

Chapter 12

Conclusion



We proposed a classification of differential privacy modifications using the concept of dimensions. When possible, we compared definitions from the same dimension, and we showed that definitions from the different dimensions can be combined to form new, meaningful definitions. In theory, it means that even if there were only three possible ways to change a dimension (e.g., making it weaker or stronger or leaving it as is), this would result in $3^7 = 2187$ possible definitions: The 200 semantically different already existing definitions shown in Fig. 1.1 are only scratching the surface of the space of possible notions.

Using these dimensions, we unified and simplified the different notions proposed in the literature. We highlighted their properties such as composability and whether they satisfy the privacy axioms by either collecting the existing results or creating new proofs, and whenever possible, we showed their relative relations to one another. We hope that this book will make the field of data privacy more organized and easier to navigate in.