Technology Overview

Technology has changed significantly since the dawn of the 21st century, with incredible leaps made in medical, genetic, computer, and environmental research.

Genetics

Genetics have served the health care industry well, particularly after the completion and full verification of the Human Genome Project in 2014. After mapping the human genome, terminal diseases, such as cancer, and hereditary diseases were wiped away. Unfortunately, there are those that use genetics as a means to gain an edge over the competition. The NAF-governing corporations are the most well known and open regarding this type of experimentation, creating super-soldiers and spies, as well as mistakes and superhuman mutants. The European Union, while claiming to use these actions as a last resort, is the second most active. The government works through secret labs owned by pseudo-corporations to conduct the experiments, welcoming the successes into the folds of military life. In order to deal with the occasional escape of these experiments, a special covert task force was created to hunt down and terminate escaped experiments. So far, the team, known as Omega Black, has yet to miss a mark. Despite this paranoia by the government, citizens tolerate those with naturally occurring superhuman abilities (see the World View of Superhumans).

Transportation

In addition to genetics, transportation technology has also increased exponentially. Following the Global Warming Scare of 2001 and 2002, the world powers banded together in order to reduce and, if possible, eliminate pollution from vehicles, aircraft, and industrial plants, such as electrical and manufacturing facilities. This coalition of governments led to the discovery of cold fusion, the technology on which most vehicles now run. It has also enabled vehicles to sustain a contra-gravity drive system. This has done away with the need for tires, further reducing pollution. Though most cities that were swallowed, in part or in whole, by the sea after it surged inland from the melting icecaps have yet to be rebuilt, the seas have begun to recede to their former state as the icecaps reform.

Supercomputing

Supercomputing was further developed in order to sustain the number of world residents accessing the Internet for information, pleasure, and commerce. The Internet became a true commerce center in 2022, with over ninety percent of all transactions taking place through the use of computers. At present time, all account information is tracked via smart card. The smart card is assigned upon opening an account (much like checks and an account number today). These cards are accepted anywhere in the world and currency conversion is automatically taken into account for any transaction. The World Bank, located in Aquatica, oversees the transaction system. This ensures neutrality in the system (though some believe theft does occur).

In addition to these breakthroughs, computer security became paramount. This led to the development of ICPs (Infiltration Countermeasure Programs). ICPs are automated intelligent agents (a type of A.I.) that are used to detect, deter, and/or destroy network intruders, particularly hackers and Cyberjackers. These programs are created with varying levels of deterrents from simply locking the hacked account to crashing the hacker's system to killing a Cyberjacker. All major corporations and many small businesses employ ICPs on some level.

Communication

While many countries focused on the environment and medical science during the early part of the 21st century, it was proven that weapons and defenses were still necessary. The decision to reduce funding to medical and environmental research and increase funding to military research was passed in a Congress where fear of nuclear war ran rampant.

Following the U.S.-China standoff in March and April of 2001, a new Cold War began, this time between the People's Republic of China and the United States, among other countries outraged at China's treatment of the situation. The Pentagon compiled a report and briefed Congress on what China knew of U.S. surveillance capabilities. Congress, in an effort to appease the families of the servicemen who had been held hostage and to quell fears in the populace (as well as develop new surveillance equipment beyond the technology China now possessed), approved the decision.

The following year's budget was approved, giving large grants to corporations and research organizations willing to undertake weapons, surveillance, cryptographic, and communication research on behalf of the government. The program was well received by Corporate America and the seed that would eventually aid the downfall of the economy in 2015.

Despite the eventual decline of the economy, many advances were made in all fields. In mid-2009, one of the final acts of the U.S. government intelligence agencies was to place their newest satellite in orbit. The satellite had the capability of zeroing in on a single transmission (wireless or via land line) for the purpose of eavesdropping. The satellite was owned by the CIA and intended for use against the terrorist organizations and enemies of the State. The satellite was capable of wiretapping without requiring a phone bug, eliminating the effectiveness of white-noise generators and many other countermeasures. Unfortunately, other government agencies, particularly the NSA and FBI, also made use of the technology, but only to eavesdrop on U.S. citizens, whether suspected of criminal activity or not. The federal agents referred to this as "preventative maintenance".

In 2010, the NAF Corporations inherited this equipment and abuse has increased… Privacy is virtually unknown to high-profile members of society and common citizens are at risk (though people who remain inconspicuous are not usually targeted by government eavesdroppers).

With the increase in electronic eavesdropping, a large market has been created for devices that protect against it. This includes the STSPs manufactured by Case Technology as well as several knock-off models. Countries worldwide have large budgets dedicated to the development of new technologies that will increase their own eavesdropping and intelligence-gathering capabilities while degrading the same capabilities their enemies possess.

Arms

The U.S. also made amazing advances in laser (and other energy-weapon) technology. By 2006, a missile defense "net" (composed of approximately two hundred lasers placed in strategic locations around the country) had been implemented. Taiwan, a major supplier of many of the system's components and an ally (after the U.S. aided in repelling a Chinese invasion in 2003), was the next in line to receive the technology. The small island was set up under the Missile Defense Net in late 2007. Other advances include Gauss particle beam technology and self-contained power sources for the weapons (as opposed to the heavy and cumbersome power packs used in the late 20th century). Though the weapons are still used primarily for military applications, they do occasionally filter out to the criminal element (or those superheroes with connections in the government).

Though far from perfected, many world powers are also developing electromagnetic pulse weapons. Such a weapon would have incredible destructive capabilities with an ability to wipe out a country's infrastructure in seconds. Needless to say, there are many countries that work to prevent this development by drafting anti-EM weapon treaties. Aquatica has pressured other nations openly but with no success.

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8 June 2001