

# iCampus Prize Submission Document

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## **Project Name:**

BooksPicker

## **Contact:**

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## **Need and Description:**

BooksPicker grew out of our own frustrations as students buying books. The COOP's prices were absurdly high, and the process of buying books elsewhere was time-consuming and tedious, especially when we wanted to compare offers between online merchants and students.

But above all we did not like the fact that we could not just enter the classes we were taking to find the books we needed. We thought that this should be an easy task, since The COOP had all the information, but we were wrong. We found out that The COOP was unwilling to share the information with anyone (including MIT). Apparently they obtain the information directly from the faculty, without going through an in-house MIT channel.

We thought this situation was unacceptable, so we decided to fight for the freedom of textbook information (and this is why we use pirates as our logo). We wrote an article in The Tech# and started a discussion with many groups at MIT, including faculty, IS&T, and MIT Libraries. We then designed BooksPicker which allow students to search for what textbooks are required for their classes, pick the ones they want and look for the best prices online, the Coop or locally by selling the books directly to other students.

We connected BooksPicker to numerous online stores such as Amazon, AbeBooks and Half-Price Books to get the best textbook offers online to students. For local sales, we developed a local textbook marketplace. One of our team members, Rodrigo Ipince, completed his thesis on technologies and strategies for local textbooks sales for BooksPicker and we integrated the insights he gained from his research into our local marketplace. As a result, our local textbook marketplace includes the novel features of Automatic Pricing, External Marketplace Integration, and Social Offer Prioritization. Automatic Pricing is a feature that sellers can use to let BooksPicker determine what the best price for the book is based on factors such as the current market condition (i.e. how are similar books priced on BooksPicker and online). External Marketplace Integration allows BooksPicker to work with other local marketplaces such as the APO Book Exchange and the Coop by displaying their offers right next to BooksPicker offers. Social Offer Prioritization uses the fact that sellers sign-in through Facebook as they submit their offers to our marketplace. It lets BooksPicker prioritize offers from sellers that the buyer knows better based Facebook's social graph data.

The first version of BooksPicker was developed using PHP, Javascript, HTML, and CSS. The current

version of BooksPicker was built using the Google Web Toolkit that allowed us to improve the manageability, compatibility and performance of BooksPicker. The Google Web Toolkit is a framework that allows user to develop in Java by having a compiler that converts Java to Javascript.

### **Impact:**

We have impacted the MIT community on two levels.

First, Our efforts and the Higher Education Opportunity Act of 2008, which requires all educational institutions provide such textbook information by June 2010, served as catalysts for MIT to enhance its Online Textbook Information (OTI) system#. MIT now makes book information available to anyone, including services such as the course catalog and Stellar. The information provided by OTI is still a work in progress, but we are happy that things are moving in the right direction. We have been successful in our mission to make textbook information accessible and open.

Second, more than 70% percent of MIT undergrads have used BooksPicker during the previous four terms to sell their textbooks, access textbook information and save money.

BooksPicker's impact has been summarized by Dean Hastings and Chancellor Clay in one of their emails to the MIT community as:

"[...] To provide maximum accessibility, textbook information has been added to the Online Subject Listing & Schedule <<http://student.mit.edu/catalog/index.cgi>>. This makes is easy for you to see the details of current subject offerings and any required and recommended texts through one application. At the same time, the applications you have already been using for textbook information, specifically Stellar, CoursePicker and BooksPicker, have been extended to include the ISBN and price. [...]"

### **Scale Up:**

We want to make Bookspicker more social and a resource tool for students before they decide which books to buy. Therefore we will allow students to share their class and book related feedback on the site. We plan to achieve this through a feature that will allow students to view and add reviews and comments on Textbooks and Classes.

In addition, we plan on expanding BooksPicker to two new school in March when they start their new trimesters. We want to help as many students as we can. The problem of students lacking access to textbook information is common to many schools. We have built BooksPicker to be a flexible and integrated infrastructure. For example, features from our Local Textbook Marketplace will become more useful as more students and schools start using it - i.e. Social Offer Prioritization works better when more of Facebook's social graph is using BooksPicker.

### **Team:**

Sinchan Banerjee - Sinchan is pursuing an SB in Course 6 as a part of the MIT Class of 2011. He has

pursued user interface design and human computer interaction design through his work at the MIT Media Lab, at his non-profit Diya International, in the industry, and in his coursework. He is responsible for numerous aspects of the front-end of BooksPicker - including design and development.

Jonathan Goldberg - Jonathan joined MIT after serving 5 years as an officer in the Israeli Defence Force. At MIT he graduated from Course 6 with BS 09' and MEng 10', his thesis topic is about "Fusion Tables and collaboration on structured data". Jonathan has huge passion in developing new ideas which are customer oriented and in making people life more enjoyable and fun. In Bookspicker Jonathan is responsible for many of the product decisions and the backend development of the site.

Rodrigo Ipince - Rodrigo graduated from Course 6 and 18 at MIT in 2009, and continued on to do an MEng in Course 6. His MEng thesis was based on BooksPicker, and focused on building the local marketplace by adding support for local and non-local offers, allowing local sales, and adding automatic pricing and offer prioritization mechanisms. Apart from the local market contributions, Rodrigo's work in BooksPicker is focused on the backend, data handling, and product.

**License:**

Apache License, 2.0

**Working Prototype/Functional Implementation:**

Please visit our site at <http://bookspicker.mit.edu> and search for books by class, book title, or ISBN. Also, experience our Local Textbook Marketplace by selling a book on the local market.

Our website can be accessed through any modern web browser.

**Press and News**

<http://tech.mit.edu/V129/N35/letters.html>

<http://web.mit.edu/newsoffice/2010/textbook-update.html>