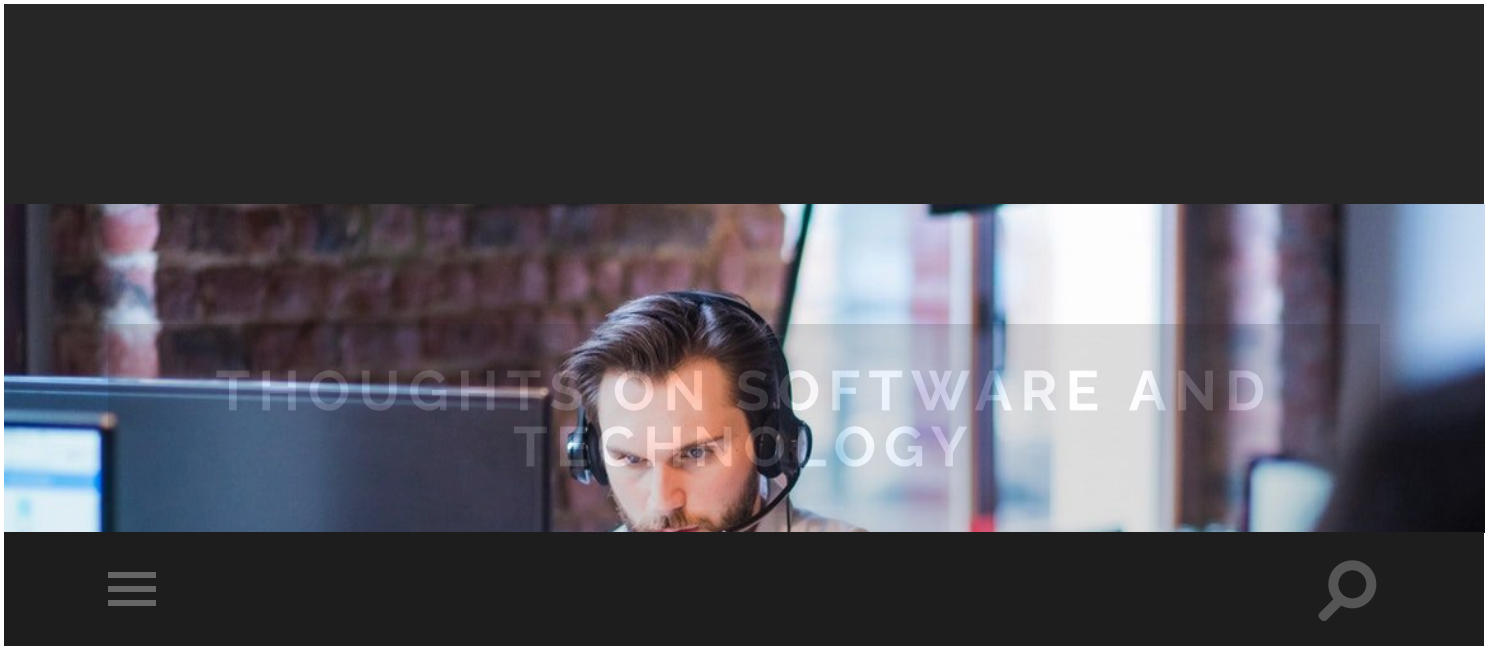

Recycling Electronics & Reducing E-Waste – An Environmental Perspective

APRIL 22, 2021 / JAMES / 0 COMMENTS

Recycling practices are being urged in our world now more than ever. Reducing e-waste and our carbon footprint can mean cleaner air, less pollution, and conserving more natural energy.

Recent studies from the National Institute of Environmental Health Sciences have shown that health issues are rising in communities that neighbor landfills and other waste facilities.

The practices of removing components from devices are known to cause health problems. Electronic gadgets, when disposed of, usually get thrown away with the regular garbage. When this happens, they end up in landfills. Over time, they release toxic fumes that contribute to air pollution, soil contamination, and unhealthy water.

Recycling and reducing electronic waste can help the environment and improve overall health.

Loose E-waste Management Regulations Globally

The National Institute of Environmental Health Science estimates that 40 million tons of electronic waste are produced every year. Each country's rules and laws vary, but the regulations on electronic waste can be general and not specific.

These loose regulations allow long-term health issues to become a growing problem. Those affected the most are commonly living in close vicinity to the dumping areas. It is normal for countries like India and China to have this kind of waste treated and processed close to small cities, towns, and other rural communities.

E-waste is shipped commonly to recycling facilities in developing countries, where informal practices of removing metals and burning remaining devices occur. Procedures like cable burning and using acid to remove precious metals like nickel, gold, copper, and silver increase exposure to dangerous contaminants.

Potential Health Issues

There is a relationship between dumping devices and health. Electronic waste is considered hazardous due to the components used to make electronic devices.

According to Occupational Safety and Health Administration, things like hard drives, laptops, and cell phones contain metals and chemicals known to damage long-term human health if inhaled or ingested or with any dermal contact.

Informal dismantling of devices and workers using primitive recycling techniques add to the issue. They expose themselves to unsafe chemicals while releasing them into the air. Due to this, neighboring communities are directly affected by inhaling these pollutants.

Greenhouse Emissions and Other Toxins

Toxins such as polyaromatic hydrocarbons, dioxins, and other hazardous byproducts get released into the environment. Since natural emissions are rooted in electronics, they end up in the air, soil, and water. The direct effects from these poisonous toxins are unhealthy and hazardous to human health and the environment.

A study done by the World Health Organization Collaborating with Centre for Children's Health and The University of Queensland found direct exposure of these toxins being especially harmful to children. Health issues like behavioral changes, thyroid dysfunction, skin ailments, and decreased lung function are common to adolescents that live near e-waste recycling plants.

What's even more concerning are the results of adverse changes found in children on a cellular level. Common health risks for adults and adolescents alike include damage to the immune system and nervous system, kidney damage, muscle weakness, chronic beryllium disease, interference with regulatory hormones, and asthmatic bronchitis. There have even been common cases of pregnant women dealing with issues like reproductive issues, congenital disabilities, DNA damage, and Hamper's brain development for their unborn child.

Reducing E-waste Can Benefit Health and the Environment

Safe and ethical ways of recycling all electronic devices can increase communities' health and safety globally. The World Health Organization has found that 23 percent of disease burdens are due straight from environmental factors. It is a team effort to be environmentally friendly. It takes each person making the responsibility to go green. A different outcome for these environmental issues can be a reality. Since non-communicable diseases like heart attack and stroke can also be caused or worsened by air pollution, there is a way to reduce the probability.

Some best practices to keep in mind are recycling old electronic devices properly. There are recycling facilities in the United States that handle only E-waste. Check with city and county sustainable services that offer pickups once a month for old devices. This is a more sustainable way to reduce greenhouse emissions further releasing into the air we breathe.

Conclusion

We can also reduce air pollution altogether and create environments that encourage physical activities, like walking or biking for transportation. These accessible practices reduce greenhouse gas emissions and toxic air pollution, which is an environmental benefit while encouraging physical activity.

The benefits of safely removing the reusable components can open the door to new life for another device. Minimizing the refurbishment of electronic devices and the duration of their use in one form can reduce the catastrophic impact of e-waste on the environment.

With sustainable development of devices and eliminating hazardous substances released into the environment, change is both possible and in the near future.

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