The design challenge: key drivers of consumers' adoption of data sharing platforms

By recognizing the several advantages of **blockchain-based** data sharing platforms, in recent years both academics and practitioners have mainly focused on analyzing and developing the **technical components** of blockchain-based applications, often fitting the needs and perspective of the service providers.
Less is known about individuals' intentions to adopt blockchain-based systems, specifically whether they perceive themselves as **motivated to** and capable of **taking greater control** of their data sharing, whether they are **willing to share data** when blockchain is incorporated into the system, what concerns they may have about blockchain-based data sharing, and how these concerns can be addressed to **enhance their intention**. Understanding these questions may not only contribute to better understanding consumers' receptiveness to blockchain-based solutions, but also inform UX designers and marketing specialists about the issues that they are likely to encounter when designing a data sharing platform or ecommerce site, allowing them to improve the **user centeredness** of the final product.

Boosting willingness to share data by design features

User research on data sharing platforms, targeting application domains close to the ones addressed by KRAKEN, has shown that consumers recognize the benefits of blockchain for augmented security and privacy, in particular if the platform provides **key recovery services** as well as data sellers' stipulated policies providing the chance to **revoke access** or **consent to use data** by third parties. The KRAKEN platform and marketplace will enforce these consumers-centered features and contribute to **educate users** on how to best keep control of access to their data. It is likely that consumers' willingness to share their data is mostly affected by factors such as the end purpose of the third party (i.e., making money or research purposes), therefore enabling mechanisms to support decision-making by the data seller will sound more appealing to a wider audience of potential users of the platform. More reflection is also needed on how to **incentivize data sharing** through blockchain-based systems, by taking into account that some categories of data sellers, in the biomedical or healthcare domain for instance, might place greater value on receiving nonmonetary forms of compensation (e.g., free treatment, shared research results) instead of value tokens or cryptocurrencies. These examples of design options stress the importance of understanding **consumers' needs and preferences** for enabling a more successful coevolution and adoption of data sharing platforms, by optimizing and better deploying advanced technical capabilities of blockchain-based solutions with their users' behaviors.

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Author

Silvia Gabrielli, Researcher and Project Manager at *Digital Health Lab*, Fondazione Bruno Kessler