Knowledge Graphs in the context of Natural Language Processing (NLP) represent a way to organize and store information in a structured format that highlights the relationships between different pieces of data. They are essentially graphs composed of nodes (entities) and edges (relationships) that together form a network of interconnected information. This structure allows for more sophisticated and context-aware NLP applications by leveraging the rich interconnections between data points.

**Key Components of Knowledge Graphs in NLP**

1. Entities These are the nodes in the graph, representing real-world objects, concepts, or events. Entities could be anything from people, places, and organizations to more abstract concepts like ideas or events.

2. Relationships The edges that connect the nodes, illustrating how entities are related to one another. These relationships are often labeled to describe the nature of the connection, such as works for, located in, or created by.

3. Properties Attributes or characteristics that provide more information about the entities. These can include details like dates, descriptions, or quantitative attributes.

**Applications of Knowledge Graphs in NLP**

- Semantic Search Enhancing search capabilities by understanding the intent and contextual meaning behind the search queries, rather than relying solely on keyword matches.

- Question Answering Systems Powering sophisticated question-answering systems that can understand and respond to complex queries by traversing the graph to find relevant information.

- Content Recommendation Improving the relevance of recommended articles, products, or services by understanding the relationships and attributes within the graph.

- Information Extraction and Summarization Extracting structured information from unstructured text and summarizing content by understanding the key entities and their relationships.

- Natural Language Understanding (NLU) Enhancing the understanding of the context, nuances, and subtleties in human language, facilitating more natural interactions between humans and machines.

**Creation and Evolution**

Knowledge Graphs are built through processes that involve data extraction from structured and unstructured sources, data integration, and disambiguation to accurately represent real-world entities and their relationships. They often start with a specific domain or scope and can expand over time to include more entities, relationships, and domains. Machine Learning and NLP techniques are crucial in automating and scaling the creation and maintenance of knowledge graphs, including tasks like entity recognition, relationship extraction, and entity linking.

**Challenges**

While powerful, knowledge graphs in NLP face challenges such as maintaining accuracy, dealing with ambiguity (same name, different entities), ensuring up-to-date information, and scaling across domains. Despite these challenges, the use of knowledge graphs in NLP continues to grow, driving advancements in AI and machine understanding of human language.