Semantic Tafsir

Supplementary Information - The Semantic Tafsir Ontology - Version 1.0.1

Table 1

Description of Classes in the SemanticTafsir Ontology

Class Name	Description
AdditionalText	Represents any additional text that complements the main content, such as footnotes or marginalia.
BookLocation	Represents the page and volume of the Tafsir contents in the physical editions of Tafsir Collections.
TafsirCollection	Represents the entire compilation of Tafsir works, encompassing all chapters, sections, and interpretations within a particular edition or collection of Tafsir literature. This class organises the Tafsir content as a cohesive set, providing a structured framework for accessing and analysing the exegesis as a whole.
TafsirChapter	Denotes a chapter within the Tafsir, organising the commentary into sections. Usually corresponds to the Surahs of the Quran.
Commentary	Represents the interpretative commentary of the scholars provided in the Tafsir, linked to specific verses or themes.
DatasetLocation	Specifies the location of content within the digital data.
Hadith	Represents Hadith narrations referenced in the Tafsir to provide context or explanation of Quranic verses.
hadith:HadithText	Refers to the text of a Hadith itself, distinct from its chain of Narrators etc.
LineBeginning	Marks the beginning of a new line in the text, used for precise text alignment.
Location	General class for representing any geographical or contextual location mentioned in the Tafsir. Location names are mostly straightforward (either classical Arabic names, or names going back to the ancient age of Babylonia). Sometimes, their semantics are ambiguous, e.g. the word Medina (city) is not a Proper Noun, however, when it is used in a short form for Medina Al Munawwarah ("The Enlightened City"), then it becomes a Proper Noun. The word's meaning is highly context-dependent.
hadith:NarratorChain	Captures the chain of narrators associated with a Hadith, documenting the transmission lineage.
hadith:NarratorChainSegment	Represents segments of the narrator chain, allowing for detailed tracking of transmission paths.
hadith:RootNarratorChainSegment	The initial segment of a narrator chain, starting from the earliest source.
NarratorType	Categorises narrators based on their role or reliability in the chain of transmission.
Note	Contains any notes or annotations made by the author or scholars regarding the text.
Organization	Refers to the extended modern definition of this class to the classical context of religious organizations (Jews, Christians, Muslims), their subgroups (Sunni, Shia), theological school of thoughts (Hanafi, Maliki, Shafi'i, Hanbali), tribes and clans (Hashim, Quraysh), and ethnic groups (Arabs, Greeks, Persians).
Other	A general class for any miscellaneous or uncategorised elements in the Tafsir, such as the name of languages (Arabic, Greek, Latin), angels (Gabriel, Michael, Raphael), and (polytheistic) deities (Al-Uzza, Al-Lat, Manat, Baal).
schema:Person	Represents any individual mentioned in the Tafsir, either historical or contemporary. Naming can be a complex process in classical Arab society (comparable to ancient Hebraic naming) (Almuhanna and Prunet, 2019). Full names are made of chains of single names, which can include the name of the city where the person was living. Once the full name is mentioned, short forms are usually used throughout the remainder of a text (e.g. Al-Tabari).
hadith:HadithNarrator	A subclass of Person, specifically representing narrators of Hadith.
RootNarrator	The earliest known narrator in a Hadith chain, often a companion of the Prophet.
Poetry	Represents poetic verses or stanzas referenced within the Tafsir.
Section	A major division within the Tafsir, often corresponding to significant thematic breaks.
Segment	Represents a smaller portion of a section, focusing on specific verses or themes.
SubSection	A subdivision within a section, allowing for detailed thematic or topical breakdowns.
Surah	Represents a chapter of the Quran, which is the primary text being interpreted in the Tafsir.
ThematicVerseReference	Represents a Quranic verse that has been identified as thematically significant within the Tafsir, highlighting its relevance to specific themes or concepts.
ThematicVerseFragmentReference	Refers to a specific fragment of a thematic verse that is analysed in detail within the Tafsir, providing a focused interpretation of that segment.
Theme	Captures the major themes identified in the Tafsir, organizing the content around key concepts.
SubTheme	Subdivides the main themes into more specific topics for detailed analysis.
Time	Represents temporal information mentioned in the Tafsir, such as historical periods or specific dates. In the early 7th century, the moon calendar was still in its primary form, hence there was not a proper usage of numerical format like in our modern days. Therefore, dates were mostly written out in words, either only by day name, or sometimes including the month name, and rarely, the year. Also well-known temporal entities, such as the Day of Judgment (Youm Al-Din).
Verse	Refers to a specific verse of the Quran that is the subject of interpretation.
VerseFragment	A part of a Quranic verse that is individually analysed or referenced in the Tafsir.

Table 2

Description of Object Properties in the SemanticTafsir Ontology

Object Property	Description
commentedIn	Indicates that a specific verse or passage is commented on within a particular section of the Tafsir.
follows	Establishes a sequential relationship where one segment or section follows another within the text.
hasBookLocation	Links an entity to its corresponding book location, indicating where the text can be found within a physical or digital book.
hasDatasetLocation	Connects an entity to the dataset's location, often used to reference the source of data or annotations.
hasLineBeginning	Associates a segment of text with the beginning of a line, important for preserving the structure of the text as presented in the original manuscript.
hadith:hasNarrator	Links a Hadith or commentary to the person who narrated it, forming part of the chain of transmission.
hadith:asNarratorSegment	Connects a Hadith to a segment of the narrator chain, allowing for detailed tracking of the transmission process.
hasNarratorType	Specifies the type of narrator, such as whether they are a primary source or a secondary transmitter in the chain of narration.
hasNote	Links a piece of text to a corresponding note or annotation, providing additional context or explanation.
hadith:hasRootNarrator	Connects a Hadith to its root narrator, the earliest source in the chain of transmission.
hadith:hasRootNarratorSegment	Links a Hadith to the initial segment of its narrator chain, starting from the root narrator.
hasTheme	Associates a verse, segment, or commentary with a broader thematic concept, allowing for thematic organization within the ontology.
hasSubTheme	Connects a theme to its sub-themes, providing a more detailed categorisation within a broader thematic area.
hadith:heardFrom	Indicates the source from which a narrator heard the Hadith, typically another narrator in the chain.
isAbout	Describes the subject matter or focus of a commentary or note, linking it to the relevant verse.
isSubThemeOf	Establishes a relationship where a sub-theme is part of a larger theme, reflecting the hierarchical structure of thematic categorization.
mentionedIn	Links an entity (e.g., person, place, or concept) to the specific text where it is mentioned.
mentions	Indicates that a text or commentary references a particular entity, such as a person or concept.
narrated	Connects a narrator to the Hadith or text they transmitted.
precedes	Establishes that one text or segment comes before another, used to maintain the order of content in the ontology.
references	Links a text or commentary to another text it references, showing the relationship between different parts of the literature.
hadith:refersTo	Indicates a relationship where one text refers to another, such as a Tafsir referencing a Quranic verse or Hadith.
refersToNarrator	Specifically links a text to a particular narrator referenced within it.
schema:hasPart	A general property indicating that an entity is composed of other entities, used to organize content within the ontology.
containsAdditionalText	Specifies that an entity includes additional text or annotation, often used for footnotes or marginalia.
containsCommentary	Indicates that an entity includes commentary, typically linked to a Quranic verse or thematic discussion.
containsSection	Associates a higher-level entity (e.g., a chapter) with one of its sections.
containsSegment	Links a section to one of its smaller segments, reflecting the breakdown of the content into manageable parts.
containsSubSection	Indicates that a section is further divided into subsections, used for detailed organisational structure.
containsVerse	Connects a Tafsir or commentary to the specific Quranic verse it interprets or explains.
containsVerseFragment	Links a commentary or note to a specific fragment of a Quranic verse, allowing for granular analysis.
hadith:hasHadithText	Connects a Hadith entity to its textual content.
hadith:hasNarratorChain	Links a Hadith to its entire chain of narrators, providing a complete view of its transmission history.
schema:isPartOf	Indicates that an entity is a component of a larger entity, used to establish part-whole relationships.
isPartOfHadith	Specifies that an entity is part of a Hadith, such as a segment of the narrator chain.
isPartOfVerse	Connects a verse fragment to the full verse it is part of.
transferredTo	Captures the transfer of knowledge, narration, or content from one entity to another, such as the passing of narration from one scholar to another.

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Table 3

Description of Data Properties in the Semantic Tafsir Ontology

Data Property	Description
hasChapterNo	Specifies the chapter number within a Tafsir, used to organize and reference specific chapters.
hasCommentaryNo	Represents the number assigned to a particular commentary within a chapter or section, allowing for easy identification.
hasEdition	Captures the edition number or details of a specific version of a text or Tafsir, useful for referencing different editions.
hasHadithNo	Indicates the number assigned to a Hadith within a collection, facilitating retrieval and cross-referencing.
hasID	A unique identifier assigned to an entity within the ontology, ensuring each entity can be distinctly referenced.
hasLanguage	Denotes the language in which a text, commentary, or note is written, supporting multilingual representations.
hasName	Represents the name of an entity, such as a person, location, or theme, providing a human-readable label.
hasPageNo	Indicates the page number where a text or commentary can be found, useful for referencing specific locations within a physical or digital book.
hasReferenceNo	Specifies a reference number used for citing or linking to other texts, annotations, or scholarly works.
hasSectionNo	Represents the section number within a chapter, used for organising and navigating the content.
hasSubSectionNo	Indicates the subsection number within a section, allowing for more granular categorisation of content.
hasSubType	Captures the subtype of an entity, providing additional classification details beyond the primary type.
hasSurahNo	Specifies the Surah (chapter) number from the Quran that is being interpreted or referenced in the Tafsir.
hasText	Contains the actual text content of an entity, such as the full text of a verse, commentary, or annotation.
hasTime	Represents temporal information, such as the date or period associated with an event or narration.
hasType	Indicates the type or category of an entity, used to classify and organise different elements within the ontology.
hasVerseNo	Specifies the verse number from the Quran, used to reference specific verses within the text.
hasVolumeNo	Captures the volume number within a multi-volume work, aiding in the identification and location of content across volumes.