

## Accepted Manuscript

The limits of trust-free systems: A literature review on blockchain technology and trust in the sharing economy

Florian Hawlitschek, Benedikt Notheisen, Timm Teubner

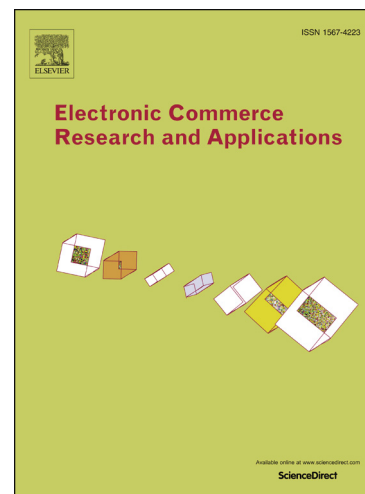
PII: S1567-4223(18)30029-2  
DOI: <https://doi.org/10.1016/j.elerap.2018.03.005>  
Reference: ELERAP 780

To appear in: *Electronic Commerce Research and Applications*

Received Date: 4 September 2017  
Revised Date: 30 January 2018  
Accepted Date: 6 March 2018

Please cite this article as: F. Hawlitschek, B. Notheisen, T. Teubner, The limits of trust-free systems: A literature review on blockchain technology and trust in the sharing economy, *Electronic Commerce Research and Applications* (2018), doi: <https://doi.org/10.1016/j.elerap.2018.03.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



# ***The limits of trust-free systems: A literature review on blockchain technology and trust in the sharing economy***

Florian Hawlitschek<sup>1</sup>, Benedikt Notheisen<sup>2</sup>, Timm Teubner<sup>3</sup>

## **Abstract**

At the tip of the hype cycle, trust-free systems based on blockchain technology promise to revolutionize interactions between peers that require high degrees of trust, usually facilitated by third party providers. Peer-to-peer platforms for resource sharing represent a frequently discussed field of application for “trust-free” blockchain technology. However, trust between peers plays a crucial and complex role in virtually all sharing economy interactions. In this article, we hence shed light on how these conflicting notions may be resolved and explore the potential of blockchain technology for dissolving the issue of trust in the sharing economy. By means of a dual literature review we find that 1) the conceptualization of trust differs substantially between the contexts of blockchain and the sharing economy, 2) blockchain technology is to some degree suitable to replace trust in platform providers, and that 3) trust-free systems are hardly transferable to sharing economy interactions and will crucially depend on the development of trusted interfaces for blockchain-based sharing economy ecosystems.

**Keywords** *Blockchain, Sharing economy, Trust, Trust-free system, Literature Review*

**Acknowledgement**—We would like to thank Christopher Mertens for his valuable assistance and Christof Weinhardt for his support during the elaboration of the foundations of this article. Furthermore, we would like to thank the reviewers and participants involved in the 17th International Conference on Group Decision and Negotiation for their feedback, as well as the editors and reviewers of Electronic Commerce Research and Applications. Finally, financial support of Boerse Stuttgart is gratefully acknowledged.

---

<sup>1</sup> **Corresponding author**, M.Sc., Research Associate, [florian.hawlitschek@kit.edu](mailto:florian.hawlitschek@kit.edu), Phone: +49 (721) 608-48387,

<sup>2</sup> M.Sc., Research Associate, [benedikt.notheisen@kit.edu](mailto:benedikt.notheisen@kit.edu), Phone: +49 (721) 608-48374,

<sup>3</sup> Dr., Head of Division Electronic Markets & User Behavior, [tim.teubner@kit.edu](mailto:tim.teubner@kit.edu), Phone: +49 (721) 608-48389,

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات