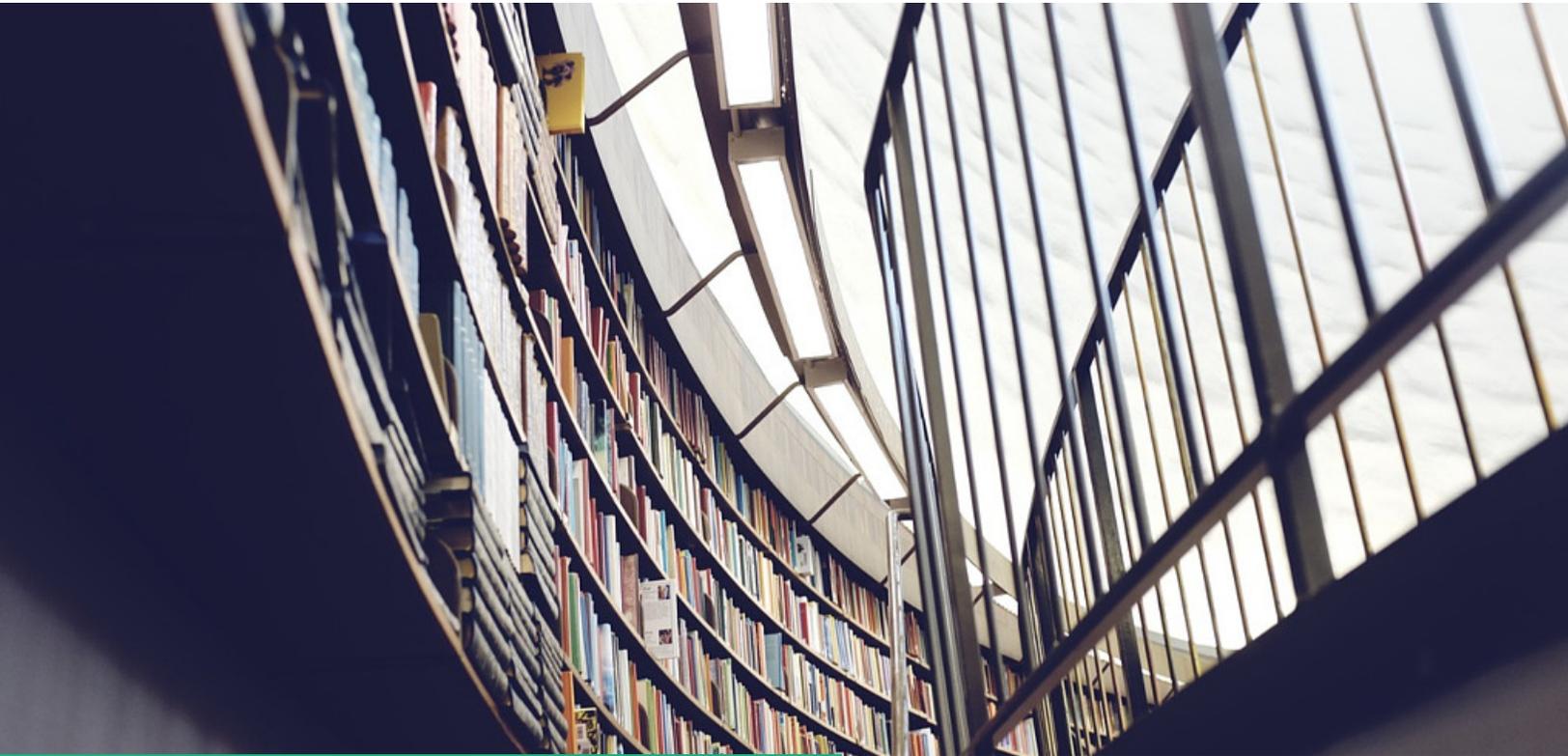




SOFT BISTRO



CASE STUDY

RAFTER 360

Rafter adopt (Rafter 360) - Course Materials Management Technology Platform that distributes educational content to students with its innovative textbooks-in-tuition solution.



"Softbistro's team accomplished a tremendous amount of work on updates that helped us improve our service bringing it to a whole new level"

Justin McCarthy,
VP of Engineering,
rafter.com

softbistro.com

Goal

As part of the academic system, professors are tasked with a lot of preparation for the next academic year. Professors create and provide purchasing departments lists of books and other learning material. After reviewing, purchasing departments connect with vendors to define the curriculum and place an order. If any item is not available, vendors offer something similar or relevant. All changes then must be approved by a professor so this chain of events is very manual and can be prone to mistakes.

With Rafter, the goal was to build a tech to optimize these tedious steps and offer automation to facilitate the purchasing process. At this stage, SoftBistro was brought in to create a new tech platform that could smoothly connect professors directly to vendors and feature various functionalities to process orders efficiently.

R
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Manager Dashboard [Refresh Page](#)

1,068 Enrolled Students Search by Student ID, Last Name, or Pick No. 🔍

0	0	5	943	0	0	1030	831	87
NOT CHECKED IN	NEEDS PACKING	READY FOR PICK UP	PICKED UP	BACK ORDERED	NEEDS UNPACKING	RETURNED	NOT RETURNED	PAST DUE

View by Student
View by Item

1 2 3 ... > >>
Display 10 ▾

STUDENT NAME / ID	CONTACT INFO	STATUS OF ITEMS	
Carol Smith 214974	carol.smith@university.edu (555) 555-5555	● ● ●	View Details
Jasper Rena 213744	jasper.rena@university.edu (555) 555-5555	● ● ●	View Details
Mike Arden 227601	mike.arden@university.edu (555) 555-5555	● ● ●	View Details
Tim Blom 215297	tim.blom@university.edu (555) 555-5555	● ● ● ●	View Details
Ruth Thomas 179756	ruth.thomas@university.edu (555) 555-5555	● ●	View Details
Sara Jefferson 210828	sara.jefferson@university.edu (555) 555-5555	● ● ●	View Details

softbistro.com

Key Implementations

Develop an algorithm to define all actions

Specifically, analyzing all user actions during purchasing to define the logic of an algorithm for future platform development.

Develop two interfaces: separate UI for professors and vendors.

As platform should has two types of users, two separate UI's with different features had to be developed according to the user's needs.

Import user information

New users needed to be automatically added to the database, as well as updating existing profiles.

Safely surface large amounts of data

Create the ability to constantly update and add a large amounts of data on universities, professors and vendors in a way to not strain the system at the risk it becoming unstable.

Develop automated recommendations.

Platform needed to be able to analyze a list of ordered learning materials and suggest similar products if an item was no longer available.

Create features to recognize changes

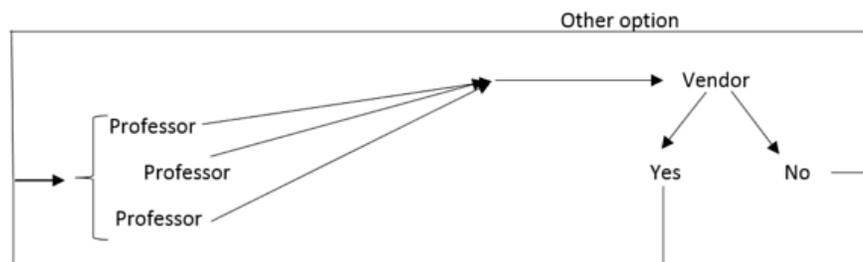
Rafter 360 should be able to detect all changes done by professors in existing purchase lists and automatically notify vendors.

Select the type of material that you'd like to add.

 Course Pack Course packs, readers, etc.	 Custom Book Custom textbooks, special editions, etc.	 Other Text Any other isbn-based material not already found in the system.
 iClicker iClickers or other radio frequency devices	 Digital Access codes or other digital materials	 Supply Lab materials, art kits, or any other non-isbn materials.

Solution

After a detailed analysis of everyday routines in purchasing departments and vendor actions, we were able to define the steps that could be automated. Careful examination uncovered that we can bypass purchasing departments in many stages of the process allowing professors to make orders directly in the system.



Rafter 360 needed to be a platform serving two different types of users with different demands. We created two separate interfaces: Discover and Adoption. The first allowed professors to upload lists, make changes, accept or decline recommendations, etc. The second was oriented to vendors and included all features necessary to accept orders, monitor changes and provide order completion.

To automatically update the user database we created parsers that collected information from other sources and added it to profiles.

Since Rafter is constantly updating users database, a huge amount of information needed to be processed in the system. To avoid any overload or instability in the system, we were able to place this process to properly run in the background.

For automation of recommendations to replace unavailable books, we created a feature that analyzed missing items to form relevant lists of suggested books.

To allow professors the ability to edit placed orders and vendors to be notified of such changes, we implemented a tech called Ajax. In turn, that allowed a refresh of an accepted list to show changes immediately.

Result

As a result, the SoftBistro team successfully helped Rafter develop a fast, intuitive, easy to use application. Thousands of universities, colleges and EDU institutions use Rafter 360 to automate purchasing processes and supply students with new learning material. Rafter has become the go-to platform connecting EDU and vendors to simplify and accelerate ordering.

Technology

- Ruby
- Ruby On Rails
- HTML5 (haml)
- CSS3(sass)
- JavaScript (copfescript)
- Jquery, Jquery-ui-rails,
- Bootstrap
- LDAP authentication
- MySQL

ABOUT SOFTBISTRO

SoftBistro is a boutique software development studio of 100+ software engineers specializing in Java, RoR, PHP, iOS, Android, DevOps, BI/DE, and IT services.

Our goal is to help companies disrupt markets and revolutionize industries by serving innovators of different sizes: from start-ups in Silicon Valley to publicly traded Shutterstock, Chegg and Freelancer; from large educational institutions like California State University to governmental and nonprofit organizations.

We're based in Silicon Valley, NYC, and Seattle with two development centers in Lviv and Khmelnytskyi "K-city" Ukraine

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