

CELEBRATING 40 YEARS

CELEBRATING 40 YEARS ASIAL 1969-2009 THEN AND NOW: CCTV

By Rod Cowan*

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1960s > 1970s > 1980s > 1990s

In 1969, when Graham Kennedy was the Gold Logie winner, *Homicide* best drama, *Skippy* best export production, and Cambridge cigarettes best TV commercial, CCTV was rarely seen.

“Throughout the 1960s and 1970s, CCTV technology progressed slowly, following the footsteps of the broadcast industry, which had the money to finance developments,” says Joe Cieszynski, in *Closed Circuit Television*.

“The main stumbling block lay in the camera technology, which depended completely on vacuum tubes as a pick-up device. Tubes are large, require high voltages to operate, are generally useless in low light conditions and are expensive.”

Three tubes were required for colour, making low resolution, monochrome systems the best – albeit pricey – choice.

On top of expensive, bulky equipment, someone had to be paid to constantly watch a monitor, because recording video, motion detection, and connecting to alarms, says Cieszynski, remained the stuff of James Bond (and he only hit the screens in 1962).

Throughout the 70s – when many of today’s senior managers were still apprentices or cadets with Wormald Security – some larger security firms began installing systems, using the likes of RCA cameras with Newvicon tubes. The problems were not always technical, recalls one such Wormald apprentice, Dedicated Micros’ Mark Romer. In 1980, as a 21-year-old final year apprentice – “I had really long hair and Wormald made me wear a hair net when on the tools” –

he used a Mini motor car to pull cables for cameras installed on Sydney’s Harbour Bridge.

“They were really thick cables and we were pulling them through conduits underneath the Harbour Bridge. We had steel conduit up there, and big rolls of coax, which used to get vandalised all the time,” says Romer. “People would throw the steel conduit over the bridge. A piece of steel conduit went through the roof of Kirribilli Bowling Club, through the wooden second floor, the next roof on the first floor, embedded into the managing director’s desk and went four inches into the concrete floor.”

One CCTV doyen, Les Simmonds, who started in television, began working in CCTV in 1982, when the big name suppliers were Javelin, Pacific, AWA Rediffusion, GEC, Philips, and Sony.

Film cameras in banks, the cash cow for companies such as Photoscan, were being replaced with video recording equipment as it improved, though it was no easy transition, partly because the resolution of early video was nowhere near that of film.

“With film, you could almost blow up an image to a ring on [a person’s] finger,” says Simmonds. “You certainly couldn’t with video in those days.”

Another problem was that police and courts had yet to catch up with the new technology, with some jurisdictions flatly refusing to accept video evidence until well into the eighties.

The turning point for video came in the mid-80s, with the advent of CCD chips replacing Vidicon tubes, bringing colour and opening up new markets in industrial security.

“You could hit the camera with a shoe and nothing happened, the image stayed stable,” says Simmonds.



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The CCTV image showing James Bulger being led away in 1992 / file



Growing markets attracted new suppliers – with some electronics manufacturers attempting to sell video kits the way they would light globes – and by the late 80s, companies, such as Wormald and Honeywell, were pushing the new technology hard, resulting in cameras from Sanyo, Sony, and Mitsubishi becoming common in gas stations and retail outlets.

The 80s also saw smarter systems emerge with video motion detection (VMD).

Seadan Security's Richard Whitehead, another Wormald veteran, recalls accompanying a senior Wormald manager, Rick Honan, to meet the developers of the original Adpro VMD product. When leaving, Honan declared: "That product will never take off." Leaving Vision systems to pick it up, instead, and grow into Xtralis, today a multi-million dollar company with 400 employees operating in 40 countries.

Another big step was replacing VHS tape recorders. Offering at best 240-line resolution – SuperVHS offered 430-line resolution in theory – VHS was plagued with quality, reliability, and storage issues. For example, footage at faster frame rates or longer recording times meant buying more tape recorders.

Digital recorders using digital/audio (DAT) tape appearing in the mid-90s, had too many moving parts and too much that could and often would go wrong, but by about 1997, DVRs recording to hard disk took centre stage at just about every security trade show in the world.

Cheaper equipment, better storage, and more reliable systems all helped CCTV adoption, but it was the shocking murder of a toddler 16,000 kilometres from Australia that many believe precipitated massive worldwide growth.

On February 12, 1993, two 10-year-old boys, Jon Venables and Robert Thompson befriended two-year-old James Patrick Bulger at a Merseyside, England, shopping centre. Bulger's mutilated body was found two days later on a railway line.

Police released CCTV footage of two young boys, one holding the toddler's hand, leading him away.

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As the market boomed and technology flourished, major players, such as Sony, Bosch, Pacom, and CR Kennedy, began facing competition not only from IP-based network video solutions companies, such as Axis Communications, but also a growing number of medium-size companies doing a good job of directly importing and installing equipment themselves.

By 2000, intelligent video was making its debut, promising motion detection, facial recognition, object monitoring, and everything in between none of which is as simple as it seems and much of it with dubious results.

Today, CCTV technology tends to follow in the footsteps of the burgeoning consumer video market, but – as Kate Ritchie scoops the Gold Logie, *Home and Away* wins most popular drama, cigarette advertising is definitely nowhere to be seen, and Graham Kennedy becomes the name of an award – Television's influence remains, as shows like *CSI* and *Las Vegas* driving expectations ever higher, has buyers asking: "Why can't our system do that?"

Mind you, who knows how long it will be before anyone can Google satellite cameras to zoom in on a person's ring?



QUESTIONING CAMERAS

The 1993 Jamie Bulger murder and subsequent explosion in CCTV's popularity spawned another growth industry: lobbyists, researchers, media, and sections of the public criticising the growing use of cameras.

Certainly, there is little evidence that cameras deter or solve crimes – a UK police chiefs' report reckons only 3 per cent of crimes are solved through CCTV – but its usefulness has been proven in a number of cases: footage was used to identify the 7/7 bombers; video debunked London Metropolitan Police claims in defence of shooting an innocent



man, Jean Charles de Menezes.

Perhaps the real weakness is not the equipment: On UK ITV1's December 2008 *Tonight* programme, police officers working the Bulger case revealed that Venables and Thompson – caught on CCTV throughout the day of the abduction casually observing other children, selecting a target – had made several attempts to take a child. Nothing was done.

In most security settings, technology seemingly offers dream solutions, but delivers only tools that are only as good as standards, training and response of the operators.



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