

SOLVING THE PROBLEM OF USER NOTIFICATION IN SYSTEM FOR ECONOMY “BUY&SAVE”

Kryvoruchko M.A., Shirokopetleva M.S.

Kharkiv National University of Radio Electronics, Kharkiv

Technologies do not stand still and improve every day, but there are still processes that can be simplified and automated for benefit the users. In this case a system is being developed that would contribute to saving money on purchases and facilitate shopping in general. The “Buy&Save” system allows users to share promotional purchase offers and share the cost.

During the design process it was soon realized that a sub system for customizable user notification process was required. The problem was that all users were interested in different shopping categories and stores in general. Once a user posts a new offer not all other users will be potentially interested in it.

Therefore, the solution was designing a sub system that would notify a group of the most likely interested users about such offer based on a decision-making pattern. This pattern would be customizable by the user himself and would learn over time. It would not use machine learning but rather simple statistics and analytics. Apart from designing the sub system itself the correct data structure design is also very important. The offer data structure must be designed to be easily classified, filtered and sorted. If executed correctly the system will have no problem displaying the most appropriate offers to users.

Looking into the offer structure, it consists of the next fields: store type (automatically), store chain (automatically), concrete store, product type, description, offer type, overall price, split price, bonus rules, possible payment methods, expire date and time, date and time of publishing.

Based on the offer structure the user has access to the following preferences:

- store types (supermarket or grocery store, clothes and shoes shop, hardware shop, electronics store, perfume and cosmetics shop, toy store, bookshop, jewelry shop, sports shop, garden center);
- concrete store chain;
- concrete store at a particular location;
- type of product;
- possible store attendance radius;
- availability time span;
- possible store attendance radius and acceptance time.

All in all, the question of preference and statistics based user notifications is being addressed in the early stages of the “Buy&Save” system development. Finding the solution to such questions early is critical to the service success.