AVIATION

Potential benefits aside, the use of drones should concern us all

In February, a Robinson R22 helicopter crash-landed in South Carolina, the United States, after it collided with a drone. Fortunately, the occupants of the aircraft were not injured.

Another such collision was reported in Switzerland in May.

Last September, a Black Hawk helicopter collided with a DJI phantom drone in New York. Investigations cited one cause of the accident as "UAS (that is, drone) pilot's incomplete knowledge of the regulations and safe operating procedures".

Safety is the overriding consideration in aviation. Hence, several close encounters between drones and manned aircraft have provoked great anxiety about the safe flight of aircraft, especially during landing approach and take-off.

The incidents could easily have occurred in Kenya. Helicopter usage is quite popular while many drone users are not familiar with the rules governing the use of the airspace; some may not even be aware that such rules exist.

Drones are unsafe in other ways. One can cause injury, or even death, when it strikes someone. The pilot of a remotely piloted aircraft was killed in a freak accident in New York in 2013, after the model aircraft he was flying struck him on the head. Impact by large drones can damage property.

Drones pose other safety risks. They are low-flying and can get entangled with power lines, leading to power outages and the grave danger of fires.

Conversations about the operation of drones revolve around three main issues: Safety, security and privacy.

The second major concern with the proliferation of drones is security. Drones have earned notoriety in recent times due to their wide use in airstrikes by the US military.

Drones come in all shapes and sizes. The Reaper and the Predator, which have been used to wreak havoc in the Middle East, are shaped, sized and powered much like conventional aircraft. In contrast, the DJI Phantom, much beloved by videographers at weddings, weighs just over a kilogramme and is an electrically powered 'quadcopter'.
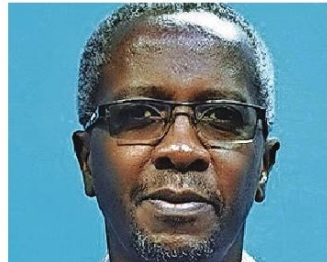
Both types can carry munitions and weapons and be used to inflict damage by both state and non-state actors.

Invasion of privacy

Drones have been flown over prisons to drop mobile phones and other contraband, used for smuggling and employed to carry out surveillance on a target before a crime.

Privacy concerns mainly revolve around unauthorised surveillance and dissemination of privileged information. People are accustomed to protecting their privacy by the use of fences and other physical barriers. They expect to enjoy privacy in their private spaces.

Common law considers two dimensions of invasion of privacy: Intrusion upon seclusion is concerned with the invasion of private space whereas publication of private facts that are offensive and are of no public concern is concerned with dissemination.

Drones can both intrude in private spaces and allow the collection and recording of copious amounts of information. Drones have disrupted fences. Physical barriers no longer guarantee privacy. Drone usage throws us all open to the danger of becoming victims of all manner of Peeping Toms.

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Drones can track people and obtain vast amounts of data about their activities and interactions that could previously only be obtained at a great cost. These can be combined with other sources.

Drones can be equipped with sophisticated equipment such as cameras with face-recognition capability, number plate readers and thermal imaging, stripping us of anonymity.

A drone can follow and hover over someone and cause emotional distress and alarm, introducing the new concept of 'drone stalking'. Several cases have been reported of aggrieved people shooting at drones.

With all these risks, is the drone technology worth it? Should the uptake of this technology be tolerated at all? Why not just ban them? Indeed, the laws governing drones in some countries mirror those that govern guns, cigarettes or alcohol: They betray a grudging toleration of the 'vices' and impose strict sanctions.

And yet drones can contribute to the economy in a big way when used legitimately. Their adoption can create jobs, facilitate technology transfer, contribute to manufacturing, improve security and open up new frontiers of the economy.

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