Gunshot incident through the lens of technology

Adam Berry takes a novel and engaging approach to describing a fictitious shooting incident at a shopping mall, examining the integrated emergency response through a wide variety of deployed technology

Imagine this scenario… It's a lazy summer afternoon at the Sunshine Valley Mall. Shoppers are few, but are enjoying the last of the sales, looking for remaining bargains before retailers begin to move to autumn clothing. The security control room is quiet. On duty, James and Max occasionally scan the CCTV and fill in their incident log before their 14:30 hrs shift change. There are just a few maintenance issues and a couple of shoplifting reports. There has been no sign of the pickpocket gang that nearby malls have reported, and the local police crime log isn't showing any increased threat.

■ **13:47 hrs:** In the control room, Max and James hear a distinct 'crack', then a 'tatatat'. It is muffled, sounding far away; a car backfire? The two young men look at each other, then their control room system begins a subtle, urgent beep: 'gunshot' alert.

As the videowall cameras switch automatically to the detected area, James and Max scan the images. False alarm? No. There, behind the trolley selling dress watches and new straps, people are crouching down.

Deep learning algorithm

■ **13:48 hrs:** Another urgent beep from the system: 'CCTV – Potential gun warning'. The deep learning algorithm examining CCTV has found a gun in its object list; it is visible in the image presented on the console. The man has his gun by his side. Behind him lie three people.

Immediately, James scans the crisis warning terminal. The buttons on the touchscreen give options to initiate the pre-set plans. 'Active shooter' is there, just next to 'Fire' and 'Medical emergency'. He clicks the button, enters his pin code and accepts the alert that says: 'Initiate Protocol'.

James has started the RIVER stages – Respond, Inform, View, Evacuate and Report.

■ **13:49 hrs:** The software-generated first alerts and information messages appear on the terminals in each of the mall's outlets. Auto-created notes give clear warnings of where the incident is happening, based on each zone's predetermined colour-coded design. Staff either take cover or rush to their store entrances to call members of the public inside before locking the doors. Then they do a headcount and pass that information back to the control room using their terminal. Periodically, the staff are asked to confirm their safety status, which ensures that no shop is compromised.

Meanwhile, the emergency services have received the alert and have acknowledged and marked the event as received. The crisis system has automatically begun to collect CCTV recordings of just before the incident and just after from those cameras nearest the detection zone, irrespective of ownership. As they are collected, the live camera feed and the log collated in the crisis management system create a hot page. This is essentially a virtual video wall, a recording depository with the control room log visible and prepared plans of the building showing additional risks. It is passed automatically to the responders using a pre-set method built into the program.

Concurrently, the mall's security team is responding under radio control from James and Max. They know the placement of the intruder, approximate number of injured people, the precise location of the team and the position of all security personnel and shop staff. All are shown on the video wall.

The control room takes care to direct security personnel away from the threat.

■ **13:50 hrs:** The mall's security manager is having a well-earned day off. His pager and phone pulse. On viewing the information presented (the log from the mall's crisis management system), he decides to open the localised emergency office, which is near the mall, but not inside it. He initiates this part of the plan by clicking that phase on the Crisis Application.

Each primary responder agency has direct access to the virtual video wall and the crisis management system via a secure local network.

The emergency office, deliberately placed outside of the mall but still local, also has access to the virtual video wall. It is here that the primary responder incident management team will assemble. The mall's duty manager is nearest and is automatically requested to open and prepare the facility based on initiation from the security manager.

He is aware that the event is serious, so he initiates a part of the plan that automatically informs senior management and the public relations (PR) team – this is also a click on his version of the Crisis Application.

Everyone at senior group management level has access to the security log as James and Max complete it; others just see the information permitted to their grade.

■ **13:52 hrs:** With most of the mall's outlets now closed down and visitors safely inside locked shops, the intruder is getting more and more frustrated; there are fewer targets than he expected. He heads for the nearest exit, figuring that the open street is likely to be less controlled than the mall.

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■ **13:53 hrs:** With the first tactical responders arriving, they can receive instruction from their control room with access to the mall's virtual video wall and hot page where live CCTV, controlled automatically, has followed the intruder.

■ **13:54 hrs:** Messages flow to the primary responders through the hot page so they are apprised of the intruder's exact location and appearance. They know the type(s) of weapon and work is under way to identify him. Police ask social media to check (and block) any live feeds from that geographic region. Mobile telephone companies are requested to turn off data from the masts that serve the location (these had previously been identified and added to the crisis management system).

■ **13:56 hrs:** The mall's PR team is already receiving first enquiries from the press; each accredited media outlet or journalist is given access to another prepared internet hot page with information about the mall, the shops in it, management information and a holding statement. PR personnel are granted access to the rolling event log and can add information to the hot page as necessary. This page also provides the ability to upload statements, images, videos and further data. All are approved before being made available.

■ **13:58 hrs:** With the intruder outside the mall, James and Max issue a site lockdown and all external entrances are closed. EMS teams go directly to the injured. The crisis system reminds the security room to send water to those people who are locked in the shops, as it is likely to be some time before the incident can close down – this is part of the plan, and reminders are sent every hour or so.

■ **14:11 hrs:** After intense negotiation with the intruder, he is arrested and taken away. Police officers begin the painstaking task of investigation to check that no accomplices are waiting their chance. Teams clear each shop one by one until everyone is considered safe.

■ **Sometime later:** Police use the collected video images to piece together the incident and locate the intruder's route. It will prove vital in identifying accomplices.

The above is a fictional incident, but all of the technology described is available from Initsys. CRJ

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