**“Time Travel in Science Fiction” by** [Dr. David Lewis Anderson](http://www.andersoninstitute.com/david-lewis-anderson-biography.html)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | The Gilgamesh Epic **The Gilgamesh Epic, one of the  earliest known science fiction works** |   Science fiction has been around for a long time dating back to as early as 2000 B.C. and the Gilgamesh Epic, a Babylon work searching for ultimate knowledge and immortality. In the fourth century B.C. “Better Worlds in the Republic” by Plato had elements of science fiction.   Later in 160 A.D. in his work “True History” Lucian Samosata dealt with a trip to the moon. In the fourteenth century there were many imaginary voyages in Greek and Roman literature. Later in 1627 “The New Atlantis” by Francis Bacon had strong elements of science fiction. And later in the seventeenth century many trips to the moon were made by Francis Goldwin, Cyrano de Bergerac, and Johann Kepler. And there are many, many more.  **Time Travel Emerges in Science Fiction**  However time travel itself didn’t emerge in science fiction until only recently, in the late eighteen hundreds and what a good story line it was!   |  | | --- | | Edwin Abbot's Flatland, a romance of many dimensions **Edwin Abbot's Flatland, a  romance of many dimensions** |   Time travel in science fiction opens the doors to many exciting stories and possibilities. Imagine, traveling to the past to see events long gone, or to the future to see the progress of humanity, perhaps to the past to relive a sweet moment in our life or to the future to see the outcome of a decision we make today. Now after more than a hundred years of science fiction these possibilities have a basis in solid scientific fact.   Time travel emerged in science fiction in the end of the nineteenth century. At this time stories about time travel forward were really not remarkable. In fact, there was little difference between time travel forward and a long sleep which would have a character falling asleep and waking up far into the future. This type of story line was just really a simple way of speeding up time.   |  | | --- | | Mark Twain - A Yankee in the Court of King Arthur **Mark Twain's, A Yankee  in King Arthur's Court** |   However, some of the most significant time travel works were written at the end of the nineteenth century. In 1880 Edwin Abbot introduced his work Flatland about creatures who lived their lives safe and undisturbed in a flat two-dimensional world, like on a simple sheet of paper, at least until one day when a three-dimensional creature, a sphere, passes through Flatland.   In 1889 Mark Twain introduced his classic work “A Yankee in the Court of King Arthur.” And then, in 1895, H. G. Wells introduced his classic work “The Time Machine.”  **Time Travel to the Future**  One important question when time traveling in science fiction is “Which way to go?” Do we travel to the future? It is simple and cannot affect the present. The time traveler is the point of view to describe the new world. In this type of story the reader sees the future world through the eyes of the time traveler.   |  | | --- | | H. G. Wells, the Time Machine **H. G. Wells,  The Time Machine** |   It is interesting to note that most modern science fiction tales are set in the future. But for modern readers, nineteenth century novels about the future are not really exciting. But then again, there is one true great exception; “The Time Machine” by H. G. Wells is truly an exception to this rule.  Since it was first published this book has never been out of print, something most books almost a century old cannot claim.   Perhaps it was successful because it took the reader hundreds of thousands of years into our future where we could see the consequences of our biological and social evolution, where we saw an alien and terrifying world.   This stands alone not only as a great work of time travel in science fiction but it is also now recognized as one of the modern classics of the English language.  **Time Travel to the Past**  Which way to go? We could travel to the past. This is much more exciting to today’s science fiction readers. It is infinitely complex and exciting and is filled with unlimited possibilities and stories.  One of the most popular early works about backwards time travel was Mark Twain’s “A Connecticut Yankee in King Arthur’s Court.” Although Mark Twain’s great story didn’t explore any of the paradoxes of backwards time travel it still remains a classic today.  **Escape to the Past**  Another way to go in writing a science fiction story about time travel is called “escape to the past.” In this type of story the time traveler from the future returns or escapes to the present day. Today this type of story is not very popular, perhaps because it might be hard for us to identify with characters from the future who may be superior to us. But never-the-less, it is an option that was very popular in science fiction of the past.  **Time Travel Paradoxes**   |  | | --- | | The Grandfather Paradox **The Grandfather Paradox** |   One of the most exciting elements when we consider time travel to the past is all the paradoxes that are created. One of the most popular, though not pleasant paradoxes, is called the grandfather paradox. Suppose I travel to the past and kill my grandfather. Since I killed my grandfather I was never born and so I couldn’t time travel to the past to kill him. So he’s alive and now I am born. So now I can travel to the past and do this, but if I do I won’t be born again. And well, you can see where this will go.   There are hundreds of stories about similar paradoxes that are created in science fiction stories. Time travel to the past can quickly create story lines with an infinite complexity of knots and excitement. But are these truly paradoxes? What I mean is that, for example, most people would say that it is nonsense to suggest that moving objects shrink and grow heavier or that an astronaut that travels to a distant start and returns will be younger than her twin brother she left behind. But this isn’t science fiction. This is today’s science fact. So perhaps, paradoxes are simply places where our rational minds bump into their own limitations.  **The Time Police**  Another interesting tool used by science fiction writers is the “Time Police.” These are the heroes that show up just in time to prevent someone from altering the past and destroying the future timeline and our existence as we know it.   |  | | --- | |  |   But what happens if the time police don’t show up in time? Watch out! We might see the creation of new timelines and see a today or a future that is quite different than what it was before. This type of time travel story in science fiction is called “alternate worlds.”  **Alternate Worlds and Parallel Universes**  Alternate worlds, it’s an easy idea. Simply take some event in world history and imagine what the consequences might be if we travel back and time and cause that event never to happen. It sounds so simple but think of the consequences.   - An asteroid misses the earth and the dinosaurs live and become smarter - Or Hitler wins the war   |  | | --- | |  |   Perhaps the very first alternate world story might be created if Eve were to spurn the apple of knowledge in the Garden of Eden. But in the case of science fiction this could be a difficult plot. It seems that science fiction stories about time travel work much better if something is terribly wrong with the world and needs to be fixed. But there are many more examples:  - Perhaps Napoleon wins at Waterloo - Or Columbus fails to find America - Or the south wins the American Civil War - And again, the list is endless.  But alternate worlds open up the possibility of worlds of choice and the possibilities are endless. In these types of science fiction stories there is a strong belief that action counts and that the future is truly in our hands.   |  | | --- | |  |   Another similar type of story is a parallel universe story. In this type of story whenever an event is changed in the past a new parallel timeline is created. So the future timeline we knew would still exist and continue but also a new parallel timeline would be created. But in each of these types of stories the belief holds up that the world is up to us.  **Multi-Dimensional Beings**  One of my favorite but less well known spacetime stories is Edwin Abbot’s “Flatland.” Think about it. To the two-dimensional people living in this Flatland, the three-dimensional creature as it passed through their world would appear to be remarkable, appearing out of nowhere, moving in ways they had never seen or could understand.   To the Flatlanders this creature would appear to be frightening, magic, perhaps even a God. It can make a person wonder. What would a fourth-dimensional being look like to us if it passed into and through our three-dimensional world?   On the other hand, how would that four-dimensional being see our world? Let’s go back to Flatland for a moment. As a three-dimensional being it is easy for us to look at Flatland, like we do at a simple piece of paper and see every part of their world at once.   But how would a four-dimensional being see our world? What would our world look like to a being that could move through time as easily as we move through space? They would probably see all three dimensions from all perspectives at once.   Actually it was said that Albert Einstein often asked the same question in a slightly different way. He always wondered what would it be like to view the world if you were riding on a beam of light. Remember as we move faster and faster toward the speed of light, at the speed of light we would see everything compact into a single point and we could see everything at once.   Now, after more than 100 years of science fiction... these possibilities have a basis in solid scientific fact. |