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Recommendation System for Customization of Mobile Services in Mobile Commerce Application

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ABSTRACT

The fast development of mobile telephony has stimulated the growth of the mobile internet as a basis for mobile electronic commerce. Mobile phones are becoming a primary platform for information access and when coupled with recommender systems technologies they can become key tools for mobile users both for leisure and business applications. Recommendation techniques can increase the usability of mobile systems providing personalized and more focussed content, hence limiting the negative effects of information overload. Customization technology focuses on making a site more receptive to the individual needs of each user.Therefore, Customization may be used as a filtering mechanism which allows the delivery of information that mobile devices can handle efficiently .We conclude with ideas for new applications of recommender systems to E services. In our work we discuss relative performance issues and we focus on the customization and community factors of users' interface in m-commerce applications.

Keywords: Personalization, Recommender System, Interface, Mass Customization.

I. INTRODUCTION

Modern computers are suitably powerful to support the multipart software that drives applications in electronic commerce (e-commerce), and communication networks are now fast enough to send/receive the large volumes of the required information among communicating computers in almost real time conditions. Personalization technology is one of the most prominent ones. The efficiency of m-commerce Web sites in supporting users with the content they need in the most optimized approach, is considered as the way to holding them. Personalization can be defined as user interface attributes that are computer driven, often by an algorithm or user model based on the user's selections, habits, demographic information, etc. Recommender systems are used by E-commerce sites to suggest products to their customers. The products can be recommended based on the top overall sellers on a site, based on the demographics of the customer, or based on an analysis of the past buying behaviour of the customer as a prediction for future buying behaviour. Broadly, these techniques are part of personalization on a site, because they help the site adapt itself to each customer. Recommender systems automate personalization on the Web, enabling individual personalization for each customer.

II. RELATED WORKS

Christos[1] Introduced personalized Recommended in mobile services. Modern computers are suitably powerful to support the multipart software that drives applications in electronic commerce (e-commerce), and communication networks are now fast enough to send/receive the large volumes of the required information among communicating computers in almost real time conditions. This is because typical m-services client devices such as cell phones or personal digital assistants (PDAs), are certainly limited in terms of computational power resources, input/output facilities or memory. Personalization technology is one of the most prominent ones.

Reshma Bhatia [2] says Web personalization and recommendation is one of the programming technique to use this problem by adapting the content and structure of mobile websites to the requirements of the users by taking benefit of the facts acquired from the analysis of the users' access behaviour's web is another important area which is consists of much more complex structures and huge collection of ambiguous data.

Personalization can be defined as user interface attributes that are computer driven, often by an algorithm or user model based on the user's selections, habits, demographic information, etc. personalization performance issues and we focus on mcommerce users' interfaces.

Swati Nenava[3] says Personalized recommendation is one of the key techniques to support personalized service, which can recommend certain products to specific user. Amazon, CDNow, eBay, MovieLens, flipcard homeshop18, starCJ and MovieFinder are representative recommender systems.

Recommenders can be a valuable part of mobile devices' browsers, because they can dramatically reduce the amount of information the user must search through to find the items.

It is a large area, also covering recommendation systems, customization, and adaptive Web sites. personalization may be used as a filtering mechanism which allows the delivery of information that mobile devices can handle efficiently.

Che Kao-Li[4]says In general, the recommendation techniques can be categorized into two types: content-based and collaborative ones. The content-based approach is to predict the user's preference on unknown items from his historical records. Collaborative recommendation (or collaborative filtering, CF) performs predictions for a specific user according to the evaluations (ratings) from other users with similar tastes .The first important step to perform personalized recommendation is the creation of personal profile that provides a common reference point in delivering certain information services. Therefore, it is critical to collect profile data explicitly or implicitly and keep it up-to-date with a user's changing needs and contexts.

Zhao Shou‐xiang[5] says Wang Chen" The traditional recommendation system does not take the users′ location into account, which leads to a decline in accuracy and personalization. The introduction of the Location Based Service (LBS) can realize the personalized recommendations better. The paper elaborated the structure of the personalized recommendation system based on LBS, and the key points and countermeasures of the system′s realization. Location Based Service, abbreviated as LBS, determines the location of the user by means of one of several technologies, and then the location and other information used to provide personalized applications and services.

The conclusion of the above work the diversity of Web sites and the variety of personalization goals and methods imply that none of the existing techniques can satisfy all needs.

Obviously, different personalization techniques are most suitable for different situations, such as particular Web site components, type of product or service.

A methodology that makes the best of the current techniques and presents supplementary options could please a wider set of needs.

Personalization technology is one of the most prominent ones. The efficiency of m-commerce Web sites in supporting users with the content they need in the most optimized approach, is considered as the way to holding them.

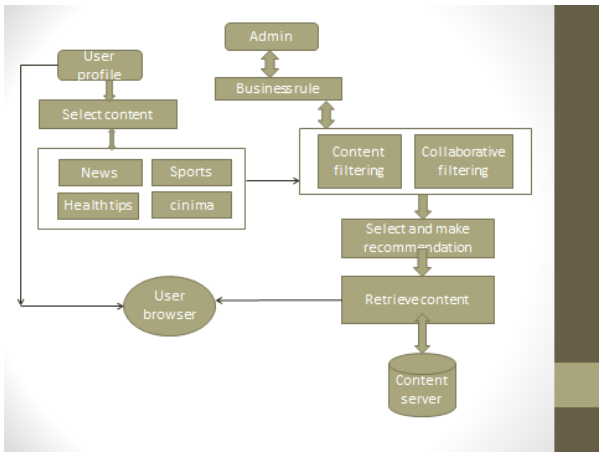
The difficulties in personalization technology are originated from the fact that static user interface guidelines can't provide answers to complex, dynamic design questions.

III. PROPOSED SYSYTEM

The diversity of Web sites and the variety of personalization goals and methods imply that none of the existing techniques can satisfy all needs. Obviously, different personalization techniques are most suitable for different situations, such as particular Web site components, type of product or service.
Personalization is the provision to the individual of tailored services, products, information or information relating to service or products. It is a large area, also

covering recommendation systems, customization, and adaptive Web sites.

A. Architecture Diagram



B. Personalization Mechanisms

Providing personalization for real-time mobile applications, such as dynamically constructing Web pages based on the user's profile, affects system performance. Especially in the high-volume Web sites, personalization needs to be integrated into the overall system design

A methodology that makes the best of the current techniques and presents supplementary options could please a wider set of needs. To accommodate new techniques as technology evolves and new requirements grow, a flexible architecture is needed to tolerate for multiple recommendation engines. Thus, each engine would use specific personalization techniques to make its recommendations.

Personalization mechanisms presuppose the following two phases:

Accumulation of user information, The ordinary methods are explicit profiling (asking each visitor to fill out questionnaires), implicit profiling (tracking the visitor's behavior) and using legacy data (e.g. previous behavior, credit applications etc.)

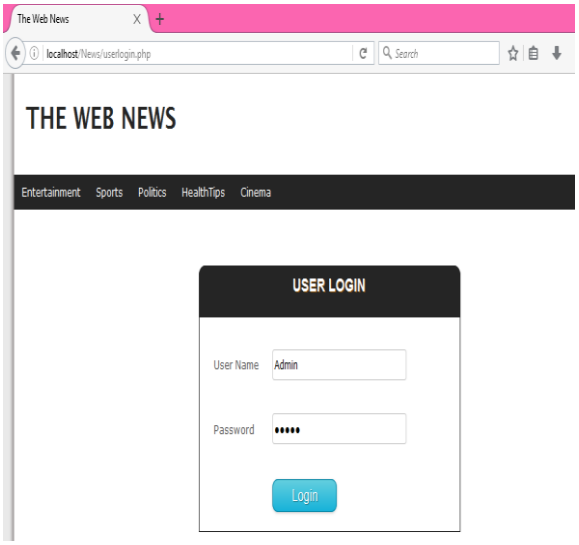
Analysis of user information to recommend actions specific to the user. To develop the best recommendation, rule-based practices are usually combined with filtering methods.

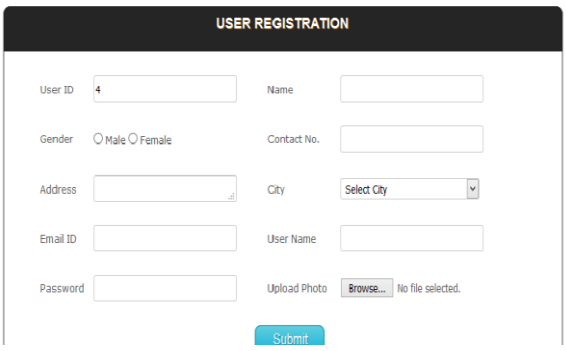
Content-based filtering is a more complex mechanism, as it tries to outline a representation of the user's interest. Collaborative filtering is another advanced filtering approach. As an alternative of locating objects comparable to those a user was fond of in the past (the process of the content-based filtering approach), collaborative filtering builds up recommendations by discovering users with similar inclinations. The collection of users' opinion on a set of objects (explicitly or implicitly), is used to structure companionable and well-suited peer groups. These groups are used to predict a particular user's concern in an item.

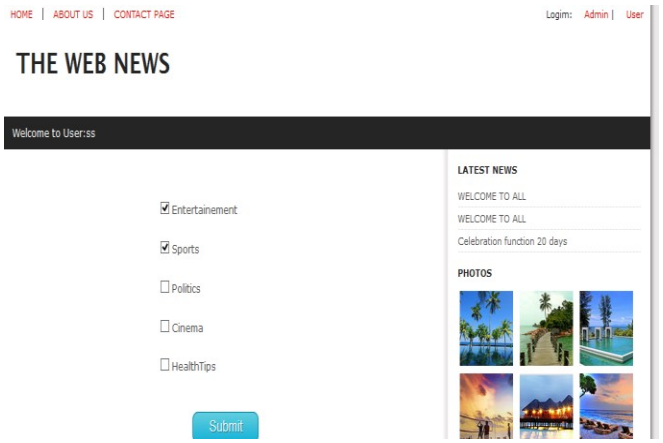
IV. SIMULATION TEST BED

The above system is implemented with php and DHTML. Php is used MySQL database is used for maintain user login and user details.

A. Result and Output







V. CONCLUSION

Personalization technology is one of the most prominent ones. The efficiency of m-commerce Web sites in supporting users with the content they need in the most optimized approach, is considered as the way to holding them. Personalization needs to be integrated into the overall system design. Making the personalization Technology available for all the platforms helps in providing services to everyone and please almost everyone is the future goal.

VI. REFERENCES

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