

A Solid-powered decentralised social network for academics: An evaluation of key considerations for developing practical Solid-powered applications

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Contemporary Social Networking applications are centralised, provide limited access control capabilities which are driven by dense privacy policies subject to change due to business considerations. Additionally, data ownership is impossible, interoperability between applications is in-feasible, and privacy of user data is not guaranteed.

Decentralisation is a potential solution to some of these problems, and Solid is a project that intends to make a fully decentralised read/write Semantic Web a reality. Solid is a set of standards and tools whose core tenets are decentralisation, complete and customisable access control, full data ownership, and reusable code.

With this study, we aimed to learn about Solid and to evaluate the developer experience. The objective was to produce a proof-of-concept Solid application, arrive at a set of guidelines for Solid development, and recommend improvements to Solid. A critical analysis of the developer experience revealed that Solid, though promising and important, is not yet ready for general uptake as the specification is not frozen. Solid development requires considerable prior knowledge of Linked Data and additional concepts such as Web Access Control, and the existing learning resources are inadequate. Thus, the developer experience is not mature enough to be scalable.