

## The New Technology, 1945–1960

Since the Scientific Revolution of the seventeenth century, the Western world has been interested in the application of science to the problems of everyday life. From the Industrial Revolution of the nineteenth century—with the invention of factories, and the application of steam power for everything from mill wheels to railroad locomotives—creative minds have been at work on the improvement of human life through technology.

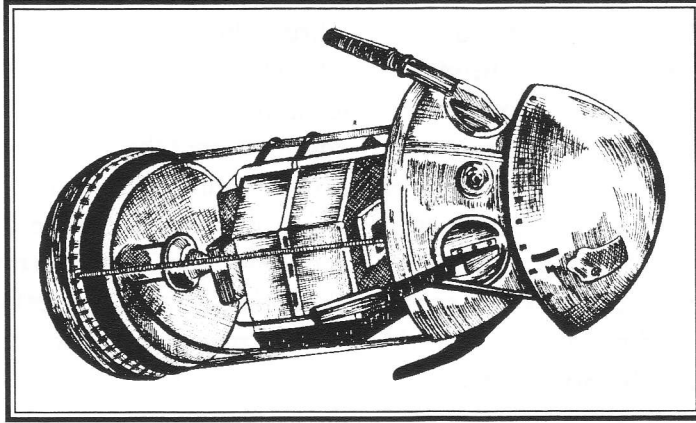
The end of World War II ushered in yet another era of explosive growth in science and technology. The twentieth century witnessed the development of plastics and synthetic fibers used in the production of inexpensive and mass-produced consumer goods. The synthetic material called rayon was introduced in the 1920s and used in clothing production. By 1939, the first nylon stockings were marketed in America, replacing silk.

The electronics industry underwent tremendous change during the twentieth century. The first completely electronic computer—called Colossus—was built in the early 1940s, and was used by the British to break enemy codes. By 1946, scientists in the United States announced the development of their work, the American ENIAC computer. This cumbersome arrangement of electronic gadgetry occupied a room the size of a gymnasium. It required 18,000 vacuum tubes to operate, and an enormous amount of electricity even when handling a small amount of information. It could, however, handle up to 5000 calculations a second. In an effort to reduce the size of such devices, Bell Telephone Company developed the transistor in 1948. This tiny device allowed for miniaturization of many different electronic devices including televisions and radios.

Television was another scientific invention which gained popularity after World War II. Developed as early as the 1920s, television did not become available to the masses until the late 1940s. Where

only 15,000 television sets existed in the U.S. at the end of World War I, Americans came to own over 34 million sets within a decade.

Perhaps the greatest manifestation of the scientific revolution during the postwar period was the space race. As an extension of the Cold War, the U.S. and the USSR competed with each other in the development of space travel during the fifties and sixties. By 1957, the Soviets launched the first



*Sputnik I*

artificial satellite into orbit—Sputnik 1—followed later that year by the launch of Sputnik 2, which included a Soviet dog named Laika on board—the first animal in space. (She died on board since the Russians had no means of returning her spacecraft to Earth safely.) The United States launched its first satellite, Telstar, the following year.

By 1961, the Russians launched the first man in space—Yuri Gagarin. The first American—Alan Shepard—was shot into space in 1962, the same year America launched the first communications satellite. By this time, the new objective between the two superpowers was the race for the moon, which the U.S. accomplished in 1969, when astronaut Neil Armstrong became the first human to walk on Earth's satellite.

---

### *Review and Write*

1. Describe some of the major technological changes experienced by the West during the 1940s and 50s.
2. How did early space exploration become part of the Cold War?