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SATELLITE IMAGERY THROUGH REMOTE SENSING AND PRIVACY RIGHTS: AN ANALYSIS

Abstract

An increasing demand for Satellite images is evident in the recent past both from users of Governmental and Non-Governmental organisations. This surge in demand for satellite images is driven by their potential application in infrastructure planning, environmental monitoring, natural resource identification, national security monitoring, disaster relief activities, agriculture planning etc.. The privatisation of the remote sensing industry and the continual advancement of Very High Resolution (VHR) remote sensing capabilities have enhanced the vulnerability for privacy infringements. The laws concerning the development of civilian remote sensing satellites include the United Nations Declaration on Outer Space, the Outer Space Treaty, Principles on Remote Sensing the Earth from Outer Space, the International Telecommunication Union Act, ITU Conventions, ITU Radio Regulations, Rules of Procedure, Recommendations, etc. Some legal issues have emerged in the application of remote sensing satellite data, for example, the "Remote Sensing Principles" stipulated the basic principles of data collection, but the rights of remote sensing countries in remote sensing activities were not clearly defined. Moreover, it didn't completely resolve data acquisition, use, and data producers' rights; and the current legal system does not provide clarity on liability issues. It is unclear what level of accountability the state should carry. Access to personal information, which may be accidentally or purposefully recorded in satellite imagery, will undoubtedly change as technology advances. A human in a picture might become recognisable by being contextualised in relation to physical areas, such as neighbourhoods or even houses, for instance. Additional indirect privacy intrusions, such as general concern and mistrust formed by the idea of ongoing satellite surveillance, are possible sources of worry. These worries will only intensify as technology advances. Despite the many benefits of low-cost, high-resolution satellite imaging, privacy is gravely jeopardised by the immediate commercial availability of such information. Combining this publicly available personal data pool with high-resolution image data and the integration and analytical capabilities of modern Geographic Information System (GIS) systems offering geographic keys like longitude and latitude could result in a technical invasion of people's privacy. Moreover, the existing laws are inefficient in safeguarding people's privacy. This paper analyses whether high-resolution satellite imagery can result in a technological invasion of personal privacy and the adequacy of existing laws in protecting individual privacy rights and safeguarding against probable threats to public safety considering the online mapping applications. It also explores the existence of any authorization model for geospatial images to control privacy.