With more than 2.3 million inmates in state, federal, and local prisons across the nation and some prisons housing more inmates than their official capacities, prison facilities are turning to sophisticated technology to keep control.

Many modern prisons are built with a Panopticon design, a concept from the late 1700s that allows prison staff to observe inmates without the incarcerated being able to tell they are being watched. The design concept still is being used today, says Denny Powers, Criminal Justice program director at South University — Columbia. The layout usually includes a central control room or tower that provides corrections personnel a 360-degree view of inmates.

“This coupled with video surveillance makes prisons safer and requires fewer correctional personnel for surveillance,” Powers says.

Many of the cameras used to monitor inmates are more sophisticated than those used by gas stations and shopping malls. Newer prison cameras are bullet resistant and able to withstand the force of a sledgehammer, and this sturdier design prevents inmates from disabling cameras during a fight or escape.

However, today’s prison administrators are taking the monitoring of inmates beyond camera surveillance. A recent article in *Popular Mechanics* explains how some prisons are using radio-frequency identification tracking (RFID), a monitoring process where an inmate wears an electronic bracelet that tracks his or her movement throughout a facility.

Keeping some inmates safe require they be locked up, segregated, and isolated.

If an inmate wearing a RFID bracelet enters a prohibited area, an alarm will sound. RFID tracking also can make it easier to count prisoners, and prison staff can react quicker when inmates try to escape. An article published in 2009 by a branch of the U.S. Department of Justice describes other uses for RFID in prisons.

“A few correctional institutions have used the systems to provide information on prisoners’ movements and to alert staff if there is an unusual concentration of people in a certain area,” states the article in the *National Institute of Justice Journal*. “Movement information can be stored in computers and could prove useful in investigations to determine who was present in a certain part of a building at a particular time."

Other, more advanced tracking mechanisms exist, such as biometric entry points that scan an inmate’s iris or fingerprints. However, cost is a major hurdle with biometric technology, especially considering the large number of inmates that would have to be monitored at overcrowded facilities.

In some cases, technology is isolating more dangerous prisoners as a method of protecting prison staff and other inmates. Some prisons conduct inmate visits using electronic audio/video technology, such as closed-circuit televisions. Teleconferencing and videoconferencing are used to allow inmates to appear in court remotely. In addition, advancements in packaged food technology enable many prisoners to remain in their cells during meal times.

Technology is also changing health care in prisons. Some prison medical facilities are now equipped with cameras and remote medical tools, allowing inmates to receive virtual checkups from doctors. The University of Texas Medical Branch (UTMB), in a partnership with Texas Tech University, has a sophisticated telemedicine program where doctors can use cameras to remotely look down an inmate’s throat or listen to a prisoner’s heartbeat over headphones.

“The most widely recognized cost-saving benefit of the use of telemedicine comes from reducing the need for travel which, in the correctional arena, has broad implications,” states a position paper from the National Commission on Correctional Health Care. “The need to transport an inmate outside the confines of a correctional facility can be a significant barrier to providing medical care.”

Critics argue that relying on technology to limit face-to-face contact dehumanizes inmates and inflicts psychological damage through constant isolation.
“Psychiatric research embodied in study after study as well as correctional standards recognize that depriving individuals of human contact creates conditions of extreme isolation that go on to either exacerbate existing mental illness or create mental illness in folks who were previously healthy individuals,” says Amy Fettig, staff counsel with the ACLU’s National Prison Project.

However, Powers says this isolation is necessary in order to keep other prisoners safe from more dangerous inmates.

“Keeping some inmates safe require they be locked up, segregated, and isolated,” Powers says. “Hiring more corrections officers with higher standards costs more money, and taxpayers are reluctant to spend money on convicted criminals.”

But what happens when technology falls into the hands of inmates?

Corrections officers across the country have seen an increase in the number of cell phones being smuggled into prisons, and the devices let inmates contact people outside of prison. Some of these calls have enabled inmates to commit illegal acts, such as contacting other criminals outside of prison to organize crimes, harassing lawmakers, and even threatening and mocking the families of their victims.

In many prisons, cell phones have become a more valuable contraband than drugs. According to a recent article in Time magazine, during a sting operation in Texas, an undercover officer was offered $200 by a prisoner for a cell phone and only $50 for heroin.

“Smuggling in cell phones speaks to the poor procedures of the individual prison,” says Powers. “Unfortunately, members of the prison workforce are often corrupt and assist inmates by smuggling in drugs and other contraband.”

Time reports that a California prison staff member admitted to making more than $100,000 by selling cell phones to inmates.

While the cell phone problem can be addressed by cracking down on corrupt prison staff, technology is also being used to reduce the number of phones being smuggled into facilities. Full body scanners can locate contraband on prisoners more efficiently than body searches performed by prison staff.

In addition, new technologies allow prisons to jam or block cell phone signals. The Senate has passed the Safe Prisons Communications Act, a measure that allows prisons to jam cell phone signals. However, the Federal Communications Commission (FCC) forbids the practice, and cell phone companies are fighting signal blocking.

What will prisons of the future look like? Powers says advancing technology will lead to inmates being monitored with more elaborate audio and video devices. Powers also believes inmates of the future will get even less human-to-human interaction. He predicts that the overcrowding problem will change the way prisoners are punished.

“I see more segregation and isolation for violent offenders and fewer non-violent offenders going to prison,” says Powers. “The general public will determine whether we put more in prison or put them in community service types of punishment.”