CONTENTS

Executive summary .................................................................................................................. 1
History of Better World Books .............................................................................................. 2
Methodology .......................................................................................................................... 2
Goals and Tasks ...................................................................................................................... 2
Heuristics ............................................................................................................................... 3
Ratings .................................................................................................................................. 3
Heuristic findings .................................................................................................................. 4
Positive experiences ............................................................................................................. 4
Search for a book by ISBN .................................................................................................... 4
Finding a hardcover version of a book to purchase .............................................................. 4
Comparing the prices between a new and used copy .......................................................... 5
Negative experiences .......................................................................................................... 6
Searching for a book by author’s name ............................................................................... 6
Searching for a book by genre (Fantasy) ............................................................................ 6
Searching for a book by publisher ..................................................................................... 7
Go through the process of selling a textbook .................................................................... 7
Locate and compare the prices of purchasing a book and selling the book back ................ 8
Purchase an e-book about technology for under $10 ......................................................... 8
Purchase an e-book about graphical design with a published date of 2010-2013 .............. 9
Conclusions ......................................................................................................................... 10
Major issues ......................................................................................................................... 10
High severity ........................................................................................................................ 10
Medium severity .................................................................................................................. 10
References ............................................................................................................................ 11
Appendix A – Persona of Alex Parker .................................................................................. 12
Appendix B - Goals and tasks ............................................................................................ 13
Appendix C - Quesenbery results ....................................................................................... 14
EXECUTIVE SUMMARY

As part of PHT Solutions’ usability testing for Better World Books’ website, a heuristic study was done on the company’s website. Better World Books has grown from a small startup company in the early 2000’s to a large, for-profit social enterprise that raises more than $10 million each year for literacy groups around the globe. Previous usability testing for their website has been done in-house.

Using the persona of a 20-year-old college student, each member of PHT Solutions conducted independent testing using five different goals and ten tasks. These goals included searching for books, selling a textbook and buying an e-book. Individual tasks included ones such as searching for a book by ISBN, searching by publication date, and searching by publisher. The findings are evaluated using Whitney Quesenbery’s 5E method. This method is used to judge whether a task is efficient, effective, engaging, error-tolerant, and easy to learn.

Using Alex’s voice to report the findings of the testing, both positive and negative experiences were found. Tasks revolving around searching for books by ISBN, locating a hardcover edition of “A Dance With Dragons”, and comparing prices between a new and used editions were positive. Five major issues came up during the testing, however, and could turn Alex away from buying a book from Better World Books. The biggest issue, purchasing e-books, did not match most of Quesenbery’s criteria, although it was effective. The other issues that did not match a majority of Quesenbery’s components were the method of selling books, not having an easy comparison between the price of purchasing a book and selling it back, searching for a book by a publisher, and searching for a book with criteria other than an author’s name or ISBN.

These findings will shape the test plan PHT Solutions intends to present to Better World Books and will mold the tasks they plan for the selected test users.
HISTORY OF BETTER WORLD BOOKS

Better World Books, founded in May 2002, is an American on-line bookseller. Unlike other online booksellers like Amazon.com and Barnes and Noble, Better World Books actively promotes their social message of literacy awareness in all aspects of their business. They donate a portion of their profits to a number of literacy groups, including but not limited to Books for Africa, The National Center for Family Literacy, and Worldfund. They sell books on their own website, BetterWorldBooks.com, as well as through over 50 online marketplaces, including Amazon.com and Ebay (Igbal, 2011).

Started by three Notre Dame graduates, the genesis of Better World Books began with a book drive to help the Robinson Community Learning Center in South Bend, Indiana. The drive became such a success, they expanded book drives across the country, and eventually formed it as a for-profit social enterprise. Their headquarters are located in Alpharetta, Georgia, as well as offices in the United Kingdom.

To date, the company has sold more than 58 million books, and donated more than $10.4 million to literacy programs. They are also strong advocates of recycling; they have recycled over 40,000 tons of books. They are the largest seller of books on Amazon.com, and raised over $55 million in revenue in 2011 (Better World Books, 2013).

Better World Books does usability testing within its own company. They have not brought in an outside party to do any testing for them in the past.

METHODOLOGY

Each member of PHT Solutions independently reviewed the BetterWorldBooks.com website based on the persona of Alex which is attached in Appendix A. In general, Alex is:

- 20 years old
- Full time college student
- Part time Target employee
- Technical Communications major (probably)
- Dating his girlfriend of the past year
- Middle-class
- Paying his tuition and expenses with help from parents and loans

GOALS AND TASKS

The team selected a series of goals and tasks for Alex to complete on the BetterWorldBooks.com website based on input from the college student interviews used to develop the persona. The goals are detailed in Appendix B and include finding and purchasing several books, selling a textbook back to Better World Books, and finding and purchasing e-books.
HEURISTICS

Our team individually used the persona of Alex to review the BetterWorldBooks.com website using Quesenberry’s 5Es for usability (2011).

- Effective - Can I complete my goal?
- Efficient – Can I do it quickly?
- Error Tolerant – Can I do it correctly or can I easily get the help I need?
- Engaging – Do I like it?
- Easy to Learn – Can I do it correctly the first time?

RATINGS

We individually rated each task relative to the 5Es according to the following severity scale:

- No problem
- Low: Issues would not impact Alex’s ability to complete task
- Medium: Issues that would impact Alex but not keep him from completing the task (e.g. requiring extra steps)
- High: Issues that would prevent Alex from completing a task

The team discussed each task and reached an agreement on the severity rating. The ratings are summarized in Appendix C.
HEURISTIC FINDINGS

PHT Solutions used the persona of Alex Parker in its heuristic study of BetterWorldBooks.com. This section, written from Alex’s viewpoint, describes the positive and negative experiences based on his profile. Using Quesenbery’s 5E method, the team evaluated each task and assigned a risk factor based on the experience. A chart detailing each “E” and the severity is in Appendix C.

POSITIVE EXPERIENCES

SEARCH FOR A BOOK BY ISBN

This was simple. The search bar said I could search by the ISBN number, so it was easy to know where to type it in. Since I had the correct number, the book was found immediately. I mistyped the ISBN a few times; the first time, I got an error saying the book could not be found. The second time, it directed me back to the “Browse Our Books” section. It was easy to retype it in correctly, though. It was the same way I search for books on any other site, but it got the job done.

![Error message](image)

Figure 1 - Error message Alex got when he typed the ISBN in incorrectly

FINDING A HARDCOVER VERSION OF A BOOK TO PURCHASE

This was another task that I found very easy to accomplish. I searched for A Dance With Dragons to find a hardcover copy of the book. The search results specifically showed me it was a hardcover edition of the book, and the book’s page showed this as well. It was exactly what I needed to know and easy to find. I also liked how the book’s page offered me suggestions on other books to try if I like this one. I began to browse through these suggestions as well and was interested in purchasing some to read at a later date.
I do not have a lot of spare money because I have to ration out my savings to get me through each semester, so I like to see the price difference between a new and used copy when I shop for books online. BetterWorldBooks.com made this extremely easy to do. I like to occasionally read manga, so I searched for a copy of Gantz. When I found the book, the page prominently displayed the price differences between new and used copies. The page also showed me other sellers selling same book and their prices as well. I did notice the description of what constitutes the condition of a used book a little vague. What exactly is the difference between a good copy and a fair copy? It is not that important, but it would be nice to know.
NEGATIVE EXPERIENCES

SEARCHING FOR A BOOK BY AUTHOR’S NAME

My English class required me to find a copy of Grammar Girl for class. I did not have the exact name of the book on me, but I had written in my notes the name of the author, Mignon Fogarty. I hoped searching by author would help me remember the name of the book I needed to buy. Unfortunately, BetterWorldBooks.com did not make this easy to do. First, while I got a lot of results returned, they were not placed in any order like alphabetical or by published date. You could sort them by popularity and price, but that did not help me find the book I needed. This was very frustrating to me. I also noticed several misspelled words on the search results. Finally, I don’t know if this is a bug or not, but if I click the search bar again to type in another result, everything that I already had in there disappears. It was confusing. If I clicked out of the search bar, the name came back. I was not sure if I was doing something wrong or not. I would not search for a book on BetterWorldBooks.com by author name alone.

![Search Results for "New & Used Mignon Fogarty Books"](image)

Figure 4 - Search bar clears anything typed in there if user clicks in it

SEARCHING FOR A BOOK BY GENRE (FANTASY)

HBO’s TV show Game of Thrones made me interested in buying the books. I know it is a fantasy book, but when I used the “Popular Categories” menu I noticed fantasy was not listed as a genre. That does not make sense to me. Turns out it was under science fiction. I am not a regular reader of fantasy; I would not know to look under this section. Once I realized this is where the book could be found, I still found it frustrating. What kind of fantasy is Game of Thrones? Epic? Contemporary? I have no way of knowing for sure. I had to click through several links to look for it, but I felt I was wasting time because I could just type it in by name.
I like reading manga occasionally, but I am rather new to it all. I noticed that a lot of the manga I like, though, is published by Dark Horse Manga. They tend to publish more action-oriented material, which is what I like. Different publishers cater to different tastes, so when I find a publisher I like I know I would like anything they do. BetterWorldBooks.com did not make it easy to search for books by publisher. I know Gantz is published by Dark Horse Manga, so I tried to find a copy of it by publisher alone. I found this task to be incredibly frustrating, and I eventually gave up looking for a book this way. I found a lot of books, but like searching by author there was little order to how they were organized. The results I saw did not match my expectations of books I tend to see from Dark Horse Manga. I also noticed three pages of results, but page three was not a search page. It was just a book’s page that I was not interested in. It was completely useless to look for a book this way.

GO THROUGH THE PROCESS OF SELLING A TEXTBOOK

I have sold books back to sites like Amazon and Chegg in the past, so I know the basic steps on how to do it. For the most part, BetterWorldBooks.com followed these steps. There were some steps I found confusing, though. Why is the box to accept terms and conditions at the top of the page instead of near the button to finalize my order? All other sites I go to have it there; when the page told me I did not check this box, I did not know where to find it at first. The page also made me choose a “literacy partner”. I am not against choosing one, but what does each one represent? Why should I choose one over the other? Why should I choose one at all? I just found this another step I had to complete to sell my book. Finally, I did not like how I did not have a final confirmation page confirming my order before clicking the finalize button. What if I made a mistake? I have to go back and do everything again. It feels like selling a book back was an afterthought, in a way. I do not know how often I would sell a book back to BetterWorldBooks.com.
LOCATE AND COMPARE THE PRICES OF PURCHASING A BOOK AND SELLING THE BOOK BACK

To have more money to buy textbooks for class, I often sell my older textbooks back to whomever I bought them from. Knowing how much money I can get back for selling it back while I buy it helps me know how much I can get back for my investment. Sites like Amazon do this and I found it very useful in the past. Unfortunately, BetterWorldBooks.com does not have this information anywhere. It is not on the book’s page or search results. I have to know the ISBN number ahead of time and go through the process of selling a textbook to know how much I will get. This is far too much work for me. Even if I decide to do this, the amount I get back is different depending on the payment choice I make. It is not easy to do and very frustrating.

PURCHASE AN E-BOOK ABOUT TECHNOLOGY FOR UNDER $10

I have a passing interest in technology, and I recently bought an e-book reader. I bought it because a lot of classrooms offer textbooks in e-book format, and they tend to be less expensive than print copies. I searched for e-books about technology. I managed to find the book easily enough. What was not easy was getting the book on my e-book reader. BetterWorldBooks.com says you cannot get books on a Kindle or a Nook. I can understand this; I can reformat the book with a variety of programs if I need to get it on it. The steps to get it on my e-book reader, though, is far too convoluted. First, I have to make an Adobe account. Then I purchase the e-book. Then I have to log back in to BetterWorldBooks.com and go to the section that shows the e-book I bought. Then I have to log in using my Adobe login, then it will transfer the book to my e-book reader. The process works as advertised, but this is far too complicated. It is not worth the hassle when Amazon will automatically deliver the book to me. I do not see me buying an e-book from here.
PURCHASE AN E-BOOK ABOUT GRAPHICAL DESIGN WITH A PUBLISHED DATE OF 2010-2013

I had to find a book published between 2010 and today for class. I felt I could buy an e-book, so I searched for books about graphical design. It did not find any books for this in e-book format. I can understand this; some books just are not available in this format yet. What I found frustrating was that there was nothing under search results showing when the book was published. Searching this way is not effective at all. I had to give up and look elsewhere.
CONCLUSIONS

Overall, the BetterWorldBooks.com website provides acceptable results relative to Quesenbery’s 5Es of Usability. These results include:

- The “Search” and “Compare Price” tasks meet the 5 E’s
- The “Textbook Buyback Process” task works but requires extra steps
- The e-book tasks did not meet the 5 E’s

There were several major issues encountered during testing. These issues will help shape the testing plan PHT Solutions will implement for the test users.

MAJOR ISSUES

HIGH SEVERITY

1) E-book purchase process: not effective, efficient, engaging, error tolerant, or easy to learn.

MEDIUM SEVERITY

1) Extra steps to textbook buyback (literacy partners, drop downs to see different payment formats, etc.): not engaging, error tolerant or easy to learn.
2) No comparison of purchase and buyback prices on same page: not effective, efficient, engaging, error tolerant, or easy to learn.
3) Unable to search by publication date: not effective, efficient, engaging, error tolerant or easy to learn.
4) Search by keyword other than ISBN, author, or title (genre, publisher, etc.) does not provide consistent results: not effective, efficient, or engaging
REFERENCES


APPENDIX A – PERSONA OF ALEX PARKER

Name: Alex Parker

Demographic information: 20 years old, currently an undergrad in college attending sophomore year, Caucasian, currently dating girlfriend for 1+ years

Job: Full-time student while school is in session. Works at Target during winter/summer breaks

Goals: Deciding on a major; interested in pursuing a career in technical communications

Environment: Middle-class family. Father works full-time making $55,000 a year while mother works part-time making $12 per hour doing temp work

Technical expertise: Grew up with Internet, quick to gain interest in “the next big thing”. Enjoys online gaming, chatting with friends with Skype, has a Facebook profile.

Hobbies: Watching/attending baseball games, playing Uncharted online with his Playstation 3, watching movies, spending time with his girlfriend.

Quote: “I may not know where I’m going, but I’ll know soon enough.”

History: Alex grew up in a suburb of Charlotte, North Carolina. The older of two children, his parents believed in the mantra, “Live within your means, but don’t cut everything out completely.” Alex was always a solid B+ student, but subjects like English came easier to him than subjects like math or science. He got a job at the local Target while he was a junior in high school. The summer before he left for college, he saved as much money as he could so he would have a slush fund he could use throughout the semester. Paying for school comes from a mix of both his father and student loans. He does not currently have a credit card, so he purchases material online with his debit card. When he goes online, he knows what he is looking for and does not deviate often from his intentions.

What matters to Alex when he buys books: Alex’s school schedule does not permit him much time to read for leisure, so when he goes online it is usually to find a textbook/e-book for class. He knows the exact book he needs and wants to find them for the lowest price possible. As long as the condition of the book is fair and is not falling apart, he is fine with purchasing it. He wants his book as fast as possible with minimal steps required for ordering.
### APPENDIX B - GOALS AND TASKS

<table>
<thead>
<tr>
<th>Goal #1 - Purchase the textbook &quot;Grammar Girl&quot; for an English class</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Task #1 - Search by ISBN (978080508831/1)</td>
</tr>
<tr>
<td>● Task #2 - Search by Author (Mignon Fogarty)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal #2 - Purchase the fiction book &quot;Dance With Dragons&quot; from George R. R. Martin</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Task #3 - Search by genre (fantasy)</td>
</tr>
<tr>
<td>● Task #4 - Find hardcover version of book to purchase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal #3 - Search for the manga “Gantz”</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Task #5 - Search by publisher (Dark Horse Manga)</td>
</tr>
<tr>
<td>● Task #6 - Compare the prices between new and used copies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal #4 - Sell the copy of the textbook “Usability Testing Essentials”</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Task #7 - Go through process of selling textbook (up to finish)</td>
</tr>
<tr>
<td>● Task #8 - Locate / compare price of purchase VS buyback</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal #5 - Purchase an e-book for pleasure</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Task #9 - Purchase a book about technology that is less than $10</td>
</tr>
<tr>
<td>● Task #10 - Purchase a book about graphical design with a published date of 2010 or more</td>
</tr>
</tbody>
</table>
### APPENDIX C - QUESENBERRY RESULTS

#### Positive experiences

<table>
<thead>
<tr>
<th>Task</th>
<th>Quesenbery criteria</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search for a book by ISBN</td>
<td>Efficient: Book available, and found in one click&lt;br&gt;Effective: Prices easily visible&lt;br&gt;Engaging: Acceptable, but not “fun”&lt;br&gt;Error Tolerant: Other search methods available&lt;br&gt;Easy to Learn: Excellent instructions</td>
<td>None to low</td>
</tr>
<tr>
<td>Find a hardcover version of a book to purchase</td>
<td>Efficient: Version found easily&lt;br&gt;Effective: Simple process&lt;br&gt;Engaging: Book’s page offered other books Alex may enjoy&lt;br&gt;Error Tolerant: No errors encountered&lt;br&gt;Easy to Learn: Task was easy to complete</td>
<td>None</td>
</tr>
<tr>
<td>Comparing the prices between a new and used copy</td>
<td>Efficient: Easy to compare prices&lt;br&gt;Effective: Easy to compare prices&lt;br&gt;Engaging: Finding best deal engages Alex&lt;br&gt;Error Tolerant: No errors encountered&lt;br&gt;Easy to Learn: Process was easy to follow</td>
<td>None</td>
</tr>
</tbody>
</table>

#### Negative experiences

<table>
<thead>
<tr>
<th>Task</th>
<th>Quesenbery criteria</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searching for a book by author’s name</td>
<td>Efficient: Names not in logical order (alphabetical, published date, etc.)&lt;br&gt;Effective: Book was found eventually&lt;br&gt;Engaging: Misspellings and lack of sorting was frustrating to Alex&lt;br&gt;Error Tolerant: No errors encountered&lt;br&gt;Easy to Learn: Search tools were easy to use</td>
<td>Medium</td>
</tr>
<tr>
<td>Searching for a book by genre (fantasy)</td>
<td>Efficient: Fantasy is not a listed genre on its own&lt;br&gt;Effective: Too many subgenres of fantasy confused Alex&lt;br&gt;Engaging: Confusing and boring to search this way&lt;br&gt;Error Tolerant: No error messages encountered&lt;br&gt;Easy to Learn: Once found under science fiction, fantasy literature as a whole was easy to find</td>
<td>Medium</td>
</tr>
<tr>
<td>Searching for a book by publisher</td>
<td>Efficient: Too many variables (“Dark Horse Manga” finds 3 pages, “Dark</td>
<td>Medium</td>
</tr>
<tr>
<td>Activity</td>
<td>Efficiency</td>
<td>Engagement</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
</tbody>
</table>
| Horse Comics finds 245 pages, and “Manga” finds 394 pages)             | Effective: No organization to results, and the final screen was not a search page  
Engaging: Too frustrating to search for a book in this manner  
Error Tolerant: Final page is not a search result page  
Easy to Learn: Cannot search in this method |            |            |                 |          | High       |
| Go through the process of selling a textbook                           | Efficient: Process works as advertised  
Effective: Process works as advertised  
Engaging: Alex felt no compelling reason to choose a specific literacy partner. 10 minutes to confirm order.  
Error Tolerant: No final confirmation page presented before finalizing order  
Easy to Learn: Terms and conditions at top, unlike other websites |            |            | Medium         |          | Medium     |
| Locate and compare the prices of purchasing a book and selling the book back | Efficient: Both prices not available on one page  
Effective: Both prices not available on one page  
Engaging: Both prices not available on one page  
Error Tolerant: Alex needed to make sure he was comparing the same book  
Easy to Learn: Both prices not available on one page |            |            | Medium         |          | Medium     |
| Purchase an e-book about technology for under $10                       | Efficient: e-book download process difficult and convoluted  
Effective: Process works  
Engaging: Multi-step instructions  
Error Tolerant: Reminders about e-book rules, no returns for e-books  
Easy to Learn: Process was difficult |            |            | High           |          | High       |
| Purchase an e-book about graphical design with a published date of 2010-2013 | Efficient: Publication date search not available  
Effective: Can find book, then check publication date  
Engaging: Takes longer than expected  
Error Tolerant: Publication date search not available  
Easy to Learn: Requires checking date for each book |            |            | Medium         |          | Medium     |