Qeios

Peer Review

Review of: "Truvry: Portable, Decentralized Trust Proofs for Inclusive Digital Participation and Democratic Decision-Making"

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Truvry positions itself as a new layer in the trust infrastructure stack, complementing but not replacing DIDs, verifiable credentials, or platform-level ratings. It addresses the semantic gap between behavior and credential by transforming observed patterns into structured trust narratives. The work done is very novel, as to date no such protocol exists with a comprehensive mechanism for authentication and helps make the online voting process hereafter more decentralized and trustable. The rule-based scoring engine correctly generated trust proofs aligned with manually scored ground truth in 102 out of 112 test cases. The results show the accuracy of the work and also that the work considered many metrics to prove its validity. The precision and recall of the work done are more than 85%. Tests were executed across local and cloud environments; timings are end-to-end. We report both mean and median; unless stated, times are means. The average end-to-end time for generating and publishing a verifiable trust proof was 3.7 seconds, measured across 112 runs on free-tier infrastructure (GitHub Pages + IPFS). Also, the false positive rate is less than 5%. The time taken for authentication is also very low to accept the protocol.

Declarations

Potential competing interests: No potential competing interests to declare.

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