

Matching Engine for Online Dating using Semantic Web Techniques

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Outline

- Implementation of semantic reasoning using Semantic Web Techniques in an existing online dating system.
- Incorporate psychological aspects like personality traits, personal values, intelligence, self-esteem etc of the user into the matching process.
- Improve matching results based on details extracted from users as well as rules extracted from user input to provide matches of higher semantic quality.
- Prospective members complete a proprietary questionnaire about their characteristics, beliefs, values, self-esteem etc.
- A four level matching architecture.

Motivation

Online dating services offer different tech-driven options to people for contacting and getting to know prospective dates, everything from chat rooms to instant messaging, e-mail and even video chat. These kinds of services let people and their potential matches without doing any hard work.

Users seek out online dating websites as a means of finding potential partners quicker. Placing a profile on an online dating site is the most popular method of finding matches and producing a set of matches for a person that they will deem suitable is one of the major challenges in the online dating industry.

Background

Matchmaking is an important aspect of e-commerce interactions. Advanced matchmaking services require rich and flexible metadata that are not supported by currently available industry standard frameworks for e-commerce such as (UDDI) and ebXML.

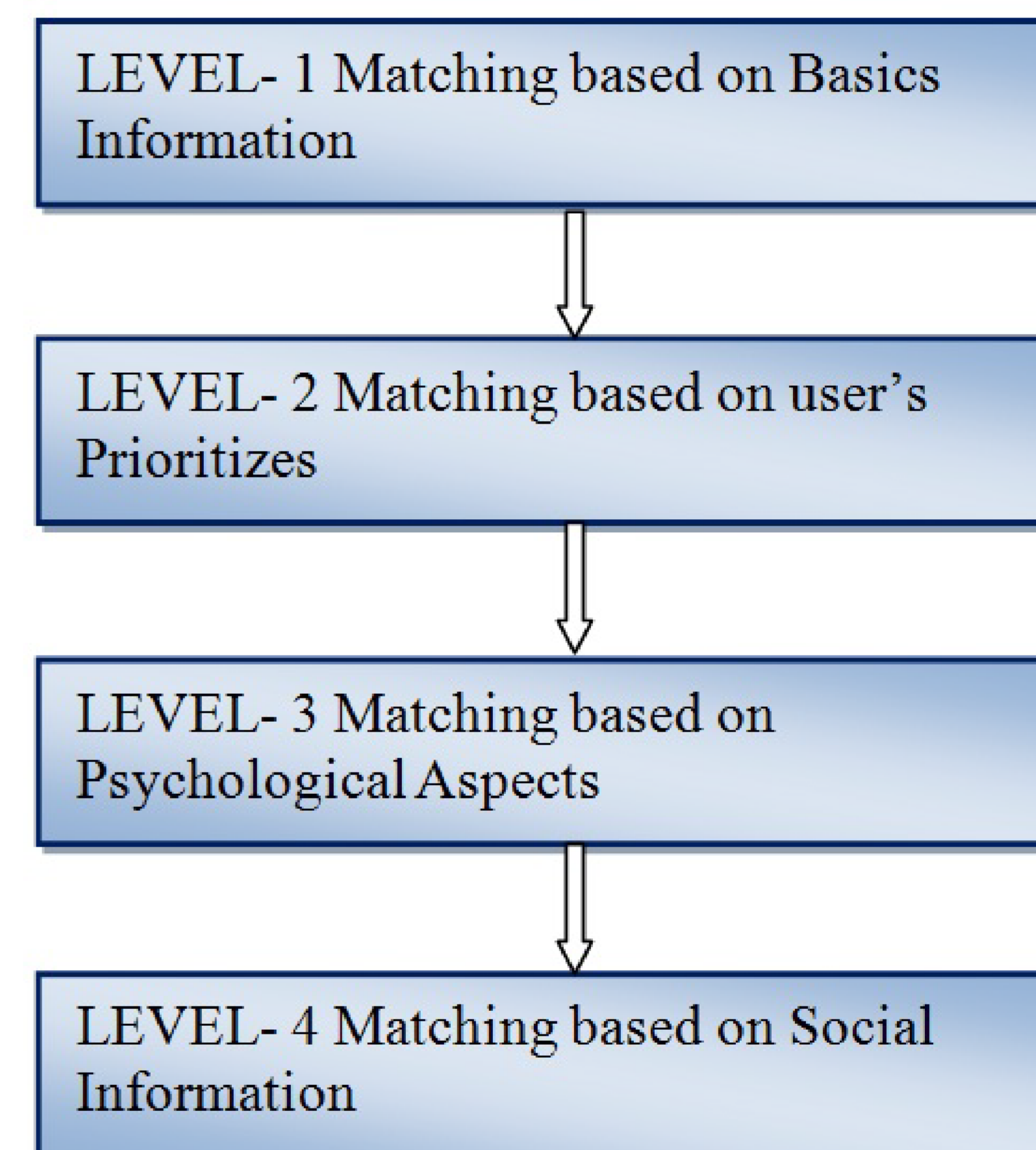
The semantic web initiative at W3C is gaining momentum and generating technologies and tools that might help the gap between the current standard solutions and the requirements for advanced matchmaking services.

Problem

Many people become disappointed when they get a huge list of matches that they feel are inappropriate for being their future partner. This compels members to cancel their memberships and give the service bad reviews.

Solution

To reduce this problem and accommodate people with a better online dating service we present a four level matching architecture for online dating matching techniques based on semantic web technologies. By using these techniques this application will be based on more than just introductory level based parameters. Information is used not only to provide users with appropriate matches but also to eliminate inappropriate matches and to infer additional information/properties about the user that will be used in the matching process.



Result

An ontology-based matching system for online dating that exploits existing semantic web technologies. Semantic Web Technologies like RDF, RDF Schema, Sparql Queries can be used to build such a rule-based matching system to make matching system more efficient and accurate. Since this matching system is built based on existing components, the effort to create and maintain the matchmaker is drastically reduced. So far, this experience with the ontology-based matching system is promising and can be used to develop a matching system for other purposes.