FACT

Catches Up with Fiction

IN THE WORLD OF SCIENCE

by Isaac Asimov

Based on "Fact Catches Up with Fiction" by Isaac Asimov, New York Times Magazine. Copyright 1961, New York Times.

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In the 1930s, space flight was virtually the exclusive property of a small group of young people, most of them in their teens. They were the readers and writers of science fiction, a new literature that dealt with the unknown of the future. The young authors wrote of the danger of nuclear warfare and of the struggle to achieve space flight. At that time the outside world was largely unaware that science fiction, or even the concept of space flight, existed. Those who did know about science fiction called it "escapism." The writers might have been escaping from the reality of the present into the possibilities of the future. On the other hand, their "escaping" might better have been called foresight.

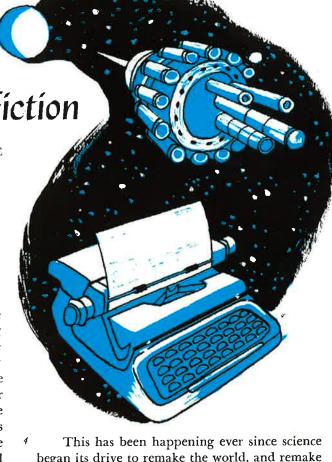
Now the world has entered the age into which science-fiction authors "escaped" a generation ago. The front pages of the newspaper read like some of the highly imaginative stories of the thirties. As a result, science fiction is suffering from a malady that does not exist for any other branch of literature: each year sees possible plots destroyed.

Nothing the world can do will ever destroy the blazing six-shooter of the Western hero, or the effectiveness of a strychnine in the soup. But since a successful lunar flight has been made, no science-fiction writer can ever again sit down to compose an epic on an imaginary first flight to the moon. Another basic plot is dead.

This has been happening ever since science began its drive to remake the world, and remake it, and remake it. Edgar Allan Poe knew only the balloon as a means of lifting man from the ground, so he wrote of sending a balloon to the moon. That's dead now; we know the limitations of balloons. Other writers sent their heroes to unknown places on the earth's surface—Lilliput in the South Seas, King Solomon's mines in Africa, isolated remnants of the Inca civilization in the Amazon, and Shangri-La in Tibet. All these are dead now, for we know the surface of the earth too well. There are no mysterious civilizations; even the poles have been ransacked.

Fictional expeditions were sent to the center of the earth and to the bottom of the oceans. But the earth has no convenient holes in it, we know now, and the bottom of the ocean has been reached.

The first half of the twentieth century saw stories about the mysterious power of the atom



and about space flight. The atom bomb, by exploding, destroyed a vast array of plots that used imagined atom bombs as the science-fiction gimmick, and now we are on the verge of killing stories dealing with at least the beginning of space colonization. Whatever is there left to write about?

To answer that question, it is important to realize a few things about science fiction. The obvious motive for writing is to earn an honest living, and the obvious motive for reading is to be entertained. But this holds true for all kinds of literature-the mystery, the western, the romance, the adventure story. Science fiction differs from its cousins in having something extra to give. This fact is obscured by the ridiculous travesties called science fiction that are produced in Hollywood, and by the similar nonsense found in comic books. Unfortunately, it is these low-level products that the average person thinks of as science fiction. There are, however, thoughtful science-fiction stories that soberly consider the action of man on society and society

In this, science fiction at its most thoughtful resembles the serious novel. But science fiction goes further in one respect: it does not deal with society as it exists, but with societies that may exist in the future. This turning to the future has an importance that is certainly evident now, for society will not long exist if its leaders do not consider the future and make provision for it. Truly important science fiction poses a social problem and suggests a possible outcome, though not necessarily a solution.

For instance, a number of years ago, Robert A. Heinlein wrote a novelette dealing with the development of atomic weapons by the United States and their use in ending a war. Considering that the story was written in 1941, this was pretty good, but not remarkable. Many science-fiction writers were busily developing one form or another of an atom bomb. But the real function of science fiction is not to predict the next gadget; this is comparatively easy to do. It is more difficult to predict the consequences of that gadget for man and society, and it was this that Heinlein went on to do—correctly. In his story, after the weapon was used and the war ended,

people were faced with the problem of con-

trolling the deadly atomic menace. One person suggested that the United States simply keep control and enforce a world order to its liking, but the hero of the story replied that it was not as easy as that. He pointed out that atomic weapons could not long remain the secret of one nation. He said that once other nations had developed them, the world would be like a room full of armed people, each dependent on the goodwill of the others to stay alive.

It was more important to have foreseen the nuclear stalemate that now exists than to have predicted any number of gadgets. If, twenty years ago, more statesmen had seen the future as clearly as this science-fiction writer did, we might not be in the deadly situation that now exists.

11 Robert Heinlein posed a social problem: How could disaster be prevented once a weapon capable of destroying the human race was in the hands of opposing forces in an unsettled world? The outcome of his story suggested that mankind might find no way of preventing disaster. The title of his story was "Solution Unsatisfactory."

There are any number of social problems that concern the thoughtful science-fiction writer. There may be no point in discussing satellites and astronauts, but what about the future effects of these developments upon ourselves? It is easy enough to think up problems that deal not with space flight itself but with the consequences. Such problems can be far more important than any number of engineering trivialities.

Today many of the problems with which science fiction deals do not involve space flight at all, but are to be someday encountered right here on earth. Chief among them is the population explosion and its consequences. Story after story is written about societies in which crowding has reached unbearable proportions. It is as easy to foresee an overcrowded world now as it was to foresee nuclear weapons in the thirties. It is important to foresee the consequences as well as the fact.

Among the serious problems that concern science-fiction writers is the increasing specialization in science. Scientists working in one narrow field are finding it hard to communicate with those working in other special fields. There

is difficulty in training enough scientists broadly enough. Will the system of education break down of its own weight? How do we conserve brainpower and make use of the rare minds that

can master many specialties?

How will mankind be affected by the further development of automation? With machines to do the routine working and thinking, what will happen to the vast majority of those who are capable of doing only routine work? Will education be drastically revised? Will boredom be a deadly epidemic of the future? Is mental telepathy possible, and what kind of world would we live in if thought transference were made a common means of communication? Would there be a telepathic upper class and a nontelepathic lower class? How might fallout affect the future of the race? How might...?

What has scientific progress left to science fiction? What remains to write about? Every-

thing.

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HOW WELL DID YOU READ?

Did you read carefully?

- 1. In the 1930's science fiction was
 - A virtually unknown
 - **B** becoming popular
 - C considered inferior
- 2. The author believes that writers use science fiction as a means of
 - A escaping from reality
 - B giving unlimited rein to pure imagination
 - C foreseeing the future
- 3. A modern science-fiction writer would not send his characters to the moon in a balloon because
 - A spaceships are faster
 - B such a flight has been proved impossible
 - C the theme is no longer a novelty

4. Having conducted a successful lunar flight means that

- A science-fiction stories about lunar flight are very popular
- **B** people are no longer interested in reading about lunar flight
- C lunar flight is no longer a valid theme for science fiction

What did the author say?

- 5. Heinlein's science-fiction novelette was remarkable because it
 - A dealt with the atomic bomb before it was developed
 - B predicted the atomic blast at Hiroshima
 - C foresaw the nuclear stalemate

Did you grasp the comparisons?

- 6. Good science fiction differs from the mystery story and the western in that it is
 - A not written to earn money
 - B not written to entertain
 - C more concerned with social problems
- 7. The serious novel is different from science fiction in that it
 - A does not deal with social problems
 - **B** deals with the future
 - C concerns itself with existing societies

What does the author think?

- 8. The main characteristic of science fiction is that it
 - A imagines and describes gadgets and inventions of the future
 - B predicts events that actually take place
 - C pictures the consequences today's actions will have
- 9. The material called science fiction today includes
 - A only writing of good quality
 - **B** some material the author would not call science fiction
 - C writing of better quality than that of the 1930s

- 10. As fact catches up with fiction, science fic-
 - A die out
 - B be forced to change its purpose
 - C find increasingly more plots

LEARN ABOUT WORDS

A. Often you can tell the meaning of a word from its context—the words around it.

Directions: Find the word in the paragraph that means

- 1. general notion; idea (1)
- 2. illness (2)
- 3. remaining pieces (4)
- 4. searched completely through (4)
- 5. arrangement; display (6)
- 6. mockeries; crude imitations (7)
- 7. complete standstill (10)
- 8. unimportant matters (12)
- **9.** keep; protect (14)
- **B.** A word may have more than one meaning. Its meaning depends on the way it is used.

Directions: Decide which meaning fits the word as it is used in the paragraph. Write the letter that stands before the meaning you choose.

- 10. blazing (3)
 - A chipping off bits of tree bark
 - **B** burning steadily
 - C flashing
- 11. soberly (7)
 - A seriously
 - B without exaggeration
 - C not drunkenly
- **12.** order (9)
 - A arrangement of things
 - **B** command
 - C honorary society
- 13. rare (14)
 - A partially raw
 - **B** unusually good
 - C thin-textured

- 14. class (15)
 - A group of students taught together
 - **B** division of society
 - C quality; style

C. The prefix ob- means "against," "toward," "to," or "very." Its spelling often changes according to the word with which it is combined. It usually becomes

oc before c op before p o before m

Directions: Decide which form of the prefix *ob*goes with each word part below. Add the prefix and write the word.

15press	20. tain
16ject	21pose
17fend	22mit
18cur	23cupation
19trusive	24scure

D. An idiom is an accepted phrase or expression that does not mean literally what it says.

He didn't make it to work on time.

Make it is an idiom meaning "arrive successfully." This meaning is different from the meaning of make plus the meaning of it.

Directions: Read the following idioms built on the word *make*. Write the idiom that best fits each sentence.

make up
make or break
make do
make much of

- 25. People exaggerate when they _____ small things.
- 26. Children love to play _____ games.
- 27. He can _____ crackers and cheese.
- 28. He has a chance to show whether or not he has talent; this job will _____ him.
- 29. The watchman was asleep and let the thieves _____ some valuable equipment.
- 30. It is difficult to _____ his handwriting.
- 31. We must _____ with what we have.32. Many instruments _____ an orchestra.
- 33. A tired swimmer should _____ land.