

The Impact of Blockchain on Healthcare

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There is currently the problem of health information inequality and health information leakage (Azaria, Ekblaw, Vieira, & Lippman, 2016). Physicians should conduct essential routine work that wastes human and financial resources and delays treatment processes. Blockchain provides a trust-free and cost-reducing solution to manage and secure valuable health information. Despite the promising potential of blockchain in healthcare, extant scientific literature provides scattered efforts that hinder successful blockchain adoption. The objective of the thesis is to gather blockchain application cases in healthcare based on the literature review (vom Brocke et al., 2009; Webster & Watson, 2002). We answer the research question “How can blockchain support healthcare in various aspects including health information exchange, medical payments, clinical trials monitoring?” The results of the thesis discuss the impact of blockchain on healthcare. We contribute to the scientific literature by structuring the scientific efforts and provide recommendations for further research. Practitioners can benefit from the thesis by informing decision-making regarding projects, which aim to support the current healthcare ecosystem with blockchain.

References

- Azaria, A., Ekblaw, A., Vieira, T., & Lippman, A. (2016). MedRec: Using blockchain for medical data access and permission management. In *2nd International Conference on Open and Big Data (OBD)* (pp. 25–30).
- vom Brocke, J., Simons, A., Niehaves, B., Riemer, K., Plattfaut, R., Cleven, A., ... Reimer, K. (2009). Reconstructing the Giant: On the Importance of Rigour in Documenting the Literature Search Process. *17th European Conference on Information Systems, 9*, 2206–2217.
- Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly, 26*(2), xiii–xxiii.