How do users want this (in a media context)?

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Despite the growing importance of personal information management systems (PIMSs), such as personal data stores (PDSs), there is a lack of understanding of how end-users perceive these technologies, particularly when implemented within a media context. Delving into the evolving landscape of personal data management and media practices, this study explores (1) the adoption potential of personal data vaults among Flemish media users, (2) evaluates the drivers and barriers of PDSs among young adults, and (3) delineates media use cases enabled by PDSs originating from an ideation process. This study utilized a mixed-method approach consisting of two surveys among media users in general and young adults in particular (N = 826, N = 282) and three focus groups with media users and stakeholders (N = 28).

The survey results indicate that a media service enabled by a personal data vault demonstrates limited added value among the Flemish population. This discrepancy arises from a comparison with other domains that are intrinsic to data management, such as health and finance, and therefore, where Solid technology has more tangible benefits. Consequently, older demographics, less accustomed to digital innovations, perceive Solid applications in media as less useful compared to their younger counterparts. Overall, the perceived value of a media data vault hinges on two critical factors: the enjoyment derived from its use and the assurance of facilitating conditions, such as technical support. To broaden its adoption, it is imperative to emphasize the user-friendly nature and seamless integration of the technology with existing media consumption habits.

Our adoption potential estimation of personal data vaults observes a slower uptake than theoretically expected. Barriers, including the increasing awareness of data privacy and a lack of knowledge about PDS, and a large, differentiated group of late majority adopters impede the adoption of personal data vaults within the context of media services. Therefore, we closely examine the group of media users who value PDS for media services the most, i.e., adolescent media users, further segmented into three profiles: privacy pioneers, suspicious stragglers, and worriless weathercocks. While the group of worriless weathercocks is willing to provide various data types in exchange for media-focused functionalities, the privacy pioneers are only willing to share media-related data and preferably for transparency- and control-enhancing functionalities.

The ideation workshop with media stakeholders yielded over 120 ideas, which could be thematically clustered into five categories; datafication, personalization, ease of use, social media experiences, and security and trust. Three ideas in particular gained broad consensus among the media representatives, namely: data management dashboard, streamlined authentication, and cross-platform data integration. The attending media representatives highlighted the importance of these ideas in relation to the current challenges the media sector faces, such as mitigating the trade-off between transparency and privacy, enhancing user trust and control, and facilitating data sharing and standardization.

The vast array of ideas was narrowed down to a manageable list of 30, which were subsequently evaluated by media users across two workshops based on its perceived usefulness and novelty.

Regardless of attitudes towards personal data vaults, ideas focusing on data integrity, granular control over personal data, transparency, and ease of use were evaluated as more useful. Regarding the novelty level of the ideas, transparency and awareness emerged as decisive factors. Ideas addressing the social aspect of media experiences received little enthusiasm from media users in terms of its usefulness and novelty. Additionally, the potential to enrich recommendations with external data sources, such as leisure and sensor data, was also perceived as less useful.

In summary, this mixed-method research on Solid technology within the media context revealed a wide range of ideas and challenges faced by both media stakeholders and potential media users. Media companies are in need of more relevant user data, a need that sometimes clashes with the growing privacy awareness among end-users. This challenge reflects the ongoing tension in which companies operate, striving for an optimal user experience while also respecting the privacy and control of end-users (Nissenbaum, 2009; Van Buggenhout et al., 2023). Further, based on the results from the ideation process, multiple use cases will be developed into tangible prototypes within the Solid4Media project. By implementing these within a living lab context, both the technical Solid infrastructure and end-user experiences with these Solid-based services will be evaluated. Strongly supported ideas, such as personalized recommendations and a data management dashboard, deserve further testing and evaluation. The prerequisites that emerged from the surveys and during the workshops, such as data awareness and control, transparency, and trust, will be taken into account in follow-up research.

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