

**ON TECHNOLOGY**

**ARTIFICIAL INTELLIGENCE: The Blue Generation's Future**—The era of the smart machine is on the rise. Today, technology plays a major role in transforming global warfare. Government and corporate entities are racing to design and develop new diagnostic and prognostic software for unmanned ground or air vehicles, health management systems, and prognostic and diagnostic systems. The smart machine will soon control air, land, and space, and will monitor our every thought, sight, and activity. When we will reach that critical juncture, where man becomes machine and machine becomes man, has yet to be determined; but when that time comes, we, humans, will become an accessory.

Little did the people of the late nineteenth century know that the typewriter would one day morph into a multifunctional device known as the computer. Technology is evolving at warp speed. A few decades ago, a computer easily took up the size of an entire room. Today, they are smaller, faster, and smarter. Initially, computers were used to write books, type term papers, and create spreadsheets. Now they are used to watch movies, store photos, and operate on patients thousands of miles away. Computers have become our home entertainment center as brick and mortar stores like Blockbuster and Borders closed their doors to give way to instant downloads. The explosion of tiny smart gadgets is a foreshadowing of what is to come. Soon nanotechnology will replace magnetic disk drives.

Researchers have already created the first artificial DNA. With the rise of the smart machine, danger lies ahead. Security engineers and tech experts will be in high demand. Their roles will become increasingly powerful as they control the banks, electrical grids, transportation hubs, space stations, work stations, home security systems, and more. Artificial DNA, when added to the equation, can be used in a multitude of ways. Countless practical applications will be affected. Scientists will continue to race to design and upgrade new technologies and incorporate them into devices and systems. They will use new technologies to improve two-way communication systems such as telephones and fiber-optics, and push the limit of one-way communications systems such as radio, television, and satellites. Furthermore, they will improve design of aircraft collision-avoidance systems and a variety of other systems, many used in medical electronics.

New technologies are already involved with the control and delivery of electric power to homes, offices, and industry, affecting how we analyze and interpret CAT scans data, seismic data from earthquakes and drilling, and data from space probes, voice synthesizers, and handwriting recognition. One day artificial intelligence will even design systems by itself that educate and entertain. The integration of communication equipment, control systems, computers, and other devices and processes are moving at lightning speed. Artificial intelligence techniques, systems and controls, and signal processing will, in a few generations, control nearly every aspect of human life.

Embedded system software and hardware already contributes to building practical intelligent-solutions for various branches of the military. Tiny computer chips have also been implanted into volunteer civilian bodies with live twenty-four-seven monitoring. Soon, our bodies will be injected with microscopic chips capable of storing information of our complete identity, including our medical history, accessible within a quick scan. The next generation of technology users will not depend on what the computer is capable of doing but instead on what the users want to do. Cloud computing and web storage services are only the beginning of a system that will allow users to store documents and information on the Internet instead of a hard drive. Although we are not quite yet ready to discard our laptops or desktops for a nanotechnology machine with artificial DNA, that day is moving closer.

Our smart phones, desktops and laptops can accomplish most tasks that we require. But as computer circuitry gets smaller and smarter and more features and intelligence are embedded into the device, who knows what tasks we will be able to accomplish. For most of us, the main motivation for upgrading our computer is to keep up with the increasingly large amount of information that we are hungry to absorb. We want to carry on a virtual conversation with our family, watch movies on a high definition screen, and relay messages to our friends on Facebook. But the Blue Generation's tomorrow is a different tomorrow. Our grandchildren or great grandchildren will be able to communicate without talking, looking or listening. When that day comes, they won't want more storage or faster processing, but chips implanted into their eyes to help them detect a fly in the sky a hundred miles away. With that in mind, nanotech and DNA-based computers are on the horizon, so be prepared to accept the new reality.

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