

# **STARDUST ON FACEBOOK**

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## ABSTRACT

In this project, we developed a Facebook application based off a preexisting social bookmarking program developed by eBay Research Labs. Users are able to post items they are shopping for, and leave themselves notes and bookmarks. They are also able to create personal quizzes that can be used as an access control mechanism; if friends score high enough, they are able to see the user's shopping information and leave notes and bookmarks as well.

## EXECUTIVE SUMMARY

As a leader in online commerce, eBay has an inherent desire to help its users, and potential users, find items they wish to purchase. Most users do research on potential purchases online, often bookmarking websites and writing themselves notes. eBay Research Labs has developed an application known as Stardust to help users simplify this research process by providing a centralized online location where they can store both notes and bookmarks. Stardust also allows users to make these notes public in order to help other users shop in the future; Stardust users are able to see all public notes as well as their own. Finally, Stardust makes recommendations for items currently listed on eBay that match the user's criteria based on common themes in the user's notes [1].

Although the functionality provided by Stardust was useful, the initial interface for accessing the application, a browser toolbar, was cumbersome. Our team was tasked with designing and implementing the core feature set of Stardust on the popular Facebook platform, in an effort to provide a more convenient interface. We chose to incorporate the Note and Bookmark functionalities into the Facebook version of the application, as they seemed to be able to benefit the most from the community nature of Facebook. We also chose to expand the functionality to include a quiz that would make the application more engaging and provide an access control mechanism.

After we had determined what features to include in the application, an initial user interface was designed. We chose to develop our application using Flex, due to its strong user-interface design capabilities. Flex allowed us to quickly build a mock-up of our interface and verify that all team members were in agreement regarding the features the application would contain.

Once we had come to a consensus regarding the features and initial user interface, we proceeded to develop a working prototype of the application, which did not rely on any outside server interactions. In this phase, we developed the quiz functionality, as well as the basic procedures involved in leaving bookmarks and notes.

After we were satisfied with the non-server dependant version of the application, we began to incorporate Facebook elements into the design using the Facebook API. We were able to get information on the current user, find out which of the user's friends had added the application, and write "News Feeds" which alerted the user's friends to their actions with the application.

The last aspect of the application's design involved the incorporation of the Stardust API. The Facebook version of the application needed to have access to all of the information stored in the existing Stardust database; public notes and bookmarks would be shared between the two versions of the application. All of the Facebook users' information, including their notes, bookmarks and quizzes, would need to be stored in the database as well. Flex is unable to communicate directly with a database, so our application interacted with an API specifically designed for our use. After we successfully incorporated these API features, the application was in its final state.

The final version of the application successfully incorporated all functionality the Stardust team had requested. Users were able to create and take quizzes, leave each other notes and bookmarks, and update what they were shopping for. The application was designed to allow future additions and improvements; this will allow future developers to incorporate more Stardust features, such as recommendations, as well as adapt to any changes Facebook may make.

eBay now holds an additional facet to their social shopping network. Combined with their Stardust toolbar, they have the means to reach out to more people and involve more shoppers in

sharing information and advice. By engaging a new, younger audience, eBay is able to link these users to their website through our application.