This paper discusses science fiction in general, and argues that science fiction is a method for exploring present and future potentialities, for educating people about the possibilities of the future, for helping people condition themselves to change. A science fiction course taught at the community college level as a humanities elective is described. Four novels are read during the course, including "Frankenstein," "Brave New World," "Childhood's End," and "Sirens of Titan." Two other books, "As Tomorrow Becomes Today" and "The Ethics of Genetic Control" are also used. Students participate in two panel discussions which are related to various reading assignments, and also write a brief research paper about some current phase of science or technology which might affect people in the future. Students also write a paper about a device they have "invented" and write their own science fiction short story. Filmstrips are used as teaching tools during the course and several guest lectures are given. (TS)
Science Fiction
and
the Community College:
a Symbiosis

by
Nell Vale Steelman,
Department of English,
Central Virginia Community College

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Science Fiction and the Community College

A few years after the bomb lighted up the world, and the jet jolted the music of the spheres with sonic boom, I fell madly in love with Captain Buzz Cory, commander of the Space Patrol. Every Saturday morning I faithfully spun the dial of that technological wonder, television, and instantly joined my hero in his flashing rocket ship that whooshed him from adventure to adventure in that vast video universe. I was so taken by Captain Cory that I even sent away for my official red plastic Space Patrol gun which shot forth a deadly blast of baking soda. Later in fourth grade, I wrote a paper predicting that by the time my best girlfriend and I were twenty years old, we would become great physicists who would invent the family rocket ship à la Henry Ford, and it would sell like hotcakes. But as you see, I stand before you today, more than a quarter of a century old, not as a physicist but as a teacher, and an English teacher at that!

Strange to say, my formal training in science consists of one year of college biology; yet my fascination with the poetry and the wonder of science is still with me. Though I may be a frustrated scientist, I am a happy teacher because there is something within my professional domain that brings together both art and science—namely science fiction.

Even now the term science fiction is somewhat obsolete—the new code word is speculative fiction. Consider the following plot line: once upon a time there were three pigs, or three bears, or seven dwarfs. I need not tell the story. What happens is burned into our minds from childhood. To a certain extent each of these groups of characters are individualized. One pig builds with straw, another with sticks, and the third with bricks. The bears are mama, papa, and baby. Each dwarf embodies a human personality trait. All of these stories draw on basic archetypal concepts firmly rooted in the collective psyche, and all of them possess a reassuring, confident conclusion that the characters lived happily ever after.

But what about this story? Once upon a time there may be or will be a
ten unit group of clones, five male and five sterile female components
with identical brains who live happily ever after as long as they can live
and work together. What would happen to a clone member if his sibling clones
should die in an accident? This is the plot of a short story called "Nine Lives" by Ursula LeGuin, one of today's leading science fiction writers.

What is cloning? Cloning is a process by which we may produce infinite
duplicates of a living organism from single cells taken from the original
creature. As I understand it, all this is possible due to the DNA genetic
program found in each cell. Already cloning is being done with laboratory
animals. Chances are that somewhere in the far reaches of the world, human
experimentation is taking place. Whether or not this is so, cloning is a
very real possibility; it is not that far around the corner. And for that
matter, neither is genetic engineering. All of which raises some very
profound and provocative, if not irritating, questions. Should we clone
people? If so, who is to decide what people are to be reproduced by cloning?
What qualities are to be engineered in hopes of attaining human perfection?
Is it right for humanity to "tamper" with nature? How far should man go in
his quest for knowledge and power over his universe? What ethical and moral
implications are there? In speculative fiction we are able to explore
possible answers to questions like these.

Until recently, science fiction was considered by most self-respecting
academics to be in the same category of true confessions, comic books, and
westerns, all being newsprint fantasy outlets for adolescents who had yet
to ripen into appreciative readers of the Mainstream masterpieces. Perhaps
some of this prejudice was justified because science fiction like Mainstream
literature does have its levels of quality. But since 1945, when the bomb
opened our eyes to the realities of science in man's hands, science fiction
has undergone a metamorphosis, and that new form has since become speculative
fiction which has gained a new respect for at least two reasons. One,
many of its writers have some scientific training or are scientists by pro-
fession, such as Heinlein, Asimov, and Clarke. Second, science fiction is
now turning more seriously to the exploration of the impact of science on
humanity in humanistic terms.

Some authorities try to trace science fiction as far back as Plato, but
most give the prize to Mary Shelley who at age 19 became the mother of the
modern genre with her book *Frankenstein or the Modern Prometheus*. The basic theme of the implications of man as god and his quest for knowledge and power over his universe, which Shelley viewed rather grimly, still provokes us today, not only in literature but also in actual scientific exploration. After Shelley, science fiction grew into assorted subdivisions that include such things as imaginary voyages, space and time travel, technological gimmickry, future predictions, and social satire. Prior to 1945, the genre tended for the most part to be on the level of space operas—i.e. westerns translated into space language. But between 1938 and 1945, Joseph Campbell, who edited the magazine *Amazing Stories*, began to encourage his writers to deal with "the impact of scientific advance on human beings." This is what Asimov calls social science fiction, now known as speculative fiction. The old style, by and large, viewed the future in terms of a rather smooth transition made easy by technological wonders. The characters tended to be flat and served only to show off the scientific gimmicks. But the New Wave has improved not only in quality of writing but also in substance. Focusing on "the nature of human reactions when encountering 'future shock'," as Dick Allen puts it, speculative fiction is the most openended form of literature.

In the past couple of decades, science fiction has matured into an exciting and challenging art form. Science fiction is the literature of change. Asimov says the contribution that it makes to society is that it "accustoms its readers to change and the necessity of directing and shaping that change rather than opposing it blindly or blindly permitting it to overwhelm us."

Today, science fiction probes questions of importance. In *Soylent Green*, Harrison envisions New York in 1999 when the population has overwhelmed the food and shelter supply. Huxley, though writing in 1932, remains unchallenged as the writer of the best known science fiction book in the West, *Brave New World*, in which he satirically explores genetic engineering. His prophetic vision was amazingly accurate for its time, the only error being that he saw the alteration of the embryo taking place in the test tube instead of the genes themselves. Arthur Clarke, in *Childhood's End*, suggests that mankind is evolving into a state of pure intelligence, stripped of its corporeal form and material world, to merge eventually with the great Overmind of the universe. Ursula LeGuin examines the nature of human sexuality
in the context of extraterrestrial sexuality in *The Left Hand of Darkness*, in which she describes the cyclical-ambisexualuty of the inhabitants of another planet. The subjects are endless. In general, all of the writers in some way or other explore the ramifications of the main question—what is man’s relationship to his universe—what is he and what is his purpose? As in mainstream literature, man is the center of science fiction. Many science fiction visions are pessimistic—for example, Walter Miller’s *A Canticle for Leibowitz*, the best apocalyptic statement of the nuclear holocaust threat. But the underlying concern, even in the most pessimistic books, seems to be a deep commitment to the improvement of human life and to sharpening our vision into ourselves, the inner universe, and out to the external universe.

 Appropriately, science fiction is an international phenomenon, especially in the technologically advanced countries, such as France, England, and Russia. But, in the tradition of the New Frontier, it is particularly American, and on the home front, science fiction is speaking to students around the nation. In the past few years, hundreds of new science fiction courses have sprung up, ranging from junior high up to graduate courses at Cornell and California. The sheer number of new courses, which incidentally are taught not only in English departments but in philosophy and social sciences as well, is a symptom of the times. Something in science fiction is speaking to our rising generation. Even television has responded in the past year or so with several important shows such as "Planet of the Apes", "The Questor Tapes", "The Hestrom Chronicles", and "Silent Running", not to mention reruns of the popular "Star Trek."

 For some, science fiction has been the campy thing to read. But I argue it goes beyond a superficial fad. Its popularity suggests that people are turning to it to help condition themselves to the future shocked world. The important thing is its accent on the future. It is becoming more apparent in the light of the present oil crisis and ecology issues that we must expand the orbit of the individual and collective mind and enlarge our scope to long sweeping views into the future and expand our horizons to encompass the universe. We must look at our actions and examine our ways of life in the context of the distant future as well as our own lifetimes. Science fiction is but one means through which we can explore the potentialities and educate the society at large about the possibilities of the future and to accommodating change. The students sense this. Consider, for instance, that statistically
speaking, it is absurd to assume that we are the only living and unchanging creatures in the entire universe, or even our own galaxy. In science fiction, we can speculate about encountering the inhabitants of other worlds, or for that matter, a new evolutionary phase of ourselves. What a challenge to the human imagination!

If science fiction is in the air and on the rise in the academic world, it is particularly appropriate for the community college. Like science fiction, the community college dramatizes the interrelation of science, technology, and humanity; and it has no past to speak of, only a future.

For the student of technology, science fiction draws upon his interests at the same time it can make him more aware of the implications of his future job and its impact on humanity. Traditionally, the humanities and the sciences have been viewed as separate disciplines. But science fiction shows how they are inevitably intertwined. The poet and the scientist are moved by the same wonder for the universe—they both celebrate life. This is an important concept to transmit to the student of technology as well as to other students.

Last spring, I taught a science fiction seminar as a humanities elective instead of English in order to free it from the usual connotations of literature and analysis. As I am still green in the subject, I stuck to the classics and chose them on a chronological and thematic basis. I used a group of core questions as a focusing point along with specific ones for each novel. For example: 1. How do the authors envision the impact of technology on humanity? 2. How do the books reflect the times in which they were written? (E.g., Wells liked to write about England in the 1890's into which he would introduce the strange; the movie "Invaders From Mars" of the early fifties can be seen as a statement about the McCarthy obsession with Communist infiltration). 3. What are the ethical and moral implications of man's quest for knowledge? 4. How do the books portray humanity and extraterrestrial life and their subsequent interaction?

This year, the State Board of the Virginia Community College System adopted my course proposal, and now my course has become a full-fledged humanities elective in the VCCS master catalogue. I have also redesigned the course in hopes of correcting a few problems in last year's. One, I cut the reading list from ten novels to four novels, Frankenstein, Brave New World, Childhood's End, and Vonnegut's Sirens of Titan; one thematically organized anthology text, As Tomorrow Becomes Today by
Charles Sullivan; and a supplementary book, The Ethics of Genetic Control by Joseph Fletcher—a fascinating philosophic examination of the moral and ethical implications of genetic engineering. Last year each student was responsible for making a report about a topic in some area of science or technology related to the book of the week. Also, a long meditative paper intended to synthesize the student’s views about some of the themes of the course was a bit ambitious and did not produce the desired results. In spite of these first-run difficulties, the course was generally quite successful and the students seemed to enjoy it.

This year, each student will participate in two panel discussions during the quarter. The three to five member panels will design the presentation format and will be responsible for the first hour of the weekly class. These presentations could range from a debate about some controversial issue such as genetic engineering to acting out a scene in which humans decide how to communicate with extraterrestrial societies or how to select colonists for another planet. Each panel presentation will naturally be related to the given reading assignment. The students will also write a brief basic research paper about some current phase of science or technology and will include some speculations about how this will affect people in the future. Another short paper will describe a device "invented" by the student and will speculate upon its impact on life in the future. With these papers, I hope the students will gain a more personal and concrete sense of involvement with the future. Consider, for instance, what the automobile, zipper and telephone have done for the twentieth century! A hundred years ago, who would have dreamed of how the back seat of the horseless carriage, the zipper and telephone would revolutionize love American style! Finally, the students will write their own science fiction short story. Because this plan involves more direct student participation, I think it will be a definite improvement over last year, but it is too early to tell since the class has met only twice so far this quarter.

In addition to the readings and panels, I will use filmstrips about science fiction and a videotape of the film "Silent Running" which was so successful in generating a dynamic discussion about ecology and man's place in the universe not only in my previous science fiction class but also in my current Western culture survey class.
Last year I was fortunate in being able to entice three of my colleagues into making guest lectures during the quarter. Our biologist spoke about Huxley's *Brave New World* and showed a film about the genetic engineering of fruit flies; our Spanish instructor talked about a Mayan legend which tied in with Van Daniken's *Chariots of the Gods* and Clarke's *Childhood's End*; and our historian discussed Miller's *A Canticle for Leibowitz* in the light of various theories of history. By having these guest speakers, I wanted to dramatize the far reaching range of science fiction so that my students could gain a sense of synthesis. I hope to achieve the same results through the student panels this year.

It is refreshing to teach an elective like this because the people who are attracted to science fiction tend to be imaginative and intelligent, and they provide a good challenge for the instructor. My class this spring includes a middle aged engineer from General Electric, a few pre-med and engineering students, some general education students, a high school student, and even a high school Latin teacher! And the questions we examine in such a course are so fascinating and thought-provoking!

Speaking of provocative thoughts—what about you, you who are leaders and movers of humanity and are in the business of training future leaders and movers? How are you preparing yourselves and your students to shape the world for yourselves and the children of the future? How do you see the role of a school like yours in the future? How do you envision the evolution of humanity and your role in directing that evolution? What is your conception of what it means to be human? If you someday find yourself in a position of authority to make decisions about genetic engineering, what qualities would you select in the hopes of attaining human perfection? If you were in charge of leading a group of colonists to another planet, how would you select a crew? How should we handle the matter of interplanetary diplomatic relations with our galactic neighbors? How will you help prevent the abuse of scientific knowledge and technology in this Nuclear and Biotic Age?

And so my long ago romance with Captain Cory has come to this! Though fascinated with science fiction, I must admit that I don't want to become too familiar with it—the field is overwhelmingly big and too much of it could be deadening! I am not a cultist, but I am an unabashed admirer.
I have some reservations about its powers to save and enlighten humanity. But unquestionably, science fiction offers a rich and fertile field for the imagination to respond to the future, and, as Einstein says, imagination is more important than knowledge.

Why then this preoccupation with the future and the speculative? How is it a sign of the times? Some may claim it is a mere escape from harsh reality. But I contend it is a symptom of good health, indicating a new positive phase of growth for the collective psyche. Ten years ago, no man had walked on the moon. Today, we take moon missions so much for granted that television coverage is minimal. How easily we can adapt! To what extent had science fiction prepared us for that? I don't know about you, but I'm all ready to sign up for the first tourist flight to Mars, and I look forward to having a mint julep someday with some of our galactic neighbors!