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# Prolog: An Influential Language for Knowledge Management and Ontology Engineering

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May 22, 2023

**#Prolog** is a logic programming language that has been associated with artificial intelligence and computational linguistics (1, 2). Unlike many other programming languages, Prolog is intended primarily as a declarative programming language. In Prolog, logic is expressed as relations, called facts and rules (3). The language has been used for theorem proving, expert systems, term rewriting, type systems, and automated planning, as well as its original intended field of use, natural language processing.

## The Importance of Prolog in Knowledge Management

Prolog is an important language for **knowledge management**. It is well-suited for specific tasks that benefit from **rule-based logical queries** such as **database searching**, **voice control systems**, and **filling templates**. It can be used to represent knowledge in a way that is easy to understand and manipulate. This makes it an ideal language for knowledge management systems.

## The Role of Prolog in Ontology Engineering

Ontology engineering is the process of creating a formal representation of a domain of knowledge. Prolog is an almost ideal language for ontology engineering because it allows developers to express complex relationships between entities in a natural way. Prolog's ability to reason about complex problems makes it an ideal tool for creating ontologies that can be used to represent knowledge in a variety of domains (4, 5, 6).

## The Future of Prolog

Prolog has been around for over 50 years and has proven to be a reliable and powerful tool for knowledge management and ontology engineering. While there are newer languages available, despite the mainstream critical thoughts, Prolog remains an important language for these fields. As the demand for artificial intelligence and machine learning continues to grow, the importance of Prolog will only increase. (7, 8, 9, 10, 11, ).

## Conclusion

In conclusion, Prolog is an influential language for knowledge management and ontology engineering. Its ability to represent complex relationships between entities in a natural way makes it an ideal tool for these fields. As the demand for artificial intelligence and machine learning continues to grow, the importance of Prolog will only increase. Developers who are interested in these fields should consider learning Prolog to stay ahead of the curve.

## References:

1 - <https://en.wikipedia.org/wiki/Prolog>

2 - [Alireza Dehbozorgi](#) on [Medium](#):

<https://medium.com/@alirezadehbozorgi83/unraveling-the-mystery-of-prolog-why-its-more-relevant-than-ever-9cccd253c0a1>

3 - <https://www.geeksforgeeks.org/prolog-an-introduction/>

4 - <https://www.cleverism.com/skills-and-tools/prolog/>

5 - [Application of Inference Rules to a Software Requirements Ontology to Generate Software Test Cases.](#)

6 - [Position Paper: Ontological Logic Programming.](#)

7 - [The Future of Prolog.](#)

8 - [Ideas for the future of Prolog inspired by Oz \(2023\).](#)

9 - [Prolog: 50 Years of Future \(2023\).](#)

10 - [2022: The Year of Prolog.](#)

11 - [Fifty Years of Prolog and Beyond \(2022\).](#)

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I've published an article on [LinkedIn](#) pinpointing the possibilities and importance of reviving Prolog as a programming language for knowledge representation, management, linguistics, and, last but not least, ontology engineering. It is the 2nd sequel to my [Medium](#) blog on Prolog. Your precious comments and thoughts are highly treasured! Thanks a lot for your kind attention and consideration in advance! [#linkedinpost](#) [#prolog](#) [#survey](#) [#updated](#) [#knowledgemanagement](#) [#knowledge\\_representation](#) ([#KR](#)), [#linguistics](#) [#ontologies](#) [#blog](#) [#linkedin](#)



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