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A UNION OF SOCIAL MEDIA NETWORK AND E-COMMERCE APPLICATION: OBJECT ADVICE USING WEB LOG INFORMATION

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Abstract: In recent years, the lines between social networking and e-commerce have steadily blurred. Many e-commerce websites let consumers sign in using their Facebook or Twitter accounts or other social networking profiles. New purchases may also be announced on the microblog, along with links to the product pages on e-commerce websites. In this study, we suggest a novelmethod to the problem of promoting products from e-commerce sites to users on social media in "cold start" conditions. When it comes to making suggestions for new products on social networking sites, the data is quite difficult to work with. Users linked via social networking sites and e-commerce websites may be used to convert social networking characteristics to refer to another component of the product offer (users who have social networking accounts and make purchases on e-commerce sites). Furthermore, we propose training consumers and embedding products from e-commerce site data using repeated neural networks (also known as"embedding", "coding," or "embedding"), and translating users' social networking using gradient-enhanced trees. components that go into consumer weddings. We create feature-based matrix factor technology for Cold Start product recommendations based on user marriages. The enormous Chinese microblogging service SINA WEIBO and the sizable dataset produced by the biggest Chinese B2C e-commerce site JINGDONG serve as examples of how the suggested framework is used.

I. INTRODUCTION

In recent years, the lines between social networking and e-commerce have steadily blurred. Real-time status updates and user interactions are only two of the numerous parallels between social networks and e-commerce sites. You may connect into the online store using your Facebook, Twitter, or Google+ account if the website you're on allows social login. Since last year, customers may make purchases straight from Facebook and Twitter's websites by clicking the "Buy" button in advertisements and other content. Alibaba, a major investor in Chinese e- commerce platform Sina Weibo 1, enables Sina Weibo users to promote Alibaba goods directly. Utilizing data acquired from social networking sites in the creation of product recommendation systems is crucial given the rise of e-commerce activity on social media platforms.

How to market e-commerce site content to users of social networking sites who have no previouspurchase history is an intriguing issue we are exploring for this paper; we refer to this condition as "cold start." This problem was dubbed the "Cross-Site Cold Start Product Reference" by our team. Numerous studies have been conducted on the subject of product representation online, however the majority focus on developing solutions for specific e-commerce websites and using customer previous transaction records as a source of fundamental data. We are aware of no prior thorough investigation on the sites about the Cold Start product prediction.

Given that it can only access users' social networking data, the difficulty is converting social networking data into secret user traits that can only be utilized to promote a product in our case scenario. We propose employing bridges to link users via social networking sites and e- commerce sites (those who have social networking accounts and make purchases on e-commercesites) in order to map users' social networking characteristics in order to solve this conundrum. product suggestion.

The following is a list of our most important contributions:

Using the concept of "cold start" conditions, we propose a special challenge for membersof social networks to promote content on the e-commerce website. To our knowledge,this topic has not been extensively researched. Our goal is to use repetitive neural networks to learn the representations of affiliate features for both customers and items using data collected from the online shopping platform. Using the gradient-enhanced tree technique we propose, user microblogging characteristics are turned into hidden feature representations that are readily included for product recommendation.

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We suggest and put into practice a feature-based matrix factor technique for Cold Start product selection that combines consumer and product characteristics.

II. RELATED WORK

How to market e-commerce site content to users of social networking sites who have noprevious purchase history is an intriguing issue we are exploring for this paper; we refer to this condition as "cold start." This was a cross-site production proposal difficulty, according to our staff.
In our issue situation, it is difficult to transform social networking data used for product recommendations into concealed personal traits since only users can access social networking data. We propose employing bridges to link users via social networking sites and e-commerce sites (those who have social networking accounts and make purchases on e-commerce sites) in order to map users' social networking characteristics in order to solve this conundrum. product suggestion
Furthermore, we suggest using repetitive neural networks (also known as "embedding", "coding"or "embedding") to train customers and embed product from e-commerce site data, and then use gradient-enhanced trees to translate users' social networking. Features into consumer marriages.
Feature-based matrix factor technology was developed to take advantage of user-learned marriages to recommend Cold Start product.

III. PRELIMINARIES

Only research data on specific e-commerce sites and their customers' historical transactions are relevant to most research. The Cold Start product reference has not been researched on the sites as far as we know. Much has been studied on the issue of cold start recommendation. Serossi et al. The Matrix Factor model proposes a new estimate of user ratings based on information gathered from public profiles and material provided by the user.Zhang et al suggest semi-supervised group practice. Shen proposed a strategy based on the probability framework that combines content and collaborative data. For the app proposal, Lynn and his colleagues used social information to solve the Cold Start problem.

IV. PROJECT PURPOSES AND SCOPE

When the user-friendly description of the input is converted into an electronic system, it is called input design. This plan is important for getting accurate data from a computerized system to avoid data entry errors and for direct management in a proper way. To manage massive amounts of data, user-friendly displays must be created. It is the purpose of input design to make data entering as simple and error-free as possible. In order to do any data manipulations, the data input screen has been built. Additionally, it has record-viewing options. When the data is input, the system will verify that it is correct. Screens make it possible to input data. In order to save the user from becoming lost in a sea of communications, the appropriate messages are sent as and when they are required. As a result, the goal of input design is to produce a layout that is straightforward to understand.

Furthermore, we suggest using repetitive neural networks (also known as "embedding", "coding" or "embedding") to train customers and embed product from e-commerce site data, and then use gradient-enhanced trees to translate users' social networking. Features into consumer marriages. Feature-based matrix factor technology was developed to take advantage of user-learned marriages to recommend Cold Start product.

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ARCHITECTURE AND TECHNOLOGY

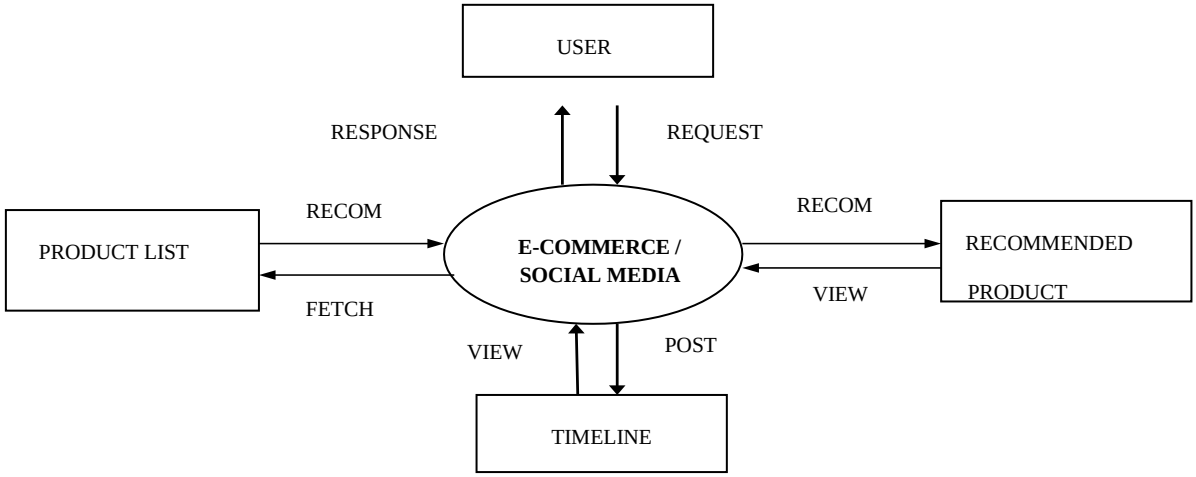
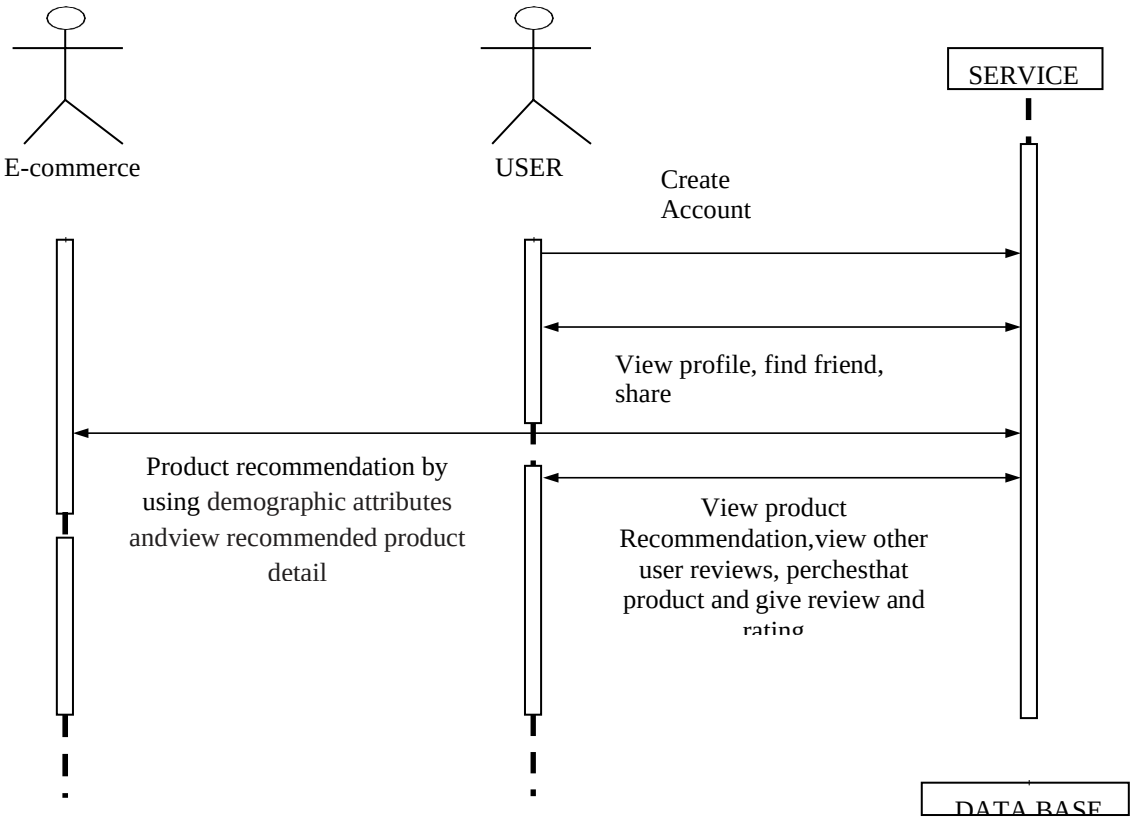


Fig 1. Architecture Of Object Advice Using Web Log Information

DIAGRAM OF THE SEQUENCE

An interaction diagram that demonstrates how processes interact with one another and in what sequence is the UML Sequence Diagram. The message sequence diagram has the following format. Event diagrams, event scenes, and time diagrams are other names for sequence diagrams.

Fig 2. Sequence diagram Of Object Advice Using Web Log Information



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V. CONCLUSION

When it comes to suggesting items from e-commerce websites to micro bloggers, we've come up with an innovative solution: cross-site cold-start product suggestion. Feature learning usingrecurrent neural networks may be used to represent customers and items on e-commerce websites in the same latent feature space. User attributes taken from social networking sites can be linked to representations of features learned from e-commerce sites using the modifiedGradient Boosting Tree approach, which allows us to learn about feature mapping functions. Feature-based matrix factor technology may effectively have specific user characteristics to recommend a Cold Start product. Using data from WEIBO and JINGDONG, we compiled alarge data set. Our research suggests that the methodology we have provided works well in tackling the Cold Start product recommendation issue on the sites. Our research has the potential to have a significant impact on the research and industry sectors.

Future scope:

User and product embedding learning is now limited to a basic neural network design. Future deep learning models, such as Convolutional Neural Networks 13 (CNNs), may be used to learn more complicated concepts in the future. There are many ways to improve the present feature mapping process, and we'll look into them.

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