

LIST OF TERMS

Term	Definition
GENOSIS	GENeralized Ontology for Social Media Investigation Support; the global ontology developed in this research to provide a generalized and structured knowledge representation of key concepts in the social media domain to support digital forensic activities.
SMF	Social Media Forensics; a branch of digital forensics that specifically focuses on the process of identifying, collecting, analyzing, and preserving digital evidence originating from various social media platforms.
CQ	Competency Questions; a set of questions in natural language used to determine the scope, validate requirements, and test the functionality of an ontology within a specific domain.
OSN	Online Social Network Sites; a category of social media platforms focused on building and maintaining social networks among users, e.g., Facebook, Instagram.
MP	Microblogging Platforms; a category of social media platforms that allow users to publish short updates (often text-based), e.g., X (Twitter), Tumblr.
MCSS	Media-content Sharing Sites; a category of social media platforms primarily used for sharing media content such as videos or images, e.g., YouTube, TikTok.
OFB	Online Forums/Blogs; a category of social media platforms based on discussions within forums or a series of published articles in a blog format, e.g., Reddit, Quora.
SPARQL	SPARQL Protocol and RDF Query Language; a query language and protocol designed for accessing and manipulating data stored in Resource Description Framework (RDF) format, used for testing ontologies.
Ontology	A formal, explicit representation of a shared conceptualization of a domain, defining a set of concepts, properties, relations, and axioms. In this research, used to model social media forensic data.
Data Generalization	The process of simplifying, grouping, or categorizing heterogeneous and unstructured data into a more general or abstract form while preserving essential information.

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Alignment (Ontology)	The process of finding and defining correspondences (mappings) between entities (such as classes and properties) from two or more different ontologies.
AML	AgreementMakerLight; an automated ontology matching system used in this research for the quantitative evaluation of alignment quality between local ontologies and GENOSIS.
Reference Alignment	A set of mappings (correspondences) between ontology entities that is considered correct and is used as a gold standard or "answer key" to evaluate the results of automated ontology matching systems.
Precision (in Alignment Context)	A measure of accuracy; the proportion of mappings identified by an alignment system (e.g., AML) that are correct (i.e., present in the reference alignment).
Recall (in Alignment Context)	A measure of completeness; the proportion of correct mappings (present in the reference alignment) that are successfully identified by an alignment system.
F-measure (in Alignment Context)	The harmonic mean of Precision and Recall, providing a single summary measure of the overall performance of an alignment system.
IRI	Internationalized Resource Identifier; a string of characters used to uniquely identify a resource (such as a class, property, or individual in an ontology) on the web.
OWL	Web Ontology Language; a description logic-based language recommended by the W3C for defining and instantiating ontologies on the Semantic Web.
RDF	Resource Description Framework; a W3C standard framework for representing information on the web, often used as a foundation for ontologies.
HermiT	An OWL Reasoner; a software component used to check the logical consistency of an ontology and to perform inferences based on defined axioms.