

Can users cope with this? Exploring the effects of data vault integration on user experience and adoption potential

Short abstract of a talk at Solid Symposium, Leuven, May 2nd 2024

In this session, we present the findings from two experiments conducted last year, focusing on integrating data vaults into news websites and factors influencing the adoption of Solid by end users.

The first experiment investigated the impact of integrating a data vault into a news website on users' experiences. Three versions of a news website were created, each offering personalised news article recommendations based on previous reading behaviour. The primary difference among these versions was the kind of personal data processing. The first version used traditional cookies without offering insights or control over data processing. The second version employed a data vault, giving users transparency through a tab showing stored data and reading behaviour insights (see Figure 1). The third version also allowed users to delete data from their vault via the tab, giving them control over their news feed.

Participants interacted with one of these versions for 10 minutes and were then surveyed on their perceptions of transparency, control, and understanding of their data processing. Results showed that the data vault integration significantly increased perceived transparency, control, and understanding compared to the cookie-based approach. Notably, there was no significant difference between the two data vault conditions, suggesting that transparency alone can enhance users' sense of control. However, the data vault did not significantly impact the website's trust, usability, or intention to use.

Given these results, the second experiment aimed to delve deeper into factors influencing data vault adoption, guided by the Technology Acceptance Model. Participants were asked to create a data vault before accessing a news website, with the registration screen highlighting different benefits: enhanced control, enhanced personalisation, or single sign-on (SSO). Findings revealed that emphasising personalisation and SSO significantly increased the likelihood of users creating a data vault compared to emphasising control.

To conclude, while data vaults improve users' perceptions of transparency, control, and understanding, promoting their adoption requires emphasising specific benefits like personalisation and SSO. This highlights Solid's potential to enhance user experience through careful consideration of interface design and a focus on what it affords end users.

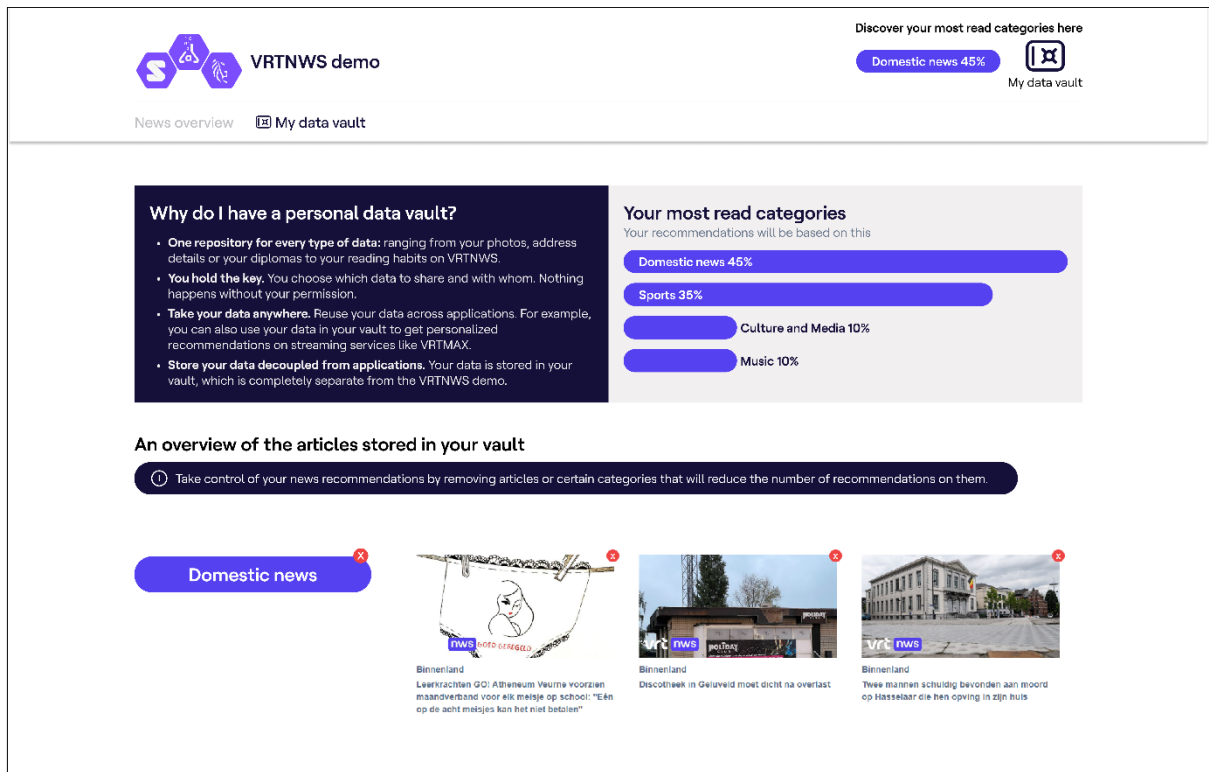


Figure 1: Screenshot from the data vault tab used in the experiment

Contact: tim.theys@ugent.be or august.bourgeus@vub.be