

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)  
Legal Implications of Evolving Remote Sensing Technologies (3)

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DATA LAW ASPECTS OF COMMERCIAL SATELLITE REMOTE SENSING: NEW CHALLENGES  
FOR THE NEW OPPORTUNITIES**Abstract**

The commercial remote sensing services is experiencing a new stage, due to the emergence of big data analysis employing the deep learning technology (so-called artificial intelligence). The transactions in satellite data are no longer “sales” of imagery, but the supply of data collected from the outer space. Such data are to be combined with the data collected elsewhere and analysed mechanically, by employing the deep learning technology. In a couple of decades, it is expected that people will be referring to the satellite data in daily life, just as we “search” on the Internet in everyday activities now. These developments will require the data law aspects of satellite remote sensing, which have almost been neglected, to be examined seriously. Contrary to the general belief that the level of resolution of satellite remote sensing is yet to be sufficient to identify an individual, personal identification could, in fact, be easily made if the satellite data is analysed as part of the big data. It means that the right to privacy and the law on personal data protection are relevant to satellite remote sensing. The bottom line for the operators and service providers dealing with the satellite data is to comply with enhanced security policy for the storage and processing of data, even where the existing remote sensing regulations are not applicable, in order to avoid hampering the utilising of satellite data and facilitate the “data free flow with trust” (as pronounced in the G20 summit in 2019). Given that the satellite data, together with the data collected elsewhere, are processed on the global platform, the norms for the behavior of a platform provider are also important. These include the neutrality of the platform vis-à-vis application providers on the platform and users of the application, as well as the respect for fundamental rights of the subject of the data (persons whose data are collected through satellites and processed on the platform). The statutory regulation of large platforms being considered in Japan, among others, may give implications to this issue. Finally, the data law aspects of satellite remote sensing include the mechanism to ensure reward to those who collect and process data, or intellectual property law in the broad sense. Still, it is doubtful that creating a new type of property will be useful for the industry, in view of the challenges that the electronics and medical science industry are facing due to the parallel existence of patents in one product. A more flexible approach to enable contractual arrangements among the entities involved may be more facilitative to the developments of the satellite data industry.