MIMOS Intelligent Harmonisation Tool (Mi-Harmony)

Unstructured data in the form of text, image and video constitute the majority of available big data that is predominant in every domain. This leads to an ocean of textual information written in different ways by different persons at different points in time. MIMOS Mi-Harmony is a software tool that harmonises unstructured textual information to enable accurate information retrieval for consistent reporting and analytics.

Overview

MIMOS Mi-Harmony is an automated data harmonisation tool based on semantic technology that utilises different terminologies to combine textual data from different sources such as databases and documents into integrated, consistent and unambiguous data. This forms an accurate and reliable data source enabling business intelligence, semantic analytics and accurate reporting. Mi-Harmony utilises natural language processing (NLP) and cognitive computing techniques to harmonise textual data.

Features

Mi-Harmony comprises the following features:

- **Multi-Format Terminology Ingestion**

    Mi-Harmony is capable to ingest terminologies described in different formats such as clinical health information (SNOMED CT).

- **Terminology-Based Identification**

    An array of NLP techniques harmonise textual data with standard terminologies to enhance computational linguistics.

- **Context-Based Relevance Filtering**

    An array of cognitive computing techniques amplify data relevancy by providing reasoning on textual content and context understanding of harmonised concepts.

- **Implicit Relationship Discovery**

    A combination of NLP and heuristic-based techniques discovers unexpressed and inferred relationships between harmonised concepts.

- **Semantic Analysis of Meanings**

    Mi-Harmony provides support for detailed analysis and semantic expansion of queries for accurate query results based on the meaning of concepts rather than keywords.

Technology Benefits

The main impacts of Mi-Harmony are:

- **Diverse Data Ingestion**

    Mi-Harmony ingests terminologies in various formats from heterogeneous sources into an integrated system.

- **Coherent Data for Analytics**

    Coherent data is produced for further analytics by harmonising textual data using standard terminologies and reasoning.

- **Precision Analytics and Reporting**

    Mi-Harmony supports semantic analytics on the harmonised data, leading to more accurate analytics and consistent reporting.

Technology Summary

Mi-Harmony

An automated tool that integrates different terminologies to harmonise textual data from different sources.

**Industries**: Government, Healthcare, Public Safety, Agriculture

Features

Mi-Harmony addresses the challenges of unstructured data through:

- Multi-format terminology ingestion
- Terminology-based identification
- Context-based relevance filtering
- Implicit relationship discovery
- Semantic analysis of meanings

Technology Benefits

- Diverse data ingestion
- Coherent data for analytics
- Precision analytics and reporting
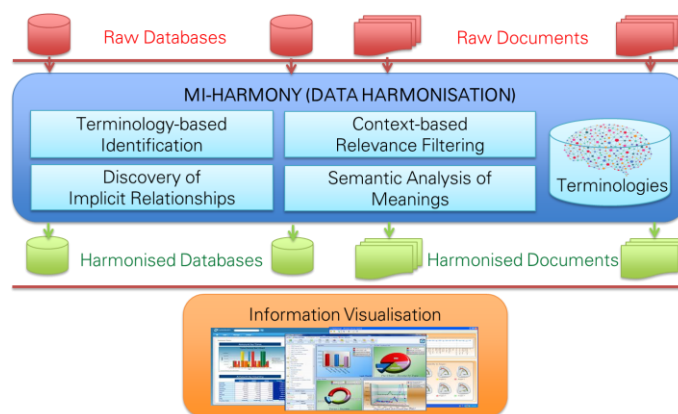
MIMOS Mi-Harmony system overview

System Requirements

Mi-Harmony	
Hardware Requirements	
Processor	Intel® Core® i5 Quad-Core, 3.6GHz
Memory	Minimum 32GB of memory
Disk Storage	Minimum 80GB of hard disk space
Software Requirements	
Operating System	Windows® 7 64-bit; or Linux Ubuntu 14.04 64-bit
Programming	Java® SE 8, 64-bit version
Web Server	Apache Tomcat 8 or above

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