

Environmental consequences of technology on our planet and life essay sample

[Environment](#)



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Rapid changes in technology have resulted in both conveniences and inconveniences for our life and have brought changes to our planet. As new electronic technologies continue to insinuate themselves into people's life, they are prompting many far-reaching changes: new business practices, new patterns of social interaction, new personal habits. The rest of the paper describes the impact of technology on our planet and life.

Impact of Technology on Our Planet

With the advancement of technology new chemicals have been produced to bring convenience to human life. Such chemicals have resulted in the change in our planet's environment.

Impact of New Compounds on the Environment of Our Planet

The ozone layer is an invisible sheet 19 to 48 kilometers above the ground that absorbs most of the ultraviolet rays from the sun. The mix of sunlight and oxygen forms the ozone layer. Without the ozone, there would be many health hazards to humans, animals and plants, possibly causing life on Earth to end. Holes are created in the ozone sheet by chlorofluorocarbons or CFCs for short. This chemical can be found in substances such as aerosol spray cans, bromine halocarbons, nitrous oxides from fertilizers, refrigerants, cleaning fluids, and plastic packaging substances. Aerosol spray cans are the most common culprits.[i]

Scientists also believe that carbon dioxide plays a big role in the breakdown of the ozone. This includes exhaust gas from high altitude planes and cars, and the burning of rain forests. The breakdown of the ozone layer actually

happens when chlorine-containing chemicals rise into the air and sunlight breaks down the chemical. The chlorine in the chemical slowly destroys the ozone molecules, resulting in a hole in our ozone layer. All of the CFCs floating into the ozone have caused a large ozone hole right above Antarctica, the South Pole. As the hole gets larger, it will cause Antarctica, as well as other ice caps, to melt. This will cause water-levels to rise everywhere.

The CFCs will also cause global warming, or the gradual increase of temperature of the lower atmosphere. This is evident by comparing the ice of Greenland from 20 years ago to now; the ice has thinned rapidly around the edges. The ultraviolet rays that pass through the ozone holes can be very hazardous to life down on Earth.

Too much exposure causes skin cancer and possibly cataracts, which is cloudiness of the lens of the eye. Ultraviolet rays will damage marine animals such as fish, shrimp and crab, resulting in a likely imbalance in the ocean food web. The ultraviolet rays will change plants' distribution of nutrients, metabolism and photosynthesis. Since all food chains basically begin with plants, all life would end if the plants died out from ultraviolet radiation.[ii]

Although the holes in the ozone layer cannot be mended, there are things one can do to prevent the holes from getting larger and the creation of future holes. One can start off by using one car as little as possible, which means there will be less carbon dioxide emitted into the air. Since aerosol spray cans are the main cause of the holes, do not use aerosol cans at all.

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One could also join environmental conservation groups to support the prevention of rainforest burning. Many people working together can make a difference. Preserving what is left of the ozone layer may seem like a big task, but the job will be easier if many people work together. The ozone layer is what keeps Earth alive. To preserve the ozone layer is to preserve the future.

In pre-CFC days, refrigerators had many problems. Municipalities interested themselves in the safety aspects of refrigerators, even restricting their use in some areas. They were banned in a few hospitals. A few deaths were recorded, and widely publicized, from the leakage of methyl chloride. Frigidaire waited two years to announce its new product at the 1930 meeting of the American Chemical Society, held in Atlanta.

Commercialization began in 1930, when GM and DuPont formed a joint company called Kinetic Chemicals to manufacture CFCs. GM had a 49% share and DuPont had a 51% share. By 1931, R-12 was in production, followed by R-11 (1932), R-114 (1933), R-113 (1934), R-22 (1936), and R-13 (1945). In 1949, DuPont bought out GM's share. In succeeding years, other chemical manufacturers entered the field: Allied Signal (1952), Pennwalt (1957), Kaiser Tech (1963), and Racon (1965).

The first experimental automobile air conditioning unit was built by GM and installed in the trunk of a 1939 Cadillac. Also, Packard introduced its air conditioned car at the 1939 Chicago Auto Show. The refrigeration and air conditioning industry grew at a strong rate in the Post-War era to its present

size. Whole areas of the nation, especially the Sunbelt region, were shaped by this technology. Even Washington D. C. became habitable in the summer.

Today, a speedy performance like that of the Midgley group would be unthinkable, given today's environmental concerns such as global warming and ozone depletion. The new product with the CFC scope was a compound called halons, which entail low flammability and are used in combating fire. These, too, are among the class of fire suppressants whose production is governed by the Montreal Protocol. The legacy of the Midgley group remains current with the development of R-134a, which is part of the family of refrigerants that was synthesized for the first time in 1936.[iii]

The scary part of ozone depletion is, of course, the correlation to increased UV-B penetration. The most often-cited theoretical relationship is that for every 1% decrease in stratospheric ozone, we can expect a 2% increase in ground-level UV-B. It would seem a good check of diminishing ozone claims would be to quantify the penetration of UV-B. Problem is, the few who are looking can't find any increase at the Earth's surface.

Despite the analysis of TOMS (Total Ozone Mapping System) satellite data released by former EPA-administrator William Reilly indicating springtime average ozone levels over the United States have dropped 8% in the last decade, there are no data to suggest increased penetration of UV-B on the ground. In fact, a report published in the September 28, 1989, issue of Nature cites a study that found a 0.5% average decrease in UV-B between 1968 and 1982, despite an overall decrease in ozone column density of 1.5% over the same period.

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Ozone doomsayers counter by arguing: 1) The monitors used are not capable of making distinctions between UV-A and UV-B radiation, and 2) UV-B is not reaching the surface because it's being absorbed in the troposphere by man-made pollutants. They reason that we shouldn't count on our fouling of the lower atmosphere to protect us from damage we're inflicting above.

If the monitors are antiquated, you'd think we'd be funding new ones, given our fear of the sky. The second argument is a red herring. The reported 8% depletion in stratospheric ozone (which should theoretically create a hard-to-miss 16% increase in UV-B) occurred during a decade when tropospheric pollution was decreasing over the U. S. — courtesy of the Clean Air Act. [iv]

What causes *global warming*? Scientists explain that gases trapped in the atmosphere create a “greenhouse effect.” These gases protect life on Earth much as a greenhouse protects plants in winter.

Some of the greenhouse effect is normal. Water vapor, carbon dioxide, and other gases trapped in the atmosphere help keep Earth warm enough to sustain life.

What worries experts is that Earth's temperature is rising abnormally—all because of a big increase in the amount of certain gases in the atmosphere.

Large amounts of carbon dioxide enter the atmosphere when fossil fuels such as oil and coal are burned. Because we are burning more and more fossil fuels, the amount of carbon dioxide in the air has been rising steadily. It is now 30 percent higher than it was when the Industrial Revolution began 200 years ago.

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Cars and power plants are the leading sources of this added carbon dioxide. That means that every time you use the family car, run the dishwasher, or turn on the TV, more carbon dioxide is released into the air.

The United Nations, in a report dated October 26, said that if we stay on our current course, the average *global* temperature is likely to rise from 2.7 to 11 degrees in the next century. That may not sound like much, but during the last ice age, the average temperature was only 9 degrees cooler than today. Hundreds of the world's most respected climate scientists worked to develop this report. They said that humans have contributed substantially to *global warming*. [v]

Environmental Threats Due to Wireless Revolution

There are thousands of artificial satellites in the sky today. Satellites have been launched in a huge list of countries. Electromagnetic pollution is spreading throughout the world. Initially the radio transmitters were launched at non-residential zones only but the rapidly increasing demands will lead to the launching of the radio transmitters at residential areas too. That will make the residential areas the electromagnetic polluted. Television signals are also responsible for the spread of radio signals throughout the world thus people are coming in contact with radiations too. [vi]

Impact of Technology on Our Life

This part provides information about the impact of technology on our life in terms of our health and life patterns.

Impact of Technology on Our Health

All claims regarding human health risks associated are related not to ozone thinning per se, but to increased UV-B exposure. So far, researchers have not in fact tied increases in skin cancer and cataracts to increased UV-B exposure due to thinning ozone. There is no epidemiological evidence of suppressed immune function due to UV-B exposure caused by thinning ozone. (No one questions that people get more UV exposure than in the past.

Only a few generations ago, a tan was considered unhealthy. Only since the 1950s have so many people had the leisure and desire to be out in the sun, wearing scant clothing. And only with technological advances have so many white people been living in previously inhospitable “sunbelts.”) But is there more UV-B, overall, sustained, at ground level? What would it mean if we can find ozone depletion without a corresponding rise in UV-B penetration to ground level?[vii]

The exposure of people with microwave radiation is very dangerous for health. Electric power lines also give rise to radiations. Such radiations can lead to several diseases such as leukemia and cancer.

Impact of Technology on Our Life Patterns

Yet it is increasingly becoming clear that there are other influential forces at work, forces which can only be described as personal, social and cultural. A ‘creative negotiation’ is occurring as new technologies and people are thrown together. In unpredictable ways, people variously accommodate themselves to the new systems, balk at them, and/or deploy them in creative new ways.

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In the process, the very terms of community and personal life are being changed.

Impact of Television on Children's Behaviour

Active mediation has been studied in the context of a variety of responses. The research reveals that children who receive active mediation learn more from television content[viii], better understand the distinction between television and the “ real world,”[ix], are more skeptical of television, and have less stereotyped understandings of sex roles. More formal programs, promoting active mediation via in-school “ media literacy” curricula, have shown that active mediation can help children think more critically about television.

In addition, studies have explored the effects of various forms of active mediation on children's responses to televised violence. Experiments have revealed that children who hear negative comments about the violent acts in the television programs they view (e. g., “ It is bad to fight. It is better to help”) exhibit less aggressive behavior, have a lower tolerance for aggression, and express attitudes that are less aggressive after viewing than do other youngsters. Because these studies were not part of lengthy media literacy programs, they demonstrate that even very small doses of active mediation can have an immediate effect. [x]

Use of Cellular Phone While Driving as a Threat to Life

The use of cellular phone is increasing very rapidly. The cellular phone industry is considered as one of the several industries that are famous for

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their fastest growth and rapid development. This rapid growth and development of cellular phone industry has taken place from 1990s till now. In 1980s, the use of cellular phone by an average American is not common. At that time, only the wealthy business personnel were found to use cellular phones. With the passage of time, remarkable decrease in the price of cellular phone has occurred and thus it becomes possible for people of any income level to possess a cellular phone.[xi]

An escalation in the number of car crashes that appear to be caused by drivers using cell phones has sparked debate among state policymakers on the need for regulating cell phone use while driving. Although there is anecdotal evidence of the dangers inherent in careless cell phone use while driving, opponents of regulation suggest that the problem is not with the phones themselves, but rather in their inappropriate use.

For example, in 1999 a driver who was using a cell phone killed a two-year old Pennsylvania girl. In North Carolina, a driver distracted by a cell phone hit and killed a state corrections officer. Whether regulation could help curtail the irresponsible actions of some drivers remains a question. At present, only a few states have regulated the use of phones in automobiles, and the federal government has taken no action on the issue.[xii]

It is quite clear that cellular phone has happened to be a blessing to every kind of people especially business related people because they are always in touch with their business associates. Despite the fact that cellular phone has brought people closer together, this device is found to cause extremely hazardous safety problem that lawmakers have to fight with.[xiii]

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Number of accidents has increased with the increase in the use of cellular phone while driving an automobile. In the United States, lawmakers are found to hesitate in enacting a legislation that will either eliminate or limit the use of cellular phones while driving. Growing number of accidents due to the use of cellular phones while driving shows that there is a great need to bring balance in the safety of society and lawmakers will have to take some necessary steps in this regard.

What Can Be Done?

Can individuals do anything to cut down on *global warming*? There are many things that one can do—from lowering the temperature at home in winter to walking instead of driving. The Environmental Protection Agency (EPA) recommends the following steps:

- When families buy new appliances, they should look for the Energy Star(TM) label. According to the EPA, a high-efficiency refrigerator alone can reduce carbon dioxide emissions by as much as 220 pounds a year.
- Compact fluorescent light bulbs save up to 40 percent more energy than regular light bulbs.
- A properly insulated home is a big step toward wasting less energy. It can reduce carbon dioxide emissions by more than 2, 000 pounds a year.
- Recycling, and buying products that use recycled packaging, could help one's family reduce carbon dioxide emissions by more than 1, 000 pounds annually.

- One of the biggest causes of pollution is the family car. Anything one can do to cut down on unnecessary car trips will help cut down on *global warming* .[xiv]

Greenhouse windows and sunrooms have already given indoor plants a significant role in making homes comfortable and aesthetically pleasing. Plants filter pollutants naturally. To enhance that ability and help control pollution in the household, scientists and engineers are designing plant filter systems. For example, plants grown hydroponically (without soil) in absorbent materials, such as carbon, trap pollutants that the plant roots and their microorganisms break down and eventually convert into plant tissue. Architects are being urged to integrate plants into pollution-control systems in their building designs.

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