

Sensitive Data in Sports Science – Challenges and Opportunities

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Introduction

Sport science handles diverse and sensitive data. Artificial Intelligence (AI) increases data linkage and re-identification risks. Findable Accessible Interoperable Reusable (FAIR) principles push openness and data reuse. This openness faces complex legal data protection requirements. Dataset shared have to be curated and up to standard in data protection. MO|RE data, the repositiorium of the RDC Motor Performance enables researcher-led deposition of motor research datasets [3]. But only few sport scientists share datasets via repositories, possibly due to lack of knowledge of data management, see figure 1 [2].

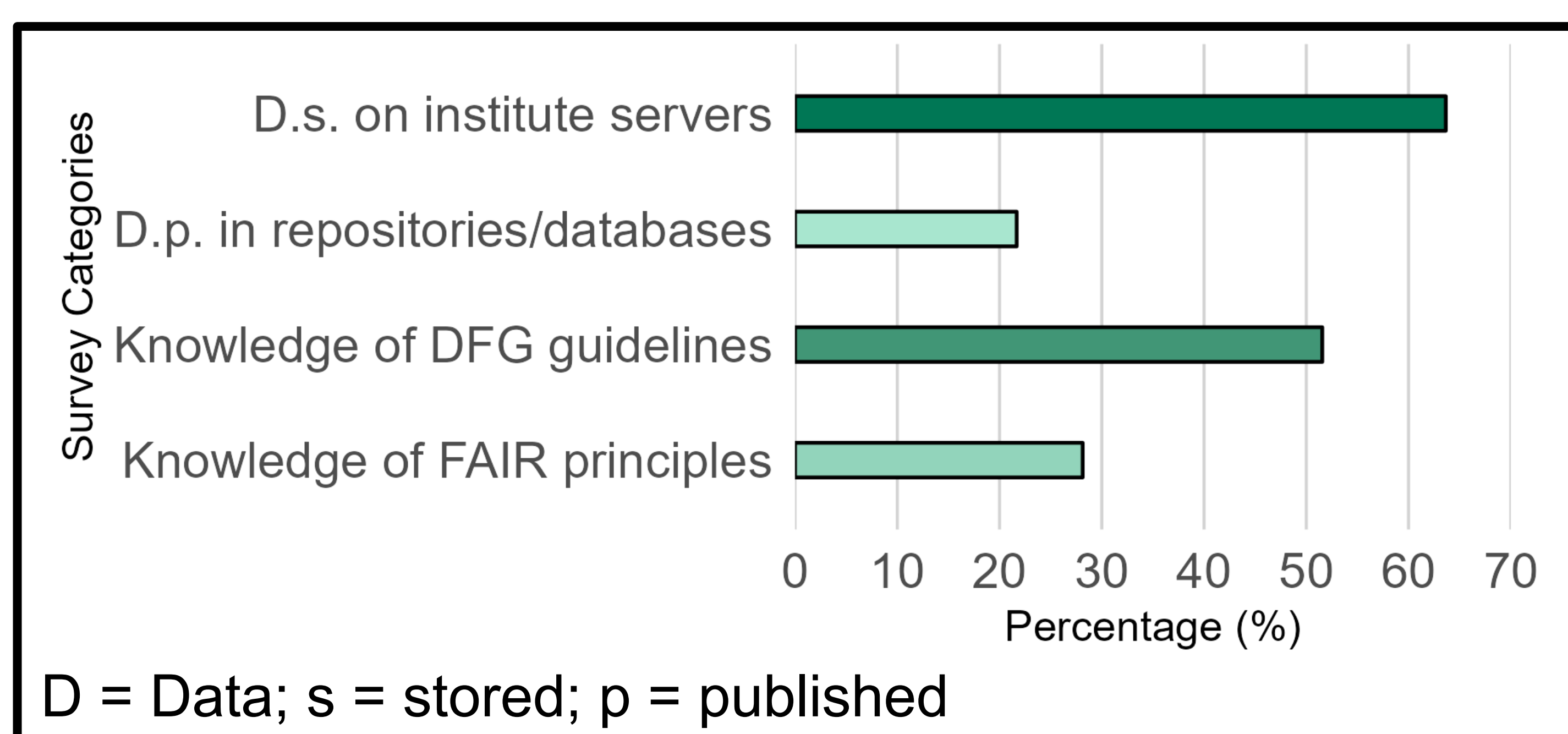


Figure 1: Results of survey Keller et al. (2025) [2]

Objective

Develop a discipline-specific framework for responsible research data management in sport science:

1. consent model for secondary use
2. repository-level standards,
3. guidance across the data lifecycle

Methods and Results

We work with various teams of experts to develop solutions efficiently.



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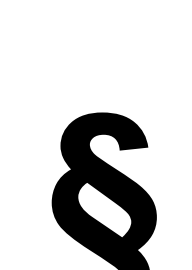
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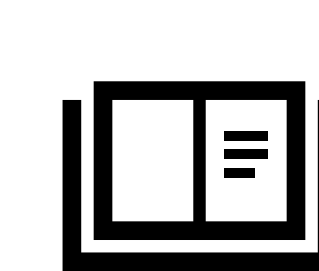
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Scientific Use Files with regulated access



Consent template for secondary use



Fact sheets on sensitive data [1]

Discussion

The impact of our work depends on the uptake in sport science:

- I. Due to that, we have to put resources in teaching, professional development, and institutional policies.
- II. Also we continue interdisciplinary, practice-oriented collaboration to harness AI for motor performance research while safeguarding participants and responsibly enabling data reuse.

Literature

- [1]Eckardt, N., Schlenker, L., Zimmermann, H., Eberhardt, T., Rose, C., Fleps, M., Niessner, C., & Keller, K. (2025). Fact Sheets zu sensiblen Daten in der Sportwissenschaft. <https://doi.org/10.5281/zenodo.16032760>
- [2]Keller, K., Pleger, A., Niessner, C., Ueding, E., & Krüger, M. (2025). The status quo of research data management in the German-speaking sports sciences—Results of an online pilot survey. *German Journal of Exercise and Sport Research*. <https://doi.org/10.1007/s12662-025-01033-0>
- [3]Klemm, K., Kron, H., Eberhardt, T., Schlenker, L., Woll, A., Bös, K., & Niessner, C. (o. J.). Vom Repositorium zum Forschungsdatenzentrum – Wie Zugangswege zu sensiblen Daten in der Sportwissenschaft geschaffen werden können.

All links and contact
information can be
found here

