

People here more accepting of drones than those in West, but concerns remain: Survey

The use of drones in security surveillance, food delivery and large-scale performances like the National Day Parade has gained further acceptance by a majority of people here, with more than six in 10 now ready for their widespread use.

A Nanyang Technological University (NTU) survey conducted in 2019 of 1,050 Singaporeans and permanent residents found that people here are potentially less wary of drone technology than their Western counterparts.

Compared with a Swiss sample, for example, 73.6 per cent of people here said they supported commercial drone use, much higher than the 23 per cent polled in the Swiss survey.

Compared with a United States sample, which showed that only 23 per cent of respondents were ready for drone use in the issuing of speeding tickets, some 65.2 per cent of people in the NTU survey were ready to embrace it.

In general, more than 65 per cent of respondents here said they supported the use of unmanned aerial vehicles regardless of whether they are used by the Government, companies or private individuals.

The five authors of the paper concluded that people here are tentatively ready for extensive drone application, but they felt that more remains to be done to address people's concerns over privacy and safety, especially when it comes to drone use in residential areas.

Associate Professor Lim Beng Chong from the Nanyang Business School, who led the research, said: "We can expect drones to become commonplace in our daily lives in future. It is important for policymakers, businesses and regulators to understand how the public feels about the technology, as its acceptance levels will have a direct impact on the scope and pace of adoption."

The paper, published in the scientific journal *Technology In Society* last December, is the first such study in Singapore and possibly in Asia.

The NTU study found that, among the varied applications of drones, four uses were consistently approved by a majority of the respondents, with more than nine in 10 finding them uncontroversial.

They are search and rescue, disaster management, the monitoring of atmospheric conditions, and wildlife or nature reserve management.

The most divisive uses in Singapore's context – deploying drones to issue speeding tickets, for photography or videography, to issue parking tickets and to transport people – were rejected by about four in 10.

The researchers said this was a similar pattern in other countries, as people are most concerned about privacy and their physical safety.

The top worries cited by respondents are the misuse of drones by unauthorised personnel, the inability to identify whether drones are filming or not, drones being a threat to one's physical safety if parts of the drone fall, and the loss of privacy. This also corresponds with respondents' preference that drones be used in industrial rather than residential areas, where more people felt the benefits of drones such as increased security due to better law enforcement were not enough to override concerns over their use.

Professor Low Kin Huat from the NTU School of Mechanical and Aerospace Engineering, who co-wrote the paper, said this has implications on how policymakers can persuade those who remain unconvinced.

"Developers and the authorities can focus their attention on specific things that are problematic to the public," he said.

"If it is a fear of falling parts when drones are flown in residential areas, for example, developers can work on ways to demonstrate that their parts will not become detached."

The survey also found that most Singaporeans are familiar with what drones are, although there is some disbelief that these unmanned vehicles can be as big as, or larger than, commercial aircraft.

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