

Usability Metrics for Online Shopping

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1 Introduction

For our tests, we chose the world of online shopping. For our shopping websites, we chose Amazon, eBay, and Shopzilla. For our three metrics, we chose learnability, efficiency, and satisfaction. Learnability is on a scale from 1-5: 1 being difficult to familiarize with, 5 being easy to accomplish the task. Efficiency is measured by seconds of completion. Satisfaction is based on a 1-10 scale: 1 being absolutely unhappy, 10 being extremely satisfied. For our three tests, we chose:

1. Buying a product: a USB stick (test subject was told to find a USB stick they would personally buy)
2. Profile change: adding and a credit card number
3. Narrowing a product down simply by using the navigation provided: Nokia Lumia 920

2 Users

Here is a summary of each user and their overall proficiencies:

1. This user is a Modern Languages major with a decent amount of experience of shopping on line.
2. This user is an English major who doesn't really shop online, yet has a strong domain knowledge about computers.
3. This user is a Computer Science major who shops a decent amount online.
4. This user is a Computer Science major who shops pretty often online.
5. This user is a Computer Science major who shops less than normal.

3 Tests

For every test, we assume that all testers have signed in.

3.1 Buy a USB stick

The efficiency for eBay and Shopzilla is faster than Amazon other shopping sites because efficiency was only measured up to checkout.

3.1.1 User #1

	Learnability	Efficiency	Satisfaction
Amazon	4	0:41s	7
eBay	3	0:24s	7
Shopzilla	2	0:39s	6

3.1.2 User #2

	Learnability	Efficiency	Satisfaction
Amazon	5	0:37.5s	8
eBay	5	0:17s	6
Shopzilla	4	0:20s	7

3.1.3 User #3

	Learnability	Efficiency	Satisfaction
Amazon	4	0:34s	10
eBay	5	0:25s	10
Shopzilla	5	0:34s	8

3.1.4 User #4

	Learnability	Efficiency	Satisfaction
Amazon	4	0:20s	7
eBay	3	0:33s	8
Shopzilla	5	0:53s	6

3.1.5 User #5

	Learnability	Efficiency	Satisfaction
Amazon	4	0:32s	8
eBay	5	0:22s	10
Shopzilla	5	1:01s	4

3.1.6 Average of all 5 test subjects

	Learnability	Efficiency	Satisfaction
Amazon	4.2	0:32.9s	8
eBay	4.2	0:24.2s	8.2
Shopzilla	4.2	0:41.4s	6.2

3.2 Profile change: add credit card number

This test is omitted for Shopzilla because they are an aggregate website for other shopping websites. For eBay, the test needed to be done through Paypal because eBay uses PayPal as a payment method.

3.2.1 User #1

	Learnability	Efficiency	Satisfaction
Amazon	5	1:01s	7
eBay	1	1:00s	5
Shopzilla	-	-	-

3.2.2 User #2

	Learnability	Efficiency	Satisfaction
Amazon	1	1:24s	7
eBay	3	0:49s	7.5
Shopzilla	-	-	-

3.2.3 User #3

	Learnability	Efficiency	Satisfaction
Amazon	5	1:08s	10
eBay	1	1:50s	2
Shopzilla	-	-	-

3.2.4 User #4

	Learnability	Efficiency	Satisfaction
Amazon	4	1:21s	9
eBay	3	0:50s	7
Shopzilla	-	-	-

3.2.5 User #5

	Learnability	Efficiency	Satisfaction
Amazon	5	0:47s	10
eBay	5	0:37s	10
Shopzilla	-	-	-

3.2.6 Average of all 5 test subjects

	Learnability	Efficiency	Satisfaction
Amazon	4	1:08.2s	8.6
eBay	2.6	1:01.2s	6.3
Shopzilla	-	-	-

3.3 Test # 3: List filtering

3.3.1 User #1

	Learnability	Efficiency	Satisfaction
Amazon	3	1:12s	5.5
eBay	3	0:45s	6
Shopzilla	3	0:25s	5

3.3.2 User #2

	Learnability	Efficiency	Satisfaction
Amazon	1	2:21.28s	6.5
eBay	3	0:53s	8
Shopzilla	3	0:28s	8

3.3.3 User #3

	Learnability	Efficiency	Satisfaction
Amazon	1	1:22s	8
eBay	1	2:25s	3
Shopzilla	5	0:41s	9

3.3.4 User #4

	Learnability	Efficiency	Satisfaction
Amazon	5	0:50s	6
eBay	5	0:41s	8
Shopzilla	1	0:28s	4

3.3.5 User #5

	Learnability	Efficiency	Satisfaction
Amazon	2	0:33s	9
eBay	5	1:01s	4
Shopzilla	1	0:38s	3

3.3.6 Average of all 5 test subjects

	Learnability	Efficiency	Satisfaction
Amazon	2.4	1:15.656s	7
eBay	3.4	1:09s	5.8
Shopzilla	2.6	0:32s	5.8