



When the travelers make a phone call to request tourist information, they may be in different stages of travel planning process. For example, they may just see the advertising of the 1-800 phone number of Illinois from one magazine and decide to try it out; or they just have one week's vacation in a few months and the State of Illinois seems a good place to visit; or, they already decided to go to Chicago but they need to obtain information regarding places for dining out. These different decision stages in their travel planning process can be accessed through their dialogue with the travel counselor. Through the analysis of these records along with demographic data, insightful information about traveler's information search behavior and their travel decision process can be obtained. This information and knowledge about the travelers will be useful in the design of Customer Relationship Management System (CRMS) and training and educating travel counselors in order to better meet the information needs of travelers.

## **II. Theoretical Background**

Information search is a vital part in the consumer purchase decision process (Bettman, 1979; Moorthy, Ratchford, & Talukdar, 1997; Schmidt & Spreng, 1996). For a rational decision maker, information about different alternatives and the attributes of each option is needed to maximize utility of the decision. Extensive literature exists reporting research that has been conducted to investigate information search behavior for travel decisions (Gittleson and Crompton, 1983; Vogt and Fesenmaier, 1999; Fodness and Murray, 1998). In particular, several studies have focused on the information needs, sources and strategies of traveler information search (Moutinho, 1987; Vogt and Fesenmaier, 1999). Jeng (1999), for example, demonstrated that travel decisions and the according information search for travel decision making have been shown to be relatively complex, involving a number of sub-decisions or facets which include destination(s), travel group, timing, route, activities, etc. Park (1978) and Jeng (1999) suggest that decision making for travel products tends to be hierarchical in structure where certain decisions are made first and condition other aspects of the trip; still other studies demonstrate that destination decisions tend to be simple for short trips but much more complex for longer trips (Jeng, 1999; Jeng and Fesenmaier, 2000). Finally, research has shown that destinations may be 'bundled' in terms of activities and similar destinations (Lue, Crompton and Fesenmaier, 1990; Oppermann, 1995; Fesenmaier and Jeng, 2000).

Cognitive psychologists and marketing researchers have also examined in great detail the patterns of information processing, focusing their attention in part on the strategies people use to process and store information (Bettman, Luce and Payne, 1998). This line of research has become particularly relevant for travel-related call centers and web sites because the decision to visit a travel destination relies largely upon information available in the public domain. Indeed, many researchers suggest that the cost of information is a function more of cognitive effort than actual purchase (Bettman, Luce and Payne, 1998; Hoque and Lohse, 1999). This may be particularly

true for the tourism industry in that information about many or most destinations are easily accessible through call centers or the Internet. Thus, an important aspect of marketing strategies (and research) is on how to organize and integrate this information rich environment into something meaningful (Hoque and Lohse, 1999).

Certain research has shown that individuals with complex tasks tend to simplify their information search and decision tasks by adopting one (or more) heuristics (Bettman, 1979). These 'rules' guide the process of inquiry that ultimately leads to an outcome. Within the context of travel decision making it appears that individuals tend to use one of two such processes to guide information search: 1) Search by location (SBL) and/or 2) Search by Interest/activity (SBI). That is, information inquiries are centered on the location(s) or the interest/activities being considered (Fesenmaier and Haefner, 1998). Research by Fodness and Murray (1999) and Fesenmaier and Haefner (1998) suggest that aspects of the choice set as well as demographic attributes determine to a large degree the nature and pattern of information search. The goal of this study is to extend this work, examining the extent of search (i.e., the number of information inquiries), the level of detail (i.e, general vs specific), and the search heuristic (SBL or SBI).

### **III. Methodology**

The Illinois Bureau of Tourism (IBOT) provides a phone number (1-800-2CONNECT) for inquiries of travel-related information regarding the state of Illinois. Using this number, the tourism bureau can provide potential travelers with up-to-date information about locations (cities/towns, directions/maps, etc.), interest areas (activities, events, etc), and amenities (prices/discounts, etc.). The interaction between the call receiver (travel counselor) and the information inquirer can be viewed as a semi-directed caller inquiry stream – information on the sequencing of requests for travel information in response to a 'conversation' with the travel counselor. This caller stream was organized as a 'flat file' whereby each record reflected the individual's request for information about a place, interest, and/or activity. An individual may request a number of pieces of travel information and therefore would be captured each time in the data. For example, in table 1, the caller with ID number 1 made one phone call to request information about hotels (amenity) in Chicago (location); the caller with ID number 2 made two phone calls, the first one is for information about hotels in Chicago and the second one is for camping and shopping information in Springfield. The following analyses were conducted to address the goal of this study. Specifically, this study examined the extent and depth of information search and the heuristic (SBL or SBI) used to guide information search.

<b>ID</b>	<b>Sequence</b>	<b>Location</b>	<b>Amenity</b>	<b>Interest</b>
1	1	Chicago	Hotel	None
2	1	Chicago	Hotel	None
2	2	Springfield	Camping	Shopping

Table 1. Example of Caller Dialogue Record

#### **IV. Results**

From January to September of 1998, 1800-2CONNECT received 441,134 inquiries; among those 14,717 were from telephone and 198,516 from the WWW; 209,490 were identified from the US and 194,138 were identified as US consumers who also provided names and addresses. On average, callers made 1.6 information inquiries per call with a range from 1 to 91. Of these, 85.7 percent were 1-2 inquiries and 11.7 were 3-5 information inquiries (table 2). These callers are from 37 countries all over the world in which callers from United States has a proportion of 98.0% and Canadians constitute 1.7%.

<b>Search Level</b>	<b>Percent</b>
1 – 2	85.7
3 – 5	11.1
6 – 10	2.7
11 – 25	0.4
26 & Above	0.0

Table 2. Information Search Level

Depth of information search was measured by organized information according to “levels of generalization”. For example, depth of location search was defined as: 1) State, 2) Region, 3) County and 4) City. Activity/interest was defined as: 1) General, 2) Industry/activity category, 3) Detailed, and 4) Very detailed. In general most location inquiries were made about cities (67%) or regions (23.2%) besides 5% at state general level and 4.7% at county level. Interest/activity inquiries, on the other hand, tended to be relatively general at the categorical level (86%); 7.4% of the interest/activity inquiries were at the detailed level and only 1.4% at the very detailed level (the rest 4.8% are in general level). Further analyses were conducted to investigate the extent to which the search heuristic changed or adapted as one progressed through the “conversation”. For example, in Table 3, the caller changed his/her interests four times and locations twice, which we define as Search By Location (SBL). In aggregation level, these analyses confirm that people tended to change the level of detail as more information is requested, and Search by Location (SBL) and Search by Interests (SBI) seem to be the most prominent search heuristics (table 4). Interestingly, however, along with the depth of information search, the

results seem to suggest that location inquiries seem to become more general (i.e., moving from city to region) while interest/activity inquiries seem to move from general to very detailed (Table 5).

ID	Sequence	Location	Amenity	Interest
1	1	Chicago	Hotel	None
1	2	Chicago	New hotel	Art Gallery
1	3	Springfield	Camping	Shopping
1	4	Springfield	Hotel	Restaurant

Table 3. Search By Location (SBL)

Search Heuristics	Illinois Caller	Midwest Caller	US Caller
No Dominant	57.4%	20.2%	22.4%
Location Dominant	32.6%	34.4%	33.0%
Interest Dominant	47.9%	27.2%	25.0%
Amenity Dominant	48.3%	28.5%	23.1%
Location/Interest Dominant	36.9%	33.7%	29.4%
Location/Amenity Dominant	31.3%	35.7%	33.0%
Interest/Amenity Dominant	52.8%	27.5%	19.7%
Average	54.4%	22.1%	23.5%

Table 4. Different Search Heuristics

Search Sequence	1st Search	2nd Search	3 <sup>rd</sup> Search	4th Search	5th Search
1-2	65.3%	70.5%			
3-5	68.3	68.9	68.8%	67.6%	67.0%
6 – 10	67.8	66.2	64.6	64.0	63.9
11 – 25	63.9	61.4	60.8	62.1	62.0
26 & More	52.4	59.1	56.5	59.1	43.5

Table 5a. Search at City Level

<b>Search Sequence</b>	<b>1st Search</b>	<b>2nd Search</b>	<b>3rd Search</b>	<b>4th Search</b>	<b>5th Search</b>
1-2	2.1%	4.3%			
3-5	3.6	5.4	6.5%	7.3%	8.0%
6 – 10	4.6	6.7	8.4	9.9	9.8
11 – 25	5.5	6.7	9.6	9.0	10.2
26 & More	14.3	13.6	13.0	13.6	26.1

Table 5b. Location Search at County Level

<b>Search Sequence</b>	<b>1st Search</b>	<b>2nd Search</b>	<b>3rd Search</b>	<b>4th Search</b>	<b>5th Search</b>
1-2	90.9%	85.4%			
3-5	84.6	83.7	83.8%	83.9%	82.8%
6 – 10	82.8	81.8	80.6	80.5	79.8
11 – 25	80.7	77.5	78.5	77.5	76.2
26 & More	66.7	52.2	47.8	54.5	58.3

Table 5c. Interest Search at Category Level

<b>Search Sequence</b>	<b>1st Search</b>	<b>2nd Search</b>	<b>3rd Search</b>	<b>4th Search</b>	<b>5th Search</b>
1-2	4.4%	7.9%			
3-5	7.8	8.5	8.5%	8.5%	9.1
6 – 10	10.2	10.4	10.8	10.9	11.0
11 – 25	9.2	12.4	12.0	12.4	14.6
26 & More	4.8	13.0	13.0	18.2	25.0

Table 5d. Interest Search at Detailed Level

## V. Conclusion And Implications

Call center is an important channel for communicating with potential customers as shown by the quantity of caller records. This research demonstrates that callers have different information needs and search strategies when they are searching for tourism product information. The depth of information search varies according to the types of information (location dominated or interests dominated). Callers appear to process location (SBL) and interest (SBI) information in opposite ways: people tend to move from specific destination to more general one along the inquiry sequence; on the

contrary, people tend to be more specific on interest when they're searching for interest information.

The implications which can be drawn from the above conclusions are that the results of consumer information search behavior can be applied in designing information systems to better communicate with potential travelers. For example, bearing the travelers' search patterns in mind, the travel counselors can prepare relevant destination and interest information in a more effective way to answer information inquiries. Furthermore, this scenario demonstrates the possibility of great potential for cross marketing and tourism product bundling. On the research side, if we can obtain further information through survey or experiments about the decision-making process of the caller pre or after information inquiry and combine this information with the caller records, the process of traveler's decision-making and information processing can be more clearly understood.

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