Hina Keval is a graduate student working towards her PhD at University College London. As part of her research into “human factors”, she is examining control rooms and CCTV operators. She presented some of her early findings to the conference

HINA KEVAL HAS BEEN WORKING on a PhD at University College London for one and a half years, and she chose to look at operator issues within CCTV for her research.

A lot of CCTV research focuses on whether CCTV works, is it a deterrent and what are public perceptions of it? There is also a large body of research on data protection.

But, said Hina, what’s missing is whether the technology deployed in CCTV control rooms is actually usable. Are we actually assessing the performance of equipment from a user point of view?

“As a computer scientist, I wanted to look at whether the technology was good enough and whether the user understands what is going on well enough to effectively manage their tasks,” she said.

Usability

Hina did a four-year undergraduate degree at Loughborough and was interested in how to increase the usability of systems. She chose CCTV because it’s an important topic, there’s a lot of money being put into it, and she thinks it’s important to take a step back and measure performance and see if it’s cost-effective.

Hina visited five control rooms and interviewed managers and operators. She says she didn’t know a lot about CCTV so this was an introduction and chance to speak to different users and stakeholder groups, as well as a chance to understand the activities that were part of the control room performance.

She found that local authorities are adding more and more cameras into their control rooms without matching it with the number of operators. This is leading to problems of information overload.

Operators identified a number of problems with the control room environment, including being unable to see the screens due to poor positioning, screens not working, and poor quality image transmission which meant that operators were concerned about missing important events.

Sometimes PTZ controllers didn’t work and this created a sense of embarrassment when communicating with police.

Operators reported that there was a lot of information flowing into the control room apart from video including radio, emails and telephone, and they were concerned about potentials for missing incidents or making errors. Operators said they were often too busy to go on breaks and they were doing 12 hour shifts. Again, fatigue leads to more mistakes.

Managers reported that staff were phoning in sick and it appeared that there was a real issue with information overload.

One of the biggest problems had to do with camera search and selection. If prompted by a police officer to track someone on camera, operators sometimes didn’t have a clue as to where to go because they weren’t from the area and had no local knowledge.