

USING EBAY TO TEACH E-COMMERCE

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ABSTRACT

The online auction marketplace eBay.com is a microcosm of e-commerce. This paper describes how one can use eBay to teach the fundamentals of e-commerce, using the Rayport and Jaworski 7Cs framework of the online customer interface. The elements the 7Cs framework are commerce, context, content, community, customization, communication, and connection. The eBay web site is especially useful for teaching the tools of online commerce, because students can actually list items for sale, receive payments, and fulfill orders. Feedback on this exercise from participants is reported.

LITERATURE REVIEW

The online auction marketplace eBay.com is a microcosm of e-commerce. Anyone with a credit card can register to sell items on eBay, and thereby reach potentially millions of online buyers, and with no upfront investment or technical expertise. An eBay seller encounters many basic features of e-commerce, such as choosing an appropriate product, creating an auction web page, setting an initial price, illustrating a product with a photo, communicating with bidders, accepting payment, and fulfilling the order. This paper describes how one can use eBay to teach the basics of e-commerce marketing.

With recent quarterly profit of \$61 million on \$289 million in revenue, eBay is the quintessential dot.com success story (Wingfield, 2002). eBay's mainstay business is facilitating transactions between sellers and buyers of automobiles, collectibles, clothing and many other items, on which it collects commissions. About \$3.77 billion in goods were sold through the company's site in the third quarter of 2002.

eBay is the "world's largest online trading community," with 46.1 million registered users in 2002 (eBay 2002). eBay attracted over 29 million unique visitors in April 2002, putting it practically even with Amazon.com as the most popular shopping site, and the eighth most popular Web property on the Internet, according to Jupiter Media Metrix (2002).

Educators have frequently used eBay as an example in business courses. eBay is used as a case study with ongoing chapter-by-chapter examples in the *Internet Marketing* textbook (Mohammed, et al, 2001). Several case studies have been written about eBay, to illustrate business topics such as strategy (Bradley and Porter, 1999; Marino and Kreiser, 2000), accounting (Hirst and McAnally, 2001), service management (Frei and Rodriguez-Farrar, 2001), intellectual property protection (Baron, 2000), and organizational behavior (Hill and Farkas, 2000). The features of eBay have been used as examples of e-commerce tools in an MBA course (Miller, 2001).

This paper describes how eBay can be used as an active-learning assignment in an e-commerce marketing class. This exercise goes beyond using eBay as an example, to using eBay as a "lab" where students learn about e-commerce basics by becoming online sellers. The eBay lab exercise is described next. This is followed by a discussion of how the eBay exercise can be used to illustrate e-commerce basics, using the Rayport and Jaworski (2002) 7Cs framework.

DESCRIPTION OF THE EXERCISE

The eBay exercise was used as an assignment in an E-Commerce Marketing class. The students took the course as an elective for credit toward a business administration degree. The eBay assignment contributed little (less than 1%) of a student's grade in the course.

The eBay exercise consisted of the following steps:

1. Choose an item to sell on eBay.
2. Photograph the item with a digital camera (supplied).
3. Search eBay for a completed auction for a similar item. Use the “comparable” auction to get ideas for the eBay category, starting price, item description, and auction terms.
4. Write a description of the item, and include payment and shipping terms.
5. Create an auction web page (with photo) and list the item for sale on eBay.
6. Send an invoice to the winning bidder.
7. Receive payment.
8. Fulfill the order by packing and shipping the item.

Details about the eBay exercise tasks and a discussion of how they illustrate the fundamentals of online “commerce” are presented below.

EBAY AND E-COMMERCE BASICS

The Rayport and Jaworski 7Cs framework of the online customer interface here illustrates the “basics” of e-commerce. The elements of the customer interface in the 7Cs framework are commerce, context, content, community, customization, communication, and connection. The source of material quoted in this section is Rayport and Jaworski (2002, p. 185-6).

COMMERCE

Commerce is defined as “the sale of goods, products, or services on the site.” The key benefit provided by the eBay exercise is the opportunity for a student to sell an item online. By listing an auction on eBay, a student experiences the basics of an e-commerce transaction, including choosing a product to sell, creating and presenting the offer, receiving payment, and fulfilling the order.

Students begin by choosing a product to sell online. This task invites discussion on what products are suitable for selling online and shipping—relatively small (smaller than a breadbox), durable products with a high value-to-weight ratio, including collectables and sought-after commodities. Students learn why one should avoid selling heavy, bulky, low-value items online.

Each student researches his or her prospective product online, and thereby learns about the wealth of information available. By searching for completed auctions for their item on eBay, students quickly see a successful offer for their product—including the eBay category, auction title, starting and closing price, seller terms, item description and photo. This task motivates a discussion of the characteristics of a good offer—a title with important keywords correctly spelled, a complete description, a clear photo, and appropriate opening bid and “buy-it-now” prices. Students use this information to create an auction on eBay for his or her item.

A student in a typical class will likely see a variety of outcomes from auctions of classmates, including auctions with winning bids and with no bids, and auctions that end early at the “buy-it-now” price. Winning bidders respond in a variety of ways as well, including paying from an online account balance, by credit card, by electronic check, or by money order. This introduces the benefits, risks, and costs of various payment methods. One or two winning bidders will fail to pay at all, which raises the topic of fraud, deadbeat bidders, and reputation ratings, and a seller’s avenues of recourse.

Students who receive payments for their items get to fulfill the order. This task motivates a discussion of packing techniques and shipping options.

The author’s experience is that about one in four students have purchased an item online, but only about one in twenty have sold an item online. By selling an item with an eBay online auction, students are inspired to think about e-commerce from the seller’s perspective. What happens when a buyer claims that

he or she did not receive an item? Why do sellers ship an item in a box that seems too large? What are the costs and risks to the seller of receiving credit card payments? The exercise simulates the activities of a large-scale online merchant, from obtaining suitable products to communicating with customers.

The eBay exercise gives students exposure to a variety of “revenue models.” eBay offers auction listing and payment processing services on a per-transaction basis, based on a percentage of prices. eBay has a program whereby “affiliates” can steer users to eBay and receive a payment. eBay also uses the “subscription” method to sell ongoing services such as “SquareTrade” seller certification. eBay “partners” with companies that offer support services, such as with UPS for shipping and with VISA for bank card service. eBay does not rely on the “advertiser-supported” model as does many web sites.

CONTEXT

“The context of the website captures its aesthetic and functional look-and-feel.” At the current state of the Internet, the aesthetic and functional aspects of a site’s context are seen as two sides of a tradeoff. A site that is aesthetically sophisticated (e.g. a design with rich media like full-motion video) may be limited in function for many users (e.g. a site that loads slowly, or fails to load, due to a user’s low-bandwidth connection or underpowered PC). The goal in designing the context of a site is to present an image and experience to the user that is consistent with the company’s core values and brand image.

The context of the eBay site leans toward the functional side of the tradeoff. eBay certainly has the resources to produce an aesthetically impressive site with cutting-edge technology. Instead, eBay chooses to hone the look-and-feel of a site that is familiar to its millions of long-term users. The goal of eBay is to incrementally improve a context that is easy to use for eBay sellers, who are eBay’s paying customers and who create the bulk of content, and easy to use for eBay buyers, who are the reason for the loyalty of the sellers. By creating a “live” auction web page, students can see that the eBay site is very functional and not aesthetically sophisticated.

CONTENT

Content is defined as “all digital subject matter” on a web site. The content of eBay is contained in continuously updated databases. The databases serve up the descriptions and photos on the auctions, reputation information available to all users, secure transaction and account information, and reference information such as eBay help files. Auction information is literally updated second by second, because the possibility of a user placing the winning bid on an auction depends on the site’s ability to quickly upload and download information.

The eBay exercise features an excellent example of an online company whose “customers” generate most of the web site content. Sellers, at essentially no cost to eBay, upload descriptions and pictures of items to the eBay web site, which in turn attracts bidders. Other examples of web sites with visitor-generated content are product reviews at Epinions.com (2002) and Amazon.com (2002).

COMMUNITY

Community is defined as “the interaction that occurs between site users.” Web sites encourage interaction by providing chat rooms, multi-user games, email capability, and other user-to-user communication tools.

The eBay company encourages interaction among its users when eBay makes money on the activity, and discourages interaction otherwise. Communication between sellers and bidders (other than the auction winner) is discouraged to minimize opportunities for “side transactions” that avoid eBay fees. Discussion boards sometimes serve as little more than public customer service venues, where users can complain and eBay employees who monitor the postings can respond.

That being said, fostering a community of buyers and sellers is eBay’s reason for being. The mission of eBay is “to help practically anyone trade practically anything on earth.” The company claims to be “the leading online marketplace for the sale of goods and services by diverse community of individuals and businesses,” and states, “eBay, simply, is the home of a unique online community” (eBay, 2002). eBay allows user-to-user communication via discussion boards, chat rooms, and “neighborhood watch”

groups that ensure members learn and follow community etiquette and guidelines. EBay also offers opportunities for members to interact offline at trade shows and events.

EBay keeps the online marketplace running smoothly by disciplining and eventually removing buyers and sellers who do not perform on their auction contracts. The eBay reputation forum is a record of comments about a user by one's trading partners, and eBay "keeps score" of a user's reputation by reporting a feedback rating (the net number of positive comments) alongside each user's name.

A seller may communicate with a bidder in a variety of ways, including via the auction web page, by email, by Postal Service mail, via messages from third-party payment services, and in some cases by telephone.

Sometimes a bidder will contact a seller by email while an auction is ongoing to be reassured that the seller is responsive and to "get a feel" for the person as a trading partner. Other times the bidder has a legitimate question, which gives the seller an opportunity to provide information that improves the chances of receiving bids on the item, and this information can be provided as a revision to the auction for all bidders to see.

In all auctions that end with a winning bid, the seller will communicate with the bidder in order to accept payment and fulfill the order. This task underscores the intangible costs of customer contact that one must factor into online sales.

CUSTOMIZATION

Customization is the ability of a site to be modified to display content, or an assortment of content, that reflects the preferences of the user. A company can automate the process of customizing a web site, such as when Amazon.com suggests books based on a user's previous purchases or searches. A user can customize his or her web site by inputting personal data and selecting a set of features or services to meet his or her preferences, such as with the "my eBay" user web page.

EBay shows three important characteristics of customized web sites: (1) users will modify a web site to meet their needs, if given the opportunity, (2) customized web sites are "sticky"—attract and hold users—because they meet user needs well and because users have an investment of effort in the site, and (3) customization can be relatively cheap when users do it themselves.

As mentioned previously, each auction web page is an offer to sell that is custom created by a seller, including the title, description, sale terms, photos, and links to other sites. Apart from the auctions, sellers and buyers have opportunities to customize their eBay experience. First, each user has a "my eBay" page. For bidders, the my eBay page shows the active and closed auctions on which one has bid, as well as auctions the user is "watching." Users can also request that he or she be sent an email alert when a new auction with desired keywords is listed. Sellers can use the my eBay page to track pending, active, and closed auctions as well as to manage the payment and fulfillment process with winning bidders. Users can create a personal profile web page if they want to reveal personal information to other users, and can modify their own interface with the eBay site with a vast array of preference settings.

COMMUNICATION

Communication is defined as "the dialogue that unfolds between a site and its users." The ease of communicating with customers via the Internet is both a blessing and a curse for a business. It is a blessing because the Internet is a very quick and low cost way for customers to communicate directly with a company, and companies are happy to receive a sales order or a payment online. It is curse because the Internet enables a large number of people to contact a company easily and often, and a company can be overwhelmed with the task of responding to a flood of contacts.

Land's End is a catalog merchant that has expanded into e-commerce, and hence has a history of communicating with customers from a distance. Land's End enables customers to communicate with the company by email, by live online chat, by telephone (will receive your toll-free call or call you), and by surface mail. Land's End also "speaks" to customers with a print catalog and web site with many self-help features (Land's End, 2002). The costs of communicating and "training" a direct customer are outweighed by future low-cost re-orders or self-service purchases.

In contrast, a student can see vivid examples of ways to avoid the costs of customer contact by looking at the eBay site. EBay has an extensive online self-help resource and FAQ (frequently asked

questions) database. One must navigate through a multi-step process of self-help options before being presented with an option to contact eBay by email. eBay clearly does not want phone calls from users—it is probably easier to find an eBay phone number from an U.S. Securities and Exchange Commission filing than from the eBay web site.

By participating in an e-commerce transaction, students can see the tradeoffs between the benefits of offering customer contact in an e-commerce transaction and the costs, and can recognize ways to preserve the low-cost automated and self-help features of e-commerce.

CONNECTION

Connection is defined as “the extent of formal linkages between the site and other sites.” Students are familiar with portal web sites such as Yahoo.com that provide many connections to other web sites, and indeed they function as a “doorway” to online resources.

The eBay web site is an effective showcase of a low connection approach to the Internet. eBay keeps its users “in-house” by offering few links to other web sites. eBay actively fights web sites that try to extract data from the eBay site, and barred auction “aggregators” from letting people search multiple auction sites from one meta-site. As mentioned, eBay would prefer that its users not communicate by email unless through the eBay email system.

Several companies have developed products that compliment the eBay auction format, such as the aforementioned search capability, online payment services, web page counters, and auction management software, to name a few. eBay has either introduced the popular features into its own web site, has bought the company, or has partnered with companies (such as UPS for shipping) to control the marketplace and become as vertically integrated as possible. The eBay strategy of control and integration does not lend itself to complimentary “connections” with many other web sites.

The eBay exercise is designed to demonstrate fundamental e-commerce issues, such as the “7Cs” of the customer interface (commerce, context, content, community, customization, communication, and connection. Students rated their experiences learning e-commerce basics with the exercise, and their feedback is presented next.

STUDENT FEEDBACK

Feedback from 16 participants in the eBay exercise is presented here. The students responded to a pen-and-paper survey that asked their opinions on the exercise. The group consisted of ten men and six women, with an average age of 22 years. Only 12% (2 students) had sold an item at an online auction prior to participating in the eBay exercise. About 56% (9 students) listed a “successful” auction during the exercise in that a bidder won the auction; the remaining auctions ended without a winning bid. Students filled the orders of the bidders who paid (only one high bidder failed to pay

The survey instructions were: “Opinion Survey: Please read each statement carefully before responding. Please give your opinion at this time; there are no right or wrong answers. Complete this sentence with a word or phrase from the list below, and rate your level of agreement with the sentence, from 1 (strongly disagree) to 5 (strongly agree).” The sentence and completing phrases appear in Table 1, along with the group’s mean and standard deviation (S.D.) responses for several tasks that relate to the first item in the 7Cs framework (commerce).

Table 1: Student feedback: Using eBay to teach e-commerce basics #1 (commerce).

Regarding my learning of the fundamentals of e-commerce, the eBay exercise was a good way for me to learn about _____.	Mean	S.D.
the characteristics of products suitable to offer for sale online.	4.13	0.62
the characteristics of an effective “offer” to sell a product online (price, product description, terms of sale, etc.).	4.31	0.60
how to research other online offers to get ideas or facts to create an offer.	4.31	0.60

the characteristics of an effective webpage to present an online offer (photos, title, etc.).	4.25	1.00
methods for receiving payments online.	4.06	0.93
fulfilling an online order (packing, shipping, etc.).	4.19	0.98
problems with selling online (buyer fraud, shipping errors, etc.).	4.13	1.02
Source: Survey of n=16 students in E-Commerce Marketing class		

Students agreed that the eBay exercise was a good way to learn the elements of online commerce, such as the characteristics of appropriate products, effective offers, and effective webpages. They rated highly their experience learning how to research an item online, and learning methods for receiving payments, fulfilling orders, and dealing with problems. The mean levels of agreement ranged from 4.06 to 4.31, where 5.0 meant that they “strongly agreed” that the exercise was a “good way to learn.” Table 2 shows the group’s mean and standard deviation (S.D.) responses for items 2 through 6 in the 7Cs framework (context, content, community, customization, communication, and connection).

Table 2: Student feedback: Using eBay to teach e-commerce basics #2 - 6.

Regarding my learning of the fundamentals of e-commerce, the eBay exercise was a good way for me to learn about _____.	Mean	S.D.
the importance of the “context” of an e-commerce web site (the design template or “look-and-feel” of the site).	4.00	0.82
the importance of the “content” of a web site (the information presented to visitors).	4.19	0.66
the methods of creating “community” among web site users (providing ways for users to talk to each other).	3.88	1.15
the methods of “customization” of a web site for the users (or personalization).	4.06	1.00
the importance of communicating with potential customers.	3.75	0.93
the methods of making a “connection” between the company and the web site users (how a company and customers communicate with each other).	4.19	0.54
Source: Survey of n=16 students in E-Commerce Marketing class		

Students also agreed that the eBay exercise was a good way to learn about other elements of the online customer interface, such as the context, content, customization, and connection. Response means ranged from 4.00 to 4.19. Students were not as enthusiastic about the exercise’s ability to teach about community (mean=3.88) and communication (3.75). As mentioned previously, eBay does not encourage interaction for its own sake, and focuses instead on facilitating (revenue producing) transaction between users. Also mentioned was eBay’s thriftiness in offering the means for a user to contact eBay with a question or problem. The eBay exercise should be supplemented with looks at other web sites that better illustrate community and communication. Also, the instructor handled communication with bidders between classes, so students did not experience this first-hand.

Students also responded to the question: “I would prefer to learn about e-commerce by reading case studies of online companies rather than participate in the eBay exercise.” Seventy-five percent disagreed strongly with the statement (mean response = 1.56), which showed that they preferred the hands-on exercise to merely reading real-world case study examples.

CONCLUSION

In conclusion, the eBay exercise is an effective way to teach the fundamentals of e-commerce as they apply to an online merchant. A student can experience first-hand the issues that face all e-commerce merchants, such as choosing products, crafting offers and web pages, and receiving payments and fulfilling orders. Working with the eBay web site gives students two perspectives on the 7-Cs of the e-commerce customer interface—the perspective of a seller creating an auction for a good, and the perspective of a buyer of selling services from eBay.

Two caveats apply to using the eBay exercise. First, the instructor should have experience as an eBay seller. eBay's online instructions are adequate for simply submitting an auction. But a seller needs additional knowledge to conduct a successful transaction, such as the pros and cons of various auction terms, shipping options, and how to deal with bidders. A depth of knowledge about selling online can only come from experience.

Second, students can best benefit from the instructor's experience if it is shared as they make decisions about their auctions. This can best occur in a computer lab or computer classroom. Depending on the level of students' computer and Internet skills, participating in the eBay exercise as homework could be a frustrating experience for students and instructor.

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