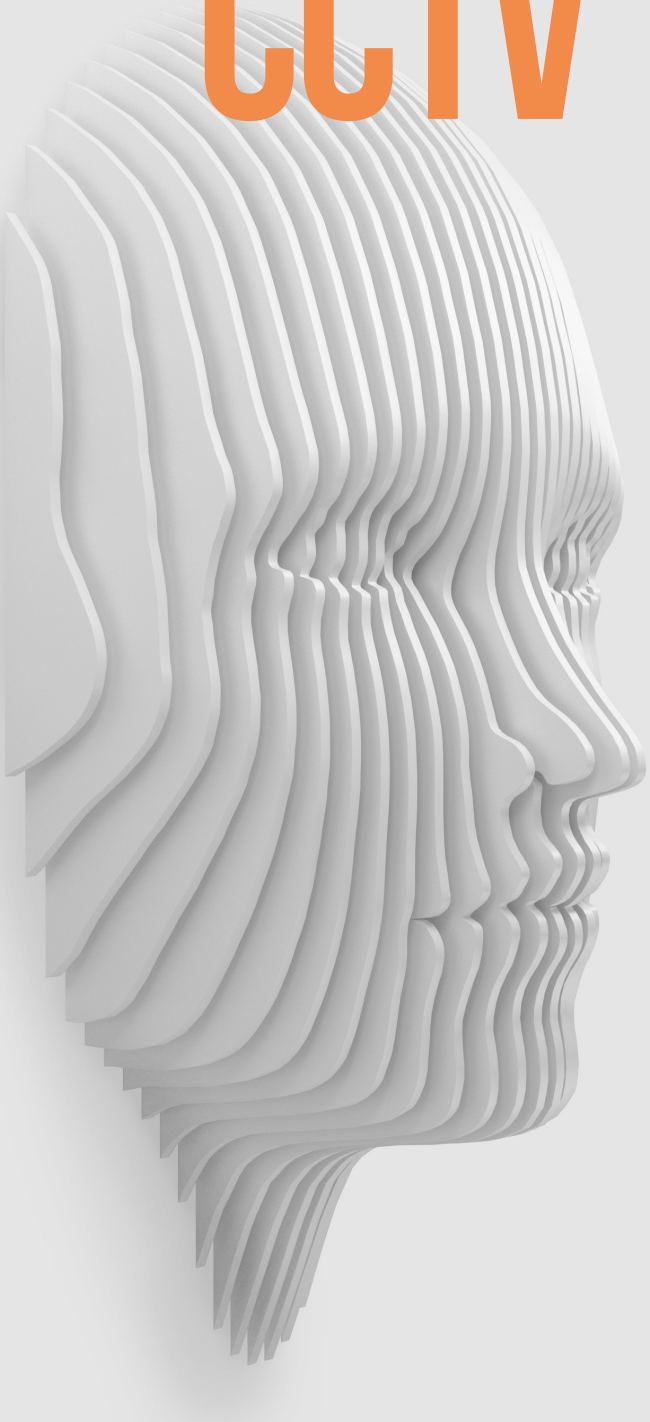
The CHANGING face of CCTV



Ian Bridgewater, Managing Director, TOA Corporation (UK) Ltd discusses how advances in technology have influenced the way systems are designed and installed and the advantages of being able to deliver audio to site

Historically, walls have been built as defensive systems, designed either to contain people or keep intruders out. Creating perimeters allows us to protect both property and people, shielding them from attack while preventing access to hazardous areas such as industrial or chemical plants.

As the manufacturing world has developed the need to protect assets has too. The security market has become huge globally and in the UK, the sector generates a multibillion turnover with growth in the number of employees working in this sector.

The need to monitor and record large areas such as car parks, industrial sites and transport systems has increased due to threats from terrorism, anti-social behaviour and incidents that require evidence and investigation. The traditional method to monitor and record was to install CCTV, but the industry is now demanding more integrated systems and the need to be able to add audio to their visual solutions.

CCTV is used in many applications such as monitoring traffic flow, on transport where there is one member of staff and of course, to monitor and record any criminal activity.

The evolution of CCTV

CCTV was developed for commercial use in the late 1940s and gave greater options for security companies to control large areas. Early systems had to be monitored constantly as they were unable to record but the development of reel-to-reel mediums allowed for recording and this developed further with the invention of video recorders. Recent innovation in technology, using IP protocols, has allowed for networked cameras to have images being recorded directly to networked storage and to a centralised security point.

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The limitations of surveillance alone

However, even a sophisticated CCTV system is a one-way communication vehicle and this is where advances in IP audio allow for two-way communication to come into play to offer an integrated solution.

Many CCTV systems rely on remote monitoring with security staff providing a 24/7 security service and onsite response if required. CCTV is good at capturing incidents and providing documented evidence to help with convictions, but there is a downside to potential time delay of staff getting to the scene from where they are located. They record and monitor what is happening but there is no instant ability to create an action that directly tells the perpetrators that they have been seen.

Active deterrence

This is where audio adds real value, particularly when integrated with SIP phones, VMS, access control and sensing technologies to create a unified security solution. Imagine being able to have the ability to trigger a warning voice message from your central control or multiple ▸

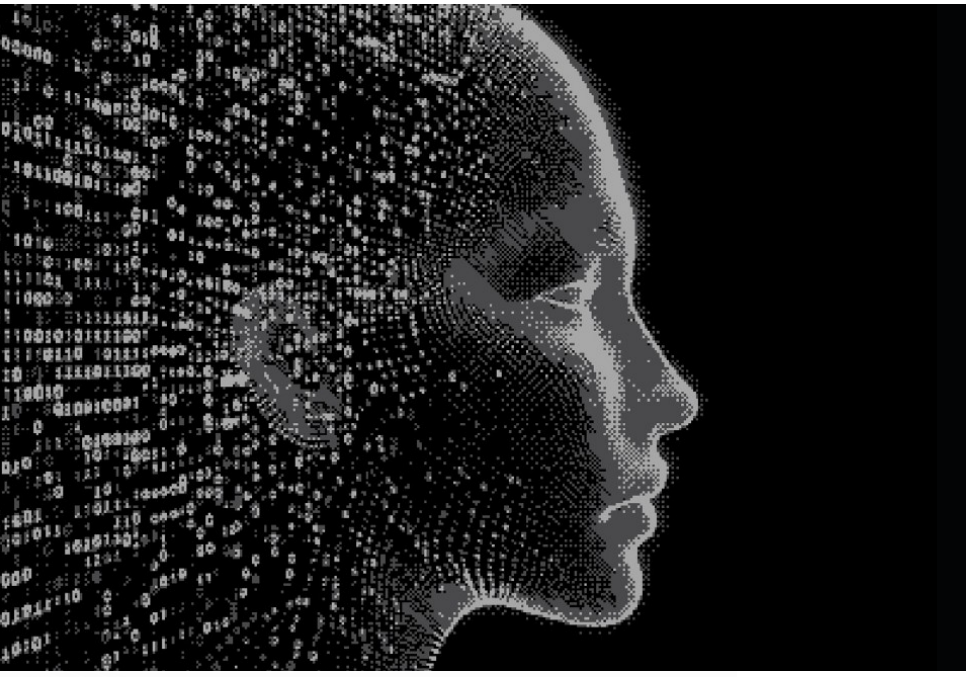


About TOA

TOA Corporation is a leading global innovator and manufacturer of cutting-edge commercial audio and security equipment, providing voice evacuation and professional acoustic solutions in over 120 countries.

Founded in 1934 in Kobe, Japan, TOA benefits from many years' experience in research, development and international sales and marketing in the fields of public address and audio systems.

Their longstanding know-how guarantees quality and the upmost peace of mind when buying and installing TOA products. They pride themselves that their knowledge in each of their six business fields: Public Address and Voice Evacuation, Intercom, ProSound, Distribution, Wireless and Conference Systems creates acoustic sound fields for millions of people to make lives safer, communication easier and audio entertainment more pleasurable.



pre-recorded messages the instant a perpetrator is seen such as:

Warning: *You are on CCTV. You are being filmed*
Warning: *Please leave the area*
Warning: *The police are on their way*

This immediately informs those undertaking criminal activity that they are being monitored and if sensible they will vacate the premises and not return, because they know there is a robust deterrent system in place.

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Using audio in this way can also reassure people who might inadvertently be caught up in an incident. Imagine returning to your car in a large car park late at night to be confronted by someone trying to break into cars. The ability to be able to trigger a warning voice message warns the lawbreaker that they have been seen but can also inform people that assistance is on its way and to wait until help arrives.

Integrating audio with security platforms

Using IP that adopts common industrial standard protocols allows for audio transmission and network device control and permits communication with other platforms.

A single standard network cable provides both power and connectivity without the need for a dedicated server. A simple PA system can be installed with a single end point device such as an IP horn speaker and a site wide audio communication system can be configured with many end points. Audio is the final piece of the puzzle in security monitoring and IP enables fully integrated robust systems that can be flexible and scalable. It provides a solution for large sites, hard to reach areas and perimeter fencing that have been target points for intruders, but have equally been hard to install traditional solutions because of location.

The future of integrated security

We can only see huge developments in this area in the future so we must acknowledge that the skills base in the industry has and must continue to change considerably.

In the UK the initiation of Martyn's Law in 2025, officially titled the Terrorism (Protection of Premises) Act 2025 will bring significant transformation to how staff are trained within the security industry and what level of understanding new technologies will impact on the workforce. Currently the Security Industry Authority (SIA) are in consultation about how premises are monitored and whether both in-house CCTV operators and contractors, who carry out security services, should be licensed. As audio expands in security monitoring, staff will have to be fully trained to operate centralised systems that deliver and receive all aspects of security information.

This will change the way employees' current security roles are managed and there will be impact on training and development to comply with any changes to law and legislation.

To summarise we will see more integration with different platforms and the continued development of multitasking systems that combine audio, are attached to fire systems and can work with CCTV will be the future of security monitoring.

For expert advice contact the TOA Corporation UK Team on 01372 389799 or email technical@toa.co.uk



About the Author

Ian Bridgewater, Managing Director of TOA Corporation (UK) Ltd manages the UK division of this global audio manufacturer as well as working with TOA's international teams on technical expertise, market trends, product development and client relations. Bridgewater has been at TOA for over 30 years from engineer to Technical Manager before becoming Managing Director in 2024.