Ray Bradbury's 21st Century Guide for Space Travel

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Jump off the cliff, and build your wings on the way down. He was telling us that every impossible dream that comes true begins with a leap of faith. That's why he inspired so many generations of people—not just science fiction fans, but real space explorers, scientists, engineers, even astronauts. More than anyone, Bradbury was able to put into words that thing that is written in our DNA that compels us to always strive for the next hill, even if that hill is another planet or another star.

Andrew Chaikin (2012)

Throughout the history of the Space Age, one will be hard-pressed to find a more important figure and champion for star cruising than Ray Bradbury. To pedestal a writer over, say, an astronaut or engineer might seem preposterous to some, but a glimpse into the author's life will lift any veil of doubt regarding his importance. On June 7, 2012, two days after Bradbury's passing, NPR's *Morning Edition* host Renée Montagne interviewed Andrew Chaikin, historian of the Apollo age and author of *A Man on the Moon: The Voyages of the Apollo Astronauts* (1994). Chaikin, quoted above, emphasized Bradbury's importance and influence outside of the written word. There was a time when the idea of space travel was looked at as mere fantasy, but Bradbury held firm in his belief that the only way for humankind to live forever is to soar further out among the stars, and the only way for that to happen is for everyone to work together. With the billionaire space race in its infancy, will that vision of the future survive through the 21st century? In order to understand the future of space travel, one must know where it all began, and what better lens to look through than the dreams manifested by a blond-haired blue-eyed Waukegan boy born back in the year 1920.

https://doi.org/10.18060/28535

The New Ray Bradbury Review, Issue 8, September 2024. Published by the Ray Bradbury Center, Indiana University Indianapolis.

From early childhood, Bradbury's imagination was given ample opportunity to take hold. His mother, Esther, was a cinema connoisseur, and passed her love of film on to her baby boy. At the age of three he saw *The Hunchback of Notre Dame* (1923) with her and his older brother Leonard Jr., also known as "Skip." The year after, he received his first collection of fairy tales from his Aunt Neva, and soon after his parents began to teach him how to read using the comics in the newspaper. Over the next few years, young Ray watched *The Phantom of the Opera* (1925), and would soak in every detail as Neva read to him L. Frank Baum's *Oz* books. All these moments laid the foundation for the rest of his life, but soon after his foundation would be rattled to its core.

The patriarch of the family, Samuel Hinkston Bradbury Sr., passed away on June 4, 1926. Due to lack of work, Ray's father, Leonard, moved the family to Roswell, New Mexico. When that didn't work out, their next stop would be in Tucson, Arizona, where his sister Elizabeth was born in February, 1927. The family moved back to Waukegan in May of the same year. In February of 1928, sadly, Elizabeth would pass away from pneumonia, and Ray would miss three months of school due to a bad case of whooping cough.

It was during these sick days that he would discover Edgar Allan Poe through Aunt Neva's soothing oration, and the nightmarish lantern made of pendulum and raven was enough to help light his way out of the darkness. The year 1929 would be a true launching-point for Ray and his interest in the cosmos. He would learn to look up from the grassy lawns of his boyhood, and gaze up at the night sky. This newfound love would lead him to find Edgar Rice Burroughs' *John Carter of Mars* series. In October of the same year, he spotted in the *Waukegan News* a new comic strip called *Buck Rogers in the 25th Century*. These works cemented his yearning to soar beyond the stars, and he would begin liftoff by imitating them in his early writings.

By 1950 he would collect many of his own Martian stories into a book called *The Martian Chronicles*. Bradbury's love for Mars influenced his stories, but it would be years before he understood how influential his stories had been upon the public. But, influential they were. Biographer Jonathan R. Eller wrote that Bradbury "had written a modern fable of Mars that highlighted the options for success or failure facing those who might someday establish humanity's first beachhead on another planet. Over time, *The Martian Chronicles* became a Space-Age classic that helped propel science fiction into the mainstream" (Eller 2014, 282). By the 1960s Bradbury would pen non-fiction space essays for *Life* magazine that would take his dreams of space travel, once considered science-fiction fantasies, from the short story and spill them out into reality.

His first publication in *Life* was on October 24, 1960, an essay titled "A Serious Search for Weird Worlds." At this time, there was a curiosity to turn an ear to the cosmos, and the National Radio Astronomy Observatory in Green Bank, West Virginia, did just that with its 85-foot radio telescope called "The Ear." Bradbury discusses in this essay the odds of life existing on other planets:

How many stars are there in the universe for our radio-telescope ears to listen to? Write the number 10. Then add 19 zeros after it.

Of this unthinkable number, how many stars have planets rushing about them? A conservative estimate, says Harlow Shapley, Harvard professor emeritus of astronomy, is one in a thousand.

How many such one-in-a-thousand worlds will lie just the right distance from their suns so that a moderate temperature will encourage life? One in a thousand.

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How many of these far fewer worlds will be large enough to bind and keep an atmosphere? One in a thousand.

And finally, how many of this vastly reduced number will have a proper atmosphere, with carbon, oxygen, hydrogen and nitrogen enough to stir up cellular life such as exists on Earth?

Again, [...] one in a thousand.

But with the number ruthlessly cut, we are still left with one hundred million planets in the universe on which some kind of life is not only possible but probable. (Bradbury 1960, 117-8)

Though the odds are slim, it is only logical to think that if life can arise on planet Earth, there must be other planets alike enough to host intelligent life. If the inhabitants of this world can broadcast signals across light-years, why can't another? The odds are favorable toward the probability of life elsewhere, but space travel being in its infancy, it would take decades to begin any kind of back-and-forth communication. But that was okay: for Bradbury this was the beginning of Mankind's outreach into space, and that was an important first step.

Bradbury's next space essay was "Cry The Cosmos," published in the September 14, 1962, issue of *Life*. In this piece he celebrates the coming together of the rockets that will send future astronauts to the Moon, and explains how space travel is the key for the human species to live forever:

Space travel is the single greatest step in the single greatest age in history. Some day, looking back toward Earth from Alpha Centauri, we will know ours was the Time Between, the Age of the Chrysalis. But our time being in and of the Earth is almost over. We go now to pace meteors, skim fire off the sun, and shake the bones of three billion Earth men—among them artists, philosophers, psychologists, scientists, and poets of every shape and size, who, feeling the rocket stir their marrow, will change their lives, their work, and thus the lives and work of the billions who are in their influence. (Bradbury 1962, 88)

The 1963 documentary *Story of a Writer*, which profiles Ray Bradbury, begins with him touring the Rocketdyne Propulsion Laboratory, nestled within the Santa Susana mountains of Southern California. The host, John Willis, gives Ray a most wonderful introduction: "His tales of science fiction and fantasy are known throughout the world. For over 20 years he has predicted and examined the joys and nightmares of the coming age of the rocket."

Being this close to the rockets after writing about them his whole life was a true fullcircle moment. But, how would Bradbury come to understand the depth of his influence in the midst of all this? Shortly after Bradbury's death, The Smithsonian's *Air & Space Magazine* paid tribute to Bradbury with a passage from Sam Weller's biography *The Bradbury Chronicles*, about the time Ray had been assigned by *Life Magazine* to write about the Apollo astronauts. Weller records that arriving in Houston on January 13, 1967—just a couple of weeks before the tragedy of the Apollo I fire—Bradbury visited the Johnson Space Center. The days that followed would give Bradbury the affirmation that he had truly made an impact within the space community. One of the first NASA administrators he met mentioned that his favorite book was Bradbury's *Dandelion Wine* (1957). The same evening, Ray dined in Houston with astronauts Jim Lovell and John Young, Richard Gordon and Pete Conrad and their wives. Soon after, he attended a press briefing, sitting in the back of the conference room. Nearly sixty Apollo astronauts trotted out.

Someone in the room announced that Ray Bradbury had been present, and at least half of the astronauts looked up with excitement. According to Weller, "several of them approached Ray after the conference. As young dreamers with imaginations fixed squarely on the stars, many of them credited Ray, and specifically *The Martian Chronicles*, as an early inspiration. Ray suddenly found himself surrounded by American heroes, who were worshiping him." Not only had Bradbury been influenced by the stars, but now his influence that he put out into the world stood before him in the eyes of the future travelers of the cosmos. He would come to know and celebrate all the great times. But, with all good things, an equal amount of bad lurks around every corner.

In his third *Life* essay "An Impatient Gulliver above Our Roofs," Bradbury details the demise of the Apollo I crew. On January 27, 1967—two weeks after Bradbury's arrival in Houston—astronauts Gus Grissom, Ed White, and Roger Chaffee all succumbed after a fire ignited inside the Apollo capsule during a launch test rehearsal.^{*} It left a profound impact on Bradbury, and he had this to say:

The fire last January which swept the Apollo spacecraft, erasing the lives of Grissom, White and Chaffee, gave final proof, if proof were needed, that actors and technological stagehands were engaged in a very real drama. In that instant, what was intended as a rehearsal blazed into tragedy. In the shock of silence that followed, we realized that not all the lines could be learned ahead, and not all the actors be ready. (Bradbury 1967, 34)

In the beginning the space race was fueled by the excitement of adventure, to reach farther out than humans once thought possible. Now, after losing three well-respected men, it became real, not just the fantastic tinkering of well-intentioned scientists. They continued with the program, understanding that even though catastrophe potentially waited around every corner, it was important for the human species to take that first big step out into the great unknown.

On July 20, 1969, Neil Armstrong took "one giant leap for Mankind," a moment that has stood since as the single greatest achievement in the history of the human race. Apollo 11 was a celebration, and became the foundation of Bradbury's hope for the future, but that hope would soon flicker out. As Jonathan Eller observes in *Bradbury Beyond Apollo*,

[...] on some level, Bradbury and other close observers of NASA's political fortunes realized that the safe return of Armstrong, Aldrin, and Collins marked the beginning of the end for the entire Apollo program. The Kennedy challenge had been met, and there was no longer a clear consensus in Congress, or even in the popular mind, that the remaining nine missions should be launched at all. (Eller 2020, 11)

Throughout the 1960s Bradbury became popular as a lecturer. The editors at *Life* had opened the doors to him at NASA by publishing his influential essays. As Eller states, he had become "a lay spokesman for the Space Age" whose celebrations of the moon landing "led television viewers to realize [...] that Ray Bradbury was a representative of all Americans who found meaning and excitement in the nation's Space-Age achievements" (2014, 282). But his exuberance was not enough, and the Apollo program would soon flicker out.

^{*} According to Eller (2020, 10), Bradbury completed his draft of "An Impatient Gulliver above Our Roofs" on January 26, 1967, and hand-annotated the manuscript with "Grissom, White, Chaffey killed in a flash fire" on January 27. In the days that followed, he made revisions to the draft that reflect the new circumstances surrounding the Apollo program.

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Ray accomplished a lot in regard to his interest in space. He was even honored by having a moon crater named after him. On July 26, 1971, the Apollo 15 mission lifted off from Kennedy Space Center to explore the moon. Four days later, astronauts David Scott and James Irwin's lunar module landed, and they proceeded to name an impact crater "Dandelion Crater," in honor of Bradbury's *Dandelion Wine*.

Many people may think that it's just a name attached to a crater, but it's more important than that. It was there that Scott and Irwin found the Genesis Rock, which proved to be the oldest sample ever taken from the moon. Eller writes in *Beyond Apollo* that "On that day, NASA's science met Ray Bradbury's fiction in a dream turned reality. Bradbury soon learned that his 'Dandelion' naming honor was also a crucial navigation point on Mankind's first extended journey across the surface of another world" (9). Bradbury had now ascended beyond being just a storyteller, and was now one of the most important figures of the Space-Age, and he would spend the rest of his life celebrating and supporting space exploration the best he could.

On January 21, 1974, Bradbury sat with host James Day for the CUNY TV interview series *Day at Night*. When Day asked Bradbury what space travel would do for humankind, his reply was, "Space travel is going to enable us to live forever. That's it's most important function." This was a common theme throughout his Mars and space stories, that life needs to go on: in order to survive, humankind must expand beyond its home planet and put down additional roots elsewhere. These dreams were not meant to be. Through no fault of Bradbury's, the Space-Age faltered, and crewed trips back to the moon were finished with Apollo 17 (1972).

After years of stagnation in human space exploration, a much older Bradbury put together his collection of essays titled *Bradbury Speaks: Too Soon from the Cave, Too Far from the Stars.* In it is his 2004 essay "Time to Explore Again: Where Is The Madman Who'll Take Us To Mars?" You can hear the desperation ring out from the printed word as the opening lines lament:

In this time when our freeways are frozen in place, space travel suffers the same terrible winter. Years have passed since Apollo 11, with only faint cries for a lunar rediscovery, then Mars and beyond.

How can we thaw this deep freeze to unlock our vision so that we see the stars once more with the same fever that we knew that fabulous night we took the first Giant Step? (199)

He goes on to suggest that, maybe, other countries playing a one-upmanship against the United States might be the ignition needed to get the flames of innovation burning. That forcing us into action might be the key to uncovering, say, the next Wernher von Braun. Ray wrote it plain and clear: "What we need now is a competition of hatreds and loves. The final reward on Mars might well be not spices or gold, but the squashing of egos and a promise of immortality." During the twilight of his life, Bradbury would come to add to his ever-growing chunk of immortality, as well.

On Thursday, January 15, 2009, NASA's Jet Propulsion Laboratory in California held its five-year celebration of the Mars Exploration Rover (MER). Bradbury was the special guest of honor, and he received a standing ovation. In an article for The Planetary Society, former Mars rover driver Scott Maxwell documented another full-circle moment for Bradbury. Maxwell mentions that he and fellow rover driver Ashley Stroupe had the same idea to give their special guest a tour of the MER ops area:

We weren't up there long before they wheeled him into the room [...] I shook his hand, introduced myself and the others in the room, and led him over to our rover model. [...] I did my usual spiel, talking about the rover's cameras, and how the solar panels folded up when it rode its spaceship to Mars, and describing how the various antennae work. As I knelt to show him the wheels [...] I said, "I've read that you never learned to drive a car. [...] So, I wonder if, before you leave, you'd like to try driving a Mars rover." (Maxwell 2012)

Bradbury was reportedly moved to tears. A man who had never learned to drive a car, learned what it would've felt like to drive over the red sands of Mars.

It was the closest Bradbury would ever get to outer space, but it was a peek at the horizon of an even more beautiful future than he could have ever imagined. Now, in 2024, a "Billionaire Space Race" is in full swing. Through the efforts of Virgin Galactic, Blue Origin, and Space X the dream of being able to go from Mother Earth and into orbit has never seemed more obtainable. But will it be? Your average citizen anywhere in the world cannot afford \$250,000-\$500,000 for a three-minute experience of suborbital zero-gravity. Will the future of space travel come down to whoever has most of the Almighty Dollar? NASA will surely remain a big player in true space exploration for many generations to come, but like the first of anything, there is always something else to come by, take the reins of innovation and speed on into the future.

Can the new torchbearers be entrusted with space travel? Will they choose progress over profits? To ensure a future out into the cosmos, where everyone has the freedom of choice, people need to read and listen to Ray Bradbury. He learned early on that one must follow love in this life, and if one follows the true contents of their heart, it can make a world of difference. He made a difference, paved the launch pad toward the future, and now everyone else must jump into the future with the best intentions. If a small-town boy from Waukegan, Illinois can go from looking up at the stars, to driving a mars rover, and become immortalized with his own moon crater, then there are no limits to the possibilities.

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Roger Terry is a writer from Indiana, who describes himself thus: "I was born with a rare disease called Adams-Oliver Syndrome. It left me with copious amounts of health problems and physical disabilities. This came with many limitations put upon me by others who said that "you cannot do this or that" because of the way I was born. These limitations ended up helping me find my love of Stephen King and rekindled my love of reading at age 14, then found writing at the age of 15. I have dedicated my life to the craft since."

Abstract

This article deals with the importance of space as Ray Bradbury saw it. Inspired as a child by *Buck Rogers*, Bradbury was told as a youngster that there would never be a space age. Fast forward to age twenty-nine, and he wrote *The Martian Chronicles*, a seminal work on what humankind may find and become, beyond the Earth. Established as a science fiction writer, Bradbury found himself writing non-fiction essays in celebration of the real-life Space Age, and meeting the Apollo astronauts who had been influenced by his fictions and his essays.

Late in life, Bradbury was honored by participants in the space program, but became distraught at how little attention was paid to space travel thereafter.

Bradbury's position on space travel—that it is an imperative if humankind is to survive into the far future, and must become possible for all—is in contrast to today's "Billionaire space race", which prioritizes the egos of the big spenders.

Keywords Space, essays, space race, Apollo program