Semantic Obfuscation in Smart Society

Leonardo Iwaya

I am currently studying in my PhD how to create a privacy-enhancing ontology-based obfuscation mechanism for releasing personal and electronic health records (PHR and EHR) to selected audiences with different degrees of obfuscation in Healthcare Information Systems (HIS). Data minimization and confidentiality should be supported, as different actors, e.g., doctors, nurses and managers, will get access to no more information than needed for their tasks. In addition, an ontology-based obfuscation can be used to minimize the semantic loss, i.e., maximize utility, of data sets that are anonymized for public release.