

Security



Digital technology will provide better identification of suspects, but also 'catch' high-resolution pictures of innocent members of the public

Look sharp: CCTV is zooming in

New digital cameras on the streets promise better quality pictures. But the ability to manipulate images and the wider civil liberty implications are worrying. **Neil Crossley** reports



To most of us who spend our time ambling down high streets or supermarket aisles, closed-circuit television is a familiar presence. Gone are the days when children would wave at the cameras and there are now few streets, shops or car parks without CCTV in place.

But new technology is emerging that looks set to revolutionise CCTV surveillance in Britain. Traditional analogue videotape recorders are gradually being replaced by digital systems, capable of producing vastly superior video and still images. In November 1999, the first DVD recorder aimed specifically at the surveillance market was launched. And soon, a whole range of digital CCTV systems will be monitoring our urban landscape.

But recent concerns about digital CCTV have sent shockwaves through the surveillance industry. There are now serious doubts over the use of digital images as evidence in court. And human rights organisations are predicting it will have an adverse effect on the behaviour of ordinary citizens in Britain.

According to the CCTV Users Association, a representative organisation for the surveillance industry, Britain leads the world in the deployment of closed-circuit television cameras. There are 150,000 CCTV cameras in London alone and an estimated one million across the country. Until now, all retailers, local authorities and police forces recorded on to analogue videotape. But security managers believe that the new digital recorders will leave the old analogue systems standing.

"If I had my time again, I wouldn't have an analogue video recorder in the room," says Mike Bachelor, CCTV control room manager with West Wycombe Council, which is testing a digital system. "The picture quality from digital recorders is vastly superior to analogue time-lapse video. And you don't have to trawl through a videotape to find an incident."

One major retailer has already upgraded to digital recording. Asda recently invested £6.5 million in Sensomatic UK's Intellex system,



Acting up: the use of digital images as prosecution evidence in court is being challenged

which uses a video capture card to record images straight on to hard disk. These images are then stored on DAT. Sean Bowen, Asda's security systems manager, says it has already proved its worth.

"The main benefit has been the very high-quality pictures which have helped us identify more criminals. Those pictures in turn have helped the police secure convictions," he says.

Digital images are being increasingly used as prosecution evidence in court. The Metropolitan Police even uses digital cameras to take mugshots. But despite user benefits, there are fears that digital CCTV evidence could be manipulated by anyone with access to basic PC graphics software.

As early as 1998, the Crown Prosecution Service voiced such concerns to the House of Lords Select Committee on Science and Technology. The committee recommended that encryption and watermarking codes should be written into digital CCTV recordings which would alert the user to any illicit tampering of evidence. But despite these concerns, the committee concluded that digital images should be admissible as evidence.

Buoyed up by this endorsement, the CCTV industry is now eagerly awaiting two major test cases, in which it believes digital evidence may be challenged by lawyers.

The potential of digital technology to provide better identification of suspects is in little doubt. And CCTV control managers predict that DVD will replace analogue

‘DVD will enable councils, retailers, pubs, restaurants and police to transmit images to each other which will magnify the privacy problems’

Online Savings

Open it online.

Operate it online.

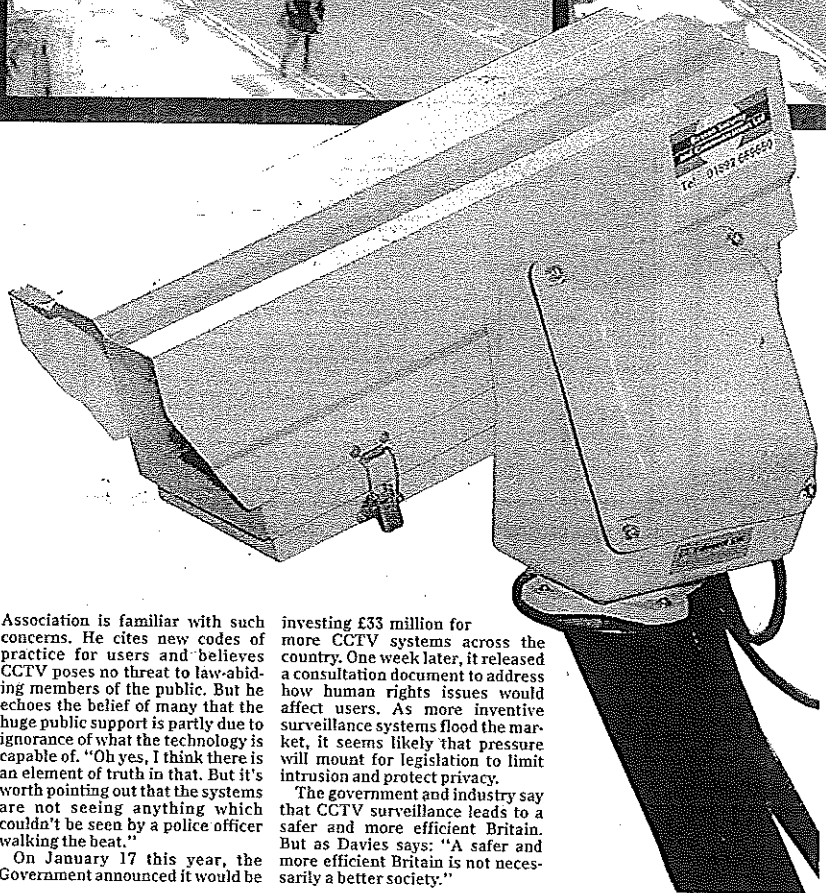
Organise it online.

<http://personal.ibs.co.uk/7.htm>

UK's most advanced online savings account.

The Royal Bank of Scotland

The Royal Bank of Scotland plc
Registered Office: 36 St Andrew Square, Edinburgh EC2 2DA
Registered in Scotland No 90382



video recorders as the industry standard technology in the next two years. As yet, Panasonic UK Ltd is the only manufacturer to launch a DVD surveillance recorder. The system is being marketed at major car park chains and cameras trained on drivers' faces and registration plates will be automatically triggered if anyone drives through a barrier without paying.

But digital cameras will not only provide better identification of criminals. They will also produce high-resolution pictures of millions of innocent members of the public. As such, civil liberty groups are unhappy.

Retail CCTV is not the issue; it is the presence of ever-more sophisticated CCTV systems in urban streets that is causing concern.

Surveys show that street crime has halved as a result of CCTV and that more than 90 per cent of people are in favour and feel safer as a result. But while critics accept that CCTV has cut car theft, they claim its effectiveness in combating urban crime as a whole is unproved. CCTV simply transfers the crime to other areas, they argue.

One Scottish Office survey reported that crime in Strathclyde had dropped by 75 per cent as a result of CCTV surveillance, but a

subsequent study found the figure was nearer 21 per cent before the displacement effect was taken into account. The Scottish Office concluded that the area's CCTV cameras had a marginal to negligible effect on crime. And the House of Lords Select Committee on Science and Technology reported that there was insufficient evidence to show the extent of crime reduction.

Without such evidence, says Simon Davies of the civil rights watchdog Privacy International, it is difficult to see the case for CCTV in our streets.

"I don't think anyone has really thought through the implications of all this. New integrated technologies like DVD will enable councils, retailers, pubs, restaurants and police to transmit images of people to each other which will magnify the privacy problems. What tends to happen is you start penalising extreme or unusual behaviour, which leads to social exclusion. And it won't be just criminals. When you build that level of surveillance web, you've got to expect that it will have some effect. We know from the old Eastern bloc that people under surveillance respond by becoming unadventurous and timid."

Peter Fry of the CCTV Users

Association is familiar with such concerns. He cites new codes of practice for users and believes CCTV poses no threat to law-abiding members of the public. But he echoes the belief of many that the huge public support is partly due to ignorance of what the technology is capable of. "Oh yes, I think there is an element of truth in that. But it's worth pointing out that the systems are not seeing anything which couldn't be seen by a police officer walking the beat."

On January 17 this year, the Government announced it would be

investing £33 million for more CCTV systems across the country. One week later, it released a consultation document to address how human rights issues would affect users. As more inventive surveillance systems flood the market, it seems likely that pressure will mount for legislation to limit intrusion and protect privacy.

The government and industry say that CCTV surveillance leads to a safer and more efficient Britain. But as Davies says: "A safer and more efficient Britain is not necessarily a better society."

Online Savings

Any place.

Any time.

Any reason.

Any questions?

<http://personal.tsb.co.uk/7.htm>

UK's most advanced online savings account.

The Royal Bank of Scotland

The Royal Bank of Scotland plc
Registered Office: 34 St Andrew Square, Edinburgh EC4 6AT
Registered in Scotland No. 5232

Biteback Email connected@telegraph.co.uk or fax us on 020 7538 6759.
Connected, The Daily Telegraph, 1 Canada Square, London E14 5DT

Fifties experiment in 'future sound'

Regarding AM stereo broadcasts ("One way street for AM stereo", Feb 24), I remember Dutch radio in the early 1950s experimenting with the two Hilversum radio stations on medium wave.

The station Hilversum 402 would broadcast one channel, and Hilversum 298 the other. It gave a good spread using two domestic receivers set apart in the room, but not having two similar sets, and with the noise that affected distant broadcasts, it was not perfect. Broadcasts I listened to included the Concertgebouw Orchestra concerts, and the orchestral spread was impressive. It was the "sound of the future" and not available elsewhere.

The BBC also used to do experimental stereo broadcasts on Saturday mornings using, I think, Radio 3 for one channel and a television channel for the other. It worked, but again unequal sound sources (early TV sound and radio tuners) gave an exciting effect, leaving me impatient for real hi-fi stereo.

The BBC would broadcast recordings of table tennis, boats going by, etc, anything, in fact, that would use left-right effects obviously. The broadcasts lasted only a short time but were much looked forward to... the sound of the future to us youngsters.

Richard Bailey
richard@jean100.freeserve.co.uk

Exciting project

The timber gridshell structure in "Flat out for a new design" (Feb 24) is indeed an exciting project and no doubt your readers would like to know where the building will be erected: the Wesd and Downland Open Air Museum, near Chichester, West Sussex.

Peter Foster
pfoster99@hotmail.com

England only

I sympathise with Pat Cullen (Biteback, Feb 24). I too would like to upgrade my old machine, which is "bursting at the seams". Imagine my disappointment, on visiting the website, to find that the "Computers for Teachers Scheme" does not apply in

Direct Saver

Introducing the UK's most advanced online savings account.

Total flexibility, total control and competitive rates. This account can only be called Direct Saver. Apply online now.

<http://personal.tsb.co.uk/7.htm>

The Royal Bank of Scotland

The Royal Bank of Scotland plc
Registered Office: 34 St Andrew Square, Edinburgh EC4 6AT
Withdrawals can be made without notice by transfer to another account. For New & Existing Accounts a maximum of up to 3 working days to non-UK accounts.