

Several Bachelor's/Master's theses in the area of:

## Technical specification and implementation of the right of access by the data subject acc. to Art. 15 GDPR

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### Context

The EU General Data Protection Regulation (GDPR) defines the right of access by the data subject in Art. 15. This right includes the provision of transparent information about processing activities, but primarily Art. 15(3) GDPR asks the controller to provide a data subject with a copy of their personal data on demand [1]. In addition, Art. 20 GDPR (under market competitiveness considerations) guarantees the right to data portability which includes the provision in a structured, commonly used and machine-readable format [3].

### State of the Art & Problem

Until now, organizations/companies try to meet the obligation in various ways: Either they send their clients a (potentially large) raw data archive or provide a general overview through a privacy dashboard. In some cases, APIs are available to provide the data by automated means and, in other cases, only a semi-/unstructured e-mail or a physical storage medium is used as format and carrier. Hence, data subjects are either overloaded with the provided data and are not able to conceive the contained information or they miss standardized mechanisms to exercise their right of access.

### Theses Topics & Goal

Within a future thesis, technical specifications in forms of data communication protocols, structured representation formats, business process definitions or other elaborated methods shall be implemented to exercise (as a data subject) and adhere to (as a data controller) the right of access. A desirable outcome may include new ideas (which are defined together by the candidate and our team) to reflect a *selection* of the following research questions per thesis:

- How to initiate and monitor the process of the provision of a personal data copy (*business process definition*)? How can a data subject verify that the copy is complete (*protocol; channel definition*)? How can the personal identification problem be solved?

- Through which automated means and in which data format(s) can personal data be provided by the data controller such that, eventually, (average) data subjects are well informed (*technical implementation of server/client components*)? How can data copies from multiple providers be combined or compared (*storage and CHI*)?

The findings are evaluated based on a set of previously defined technical and legal requirements. In case of existing related solutions, the new approach needs to be evaluated comparatively. All technical artifacts need to be critically reflected with regards to the introduced overhead and/or the compatibility to real-world (distributed) systems. Preferably, the candidate interacts – assisted by our team – with real-world data controllers. The exact scope of a thesis is defined together with the candidate based on their interests and skills.

### Skills

- Good (web) programming skills
- Interest in the development of privacy enhancing technologies and the GDPR

### References

- [1] Example of a business model for this process: <https://dilecy.eu/produkt>
- [2] De Hert, P., Papakonstantinou, V., Malgieri, G., Beslay, L., & Sanchez, I. (2018). The right to data portability in the GDPR: Towards user-centric interoperability of digital services. *Computer Law & Security Review*, 34(2), 193-203.
- [3] Example of a planned industry standard: <https://datatransferproject.dev>
- [4] Alizadeh, F., Jakobi, T., Boldt, J., & Stevens, G. (2019). GDPR-Reality check on the right to access data: claiming and investigating personally identifiable data from companies. In *Proceedings of Mensch und Computer 2019* (pp. 811-814).

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### Our Mission:

Our lectures cover fundamental methods and techniques in the areas of service computing, cloud computing, and enterprise computing. We like to engage students in hands-on building of distributed information systems and to take an interdisciplinary approach to evaluating such systems. Through a close mentoring of students, especially in our seminars, we aim to introduce students to our ongoing research and to excite them to do future studies and research with us.