Social Reading and Book Sharing Environment

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Nowadays e-books become more and more popular. Their spreading is understandable and can be easily explained with the progress of technology and wide internet usage. People read books on their personal computers, notebooks, some of them have special devices for reading and even on their mobile phones. Analyzing fundamental needs of the modern person and opportunities offered by current e-books [1], there are several problems and inconveniences:

- *Different formats of e-books* -There are many different formats for publishing e-books (e.g: pdf, odt, doc, chm, html, epub, etc.). The problems of this variety of formats are that each format is opened by different application and the user has to install it. This inconvenience could be a problem especially if the user has pocket devise with limited recourses.
- *Social network unavailability* - now online social networks, such as Facebook etc., are very popular. However there are not reading environments that are integrated with a social network. Readers cannot easily share books with their friends and can't easily discuss the content of a book with friends or other readers.
- *Non interactive reading* - Most of the e-reading applications don't have possibilities for any personalization of the book content – you can't add comments, mark or underline some text. This is a natural activity that the user can do using a traditional paper book and the lack of this option could be really annoying.
- *Unsocial reading* - Combining the two previously mentioned problems we can define a new one. The lack of ability of sharing our personal copies of books or other kind of collaboration with friends can make reading a lonely activity.
- *Next book for reading?* - Most of the e-reading applications don't have a service for personal recommendations of interesting books. This service is necessary, because the users could be lost among thousands of titles [2,3,4].

We suggest application that addresses the above issues. It is implemented as Facebook application and supports following functionalities:

- Uploading and sharing new books with friends. This is fundamental functionality of our application although it is possible to have some problems with intellectual property rights or spam applications. We have identified two social instruments to provide a natural restriction for unacceptable books:
    - ° Number of people that like the book - people don't like spam so initially all books uploaded from a user will be seen only by his

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> friends. The book could be made public only if it is liked by more than 10 of the user's friends.
> ° People that dislike the book – Every book can be reported that its content is spam, contains abusing information or violate intellectual property rights.

- Search and browse books. Users will be able to search the book repository. In this repository all book formats will be converted to a flash format that could be opened in a browser.
- Every book has its own profile page. This page is a fundamental instrument for collaboration between users. Users can make different discussions about book content. This page is accessible from all users of our application so it is possible to communicate people with common interests that don't know each other.
- Opportunity for making personal book copies, with instruments for marking, underlining and commenting text. This personal copy can be available on the profile page of its creator and all his friends could view it and comment on it.
- Embedded recommender system for new books [2,3,4]. The application will recommend to the user new books according to his interests. These recommendations use information about recently read books by the user, books uploaded by his "favorite" friends and books read from users with common interests.
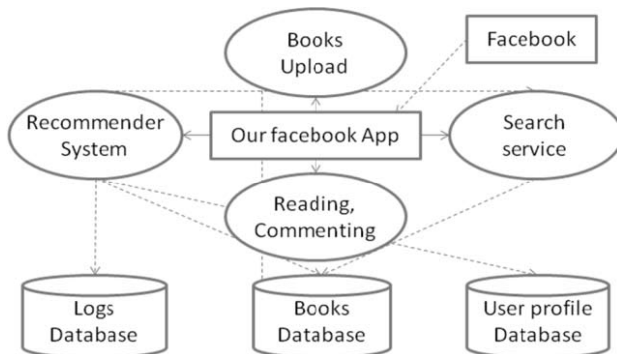

Fig. 1. Application architecture.

References

1. Koychev I., Nikolov, R. and Dicheva D.: SmartBook: The New Generation e-Book, Proceedings of BooksOnline'09 Workshop organised in conjunction with ECDL 2009, Corfu, October 2, 2009
2. P Resnick, HR Varian, Recommender Systems, Communications of the ACM, 1997
3. K.Musila. Recommender System for Online Social Network, published by LAB Lambert Acadmic Publishing, 2009
4. E Vozalis, KG Margaritis, Analysis of Recommender Systems' Algorithms, In Proceedings of the 6th Hellenic European Conference on Computer Mathematics and its Applications (HERCMA-2003), Athens, Greece, 2003