CS 6795 Semantic Web Techniques

Project Proposal

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Project Title:

A Modelling Semantic Search Engine for Video Game Products

Project proposal:

The game industry is a rapidly growing entertainment business in the 21st century. Various game companies produce many different, attractive and high quality games. Since each game has its attributes, such as title, brand, genre, platform, year, and rating, and also people have their own preferences, it is necessary to design a search engine for an online game store in order to quickly satisfy customer requirements.

In this project, we plan to design a videogame search engine by using semantic web techniques. It bases on the ontologies of videogame product information and user's preferences.

Modelling:

Basically, the user can use one or multiple game attributes as query stream (e.g. title, genre and rating).The search engine will perform the semantic search on the knowledge base(i.e. ontology, facts, rules) and then give a well structured result according to the user's query. Also, the search engine will make a good recommendation for non-specific queries by associating with the user's preference record in the knowledge base. Additionally, the search engine will have an age filter for under age users.

We will collect and classify related game information and user's records initially, then design ontology and rules to achieve the goal.

Project Tools:

Protégé: http://protege.stanford.edu
Protégé is used to create and edit ontologies.

OO jDREW: http://www.jdrew.org/oojdrew
"OO jDREW is a deductive reasoning engine for the RuleML web rule language (including its OO extensions), written in the Java programming language".