutually beneficial future for everyone. His speech from the end of *Star Trek VI* sums up what the future really means, and that change can, if done for the right reasons, bring about a brighter outlook on the undiscovered country that is the future. Captain Kirk's speech surely rings true when we begin to wonder about the technologies of Star Trek and what happens if, or when, we reach them:

Some people think the future means the end of history, but we haven't run out of history just yet. Your father quoted Hamlet; he called the future "The Undiscovered Country." What I had always assumed Hamlet was speaking of was death. Gorkon thought that the Undiscovered Country might mean something else. Another

kind of life. People can be very frightened of change. I know I was.
You've restored my son's faith in that future.

James T. Kirk
Camp Khitomer, 2293 AD ▶▶

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