

Solid Pods Vs Personal Knowledge Graphs: Similarities and Differences

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Abstract

Solid Pods and Personal Knowledge Graphs are pioneering constructs within the Semantic Web community, each offering unique avenues for empowering individuals in the digital realm. Solid Pods stand as decentralized bastions of data control which grant users unprecedented authority over their digital presence, ensuring ownership, privacy and portability of personal data. Personal Knowledge Graphs infuse personal data and activity with contextual relevance, facilitating the synthesis and discovery of knowledge. This paper aims to briefly reflect on the main similarities as common and grey ground and differences among the Solid Pods and Personal Knowledge Graphs.

Keywords

PKGs, Personalised Knowledge Graph (PKG), Solid platform, Web Decentralization, Social Web, Linked Data Platform (LDP)

1. The similarities

Solid Pods and Personal Knowledge Graphs (PKGs) are Semantic Web initiatives that are developed **following the community standards**. Both Solid Pods and PKGs share the overarching goal of **empowering individuals** within the digital sphere while offering **decentralized solutions** for user's data. Solid Pods, pioneered by Tim Berners-Lee and his team [1], is an initiative that brought attention to the **user-centric data management** and **leverage of personal data**. In the same line, PKGs [2] emerge as **dynamic entities**, which can evolve organically, mirroring the perpetual evolution of personal understanding and information acquisition. Moreover, both Solid Pods and PKGs have shown early signs of **real-life adaptations**¹[3] and broad usability in downstream applications. Consequently, the synergy between Solid Pods and Personal Knowledge Graphs marks a transformative epoch in personal data management and knowledge cultivation, with promises of a decentralized user-centric data management future in web applications.

2. The grey ground


In the between of similarities and differences stands the void of specific information regarding the actual details and characteristics of the PKGs implementations. The grey ground we find

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¹<https://www.inrupt.com/blog/flanders-solid>

mainly the **privacy, security and access and usage control**. By disentangling data from specific applications, Solid Pods inaugurate a user-centric data management, wherein privacy and autonomy reign supreme. On the other hand, there is little information regarding the PKGs applications and their risk assessment regarding the preservation of security and privacy, and how they implement, if any, access and usage control.

3. The differences

While both Solid Pods and Personal Knowledge Graphs share the overarching goal of empowering individuals within the digital sphere, they traverse distinct trajectories, each emphasizing different facets of data management and knowledge organization. Solid Pods prioritize **data ownership** to the end user, while providing users with a sanctuary amid the expanding digital landscape. In contrast, PKGs underscore the journey of knowledge exploration, having the data ownership to the application platform they were developed. Due to the bound to the platform they were developed, PKGs usually do not offer **transparency** for how the users' data and activity is stored and processed, which contradicts the Pod's vision. Moreover, the vision of Solid Pods is to make the **data independent** of any application[4], while the PKGs aim to take advantage of the interconnections between the data to offer better performance on a specific application in the platform. Furthermore, the driving forces of each technology have characteristic differences that reflect on their **development** and adaptation of applications. The Solid Pods are the result of a dedicated team that introduced the standards for the Pods' implementation. Contradicting to this centralized approach, the PKGs are neither guided nor following specific standards, leading to each implementation emphasizing to different characteristics and offering sparse capabilities.

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