

1 Introduction

This research protocol describes how to record the search for information sources for a bachelor thesis. The preliminary research that led to the formulation of the research question should be documented under "Preparatory Research"; this may be given as a summary rather than a detailed table.

The columns of the research protocol are to be understood as follows:

Date: Date of the search.

Duration: Time spent on the individual search (in minutes).

Search terms: Words and combinations of words used in the search, including operators such as AND, OR, NOT, truncations, and phrase searches.

Search tool: Library catalogs, websites, search engines, subject databases, journal portals searched, as well as notes on manual searches, expert inquiries, etc.

Selection criteria: Criteria that determined whether a document was kept, for example:

- relevance to the research question
- degree of substantive differentiation
- verifiability of contents
- currency
- recognisability and reputation of the author
- reputation (reliability, expertise) of the source
- intended audience (specialist readership)

Retained document: Bibliographic information for the selected document.

Source type: Journal article, book chapter, monograph, dissertation, newspaper article, encyclopedia entry, website article, research project report, etc.

Content: Main contents of the document. Indicate whether it primarily contains:

- descriptive knowledge (definitions, empirical facts)
- explanatory knowledge (theories, statements about relationships)
- evaluative knowledge (statements about values and norms)
- procedural knowledge (methods, instruments, techniques)

Relevance: Mark the importance using the following symbols:

- * * * = very important
- ** = important
- * = of limited importance

2 Preparatory Research

The general idea is to create an early AI System that detects suicidal humans by analysing their social media use.

But the new EU AI Act aims to regulate the use of artificial intelligence (AI) to promote trustworthy AI, while ensuring protection against harmful effects of AI systems. (<https://artificialintelligenceact.eu/article/1/>) An suicide detection AI is bound to this Act as an High-Risk AI System and therefore needs to be auditable, which is still a difficult task, when using a complex model such as an LLM.

One of the options, although not yet researched well on llms is the use of SHAP Values. (<https://christophm.github.io/interpretable-ml-book/shapley.html>)

3 Main Question 1

Question: What are indications in a text, that someone is suicidal?

3.1 Search Strategy

- **Date:** 06.01.2026 .
- **Duration:** 30 min
- **Search terms:** indication suicide text
- **Search tool:** google scholar

3.2 Selection Criteria

- relevance to Main Question 1
- actuallity
- reputation

Retained document	Source type	Content	Relevance
Identification of Imminent Suicide Risk Among Young Adults using Text Messages	proceeding	descriptive knowledge	***
Words of Suicide: Identifying Suicidal Risk in Written Communications	inproceeding	descriptive knowledge	***
Predicting the Risk of Suicide by Analyzing the Text of Clinical Notes	inproceeding	evaluative knowledge	**
Online suicide prevention through optimised text classification	article	evaluative knowledge	**
Analyzing Suicide Risk From Linguistic Features in Social Media: Evaluation Study	article	evaluative knowledge	*
The Youth Risk Behavior Surveillance System: Updating Policy and Program Applications	article	descriptive knowledge	*

Tabelle 1: Research log for Main Question 1

4 Main Question 2

Question: Can Shapley Values be used to explain how an LLM acts?

4.1 Search Strategy

- **Date:** 06.01.2026 .
- **Duration:** 30 min
- **Search terms:** SHAPley LLM xAI
- **Search tool:** google scholar

4.2 Selection Criteria

- relevance to Main Question 2
- actuallity

- reputation

Retained document	Source type	Content	Relevance
Explainable artificial intelligence (XAI): from inherent explainability to large language models	misc	evaluative knowledge	***
Explaining Large Language Models Decisions Using Shapley Values	misc	evaluative knowledge	*
Explainable AI Frameworks for Large Language Models in High-Stakes Decision-Making	inproceedings	evaluative knowledge	**
IlmSHAP: A Principled Approach to LLM Explainability	misc	descriptive knowledge	***

Tabelle 2: Research log for Main Question 2