

Identity management by design based on the GDPR

Iterative protection of dynamic identities with a technical mediator

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Overview & Background

I am a post doc in the interdisciplinary competence Center of KASTEL with the research focus on Identity protection under the GDPR and the law of information and communications technology. The purpose of the research is the implementation of legal standards into privacy related technologies.

In my publications and research on personal identities in the GDPR I applied an interdisciplinary approach taking game theory, behavioral economics, philosophy and social psychology into account. With these disciplines the effectiveness of data protection law was subject to scrutiny. In particular with the game theoretical modelling of the GDPR the needs for a differentiated protection of personal data were determined. The general application of pseudonymisation and anonymisation methods are one important component for identity protection. However, the dynamic notion of personal identity requires an iterative process in order to guarantee personal development in the online-context.

These works lead to new definitions based on the European Charter of Fundamental Rights on „personal identity“ and „identity management“. Furthermore the need for a technical mediator based on mediation law on a micro and macro level was defined. On a micro level a concept of „identity management by design“ as a technical mediator for example as a „Dashboardsystem“ should be established. And on a macro level a trusted third party could serve individuals by embodying the principles of mediation. Such technical schemes would ensure a high level of privacy protection.

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Topic discussion

I am interested in the scientific views from other technical disciplines in order to transfer these legal research findings into practical technical solutions. The term of „state of the art“ could be a subject of applying further legal principles. Thus the concept of „privacy by design“ is one prominent example, which should be subject of discussion regarding the argued equating of personal data and personal identities in the GDPR. I would like to contribute in a workshop a broad notion of identity protection rather than a static notion of identity management. The static notion referring to a concept of identity management as access management is from a legal perspective highly questionable. Thus a paradigm shift from a static notion to a dynamic notion of identity protection should be determined also for technical solutions.

Related works:

- [Identity management in ICT-systems: Game-theoretic justification of a mediation Agent for negotiating personal identities \(German Dissertation\)](#)
- [Game-theoretical Model on the GDPR - Market for Lemons? JIPITEC 2019, pp. 200](#)
- [Game-theoretical Model on processing personal data, DuD 2019, pp. 270](#)
- [Identity management in the blockchain? Legal considerations using the example of](#)
- [the Internet of Things, IRIS 2019 Symposium, Jusletter IT & Speech - German](#)
- [Systematization of IT security law, CR 2018, pp. 706 \(third author\) - German](#)

Other topics you think the workshop should cover?

- Identifying those technologies that generate dynamic identities such as profiles. - How can the generated images of personal identities be made accessible for the data subject?
- How can an iterative protection of personal identities be transferred into a unified technical standard?
- Are there technological limitations on the protection of dynamic personal identities?
- How can an effective technical mechanism of control over personal identities look like?
- Which technologies already exist that include the principles of a mediator (neutrality, impartiality, non-discriminatory, abstinence from solutions regarding a „final identity profile“)

(This is a revised declaration of interest, updated on 2021-11-13. The update was done because the new version provides more and better information. – Rigo Wenning, Workshop Chair –)