What if Data Sharing was an Open Decision?

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SCAN FOR POSTER AND INFOGRAPHICS

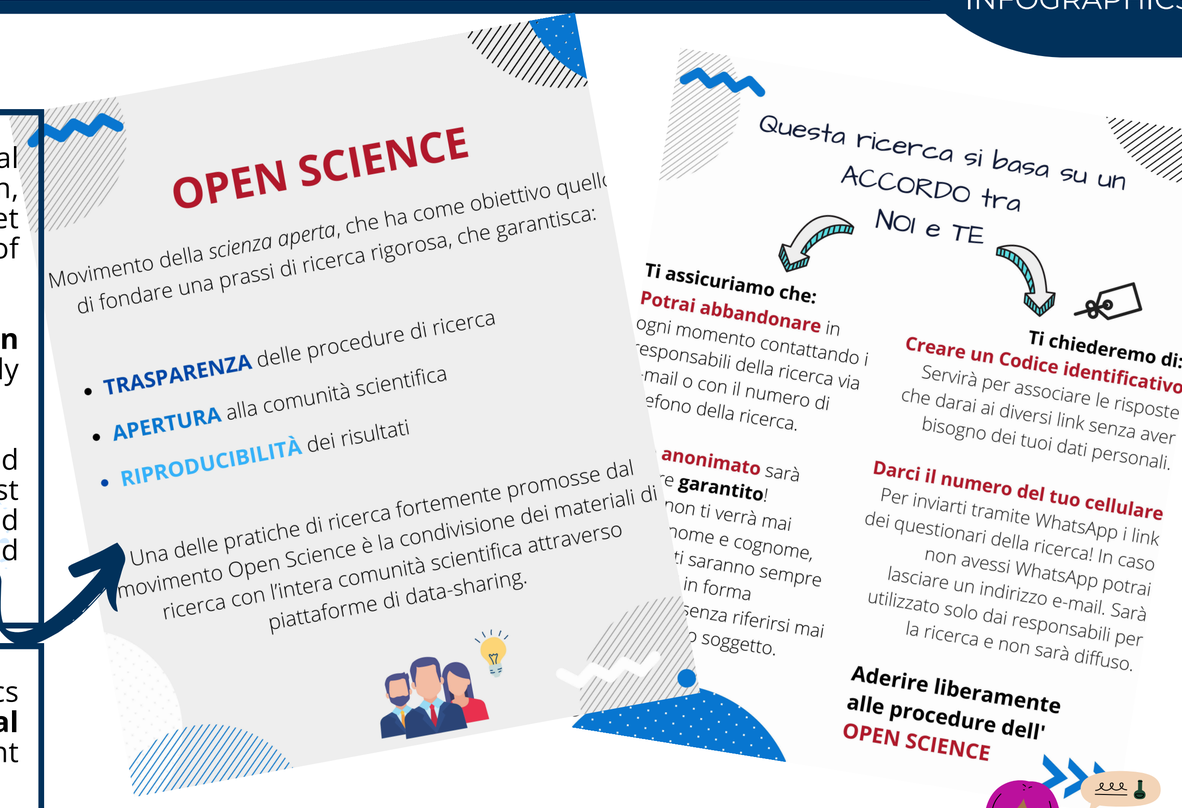
Aim and Method

Data sharing is a cornerstone of Open Science but is surrounded by ethical and methodological challenges (Munafò et al., 2017). **Informed consent** should go beyond mere authorization, ensuring participants fully understand the implications of data sharing before agreeing (Miller et al., 2011). Despite growing awareness, researchers largely retain control over the extent of participant involvement in data-sharing decisions.

In our view, it is essential to provide a **comprehensive explanation** of the principles of **open science** and the purposes and procedures of **data sharing** so that participants feel actively involved in the process and can make informed choices.

Our proposal is to enhance **participants' awareness** through **infographics** about principles and procedures of open science and data sharing. In the four presented studies, participants were first informed via infographics, equipping them with the knowledge needed to make informed decisions. Subsequently, they had the option to decide whether to participate in the research and whether to share their data or not.

We present **descriptive statistics** on participant rights from our 4 studies that used infographics to explain informed consent and data sharing. Additionally, we report the results of a **multinomial logistic regression** examining which demographic characteristics (gender, age, and employment status) and data collection variables (study and compensation) relate to data-sharing decisions.



Results

MORE DETAILS AT OSF

	People who **accessed** the online survey	People who **completed** the questionnaire regarding their rights as participant	People who declared that they have read, **understood**, and are aware of their rights	People who gave consent to **participate**	People who gave consent to **participate and to share their data**
GIOVANI&COVID • 2020-2021 • intensive longitudinal	n = **845**	55.7% (n = 471)	51.6% (n = 436)	51.4% (n = 434)	42.5% (n = **359**) 82.7% among people who agreed to participate in the study
CHATGPT&TAM • 2023 • cross-sectional	n = **615**	81.3% (n = 500)	80.2% (n = 493)	79.0% (n = 486)	78.7% (n = **484**) 99.6% among people who agreed to participate in the study
ScientificReasoning2 (SRS1) • 2024 • cross-sectional	n = **626**	72.0% (n = 451)	67.6% (n = 423)	67.1% (n = 420)	66.0% (n = **413**) 98.3% among people who agreed to participate in the study
ScientificReasoning2 (SRS2) • 2024-2025 • cross-sectional	n = **2298**	96.3%, n = 2214	92.4% (n = 2123)	91.8% (n = 2109)	89.7% (n = **2062**) 97.9% among people who agreed to participate in the study

By combining participants who gave consent to participate and to share their data across the four studie (N = **3318**), we conducted a multinomial logistic regression ($p > .001$; McFadden's $R^2 = 0.346$) to identify the factors that predicted participants' likelihood of sharing their data.

Predictor		Coef.	Std. Err.	p-val.	OR [CI Lower – CI Upper]
Study					
Giovani&Covid	*ChatGPT&TAM*	19.64	1824.90	.991	3.37×10^{8} [0.00 - ∞]
	SRS1	3.11	0.55	**< .001**	22.47 [7.63 - 66.16]
	SRS2	37.43	2000.82	.985	1.80×10^{16} [.00 - ∞]
Reward					
None	*Monetary*	-16.79	1824.90	.993	5.13×10^{-8} [.00 - ∞]
Employment status					
Student	*Worker*	-.24	.30	.419	.78 [.43 - 1.42]
	Other	15.83	1415.90	.991	7.46×10^{6} [.00 - ∞]
Gender					
Male	*Female*	.20	0.30	.518	1.22 [.67 - 2.21]
Age		**-.05**	0.02	**.016**	.95 [.91 - .99]

Discussion

- **Younger participants** are more likely to share their data. This aligns with past research showing younger people, familiar with social media, are more open to data sharing, while older individuals tend to be more cautious (Armantier et al., 2024).

- Participants in the ***Giovani&Covid*** were less likely to share data than those in the ***SRS1***. The difference between the two studies may be due to:

1. Regarding the *Giovani&Covid*:
   - **Higher burden** due to the research design (T0 - daily diary - T1);
   - A rigorous **rights-confirmation process**,which ensured that participants fully understood data sharing and their rights by requiring them to correctly answer comprehension questions before giving consent to participate.
   - The **historical context**: In 2021, there was a strong debate about the credibility and trust in science.
2. Regarding the *SRS1*, as a consistent portion of the sample was recruited throught a snowball sampling method from the PI's personal contacts, participants might have been more prone to share data due to an authority bias.

FUTURE PERSPECTIVES

Results of this exploratory work raise many research questions:

- How can we ensure that participants genuinely understand their rights, the research characteristics, and data-sharing procedures before giving consent?
- Do participants' **attitudes** toward data sharing and more broadly **toward scientific research**, change before and after being informed about the principles and goals of open science and data sharing?

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Miller, F. G., & Wertheimer, A. (2011). The fair transaction model of informed consent: an alternative to autonomous authorization. Kennedy Institute of Ethics journal, 21(3), 201–218. https://doi.org/10.1353/ken.2011.0013
Munafò, M., Nosek, B., Bishop, D. et al. A manifesto for reproducible science. Nat Hum Behav 1, 0021 (2017). https://doi.org/10.1038/s41562-016-0021