

V. Conclusion

The thesis builds on basic concepts in order to answer the research question -does the GDPR provide a conducive framework for a blockchain based digital identity management tool. The discussion on privacy, identity and data protection leads to a point of convergence where although right to data protection is distinct from right to privacy, yet it is understood as adding value to it. Right to data protection achieves this value-addition by promoting informational self-determination and individual personality rights. In light of the increasing prowess of collection and processing of data, profiling is identified as a real threat to personal autonomy of an individual. Identity takes centre-stage in this discussion on automated processing of personal data and the limitations of the GDPR are highlighted in this context. Accordingly, the author finds favour with the incorporation of a right to identity within the GDPR would provide the requisite mandate for arresting the threat posed by the proliferation of profiling in the age of IoT. Relying on this right to identity could provide the adequate legal mandate for developing a digital identity management solution based on the blockchain model.

The thesis also seeks to evaluate the assertion that the GDPR is a technologically neutral legislation or a technology neutral one. It remains to be seen how far the GDPR in its current form is able to assimilate/resolve the contradictions posed by applications of blockchain technology. Particularly, the digital identity management solution built on a blockchain model faces many hurdles before even getting close to achieving its dream goal of establishing a self-sovereign identity –a scenario where the data subject is in full control of her personal data to the exclusion of others.

In law and technology literature the term ‘law lag’ is used to depict the inadequacy of existing legal provisions to deal with a social, cultural or commercial context created by rapid advances in information and communication technology.¹⁴⁷ To avoid being characterized by ‘law lag’, it is pertinent that the provisions of GDPR are interpreted to allow new technolo-

147 John H. Clippinger and David Bollier (eds), *From Bitcoin to Burning Man and Beyond: The Quest for Identity and Autonomy in a Digital Society* (Institute for Institutional Innovation by Data-Driven Design 2014), 138.

gies to come forward and help with the mammoth task that is data protection. In that context, a co-regulation approach is proposed, where standard setting organisations can assist the GDPR in meeting the challenge posed by emerging technologies. Going through a standard-setting procedure is particularly favourable for blockchain based digital identity management solution because it gets to prove its credibility and upon being incorporated as a standard, would attain a *de facto* legal status.

The EU holds the distinction for being the vanguard of data protection movement. It is then naturally incumbent upon it to be alive to the promises and possibilities that blockchain technology has to offer for revolutionizing this movement. Therefore, the provisions of the GDPR should not be interpreted narrowly and be mindful of the pace at which the technology is developing. The provision on 'legitimate interests' provides significant leeway to interpret the GDPR in a manner conducive to a blockchain-based solution for data protection. Moreover, instead of nipping it in the bud, a blockchain approach for a digital identity management solution could also be encouraged to make requisite changes to the existing models. The potential of adaptability of the blockchain is evident in the manner in which off-chain storage is being suggested in addition to the possibility for an editable blockchain. This requires keeping channels of communication open between the regulators and the industry.

In case the proposed approach is able to reconcile the promise of blockchain technology with the challenges posed by GDPR, another question that arises is if returning control over personal data to the data subject in this manner would find favour with the discussion regarding creating ownership in data. It would be interesting to see how the business models relying on collection and processing of data would respond.

A daunting task, during the course of writing this thesis, was to find good references for the blockchain applications beyond Bitcoin. Most of the research at the time was published in blogs, conferences, symposiums and workshops. The need for high quality journals where the focus is on blockchain was deeply felt.¹⁴⁸ However, it is a humble attempt to bring to the table a host of questions that face the viability of a digital identity

148 Yli-Huomo J, Ko D, Choi S, Park S, Smolander K (2016) Where Is Current Research on Blockchain Technology?—A Systematic Review. PLoS ONE 11(10): e0163477. <<https://doi.org/10.1371/journal.pone.0163477>> accessed 12 September 2017.

management solution built on a blockchain, if not adequately answer them.

