Usability News is a free web newsletter that is produced by the Software Usability Research Laboratory (SURL) at Wichita State University. The SURL team specializes in software/website user interface design, usability testing, and research in human-computer interaction.
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# How Usable are the Airline Websites?

**By Paula Selvidge**

Do you have an urge to fly the friendly skies? Why not use the Internet to book your flight? Unfortunately, it is not a simple task to find flight information on many of the airline web sites. Not even an extra bag of peanuts could compensate for the frustration caused by usability problems. We examined the usability of seven airline web sites on the basic task of locating flight and fare information.

Seven users located the same flight and fare information across seven web sites, and their path to complete the task was recorded. The path length was defined as the number of pages that users visited by selecting hyperlinks within the document or using the Back and Forward command buttons. Time to complete the task, subjective data of task difficulty for each web site and think aloud data were collected.

The optimal path length to complete the task varied from 3 to 9, so difference scores (actual minus optimal) were computed to enable comparisons on path efficiency between web sites (see Table 1). Flight and fare information was not successfully located 36% of the time across all sites. Half of these failed attempts were with one single site. A log-on procedure was required for American, United, US Airways, and TWA web sites in order to access the airfares. Users could view the flight schedules without logging on, but they must enter personal information to view the fares. Many users expressed objections to the log-on process and didn't understand why they had to log-on just to view fares.

**Table 1: Difference Scores across Web Sites (Bold = did not complete task successfully. Any missing data was due to the site not loading.)**

| Subject | American | Delta | Northwest | TWA | US Airways | United | Vanguard |
|---------|----------|-------|-----------|------|------------|--------|----------|
| **1** | 8 | 8 | 3 | **6** | 6 | 26 | 18 |
| **2** | 19 | 4 | 9 | 6 | 0 | 2 | 5 |
| **3** | 0 | 4 | 2 | **3** | 11 | 6 | 2 |
| **4** |  | 10 | 17 | **50** | 55 | **21** | 16 |
| **5** |  | 0 | 8 | **3** | 2 | **6** | 0 |
| **6** | 10 | 17 | **15** | **55** | 39 |  | 8 |
| **7** | 14 | 16 | 10 | **19** | 32 | **39** | 1 |
| **Mean** | 10.20 | 8.43 | 9.14 | 20.29 | 22.71 | 16.67 | 7.14 |
| **Std Dev** | 7.08 | 6.37 | 5.58 | 22.71 | 21.32 | 14.47 | 7.27 |

Vanguard was the most efficient site in locating flight information (*M* = 7.14), and US Airways was the

least efficient (*M* = 22.17) (it should be noted that the variability across subjects was very high). The users preference ratings seem to be fairly consistent with performance (see Table 2) with the exception of Vanguard. This could be due to the fact that the users were required to find round-trip information, and the Vanguard site only provided flight information about one-way trips.

**Table 2: Comparison of Preference and Performance Rankings across Web Sites**

|             | American | Delta | Northwest | TWA | US Airways | United | Vanguard |
|-------------|----------|-------|-----------|-----|------------|--------|----------|
| **Preference**  | 3 | 1 | 1 | 5 | 4 | 6 | 7 |
| **Performance** | 4 | 2 | 3 | 6 | 7 | 5 | 1 |

The average time to complete the task across all airline sites was about 17 minutes. Time to complete the same task by calling the airline on the telephone averaged 3 minutes. Designing efficient and usable web sites should be a top priority to remain competitive in the e-commerce market with other airlines. A couple of users commented, "This airline just lost my business." while using the web site. One airline site, which had the fewest users successfully complete the task, had only 29% of the users report that they would use the site for making reservations in the future.

A recent article in USA Today suggested that some of the major airlines are on the verge of offering their lowest airfares to those who book from the airlines' web sites (Jones, 1998). If sales plan to be increased via web site ticketing, these types of usability issues need to be addressed. It will be more difficult for the airlines to discover they have so many unsatisfied customers because they will not be at the ticket counter expressing their frustrations. The customers will simply type in the URL of another airline web site, or an "all-purpose" travel site such as Travelocity, and see if that web site can meet their needs more efficiently.

# REFERENCE

Jones, D. (1998, November 2). Major airlines consider discounted Web fares. *USA Today*, pp. 1B.

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