

## Databases (DBs)

Devi (2023) provides a brief review of how to preserve privacy and protect against leakage of sensitive healthcare data by applying Privacy Preserving Data Mining (PPDM) techniques. In the chapter Devi describes standard approaches like anonymization and cryptography. While the title focuses on medical information, the described approaches are not unique and can be applied to other domains. Hewage, Sinha, and Naeem (2023) provided a review of PPDM approaches while focusing on the inherent trade-off between privacy protection and accuracy of the Data-Mining process. The paper also extends its scope to Privacy-Preserving Data Stream Mining (PPDSM) which introduces another challenge due to the processing force requirement which is significantly high compared to the case of static data. Privacy-Preserving Data Mining (PPDM) focuses on protecting sensitive information while extracting useful patterns from static datasets, whereas Privacy-Preserving Data Stream Mining (PPDSM) extends this concept to continuously arriving data streams, addressing additional challenges such as real-time processing, dynamic updates, and resource constraints. Hirschprung (2023) provided a comprehensive review of PPDM techniques aimed to protect privacy when applying Data mining or ML processes. The major approaches are classified into four groups: anonymization (e.g., l-diversity that increases data entropy), randomization (e.g., perturbation that add 'noise' to the data), cryptography (e.g., secure multi-party computation that distributes the data), and privatizing results (e.g., downgrading classifier accuracy, which decreases the amount of information that can be deduced).

## References

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