An Intelligent Business Matching System for the Products of Small Business/Manufactures with the Celebrities

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Abstract. This paper proposes intelligent recommendation system that it is one of increasing promotion effect. Normally intelligent recommendation system suggests suitable product to consumer but the Intelligent Recommendation System recommends fit well-known person to company for increasing promotion effect. It uses weight based algorithm and matching model based on well-known person relation graph.

Keywords: Intelligence Matching System, Recommendation System, Relation Graph

1 Introduction

Recently, they are various recommendation systems that are suitable product consumer. These are to pursue company and consumer benefit with increasing promotion effect. This paper is not to recommend simply product consumer. It aims to improve promotion effect through advertising effect by well-known person matching.

In other words, when company registers company’s product in the Intelligent Recommendation System, it recommends to company adaptable well-known person. At the present stage, Big Data Analysis and machine learning are hard to adapt in matching system because it is lack of information are company’s product and well-know person information. Therefore, the Intelligent Recommendation System needs to be efficient in a small quantity of information. To this end, the Intelligent Recommendation System adapts weight based algorithm as matching rate with a various metadata. This extends it proposes graph based model to improve accuracy rate.
2 Recommendation System

Recommendation system is part of information filtering system. It is prediction and evaluation system about recommended item to consumer. Recommendation system depends on consumer, consumer’s comments, natural-language processing using product’s name, information retrieval and explanation of product. Therefore, the recommendation system can implement two methods. First is content-based filtering method. It recommends with small information but it has narrow recommendation range. Second is collaborative filtering. It uses consumer’s evaluation to calculate similarity measure but it needs a large of information.

Proposed system is a hybrid form that takes advantage of the two implementations. Collect news information published on the web in order to collect information on the operating system constitutes the initial organization of the data. Figure 1 is shown collection steps.

![Fig. 1. Web data for recommendation](image)

3 An Intelligent Business Matching System

The proposed weight based recommendation algorithm extracts effective matching result using small information. It is compatible recommendation system in the initial operating system.

Figure 2 is a block diagram of a system like that proposed. Each system was constructed in modular function to handle the feedback type because of flexible data and matching result.

Celebrity relationship graph based matching model as shown in Figure 3 was constructed celebrity as a model for improving the performance of a weight based algorithm, and others associated with the hierarchical graph.

It suggests a recommendation of celebrity group. It has two type of graph. Product graph is made up classify product, prices, features, sales target and sales area node. Celebrity graph is made up celebrity of age, gender, active period, active state and the existing advertising items node. It generates matching result with graph mapping.
Fig. 2. Structure model of intelligence matching system

Fig. 3. Celebrity relationship graph based matching model
Table 1. Celebrity relationship graph matching process

1. Configure the celebrity set SRG graph using the information related to celebrities
2. SRG represents celebrity relationships depending on the property with each of the celebrities
3. Represent the information of the product in PG: Product Graph
4. Selecting the highest matching rate celebrity of the SRG and PG according to the pre-defined matching function,
5. Extract the relevance celebrities linked to selected celebrities from SRG
6. Send expected to get higher matching rate celebrity with product

4 Conclusions and Further Researches

In this paper we recommend a variety of meta-information based on derived according to the matching degree, a number of celebrities and professional service, Recommended Rating of celebrities and professional services, proposed a graph-based matching model for matching.

We will study to be elaborated the matching system how to re-reflect the preference and matching rate score.

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