The growth of closed-circuit television systems

Since 2001, there has been a significant increase in the use of closed-circuit television (CCTV) cameras in public places in the USA and other developed countries. Such cameras have been used in commercial premises in the USA since the early 1970s but, after the terrorist attacks of 11 September 2001, the use of such cameras increased in public areas such as parks and streets. Citizens can now be observed going about their daily business. The number of CCTV cameras in British town centres has rapidly increased in recent years. There are similar increases in Europe and North America. During the early 1990s the total value of the equipment market for CCTV products in the UK was around £100m annually. This rose to £361m between 1996 and 2000.

According to one industry source, ‘Double-digit growth in the video surveillance market has created a huge opportunity for software and chip companies to manage these enormous video streams’. International terrorism and homeland security investments are creating an unprecedented ‘intelligent video’ (IV) growth opportunity with technology playing a major role in future development. New IV networks, automatic edge detection, event characterisation, detailed analytics, and first responder controls represent the future of IV systems just starting to come on line. IV technology represents a major growth opportunity for hardware and software companies wanting to position themselves for growth in the rapidly expanding international security industry. Middle East violence, threats to oil supplies, Chinese and Indian economic growth, Islamic and western cultural tensions, and normal concern for domestic crime will fuel massive potential demand for IV products for a long time to come.

Despite this increasing intrusion into people’s personal lives, there seems to be little chance of privacy protections limiting the use of such technologies. In the USA, public area surveillance does not count as a ‘search’. The outcome of court cases suggests that even covert CCTV surveillance in public areas is lawful.

Civil libertarians and law reform groups have raised concerns about the current lack of statutory controls over the use of public space CCTV. In China, advanced traffic control systems were used to identify thousands of people involved in the Tiananmen Square protests of 1989. In the UK, although the technology behind CCTV has been available since the 1970s, its adoption has been slowed down by political concerns. For example, although the police are keen to have systems adopted, socialist-leaning local authorities have been less welcoming. This was particularly because research showed that the technology could be used against trade unionists, peace campaigners and animal-rights activists. Financial constraints on the spending powers of local authorities also played a role in slowing down the adoption of CCTV technology.

Nevertheless, in the UK, the impetus for the adoption of the technology came with increasing levels of crime in the 1980s and the adoption of privatisation of various public services. This effectively reduced the immediate cost to the public purse of adopting the technology. Also aiding the adoption of the technology was a specific event, the murder of a child in Merseyside. His abduction, which was widely covered in the popular press, was caught on CCTV and this led to the capture of his assailants. As a result, CCTV became more acceptable.

In the UK, CCTV is also being widely used in the field of transport. According to a commentator, ‘many cities, such as Bangkok or Buenos Aires, will accept relatively high levels of congestion, but paralysing gridlock just isn’t economically, socially or politically acceptable in London’. So each part of London’s transport network, buses, underground system and roads – have separate central operations rooms, operating 24 hours a day, seven days a week.

In the medical arena, as well, the CCTV revolution is becoming more prevalent. According to a small-scale evaluation project, residents in a medium secure unit generally supported the use of CCTV at night because it made them feel safer. For example, some respondents said CCTV recordings helped to cut the risk of their property being stolen, while the fire risk was lessened because patients were less likely to smoke in their rooms. It was also popular with patients who disliked being woken up during traditional night-time checks.
Larger evaluation studies have shown more mixed results. In the UK, where reviews have been more common and comprehensive, findings about the effects on crime have been mixed. One recent study compared 13 evaluations of CCTV in city centres and public housing. Of these, five found positive effects (a reduction in offences), three reported undesirable outcomes (actual increases in crime), while in the remaining five studies there appeared to be no effect or the results were unclear.

Mixed findings such as these seem difficult to reconcile with the enthusiasm for public CCTV among local and state governments in Australia. Crime reduction is only one of the rationales for installing a camera system. Another is a desire to improve public perceptions of safety, where Australian evidence is more positive. Research in New South Wales among members of the public reported that the presence of the cameras made them feel safer in the central business district. However, a study for the City of Melbourne found that its cameras had not affected public perceptions.

Concerns about public perceptions help explain the economic and political forces pushing many jurisdictions into installing CCTV systems. They link the uptake of public space CCTV to social trends such as the rise of the ‘stranger society’. In contemporary post-industrial contexts, people tend to become more remote from familial and other traditional constraints, and to become dislocated from community networks. Hence a perceived desire for techniques and procedures, which provide reassurance that public behaviour is being monitored.

Global economic trends also increase pressures on town and city centres to attract their share of tourists, other consumers and investors. CCTV can play an important role in marketing an urban centre as relatively safe. However, it can also exacerbate tendencies to exclude homeless, unemployed and other marginalised people whose presence detracts from the ‘positive vision’ that image makers try to convey.

**Example STEP analysis – notes on the growth of CCTV systems**

**Social**

- increased social acceptance of CCTV
- increases in crime and terrorism
- people's perception that CCTV can make their lives safer
- high profile cases where CCTV used to catch criminals
- public opinion that the benefits of such systems outweigh the costs
- growth of the ‘stranger society’
- people have fewer links to their social environment
- feelings of security.

**Technological**

- increasingly more versatile or greater functionality
- intelligent video and internet protocol
- cheaper products due to technological developments.

**Economic**

- CCTV cameras more affordable due to economic growth
- private sector financing in public sector expenditure so sales not always involving large government expense
- equipment leased from private sector firms making it more affordable
- wider political acceptance of private sector funding for public projects
- local governments need to encourage investment and promote tourism and people’s feeling of security
- CCTV keeps existing residents or businesses happy, and encourages new ones
- CCTV for traffic management to reduce congestion.
Political

- more (political) acceptance of CCTV
- increasing crime and terrorism
- despite concerns about personal liberty and human rights
- US law allows use of CCTV; not a ‘search’; covert use in public places
- fairly liberal political or legal environment towards CCTV
- no statutory controls over the use of public space CCTV.

(Source: Haider Ali, 2007, Open University Business School, Milton Keynes)

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