SIT719

Task 10.1

ACS Report on Privacy Preserving Data Sharing Frameworks

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For the purpose of this assignment we will study the ‘ACS Report on Privacy Preserving Data Sharing Frameworks’ which outlines a privacy-preserving data sharing system, tackling technological issues as well as several difficulties with data sharing

ACS published a technical whitepaper, Data Sharing Frameworks, in September 2017, which discussed the data sharing challenges. The paper highlighted that one major obstacle for the development was the dilemma of whether a dataset includes personal information is being answered by smart services. It is more complicated to decide the answer to this question as the act of integrating datasets produces data. The paper suggested an updated version for data exchange of the Five Safes System that Attempts to quantify various 'Safe' thresholds. The five axis of the system are as follows

- Safe People
- Safe Projects
- Safe Settings
- Safe Data
- Safe Outputs

The idea of a quantified 'Five Safes' data analytics architecture is further developed in this paper and discusses briefly the implications of such structures as data analysis is used by artificially intelligent algorithms.

The Safe People factor can be replaced in the AI environment with algorithms that process data generated for analytical purposes (such as clustering or classification) or for the provision of smart services (such as smart lighting or smart message routing). The setting in which an algorithm performs can be somewhat different from that of a human researcher, and the constraints and scrutiny imposed on an algorithm can be even more invasive than those that can be extended to a human researcher. Consequently, some of the specific conclusions need to be re-examined in the Five Safes System. In certain cases, the behaviours and associated access conditions can be applied more effectively for an artificially intelligent algorithm than for a human, but if adapted over time, monitoring would be required. There is also a need to track any prejudices that form.

Bibliography

Oppermann, I., 2018. Privacy in Data Sharing: A Guide for Business and Government. *ACS White Paper.*