
Data Objects as epistemic and managerial boundary objects – how organizations produce, interpret, and act upon data objects in machine learning contexts.

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Exposé

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List of Abbreviations

IS Information Systems

SLR Systematic Literature Review

4 Preliminary Outline

1 Research Topic

Short introduction, explanation of the topic and its relevance.

2 Motivation

Explain what you want to find out by the end of your research project—and why!

3 Methodology

The research will follow a Systematic Literature Review (SLR) according to Okoli (2015). This method is used to identify, evaluate and interpret the available research relevant to a particular research question, topic area or domain of interest and is designed to be used in Information Systems (IS) research (Okoli, 2015, p. 884).

A SLR is particularly suitable for this thesis as it allows to systematically gather and analyze existing knowledge on the topic of data objects in machine learning contexts in general and above all, organizational contexts. With this approach, it is possible to identify research gaps and provide a solid foundation for future research directions. Okoli (2015)'s guidelines include the following steps in order to follow a structured approach:

4 Preliminary Outline

Lastly the following outline should give an overview of the planned sections of the thesis. Changes may appear during the research process but as an entry point it should help to structure the work.

1. Introduction
2. Theoretical Background
 - 2.1. Boundary Objects
 - 2.2. Data Objects as Epistemic Artifacts
3. Methodology
4. Structured Literature Review Results
 - 4.1. Overview of Identified Literature
 - 4.2. Technical Origin of Data Objects in ML Contexts
 - 4.3. Data Objects as Boundary Objects in Organizational Contexts
 - 4.4. Visualization and Interface Design as Epistemic Factors
5. Discussion
6. Future Research Directions
7. Conclusion

References

- Okoli, C. (2015). A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, 37, 879–910.

Eidesstattliche Erklärung

Hiermit versichere ich, die vorliegende Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt sowie die Zitate deutlich kenntlich gemacht zu haben.

Ich erkläre weiterhin, dass die vorliegende Arbeit in gleicher oder ähnlicher Form noch nicht im Rahmen eines anderen Prüfungsverfahrens eingereicht wurde.

Würzburg, den 10. November 2025

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