



Communication and Marketing Department
Isebe loThungelwano neNtengiso
Kommunikasie en Bemerkingsdepartement

Private Bag X3, Rondebosch 7701, South Africa
Welgelegen House, Chapel Road Extension, Rosebank, Cape Town
Tel: +27 (0) 21 650 5427/5428/5674 Fax: +27 (0) 21 650 5628

www.uct.ac.za

1 June 2026

Study finds surveillance technologies can marginalise local communities

A new [research paper](#) co-authored by Grant Oosterwyk of the University of Cape Town's (UCT) [School of Information Technology](#) has argued that surveillance technologies imported from the Global North into postcolonial cities can reshape public debate, governance and understandings of safety in ways that deepen inequality and marginalise community voices. The paper will be presented at the Pacific-Asia Conference on Information Systems in Jakarta, Indonesia in July 2026.

The paper examined the deployment of ShotSpotter, a US-developed acoustic gunshot-detection system, in Cape Town. It explored how surveillance technologies are legitimised in cities shaped by apartheid spatial legacies, institutional mistrust and structural inequality.

Using a Habermasian critical discourse analysis, Oosterwyk and his colleague, Raffaele Ciriello of the University of Sydney, analysed parliamentary debates, municipal communications, media reporting, civil-society documents and community testimonies related to ShotSpotter's rollout in Cape Town.

Their findings suggest that imported surveillance systems are often presented as neutral, data-driven solutions to violence, while obscuring deeper questions about democratic accountability, commercial interests and community participation.

"Our paper showed that when technologies such as ShotSpotter travel from the Global North into postcolonial contexts, they often arrive not simply as tools, but as governance scripts that shape how problems are understood and which solutions appear legitimate," said Oosterwyk.

The paper identified four recurring discursive strategies used by officials, vendors and political actors to frame ShotSpotter as a necessary and authoritative policing intervention. These include technical and definitive language that presents the system as objective and unquestionable, numerical claims presented without independent auditing, passive constructions that obscure vendor responsibility, and metaphors that frame policing as warfare or technological combat.

According to Oosterwyk, these narratives create a "techno-solutionist" understanding of violence, where deeply rooted social and political problems are reduced to technical indicators such as response times, detection accuracy and arrest statistics.

"In contexts marked by historical inequality and institutional instability, these imported scripts risk misrepresenting harm, marginalising local knowledge and narrowing democratic deliberation at the very moment inclusive governance is most needed," he said.

The research paper highlighted how the same promotional language used around ShotSpotter in the United States travels to South Africa, but without the same accountability infrastructure.

"In many US cities, ShotSpotter has faced independent audits, legal challenges and public oversight," Oosterwyk explained. "In Cape Town, similar claims about accuracy and effectiveness have circulated for years without equivalent mechanisms for public scrutiny. That difference matters because it changes the democratic weight those claims carry."

Oosterwyk said that surveillance governance should not be evaluated only through technical performance metrics, but also through questions of legitimacy, transparency and public participation. "Technical audits alone cannot capture the political and institutional dynamics that shape the real-world effects of dragnet surveillance. We need to ask who defines the problem, who controls the evaluation criteria, and who bears the consequences when those frameworks are too narrow."

The paper found that while official discourse emphasised rapid response, "smart policing" and technological precision, community narratives focused on fear, trauma, unemployment, spatial exclusion and mistrust of policing institutions.

Rather than simply rejecting the technology, many residents articulated alternative understandings of safety rooted in community agency, social investment and relational trust.

Oosterwyk said: "Community members were not only questioning whether the technology works. They were also questioning whether violence should be framed primarily as a detection problem instead of a structural one."

He noted that imported surveillance technologies carry embedded assumptions about risk, safety and governance that may not align with local realities.

"Dragnet surveillance systems do more than detect gunfire," he said. "They also shape who is perceived as dangerous, what counts as evidence and where state resources are directed. Those decisions have redistributive consequences."

He further said: "We call for stronger democratic safeguards in the procurement and deployment of public-safety technologies. We recommend independent performance audits, transparent reporting on false alerts and policing outcomes, participatory oversight mechanisms, community-defined safety indicators and greater investment in social infrastructure addressing the root causes of violence."

The paper also proposed a decolonial design review of imported policing technologies to evaluate the governance assumptions and accountability structures embedded in surveillance systems before deployment.

Oosterwyk said that ethical public-safety governance requires more than better technology. "It requires better democratic processes, stronger accountability institutions and meaningful community participation in decisions that directly affect people's lives."

The central challenge posed by surveillance systems, said Oosterwyk, is not primarily technical, but political.

“The key question is not only whether these systems function, but it is also whether they strengthen inclusive public reasoning and democratic legitimacy, or whether they narrow debate in ways that reproduce existing inequalities.”

ENDS

Issued by: UCT Communication and Marketing Department

Ridovhona Mbulaheni

Media Liaison and Monitoring Officer
Communication and Marketing Department
University of Cape Town
Rondebosch
Tel: (021) 650 2333
Cell: (064) 905 3807
Email: ridovhona.mbulaheni@uct.ac.za
Website: www.uct.ac.za