Measuring Usability in the Online Distribution of Independent Music

Usability Study by Cabe Lindsay

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Designs and Strategies for New Media

Dr. Min Liu
Introduction

Digital audio downloads began to gain popularity after the launch of the iTunes Store and the creation of portable music players. Early online providers featured primarily the music of major record labels, but others found a niche in selling the music of independent labels and artists. Some of the early specialists in the distribution of music for independent (indie) recording artists included eMusic and Rhapsody, both of which transitioned into a product line that featured more mainstream content. The market of online music sellers became saturated with competition, and at the time of this study there were an estimated 100+ websites devoted to the distribution of indie music. Online distributors of indie music are the focus of this study.

Naturally, an in-depth analysis of these websites began with a large-scale pre-test screening. From an initial sample set of over 70 websites, three were chosen for this usability test: CD Baby (www.cdbaby.com), GarageBand (www.garageband.com), and PayPlay (www.payplay.fm). These were similar in content, but radically different in design. A comparative study was built around the idea of measuring each site’s usability, in order to identify best-practice techniques embraced by the leading websites in this category. The study administrator composed a list of tasks, selected a couple of non-biased participants, and observed them in experiencing the websites as if they were ordinary users of the respective sites. Test participants encountered hurdles in each of the sites, and the moderator noted all obstacles as potential opportunities for improvement in the three aspects of design: interface, information, and interaction.
Methodology

This usability study was guided by the methodology of the book, *Handbook of Usability Testing* [Rubin 2008]. As a comparison text, the study administrator observed several radically different interface styles to see which delivered the most positive overall value to users. This research study involved the following tasks: familiarizing the user with the basic functions of the respective websites, encouraging exploration and discovery, focusing the users’ attention toward specific areas of interest, and making use of some of the dynamic features on each site. These tasks were executed in a way that simulated the process of experiencing new music as a listener. The participants’ actions were noted by an over-the-shoulder moderator.

For emphasis in design aspects, this study was centered on the assessments of interface, information, and interaction. For example, users participated in tasks that highlighted the effectiveness of interface design, such as whether pictorial buttons or textual buttons were preferred. The tasks also measured the substance and value of the information present, as well as measuring the efficiency of interactivity. These tasks answered questions about each site’s ease of use in finding information, and they presented solutions to help streamline the display of information. Interactive components, such as comments, posts, and online forms were examined to reveal areas of strength and weakness, uncovering opportunities for improvement in the tested websites.
Websites Evaluated

Three websites were selected for usability testing: CD Baby, GarageBand, and PayPlay. Each of these websites was a self-proclaimed leader in online music distribution of independent, unsigned recording artists. These sites provided access to immense collections of music for listeners, along with valuable tools that enabled recording artists to share their music. CD Baby called itself the largest online distributor of independent music. GarageBand, not to be confused with the Apple software of the same name, was an indie music site operating in partnership with MySpace Music, which granted access to millions of people on a daily basis. PayPlay advertised its large-scale stature, with nearly 2 million songs of independent music in its collection.

This study began with a preview of 70+ websites specializing in the distribution of music for independent recording artists. From this initial sample set, about half of them were cut from contention because they focused more heavily on the artist-centered service of providing digital distribution, but these sites offered minimal listener-centered services, such as previewing and downloading new music. For example, The Orchard (www.theorchard.com) and Record Union (www.recordunion.com) specialize in providing promotional services for new bands. From the remaining sites, a number of them were eliminated because of unprofessional qualities that could disrupt a usability test due to annoyances. In fact, some sites contained music that played instantly on the homepage with no volume control in sight, or off switch.

Some of the sites that remained were too small, meaning that the library of music available was not substantial enough to qualify as having a large user base, e.g. Inzu (www.inzu.net) and Choosik (www.choosik.com). A few were eliminated because the music availability was too mainstream, e.g. eMusic (www.emusic.com) and Rhapsody
(www.rhapsody.com). The final 10 websites in contention were selected because of similarities in size and scope, each with a wide range of music covering all major genres. Most important, these 10 websites provided the dual service of facilitating new music listening and new music sharing, allowing independent recording artists to get their music heard while also allowing listeners to discover new music.
GarageBand website

PayPlay website
Study Participants

Two people participated in this study. Neither of them had prior experience in using the test sites, although one was familiar with CD Baby ahead of time. Participant A was a 26-year-old Caucasian female with a BA degree, working as a preschool teacher. She was an avid music fan with a preference for alternative folk performers such as Bon Iver and Band of Horses, attending concerts or music-related events at least once every two months. Participant B was a 28-year-old Hispanic male with no college education, currently working as a professional guitarist and part-time prep-cook. He was formally educated in music theory and composition, with a long history of training and performing as a musician. His style was self-described as “dark and beautiful,” belonging to the Hard Rock category alongside bands like Mars Volta and Soundgarden. These participants were selected as a result of their open availability and enthusiasm in participating. They were in no way a random sample, and so their observations were not entirely unbiased or unpredictable. However, they were reasonable users of the tested sites, both being fans of independent music and living in the Live Music Capital of the World. They qualified as appropriate choices.

Instruments

The study began with the administrator’s introduction to the procedure along with a basic explanation of the situation at hand. Participants were informed in advance that the moderator’s presence was only to observe, but not assist. However, participants were encouraged to think aloud, and talk through any issues they encountered. Participants were given a consent form (Appendix A), followed by a task sheet (Appendix B). Then, the participants followed the
sequence of tasks outlined on a task sheet while the moderator observed from an over-the-shoulder viewpoint, noting the actions and dialogue of the participants. The testing procedure required participants to complete individual tasks in no longer than two minutes and to pace themselves for completing the entire workflow for each site within 30 minutes.

**Usability Tasks**

Participants were asked to complete tasks that covered the major service offerings of the websites, as if they were ordinary users (see Appendix B for the complete list of tasks). First, participants followed a series of previewing tasks, allowing them to become familiar with the sites’ interface design. Next, participants searched for specific content in the sites, relying primarily on the search engine to find specific information. Then, they focused on the interactive component, being invited to utilize some of the sites’ dynamic features.

In the first set of tasks, participants were asked to preview the site. This focused the attention on the interface design of each site. In this series of steps, participants relied on the interface to preview random songs and browse in different genres of music, observing the presentation of information. They experienced the music player, which was a crucial interactive component in each of the sites. Here, they witnessed at least one limitation in all the sites: the information was incomplete. Specifically, they discovered that each site had shortcomings in its the list of music genres – certain genres were unreachable.

Second, participants were asked to peruse the contents of the website, relying on the search engine to find specific information. These tasks focused attention on the variety and quality of information available on each site. In this set of steps, participants located a particular
recording artist, viewed the artist’s profile page, and previewed a song by the same artist. Participants later searched for an ambiguous name that returned overly abundant results, and they were asked to refine the results by being more specific with their search parameters. Explorations of information concluded by searching for an artist’s name that was not present in any of the sites.

The third set of tasks involved two of the social features of this site: viewing and submitting album reviews as listeners, and signing up as a contributing artist. These tasks focused on the usability of the interactive components. Here, participants were tasked with locating the current ratings of a particular album, which was a consistent 5-star scale on each site, and then finding a link to submit a rating of their own. Then, similarly, they observed the process of submitting an album review. Finally, they observed the processes involved in creating a profile. Here, they accessed the sites’ registration forms, where they could sign up as artists and sign up as listeners.

Data and Results

Interface

In the first set of steps, participants began to experience the functionality of the interface. Tasked with briefly previewing two random songs found on the homepage, Participant B immediately identified a problem with the CD Baby interface: the song that was playing did not automatically stop when a new song was set to play, so multiple songs were being played at the same time. CD Baby required listeners to press Play and Stop before selecting Play on another
audio track. The other sites avoided overlapping the songs – when a second song was queued to play, the first one automatically stopped. Participant A did not notice the issue, since she instinctively pressed Stop on the first track before previewing the next one.

In the three test sites, the music player was the most important component of the interface – otherwise the sites would not have served the primary benefit of allowing users to listen to music. Previewing the various music players, Participant A expressed distaste for GarageBand’s music player. “I can’t read anything,” she said, commenting on the extremely small, hard-to-read text in the music player. Upon clicking a link to preview a song, GarageBand’s music player opened in a pop-up window, annoyingly, and there was occasionally some lag time before the music began, so the user was unsure whether or not it was working. On the positive side, there was a clearly-marked link below the music player that read: “Report problems by clicking the “HELP” button above. Another favorable quality of GarageBand’s interface was that it allowed the user to gradually adjust the volume via an unmarked sliding bar. The other two sites did not allow volume adjustment; their music players were limited to play and stop only.

After previewing songs on the homepage, participants were asked to use the interface for browsing. First, they browsed artists in the style: Folk. Each site had a “genres” section clearly marked, and both participants located the Folk section easily. Once reaching the Folk section of the GarageBand site, Participant A was surprised to find only five songs in this section, until she later discovered the “More Folk” link. This text link was small and hard-to-find, yet it was vital to the user because it showed that the Folk section was much more substantial than the user originally perceived. The CD Baby site required a click on the “genres” section before viewing the categorized list of genres, whereas the other two sites displayed this list on the homepage.
Later in the first section of tasks, participants were asked to locate three subgenres of music that were less easy to find. While the Folk genre was clearly identified, Reggae was listed only as a subgenre of World music in PayPlay. Participant B located the Reggae subgenre of World music easily, which was understandable because of his broad comprehension of musical forms. However, Participant A looked first in the Urban/R&B section of PayPlay, and did not find the Reggae subgenre there, but she did find it on her next try. In the GarageBand site, Reggae was accessibly only via a small text link that read: “View all genres.” However, CD Baby listed Reggae as its own genre, and so the Reggae section was easiest to find there.

Next, participants searched for Bluegrass and Funk genres. Bluegrass was present only as a subgenre of Country, which was not necessarily intuitive. Participant A searched a number of genres before looking in Country for the Bluegrass subgenre. Thinking out loud, she said, “Is it under Blues? Under Folk?” These were both reasonable options for someone who vaguely knew the Bluegrass genre but did not immediately associate it with Country music. She even tried typing “bluegrass” into the search engine of CD Baby, but it resulted 1000 irrelevant results: artist and albums names that included the word, Bluegrass, but no link to the Bluegrass section of music. On the other hand, Participant B pinpointed the Bluegrass subgenre easily, knowing ahead of time that Country was the larger category of Bluegrass.

Likewise, Funk’s location was not intuitive, present only as a subgenre of Urban/R&B in CD Baby. Again, Participant B located this genre fastest. In the GarageBand site, both participants found the Funk genre by selecting the “View all genres” link at the bottom of the genres menu. In the PayPlay site, both participants spent the maximum allotted time (two minutes) searching for the Funk genre. There was in fact a Funk section, but it was not easily identified. Participant A came closest by submitting “f-u-n-k” in the search engine, resulting in a
list of artists, album titles, and song titles with the key word. She selected an artist, Funk Shui, which listed Funk as a descriptive genre, but she did not select the link to take her to that section. Instead she went in a circle, attempting to use the search engine again. She said, “Must’ve missed it.”

Participant B’s search for the Funk genre proceeded as follows. First, he browsed the genres and subgenres menus. He did not find it under Urban/R&B, so he tried Jazz, then Rock, and then he tried Urban/R&B again. He still did not find it, so he chose another route. He selected the BROWSE button, which led him to an icon labeled “By Genre” with text that read: “Browse 19 genres and 784 subgenres of music.” He selected this link, and then a link in the Urban/R&B section that read: “All 29 Urban/R&B genres,” which took him back to the same, initial Urban/R&B section he had already reached numerous times. He did not find the Funk genre, so he gave up. He had extended his two-minute limit anyway.

If Participant B had looked more closely, he might have noticed that there were two separate sections of subgenres listed on this page: (1) “Top Urban/R&B Styles,” with five
subgenres listed; and (2) “All Urban/R&B Styles,” with the remaining 24 subgenres. Section #1 of subgenres was plainly visible, but #2 was hidden from view by default. The only sign of the hidden #2 section was an arrow indicator, showing that it was a collapsible list. This issue would have been reconciled by listing all 29 subgenres in one section, and perhaps treating the top categories of these subgenres with a slightly different font treatment, like larger text or bold text. Or, better yet, a double drop-down button would be perfect – a single textual button with the word, Genre, on it and a drop-down menu, with drop-down submenus.

PayPlay expanded list of subgenres

Following the list of tasks that sent participants browsing in various genres of music, the participants were asked to return to the homepage. In the PayPlay site, Participant A experienced difficulty in finding a link to return to the homepage, because it was located only in the right-hand column, in the shape of a brand image, and it was not marked as “HOME.” Participant B found it faster, by locating the logo and clicking it, but there was still a short time of hesitation because the link to return home was not as noticeable as the other sites. This could have been easily remedied with an additional HOME button in the top navigation structure,
perhaps just to the left of the “BROWSE” button. The other two sites made it easier to return home, each with a clearly marked HOME button at the top-left corner of the screen, as well as a banner logo link. From the genres pages, CD Baby displayed a breadcrumb trail with a simple path of links leading back to the homepage. Similarly simple, GarageBand listed HOME as the first button in the horizontal navigation structure at the top of the page.

Information

The second set of tasks involved searching the contents of each site for information. Participants entered the artist name, Amy Steinberg, into the search engine of each site. This was an easy task for both participants, and each site revealed the correct artist as a first choice. GarageBand listed two results while CD Baby found eight results. PayPlay, on the other hand, found the exact match along with 165 similar artist names, 13 album titles, and 238 track titles. PayPlay’s search results included every artist with the words, Amy, or, Steinberg, in the name. PayPlay’s search engine model would have been a godsend for a user who did not know the exact spelling of an artist, album, or song title, because it listed results that were close matches, instead of only exact matches. CD Baby and GarageBand yielded zero results for Amy Stenberg (misspelling), while PayPlay revealed 161 artist names, including the right one.
One noteworthy observance of this initial search task was that Participant B, in PayPlay, did not immediately see that the search results had correctly listed Amy Steinberg first. This may have been due to the fact that PayPlay listed search results in several categories, with various font treatments and highlights, creating an issue of clutter. In this example, categorized search results in PayPlay included: exact match, closely matching artist names, closely matching album titles, and closely matching track titles, all of which might have been beneficial to the user in terms of presenting the information in an organized fashion. CD Baby took a different approach, listing all of the results together, uncategorized, in order of closeness. Here, results were simply marked by the category, e.g. Artist, Album, etc., but the categories were not separated.
While testing the GarageBand site, Participant B selected a link that read: “Advanced Search,” found under the main search engine. Here, he accessed a helpful list of search options that include defining whether the user was searching for a band, song, or album, as well as searching within a specific genre and/or searching in a particular region of the U.S. These advanced search features were not immediately accessible on the other two sites – PayPlay required an initial use of the main search engine before the advanced search features were present. Similarly, CD Baby allowed users to refine results, but only after using the main search engine. Participant B used GarageBand’s Advanced Search option in the task of finding the song title by Amy Steinberg, called “Exactly.” He found this song instantly – it was listed as the first search result even though he did not add the artist’s name. Without using GarageBand’s Advanced Search, the ordinary search engine in GarageBand yielded only two results for the word, Exactly, neither of which was a song title.

Testing the various search engines revealed some additional strengths and weaknesses of the sites. Overall, each site’s search engine was effective in displaying results as long as the item of interest was spelled correctly. In one task, participants were asked to search for the name, John. This ambiguous name yielded over 1,000 results on CD Baby and PayPlay. GarageBand did not state the total number of results, and instead allowed users to preview only 20 results at a time – this would have required 50 consecutive links to get through 1,000 results, which would have been downright infuriating. Participant B selected GarageBand’s “Next 20” link, and then checked it repeatedly three times before moving on to the next task.

Participants refined their search with the name: John Brown, with improved results. In the area of search engines and search results, Participant A strongly favored PayPlay because of its helpful way of handling non-results: “We don’t have Jamiroquai, but we have 211 albums by
artists like Jamiroquai.” Following the test of PayPlay’s search engine, Participant A said, “That’s good. It’s the best I’ve seen.” GarageBand handled the Jamiroquai search query this way: “No GarageBand.com artists are named like Jamiroquai. Try simplifying your search,” but the search query was already simplified as much as possible. Seeing this, Participant A said, “Um, that’s just bad advice.” When Participant A searched for Jamiroquai in CD Baby, her query revealed 277 instances of artists and albums that were not Jamiroquai, but they were simply “Recommended if you like Jamiroquai,” to which she replied, “There should be a message first that says ‘Jamiroquai is not found, but here are some related…”” CD Baby listed recommended similar artists for people looking for a sound like Jamiroquai’s, but the site neglected to inform the user that no exact matches were found.

On the other hand, Participant B actually showed preference toward the CD Baby search engine in the task of searching for the artist, Jamiroquai. He browsed through the search results, with all the recommended artists listed, and he stopped at an artist called, Antennas Up. The Antennas Up link included the statement: “Recommended if you like Gnarles Barkley, Gorillaz, Jamiroquai…” Participant B said, “I like these bands,” and then selected the link, which took him to the band’s profile page. Here, a single album was listed, with a tagline that read: “If the Gorillaz remixed an old Stevie Wonder record,” to which Participant B replied, “Nice. Bring it on,” as he selected a link to view the album. On the album page, he pressed the Play button to preview the first song, listened for a few seconds, and then pressed Play on the second song. Both songs were playing loudly at the same time. Noticeably aggravated, he clicked the banner link to return to the homepage, terminating his preview of the band, Antennas Up. He added, “That sounded nothing like Stevie Wonder. Nothing.”
The final subject tested in this usability study was the sites’ interaction. The element of interaction benefitted users from two different perspectives: as listeners and as artists. From the artists’ standpoint, these websites facilitated self-promotion, not to mention direct sales of CDs and digital music downloads. From the listeners’ standpoint, these websites provided access to music they would not likely hear elsewhere. These websites enabled listeners to preview and purchase music they liked. So, the usability test covered the basics of setting up accounts as both an artist and as a listener. Until this point, the test participants had been using the site as listeners, but here they would have a chance to experience the interactive components available to artists too.
Tasked with accessing the user profile section as an artist, Participant A found the section easily in the CD Baby site, selecting a button called “Artist Sign Up,” and she found it easily in the GarageBand site, called “Musicians Only,” but she struggled to find the link on the PayPlay site. Like the problem with PayPlay’s Home link, she was looking for another button hidden on the right-hand sidebar. She found it after 30 seconds of searching, and it read: “Want Your Music On PayPlay?” PayPlay’s user profile section for artists granted Participant A the option of submitting her band’s information into an online form, and requesting to be added. Curiously, a noteworthy comment appeared above the online form: “If you are an artist or a small label and interested in selling your music on PayPlay.FM, we highly recommend CD Baby.” CD Baby was clearly the specialist in the area of support for independent recording artists.

Both participants spoke favorably of the CD Baby website, superior for its “Artists Services” section. Participant B, the professional guitarist, said, “I need to get [my band] on this
Presented with two large, colorful, pictorial buttons that read: “Learn More,” and “Get Started Now.” He chose the Learn More button, and browsed extensively throughout this section of the site, stopping at a long list of different options for selling music on CD Baby. After two minutes of browsing, he returned to the title page of the Artist Services section, and this time selected the Get Started Now button. Participant A also illustrated the ease of navigating the Artist Services section, quickly exploring the pricing guidelines and then viewing the reasons to join as an artist. She clicked on six different links, checking out the options for selling downloads and CDs, and viewing a variety of additional services available to artists on this site. One major limitation was noted here, though, because once reaching the Artists Services section of CD Baby, there was no clear link to the homepage.

GarageBand handled the artists’ section differently, and it did not invite interaction. The first thing that appeared in the GarageBand artists’ section was a series of obtrusive and irrelevant banner ads. In GarageBand, musicians were required to choose a category before signing up, e.g. sell your CDs, sell your downloads, promotion, etc. This step was unnecessary, especially in the case of an artist wanting to utilize more than one of the categorized services. Participant B asked out loud, “What if I want to sell CDs and downloads?” In GarageBand, the “Sell Your Downloads” link was seven buttons away from “Sell Your CDs,” with several seemingly unrelated ones in between: “Equipment,” “Ringtones,” “Software,” and others.

As already noted, the PayPlay website was less specialized in services for musicians, and the site addressed this openly by recommending CD Baby as a setup tool for artist’s distribution services. Although it was below par in the artists’ signup section, the PayPlay website was superior in the listeners’ signup section. There, a verified email address was the only information required in order to submit reviews, add album ratings, and contribute in other social
areas as well. All three sites required email confirmation in order to review music. To Participant A, the CD Baby signup process was excessive, involving too many steps in the required online form. Looking at the CD Baby online form, she said, “That would probably take me longer than two minutes to fill out,” limiting herself because of the time restraints of this test.

Neither participant was asked to complete the registration process. Instead, they were asked to observe the steps required in order to do so. Here, they witnessed the potential to interact with other users by offering recommendations, sending feedback to artists, and experiencing music collaboratively. Participant A checked out the “Review Music” section of the GarageBand site, but then noted that she did not remember seeing any reviews in the artist profile pages she visited. In fact, even the most popular, highest charted bands on GarageBand did not display reviews on the artist profile pages. Why was GarageBand inviting listeners to review music, but neglecting to display the listeners’ reviews? Were they trying to create an illusion of interactivity? Reviews on the other two sites were clearly displayed, including both ratings on a 5-star scale and written feedback.

After completing the list of tasks, participants were asked to share comments regarding their overall impressions of each of the three websites. As a whole, the PayPlay site appealed most to Participant A. “It is open, flowing, and inviting,” she said. She also noted the interface’s clean presentation and the pleasantness of the color scheme, compared to the other sites. Participant A disliked the interface of GarageBand. She called it an “overwhelming, crowded layout.” In actuality, GarageBand was the most narrow, compact interface, but its clutter and small text made it difficult to read, and cumbersome. In terms of information, PayPlay kept the edge again, with its effective search engine. Improvements could have been made in all three sites, however, by improving the ability for users to search for subgenres in the
search engine. At the time of testing, none of the three search engines was effective in revealing the section of Funk music, for example. The interaction component was best in CD Baby, according to Participant A, noting the excellent “Artists Services” section.

Table 1: Participant A’s Ratings of Three I’s of Design

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In the viewpoint of Participant B, CD Baby was preferred in the standpoints of both artists and listeners. He said, “For a musician, CD Baby is best by far. Obviously. The others don’t even come close.” It was easy to see his reasoning – he was a musician, and he found all the desired services for a musician in the CD Baby site, but not on the others. Stylistically, he noted qualities of simplicity in the interface of PayPlay, while also stating, “PayPlay isn’t really me – it’s kind of girly. But it reminds me of Apple. I like Apple.” By “Apple,” he was referring to the electronics/computer company, of course. “CD Baby is my style - dark. My only beef is that it seems busy, and it’s harder to find what I’m looking for.” He said, “GarageBand is just butt-ugly.” :)

Table 2: Participant B’s Ratings of Three I’s of Design

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Discussion

This comparative study assessed the usability of three leading websites specializing in distribution of independent, unsigned recording artists. By comparison, CD Baby earned the highest marks (22 out of a possible 30), slightly edging out PayPlay (21), while GarageBand (11) was not at all in contention, except in its relatively effective display of information. Despite earning better marks than CD Baby in the Information category, GarageBand received the lowest mark possible from both participants in the other categories. Between the two leaders, Participant A preferred the interface of PayPlay, while Participant B preferred CD Baby. Where CD Baby won was in the Interaction category, for which Participant B gave a perfect 5-star rating. CD Baby was appreciated for its excellent way of inviting interaction, presenting ample options for users to contribute to the site by giving and receiving feedback and collaborating with other users.

Based on the moderator’s observations, the usability tests revealed the following recommendations for optimal interface design: (1) elastic width in the body content area to fill the browser space flexibly; (2) large, legible font for comfortable readability; and (3) self-contained music player that functions with standard Play and Stop features, plus volume adjustment. Regarding the recommendation for elastic width in the body content area, PayPlay utilized this technique – its elasticity allowed it to collapse for narrower browsers and expand to fill wider browsers. The downside of an inelastic (static) display was typified in the interface of the GarageBand website, which was strikingly narrow at only 800 pixels in width. In a wide browser display, the GarageBand site appeared to have less substance than it had negative space,
i.e. large, blank background area. CD Baby was 20% wider, at 956 pixels, a standard width at the time of testing, but it was not ideal for custom browser displays since it was static, and therefore inflexible.

Regarding text treatments in the interface design, GarageBand was the epitome of a site with poor typography. GarageBand broke all the rules of classy web typography: overly small fonts, textual links of different colors (blue, black, and orange) and different styles (underlined or not), and numerous font colors and backgrounds. All of these problems factored in to the clutter, chaos, and poor usability of this site. CD Baby was also cluttered, with too many different font treatments. The CD Baby typographical elements seemed to employ every trick in the book: bolding, italicizing, underlining, color varying… On the positive side, though, the fonts were large enough to be legible on both CD Baby and PayPlay. The PayPlay site also appropriately treated links with a consistent highlighting effect in every instance – textual links of every shape and size were all highlighted when a user hovered over the link with the cursor.

A third interface design consideration was the presentation and functionality of the music player. There were minor shortcomings in CD Baby’s, and severe problems in GarageBand’s. PayPlay, in contrast, handled its music player agreeably – it simply played songs when prompted, and stopped them when prompted. The CD Baby music player was practically the same as PayPlay’s, but an error occurred in CD Baby’s when two songs were played at the same time – if one song was playing when a second song was selected, then the first one should have stopped automatically so that the second one could be heard. GarageBand’s music player was much worse. It was unattractive, required a pop-up window, and again, the font treatment was awful. There were twelve different font treatments in the little GarageBand music player, and most text was needlessly small.
In terms of usability, the study administrator noted the following recommendations for optimal design of information: (1) main genres listed on homepage with subgenres easily accessible; (2) link to homepage clearly marked at the top of the screen, preferably in the top-left corner of the banner area; (3) search results include closely matching results but not requiring exact match; and (4) search engines politely respond to situations that require a polite response.

Regarding genre listings, GarageBand was the only site that lists main genres on the homepage, and subgenres were available there via a textual link that reads: “View all genres.” However, the list of genres took up more space than it needed to – this list could have been displayed as a drop-down list under a single textual link: “Genres,” along with a submenu as a second-tier drop-down list. With a two-tier navigation menu, all of the 100+ genres and subgenres could be organized under a single button.

The central page in each site was its homepage, and so every page needed a clear link to the homepage. CD Baby and GarageBand utilized the logo in the left-hand corner of the banner area as this link, and they doubled their efforts by including a textual link that clearly read:
“Home.” CD Baby’s Home button appeared in the breadcrumb trails displayed on every page past the homepage. GarageBand’s Home button appeared in the top-left corner of the horizontal navigation structure. PayPal did not have a Home button, and there was no logo in the left-hand corner of the banner area. Instead, the only link home was the unmarked logo near the top of the right-hand corner of the screen. This was difficult for test participants to find, and it could be relieved by including a textual Home button in the top banner area alongside the Browse button.

Regarding the presentation of information, the search engine functionality of all three sites allowed users to easily find the information they sought. These content-rich websites contained immense libraries of artists and their music, and each offered the ability to utilize advanced search functions, such as limiting searches to artist, album, or song. However, the search engines varied greatly in terms of the results they yielded. PayPal’s was a cut above the others. By including search results that were not exact matches, PayPal’s search engine allowed users to make errors in spelling or naming without halting the entire search effort. Also, if a term yielded no results, PayPal’s messaging was polite, honest, and helpful, directing users to alternative solutions. CD Baby and GarageBand, on the other hand, were not as accommodating when an exact match was not available. In this case, CD Baby often listed non-matching search results that were practically irrelevant to the intended search. In the same instance, GarageBand seemed to make no effort whatsoever, simply stating that no results were found.

Finally, in terms of usability, the following opportunities surfaced: (1) keep the registration process simple in order to make the signup and login process as fast and easy as possible; (2) encourage listeners to contribute ratings and reviews by offering incentives; and (3) encourage artists to contribute their material by offering incentives. To register as a user of the CD Baby site, a user was asked to complete an online form with 10+ different fields to fill out,
requiring personal information such as phone number and address. PayPlay, on the other hand, required only a simple email address. Sharing personal information was a burden to users, and it likely turned away some of the prospective registrants. Maybe this filtering effect was desirable, but the email address alone might have been sufficient in weeding out deviants, especially sense the email needed to be verified before proceeding in the login process.

Offering incentives for user-based contribution was another technique that came to light in improving interaction design. CD Baby presented this nicely in its Artist Services section, where a user was exposed to numerous services and resources, all illuminating the benefits of interacting with the site. GarageBand similarly listed a number of incentives in its Musicians Only section, but the substance of these benefits was weak, and it was further diluted with advertisements. The GarageBand website failed again by neglecting to feature the reviews that had been submitted by listeners, whereas CD Baby and PayPlay published reviews and ratings prominently. Listeners on CD Baby and PayPlay had an incentive to review and rate music: their contributions were published for the world to see. This incentive allowed listeners to interact with the artists, as well as other fans, while adding value to the websites by increasing the information present in them.

Summary

This study was designed to illustrate the usability of three leading websites specializing in the service of distributing new music from independent artists. A comparison test revealed both the virtues and shortcomings of these websites, highlighting specific opportunities for improvement in the design of each site’s interface, information, and interaction. CD Baby and
PayPlay were highly rated by testers, who leaned slightly toward CD Baby as the leader in all-around user-friendliness. The GarageBand website measured up in the design of information, but bombed in the areas of interface and interaction design. The moderator, having the advantage of seeing all perspectives, agreed in the distaste for GarageBand, but indicated preference toward the overall design of PayPlay as the leader.
References


Related Links

http://www.cdbaby.com

http://www.garageband.com

http://www.payplay.fm

This paper is written by Cabe Lindsay for the course EDC385G Designs & Strategies for New Media at the University of Texas – Austin.
Appendix A

Consent Form

You have been scheduled to participate in a research study about online shopping. Our purpose in conducting this study is to understand what makes some websites easier to use than others. The results of this study will be published in professional reports to help website developers create more user-friendly sites.

Please keep in mind that this is a test of websites; we are not testing you! Please bring the completed background questionnaire with you to the study. In the session, we’ll ask you to visit some websites and shop for various things. You will not be required to actually buy anything or to enter any personal or credit card information online (any such information that you voluntarily choose to enter online is your responsibility).

All information we collect concerning your participation in the session is confidential. We will not videotape or audiotape the session. We will use the information for statistical and summary purposes only and will make certain that your name is not associated with your records.

To the best of our knowledge, there are no physical or psychological risks associated with participating in this study. During the session, the study administrator will assist you and answer any questions. You may take short breaks as needed and may stop your participation in the study at any time.

Statement of Informed Consent

I have read the description of the study and of my rights as a participant. I agree to participate in the study.

Study Participant     Study Administrator

Signature ______________________  Signature ______________________
Date  ______________________  Date  ______________________
Appendix B

Task Sheet

Please complete the following tasks, spending no longer than two minutes on each of the bullet points. Estimated time of completion is 30 minutes for each website tested.

1. Previewing the Site
   a. Find two random songs found on the homepage.
      - Listen briefly to each of the two random songs.
   b. Browse artists in the style: Folk.
      - Find the most popular tracks in the Folk genre.
      - Listen briefly to the top song in the Folk genre.
      - Press the stop button on your song preview.
      - Press play again, and then adjust the volume, if possible.
      - Press the stop button again.
   c. Locate the section of music in the Reggae genre.
   d. Locate the section of music in the Bluegrass genre.
   e. Locate the section of music in the Funk genre.

2. Searching the Contents
   a. Locate the search engine.
      - In the search field, enter the artist name: Amy Steinberg.
      - View this artist’s profile page.
      - Preview a random song by this artist.
      - Find the song by this artist named, “Exactly,” and preview it.
   b. Using the search engine, enter the name: John.
      - View the results.
      - Refine these results by searching for: John Brown.
      - Preview a song by this artist.
   c. Using the search engine, enter the name: Jamiroquai.

3. Submitting a Review
   a. In the search field, enter the artist name: Amy Martin.
   b. Find the album by this artist titled: Bind Me To Free.
      - Select the album to access the album’s page.
   c. Locate the current 5-star rating of this album.
      - Find a link to submit a 5-star rating of your own.
      - Select the link and stop once you reach the signup sheet.
   d. Locate the current reviews of this album.
      - Find a link to submit a review.
      - Stop once you reach the signup sheet.

4. Creating Your Profile
a. Find the area where you would go to sell your music on the site.
   • Access the artist signup sheet.

b. Find a link to return to the homepage.
   • Click it to return to the homepage.

c. Find the area where you would sign up as a customer (listener).
   • Access the listener signup sheet.
   • Submit a false email address on the registration form: rainbowsprinkles@hotmail.com.

d. Return to the homepage.

You have reached the completion of this test. Thank you for your time.
# Appendix C

Test Participant Ratings

<table>
<thead>
<tr>
<th>Company:</th>
<th>CD Baby</th>
<th>GarageBand</th>
<th>PayPlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL:</td>
<td>cdbaby.com</td>
<td>garageband.com</td>
<td>payplay.fm</td>
</tr>
</tbody>
</table>

| Interface: |         |            |         |
| Information: |       |             |         |
| Interaction: |      |              |         |
EDC 385G Designs and Strategies for New Media

Guidelines on the Research Component
Date Due: 11:59pm on April 21

Name: Cabe Lindsay

Web sites for Evaluation:
CD Baby (www.cdbaby.com)
GarageBand (www.garageband.com)
PayPlay (www.payplay.fm)

Grading (For instructor use):

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Complete (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included ALL sections as required? (3 pts.)</td>
<td></td>
</tr>
<tr>
<td>Formatted the report accordingly? (2 pts.)</td>
<td></td>
</tr>
<tr>
<td>Evidence of careful selection of the evaluation criteria? (5 pts.)</td>
<td></td>
</tr>
<tr>
<td>Evidence of in-depth and focused discussion (5 pts.)</td>
<td></td>
</tr>
<tr>
<td>Evidence of comprehensiveness in discussion (5 pts.)</td>
<td></td>
</tr>
<tr>
<td>Quality of work as demonstrated in completing the evaluation and writing (5 pts.)</td>
<td></td>
</tr>
<tr>
<td>Grade- Total 25 pts.</td>
<td></td>
</tr>
</tbody>
</table>