





A Reliable Privacy and Security Iconography

The Interdisciplinary Research group in Socio-Technical Cybersecurity (IRiSC¹ - University of Luxembourg's Centre for Security, Reliability and Trust) have set up a research proposal meant to establish a reliable, standardised design and use of visual design patterns in the data protection, privacy and security domains.

The research addresses issues concerning icons and other graphical cues that presumptively improve the **transparency and comprehensibility of online information** addressed to users, as indicated in Article 12(7) of the GDPR. The expected contributions are the following:

- 1. a **critical evaluation of icons as effective means of communication** of data protection, privacy and security concepts on online documents and interfaces, like privacy and security policies, consent dialogs, and privacy dashboards (see example images below).
- 2. insights about the extent to which icons can be considered an **appropriate means to enhance the transparency of information** provided to data subjects, as envisaged by Art.12.7 GDPR.
- 3. **evidence-based guidelines for the meaningful implementation** of icons and other visual design solutions in multiple scenarios where the transparency of information is crucial and laid down by the law. The guidelines are meant to help organizations enhance their transparency practices and demonstrate accountability through the provision of principles, evidence about the efficacy of certain visual designs, and examples. They also aim to encourage more extensive research and real-world applications, even beyond data protection (e.g. security, consumer protection, finance).

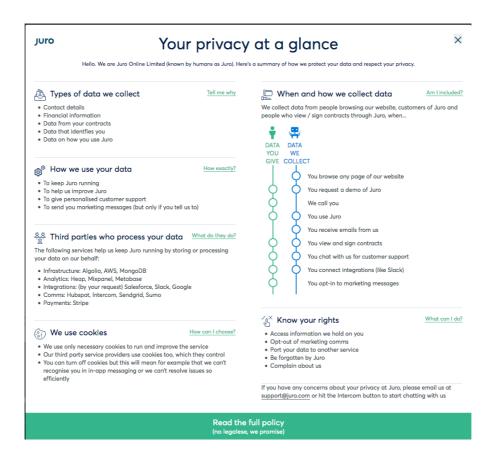
The research will develop a **holistic approach to the design of icons as effective means of communication** in cases where the consequences of misrepresentation or misinterpretation of the visual communication can be far-reaching. This requires the determination of properties of transparency and additional characteristics that contribute to high-quality icon design. These are measures of quality for icons **in isolation** (e.g., legibility, comprehensibility, etc.) and with respect to their function in different implementation scenarios (e.g., the extent to which they support the users in their tasks), like standardized layered **privacy policies** and **user interfaces for consent management and privacy identity management**.

Finally, the project will determine if, compared to a textual privacy policy, the combination of text and icons provides a "meaningful overview of the intended processing" in a significantly enhanced "easily visible, intelligible and clearly legible manner" and with enhanced user experience with respect to pure prose; or if rather other graphical means (in combination with icons or not) are more effective towards this goal.

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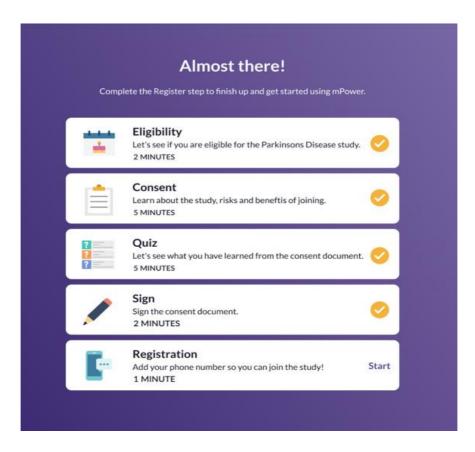


Juro's privacy policy: https://juro.com/#privacy-popup
Redesign by Stefania Passera https://stefaniapassera.com/



Privacy dashboard

Tesfay, W. B., Hofmann, P., Nakamura, T., Kiyomoto, S., & Serna, J. (2018, March). Privacyguide: Towards an implementation of the EU GDPR on internet privacy policy evaluation. In *Proceedings of the Fourth ACM International Workshop on Security and Privacy Analytics* (pp. 15-21). https://dl.acm.org/doi/10.1145/3180445.3180447





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SageBionetworks Governance Team (2020, January) *The Elements of Informed Consent. A Toolkit V3.0.* Available at https://sagebionetworks.org/wp-content/uploads/2019/07/SageBio_EIC-Toolkit_V2_17July19_final.pdf