

4-21-2014

# Green Breakthrough Using Design Thinking - Student Services Center

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# Green Breakthrough Project for Textbook Services Center

## Project Team

**Course:**  
Boise State University Fall 2013 Supply Chain Management 420:  
Creating Sustainable Goods and Services

**Instructor:**  
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## Project Goal

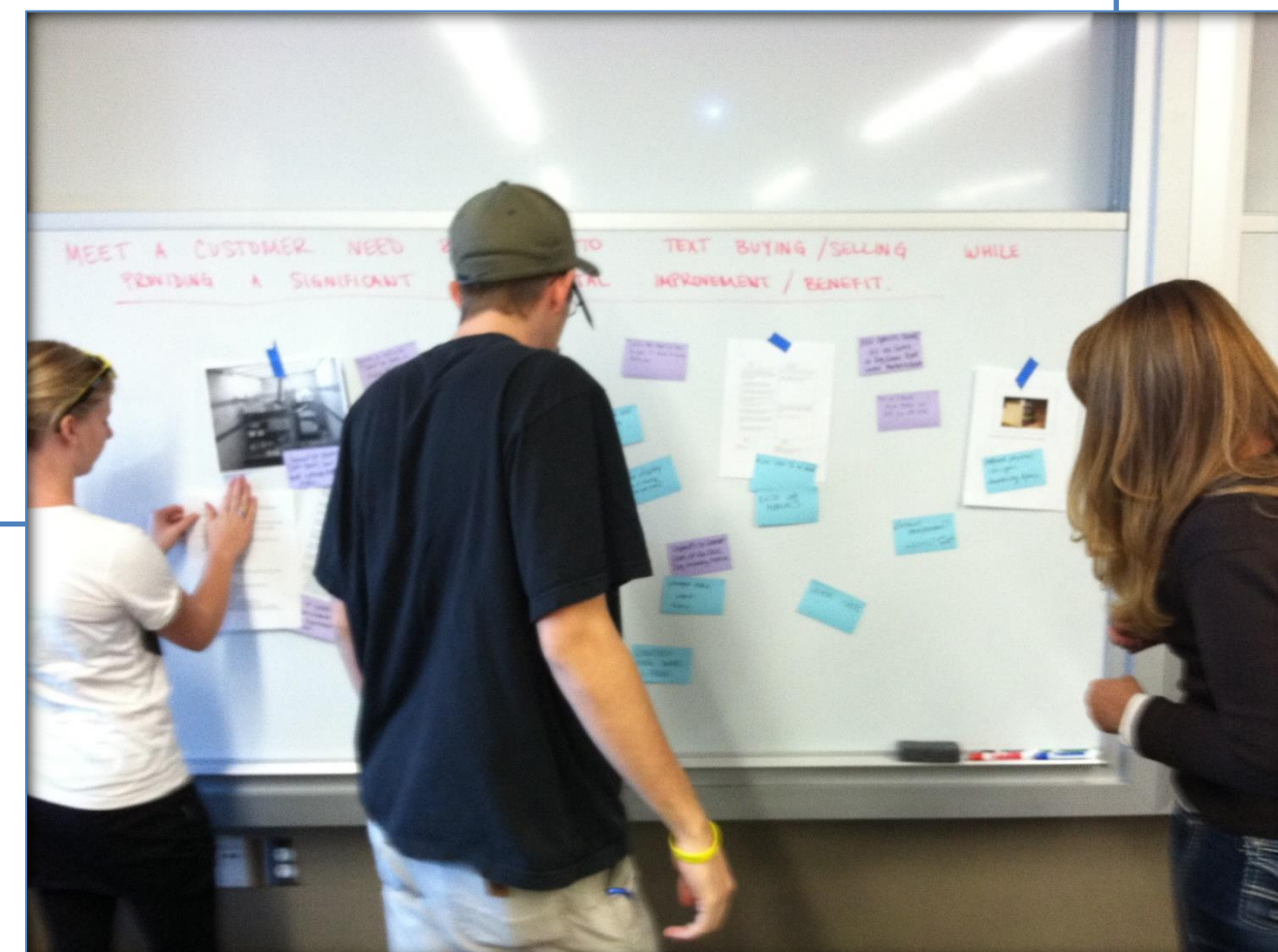
The goal of this project was to generate a proposal for a Green Breakthrough product or service, using the Design Thinking process, meeting the following requirements:

- Is radical, or at least highly innovative, no incremental
- Meets a customer (student) need
- Has a significant environmental benefit
- Related to Boise State University or Boise State University campus
- Could be implemented at Boise State University (or nearby) within one year

## Design Thinking Process

Design Thinking is a process that attempts to uncover the real issue, and then uncover creative solutions, using the following steps:

- Observe Behavior
- Generate Insights
- Withhold Judgment
- Define Problem
- Generate Idea
- Evaluate Ideas
- Narrow Down
- Prototype & Test
- Refine
- Choose



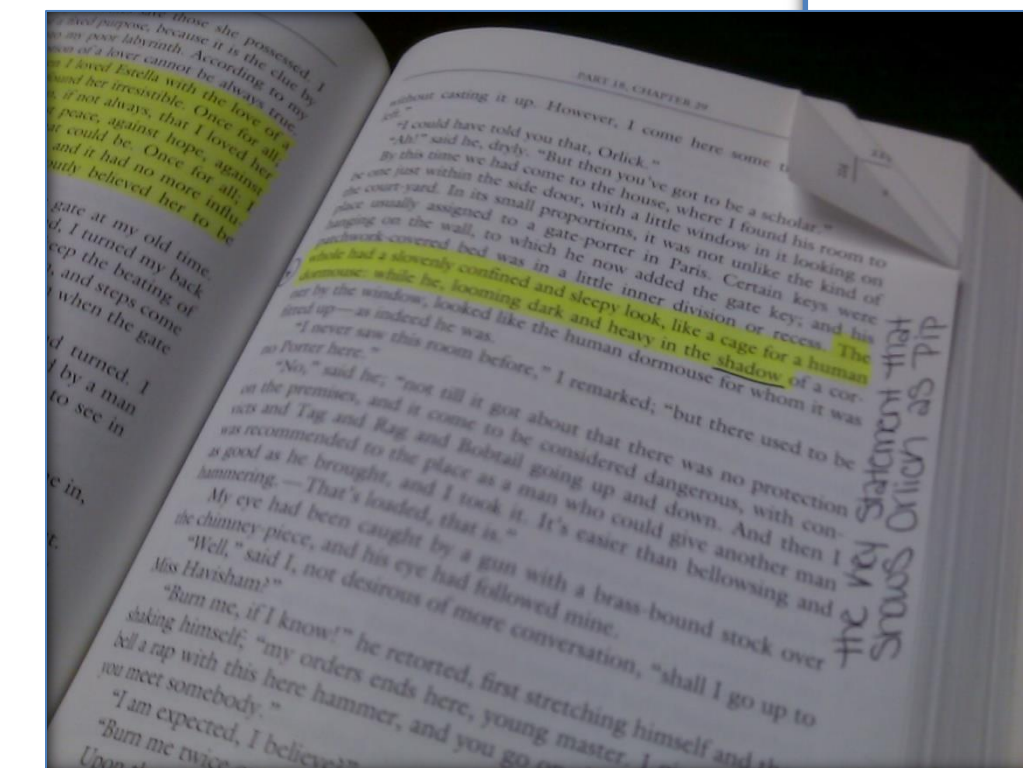
## Project Choice

We decided to attempt to improve one of the most common student issues:

**“I want an inexpensive way to get the materials I need for class.”**

## Text Services Center

We propose creating a student services center on campus that will assist in used material sharing, buying and selling, and offer services to inform students of their options beyond the bookstore. The major functions would include creating a knowledge base for where to buy, rent or sell back textbooks for the best price and attaining used binders, calculators, and other supplies to share or sell. The center would also keep as many copies on hand of current required books for students to come to the center and use instead of purchasing their own or struggling to use the library's copies.



And the most essential function of the center would be to compare old editions of books to current editions and put together electronic update packets to be offered to students free of charge, which would allow students to purchase older editions and still have the current material, which would keep editions in circulation much longer.

## Who is the Customer?

The customers are all Boise State University students who wish to save money attaining their required materials for classes. Some students receive funding for their books, which requires them to purchase the edition requested by the instructor. These students would find it difficult to use the student services center, while all other students would be the target demographic.

## Customer Benefits

The major benefits to the customer are less expensive materials for classes and a place to be able to sell the materials they no longer need. Students will have the ability to buy, sell and trade peer-to-peer or from the student services center directly.

## Environmental Benefits

The major environmental benefits will be the reduction of production, transportation and waste associated with textbooks for students. Less new editions would need to be produced as more students would make use of previous editions that are already produced. Transportation would decrease as less new editions would need to be shipped to Boise and less previous editions would need to be shipped out of Boise. Waste would be reduced as previous editions would stay in circulation longer.



## Benefit Analysis

	Current Usage	Usage Extended by One Edition	Usage Extended by Two Editions	
Average CO2e per textbook - Manufacturing & Distribution (Including re-use)	6.21	3.11	2.07	* Citation 1
Average CO2e per textbook - Disposal (Weighted for re-use)	2.80	1.40	0.93	* Citation 1
Textbooks per student per semester	2.50	2.50	2.50	Estimated
Students at Boise State	20000	20000	20000	Estimated
<b>Total CO2e used per year (2 semesters)</b>	<b>900000</b>	<b>450000</b>	<b>255000</b>	
<b>Per year savings vs current usage</b>	<b>-</b>	<b>450000</b>	<b>645000</b>	

\* "Online Texts and Conventional Texts" Empirical Research by Gattiker, Lowe, Terpend

## Can it be Done?

The Textbook Services Center would need more than lofty goals in order to be possible. University buy-in would be required, as space on campus would be needed to house the center. Also, in order to staff the center, it would need to become one of the following:

- A University run program, complete with paid staff
- A student run organization, complete with a faculty advisor

Ideally the Textbook Services Center would be a student run organization, allowing the center to avoid profit margin mark-ups, keeping prices as low as possible for students.

## Copyright Concerns

Copyright law allows for fair use of copyrighted materials for the use of education. The laws are unclear and would require legal research. The assumptions being made are:

- The purpose of the use is not for profit (the update packets would have to be offered for free)
- The use will be for educational purposes
- The amount of the newer edition textbook being used will be small in comparison to the entirety of the textbook

The main concern would be how the law sees the effect of the use on the potential market. The production of the update packets could effect the potential market enough to be considered copyright infringement. These concerns would need to be researched by a legal representative before producing any update packets.

## What if?

If it is found that the update packets are copyright infringement, the master copy of the packet can be submitted for copyright royalty payment determination. Under this scenario the update packets would have to be sold for the copyright royalty amount. It is still believed that the copyright royalty amount, combined with the cost of a used previous edition textbook, will still be less expensive for students than a new edition textbook, allowing the environmental benefits to still be realized.



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