TELL ME WHO YOU ARE AND I WILL TELL YOU WHERE TO GO:
USE OF TRAVEL PERSONALITIES IN
DESTINATION RECOMMENDATION SYSTEMS

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Current efforts in destination recommendation systems research and design are based on the assumption that user preferences have to be captured in the most accurate way possible to be able to provide useful recommendations. However, leading the user through a series of mind-puzzling diagnostic questions is often cumbersome and, therefore, discourages use. This article explores travel personality categories as a possible shortcut to classifying users. The results of this study suggest that travel personality types selected by the survey respondents can, indeed, be matched up with certain travel behaviors. Implications for future research as well as systems design are presented.

Key words: Personality types; Discriminating power; Recommendation systems

Introduction

The lack of purchase information, infrequent use, and the pronounced variety-seeking tendencies of its users constitute serious problems for a destination recommendation system (DRS). Although collaborative filtering and case-based reasoning approaches have been developed to provide more suitable recommendations in the context of a DRS (Ricci, Blaas, Mirzadeh, Venturini, & Werthner, 2002), there seems to be a need for more explicit ways of capturing user preferences. Leading the user through a series of questions in a sort of self-assessment process as suggested by Franke (2002) and Rumetshofer, Pühretmair, and Wöß (2003) is a possible way of establishing more sophisticated user profiles. However, such self-assessment modules are typically very cumbersome and time consuming for
the user to complete. They are usually only presented to the user at the time of registration, and are, consequently, more suitable to capture user characteristics that are relatively stable. For recommendations based on frequently changing preferences and/or situation-specific variables, however, providing users with a choice among predefined travel types or decision-making styles appears to be more suitable (Delgado & Davidson, 2002; Grabler & Zins, 2002; Zins, 2003). This idea of predefined categories has been implemented most frequently by first inviting users to select a product-related personality category and then adjusting the information content presented to the user based upon predetermined preferences that characterize the selected personality type (Fig. 1). The aim of this article is to investigate the extent to which such predefined personality types can be used to enhance the personal relevancy of recommendations provided in a DRS.

Background

Personality traits are believed to be able to accurately predict behavior over time and across situations (Woszczynski, Roth, & Segars, 2002). However, these personality traits can differ in their accessibility depending on context and situational cues (Aaker, 1999). The most widely accepted personality measure is referred to as the “Big-Five” model or “Five-Factor Model” and includes extro-

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**Trip Coach**

People are as different as the trips they take. That's why Trip Coach finds destinations for you based on your travel interests. Select a personality or create your own, and we'll find destinations that are great for you.

Select the personality below that best describes you.

**Winter Warrior**

All you need on your trip is snow. Skiing, snowboarding, and hanging out at the lodge mark your final destination.

**Sports Enthusiast**

Whether spectator or participant, your ideal trip involves anything sports-related. Golf, tennis, baseball, football, and everything in between.

**Sight Seeker**

You revel in trips that keep you busy searching for the next big attraction, or landmark.

**Seasoned Shopper**

Your motto is “shop til you drop.” For you, traveling is all about finding the best shops and bargains in town.

**Outdoor Adventurer**

The great outdoors and all that goes with it - hiking, biking, kayaking, canoeing, skiing, exploring - is your idea of a perfect getaway.

**Family Traveller**

From amusement parks to festivals to outdoor fun, you love to travel with your children, or you're just a kid at heart. Either way, your trip is usually playful and carefree.

**Culinary Connoisseur**

Your perfect destination offers an abundance of art, architecture,galloons, and bouquets.

**Beach Bum**

Your ideal trip revolves around enjoying the latest water sports, sipping tropical drinks, and working on your tan.

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*Figure 1. Trip Coach by Trip.com*
version, emotional stability, agreeableness, conscientiousness, as well as openness to experience as dimensions underlying an individual’s personality (John, 1990). It has been found to be a very stable, robust, and reliable measure across many research domains. Most importantly, research in consumer behavior that used the “Big-Five” methodology has found a linkage between individuals' personality and their preferences for certain brands, suggesting that personality type is an important indicator for product choice (Aaker, 1997; Malhotra, 1988).

In tourism research, personality has often been used as a basis for market segmentation purposes, with Plog’s delineation of travel personality types along an allocentrism–psychocentrism continuum having received substantial attention (Plog, 1974). Personality has also been related to the selection of vacation destinations, the choice of leisure activities engaged in while on vacation, as well as other travel-related decisions (Madrigal, 1995; Nickerson & Ellis, 1991). In addition, identifying a customer’s personality has been proposed as a suitable tool for directing a customer to a preferable destination in the course of a travel agent–client interaction (Griffith & Albanese, 1996).

Existing personality research focuses on personality identification and subsequent personality type classification through sophisticated measurement scales that have only limited applicability in the realm of a DRS. Only very recently has personality-related research started to investigate the possibility of developing very brief measures of personality (see Gosling, Rentfrow, & Swann, 2003). However, such short diagnostic tests are believed to have several shortcomings, including inferior reliability and a restricted ability to capture specific personality facets. In addition, it is not clear how easy it is for individuals to select and identify with an existing topology of personality types (whether these are based on rigorously tested psychological measurement or the assumptions of marketing managers, as in the case of most personality categories found on the Web). Also, no evidence was found in the existing literature with respect to the power of such pre-defined personality categories to predict actual behavior.

Within the context of recommendation systems, personality is sometimes used in a very colloquial sense, referring to the user preference models or the user classes on the basis of which recommendations are made. For instance, given certain preferences for some items, the probability that the user has the same “personality” as other users is calculated (Pennock, Horvitz, Lawrence, & Giles, 2000). Also, particularly in the case of destination recommendations, these categories are often based on preferences for certain travel-related activities (i.e., hiking, sightseeing, etc.) rather than preferences directly linked to any of the “Big Five” personality traits. Thus, what is referred to as a “personality type” in travel recommendation systems is often a preference structure that is assumed to result from, rather than directly describe, specific personality characteristics. One of the apparent advantages of such an “interest”—or preference-based categorization—is the ability to easily accommodate different travel needs based on situational changes, which would be harder to achieve in a classification model that emphasizes stable personality traits.

Examples such as the travel personality categories represented in Figure 1 suggest that certain linkages between personality and consumption patterns have been recognized by system developers; however, it seems that such approaches have been implemented without thorough consideration of the ability of such predefined travel personality categories to serve as substitutes for lengthy personality or travel needs assessment tests. The ultimate question that needs to be answered is whether these personality types can be used as the foundation for destination recommendations. However, the focus of this article in not on finding out what kind of information should form the basis of these categories (e.g., preferences for activities vs. Big Five personality traits). Rather, this article looks at the most commonly implemented typology on travel Web sites (i.e., activity-related personality types), and investigates whether or not sophisticated measurement is, indeed, necessary to enhance a recommendation process, or whether letting a user choose among predefined categories provides a valid shortcut to more personalized and, therefore, more relevant destination recommendations.

Methodology

The findings presented in this article are based upon a survey of 3525 randomly selected persons
who had requested travel information from a Northern Indiana tourism office during Summer and Fall 2001. The data collection took place during a 2-month period (November–December 2001). The survey methodology followed a three-step process designed to maximize the return rate. The initial mailing consisted of a cover letter, a survey, a postage-paid return envelope, and a description of the incentive. One week later, postcards were sent out to remind those who had not completed the survey and to thank all respondents for participating in the study. All nonrespondents were sent a survey kit 2 weeks later. The survey effort resulted in 1436 completed responses for a 42.1% response rate (113 letters were undeliverable).

The survey was comprised of a series of questions related to travel style, psychographic characteristics, and actual travel behavior. In one section respondents were asked to indicate the travel personality that described them “best” and the one that described them “least.” Respondents were provided with a total of 12 travel personalities from which to choose. Each personality type was described through a short paragraph (Fig. 2). The descriptions were initially adapted from examples found on the Web such as the travel personality feature Travelocity.com used to have in their Guides & Advice section. However, the descriptions were further adjusted and specific travel personalities were added to reflect personality types that could be attracted to visiting destinations in the US Midwest.

Travel motivations and travel styles were measured using 5-point Likert scales and values were measured using semantic differential scales. Respondents were asked to rate the importance of certain motivations (escapism, social contact, relaxation, excitement, physical activity, etc.) as well as the importance of certain destination features (scenery, good value for money, diversity, quaintness, etc.). Travel style questions focused on variety-seeking and multideestination travel patterns. Travel values examined the emphasis placed on stability versus excitement, family versus self, being passive versus being active, learning versus dropping out, and following tradition versus trying new things.

Actual travel behavior was elicited by asking survey respondents to indicate which destinations they had visited and in which activities they had participated during their most recent visit to Northern Indiana. A map of Northern Indiana was included in the survey to facilitate recall of the destinations that belong to this specific region. Respondents were asked to list up to 10 different destinations visited during their most recent trip; however, only the 20 most frequently mentioned destinations across all respondents were included in the subsequent analyses. Also, they were asked to choose among a list of 21 activities provided in the survey. Four of these activities (overnight stay, restroom stop, visiting friends/relatives, and other) were excluded from further analyses. Table 1 lists the travel personality types, destinations, and activities on which the analyses presented in this article are based.

Additional data were collected in the course of four focus groups that were conducted in Chicago, Illinois in the Fall of 2002. A total of 43 participants from the northern Chicago suburbs were recruited based on age, gender, and income level so that the structure of the groups represented the major target markets of the destination under consideration. An additional criterion for selection was that the participants were to have traveled in the Midwest within the last 18 months and were to have stayed in paid lodging. The groups were also screened to obtain respondents that were actively involved in travel decision making. All names for recruitment were

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**Table 1.** Travel personality types.  

<table>
<thead>
<tr>
<th>Personality Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Culture Creature</td>
<td>Loves everything cultural – theatre, shows, museums, festivals and fairs and local culture, too.</td>
</tr>
<tr>
<td>B. City Slicker</td>
<td>An urban creature who goes where the action is. Loves clubs, meeting people and needs the pulse of the city.</td>
</tr>
<tr>
<td>C. Sight Seeker</td>
<td>Always ready to stop for that landmark, event or attraction.</td>
</tr>
<tr>
<td>D. Family Guy</td>
<td>The destination is not what counts, it is the time you spend with your family that makes your vacation.</td>
</tr>
<tr>
<td>E. Beach Bum</td>
<td>Somebody who has to lay around on the beach with little umbrellas pitched in their drinks.</td>
</tr>
<tr>
<td>F. Avid Athlete</td>
<td>Always on the court or the course. Always in the game...whatever game it is.</td>
</tr>
<tr>
<td>G. Shopping Shark</td>
<td>Stopped looking for a cure for your shopaholism?</td>
</tr>
<tr>
<td>H. All Arounder</td>
<td>You need to have it all. You go where there is lots to do and see.</td>
</tr>
<tr>
<td>I. Trail Trekker</td>
<td>If it’s outdoors – you’re there. Hiking, walking, parks, forests, mountains, birdwatching, etc.</td>
</tr>
<tr>
<td>J. History Buff</td>
<td>Travels back in time. Your vacation is a learning experience that focuses on historic facts and sites.</td>
</tr>
<tr>
<td>K. Boater</td>
<td>Your world is the lake and your boat is your home. Feeling the breeze is what you really care about.</td>
</tr>
<tr>
<td>L. Gamer</td>
<td>Electrifying slots and skill-testing table games, fantastic fare and nightly entertainment are a crucial part of your trip.</td>
</tr>
</tbody>
</table>

**Figure 2.** Travel-related personality types.
A series of descriptive and multivariate analyses was conducted to investigate the potential contribution of such travel personality categories to the recommendation process. First, the 12 travel personality categories were analyzed with respect to how much overlap exists between them and how easy it was for respondents to identify themselves with any of the personality types. Frequencies and cross-tabulation were used to explore the choice patterns of the survey and focus group participants. Discriminant analysis with personality types as the grouping variable and several psychographic and travel-related variables (travel needs/motivations, travel styles, desired activities, desired destination features, personal values) as independent variables was then conducted to assess the distinctiveness of the travel personality categories. Finally, correspondence analyses were conducted to assess the degree to which personality types and activities, as well as personality types and destinations could be matched.

Table 2 shows the frequency distributions for both choice settings. The top three travel personalities selected as being most appropriate were All Arounder (24.6%), Sight Seeker (21.6%), and Culture Creature (14.6%). This finding largely corresponds to market segmentation results found in previous studies for the area. The travel personalities selected most often as being not applicable were Gamer (38.8%), Avid Athlete (17.1%), and City
Slicker (12.6%). In general, the least frequently selected categories in one choice setting are the most frequently selected in the other, indicating that respondents were consistent in their choices. Several interesting choice patterns emerged from the cross-tabulation between “best” and “least applicable” travel personality. For instance, individuals who identified themselves with the Trail Trekker personality type were significantly more likely to select City Slicker, Shopping Shark, or Gamer as the least applicable travel personality than what one would expect from the overall frequency distribution of those categories. Similarly, Family Guy and Gamer seemed to be mutually exclusive categories. Other examples are Boaters describing themselves as not being Sight Seekers and Beach Bums declaring themselves as not falling into the History Buff category. These patterns intuitively make sense and suggest that many respondents were not only able to easily identify with particular travel personality categories but also were able to clearly distinguish between who they are and who they are not when they travel to Northern Indiana destinations.

Interestingly, the prevalence of the All Arounder category seems to indicate that many travelers have multifaceted personalities and pursue a diversity of interests when they travel. The focus group results are consistent with this survey finding, indicating that individuals tend to select more than one travel personality if provided with the opportunity to do so. On average, the focus group members selected 3.9 travel personalities to describe who they are when they travel. Importantly, the All Arounder category was less frequently selected by focus group members (ranking fourth after Culture Creature, Family Guy, and Sight Seeker). This finding suggests that choosing multiple specific personality types was preferred over selecting one category that subsumes many interests. Also, the focus group participants reported that it was easier to indicate which personality type was not applicable than to select the one(s) that best describe(s) one’s travel personality. Specifically, some focus group members were hesitant when asked to pick a travel personality and stressed that their travel personalities depended on the travel situation, especially the composition of the travel party. However, all of them were quick to select the personality type they were “definitely not.” For instance, one focus group member stated: “I guess I am a Family Guy, but the only one I am really not is Avid Athlete.”

Table 3 presents the top 20 destinations visited in Northern Indiana. As can be seen, the Amish cities...
of Shipshewana (41.4%) and Elkhart (41.4%) and the large regional shopping centers of Michigan City (22.2%) and South Bend (20.9%) were the most popular destinations. However, smaller Amish villages including Nappanee and cities with natural environments including Middlebury were also popular places to visit. In general, Northern Indiana visitors explored two to three cities/towns during their stay (mean = 2.5 places). The top three activities were dining (65.5%), shopping (65.1%), and sightseeing (51.3%). In addition, antique shopping, visiting a festival/special event, beach/waterfront, and historic sites were common activities of visitors to Northern Indiana. Overall, respondents participated in 4–5 and up to a maximum of 13 activities (mean = 4.4 activities).

Results of Discriminant Analyses

The second phase of the study examined the degree to which travel needs/motivations, travel styles, desired activities, desired destination features, and personal values could be used to discriminate the 12 travel personality types. Two analyses were conducted based upon the “best fitting” and “worst fitting” personality types selected by the respondents. The results of the analyses suggest that the travel personality categories are distinct with respect to their underlying travel motivations, styles, and values. Specifically, the results for the analysis using “best fitting” travel personalities indicate that 45.9% of the cases were correctly classified. Given the many categories in the grouping variable, this result is significantly better than an assignment by chance. This finding suggests that travel personality could, indeed, be a useful strategy for classification purposes and could be used as a surrogate for various psychographic variables. Interestingly, the classification result for “least applicable” travel personalities was somewhat inferior, with only 38.3% of the cases being correctly classified. Thus, although it seems to be easier for respondents to select a single “least applicable” category, these categories appear to be less distinct with respect to underlying motivations. However, the difference might be due to the fact that survey questions were worded in a positive way and that the motivations, styles, and values one has do not automatically reflect the psychographic characteristics one does not have.

Results of Correspondence Analyses

One of the most important questions to be answered within the context of a DRS is, of course, whether these travel personality categories can adequately predict the activities and/or places that might be recommended in the DRS. A correspondence analysis was first used to examine the relationship between personality types and activities. Avid Athlete and City Slicker were excluded from this analysis as few respondents had selected either one of these personality types; also, they correspond little to the offerings of the Northern Indiana region. A correspondence map was created to visually assess the degree to which the personality types and activities are associated (Fig. 3). The results indicate that the relationship between personality types and activities can be mapped into a two-dimensional space. The results are significant ($\alpha = 0.05$) and the two dimensions account for 59.2% of the inertia; adding a third dimension would not significantly improve the result. As illustrated in Figure 3, Dimension 1 is defined by Gamer and gambling on one end and History Buff and museum on the other. Thus, Dimension 1 appears to reflect travel motives ranging from the desire to escape to engaging in learning while on vacation. Dimension 2 contrasts natural with man-made or constructed settings and is defined by Trail Trekker and hiking versus Culture Creature and museum.

The results reveal a close correspondence between travel personalities and respective activities. For instance, Boater and boating map almost perfectly onto each other, as do Sight Seeker and sightseeing. However, most travel personalities are related to more than one activity. For example, Culture Creatures seem to enjoy festivals and museums, as well as historic sites, and Shopping Sharks engage in shopping but also nightlife and dining. As expected, the All Arounder personality is surrounded by many different activities. Similarly, the Family Guy personality seems to map onto several kinds of activities, but is definitely not related to gambling or hunting/fishing as well as biking.

A second correspondence analysis was conducted to directly assess the relationship between the personality types and the destinations visited in Northern Indiana. Interestingly, no significant relationship was found between travel personalities and travel
destinations. It seems that many destinations in the Northern Indiana area offer a diversity of tourism products, thus catering to a variety of tourists. Also, they are, in comparison to each other, rather homogeneous. Further, certain destinations are very popular (e.g., Shipshewana) and are visited by many of the tourists who travel to the area (more than 41% of the survey respondents say they visited Shipshewana on their most recent trip to the Northern Indiana area). Although not significant, certain relationships are clear and consistent with a priori expectations; for example, the Boater personality is more closely related to destinations near Lake Michigan. In contrast, History Buffs seem to frequently visit destinations such as Warsaw, where a number of museums can be visited, as well as Nappanee, which has a historic and cultural center that explains the Amish way of life to visitors.

Conclusions

The findings of this study suggest that travel personality categories can serve not only as a fun way to engage users in the recommendation process but, importantly, as a useful tool in a DRS to easily capture differences among users with respect to their preference for certain activities. The categories used in this study appear to be quite distinct in terms of underlying psychographic variables but not as different with respect to actual travel behavior. This could be seen as a potential problem for the design of the recommendation algorithm. However, from a marketing point of view, being able to suggest more than one destination can be seen as an advantage. Also, it is expected that there would be more variation in the data and consequently less ambiguous assignments if the travel personality approach was tested in the context of a less homogeneous area (e.g., destinations throughout a state, province, or country). For tourism regions with similar destinations, activities can serve as an efficient route for recommending potential places to visit.

The results further indicate that specific system design decisions, such as deciding whether the user is allowed to check more than one personality type and/or whether users can exclude certain types, are
all but trivial. Drawing on existing decision science and usability literatures, further research is needed to investigate the implications of multiple choice settings and “exclude” options in the context of recommendation systems. In addition, the research presented in this article did not specifically address the effects of the way in which the personality types are represented (e.g., in text or pictorial form or a combination thereof). This appears to be an area in need of further exploration as the ultimate goal of such a category approach is to provide users with the necessary cues for being able to quickly identify with or discard certain options.

The identified relationships between personality categories and activities participated in while on vacation look very promising. It is suggested that a simulation approach that compares predictions based on personality types to assignments based simply on probabilities derived from the frequency distribution of the activities could further enhance our understanding of the predictive power of category-based approaches. Also, although the mail survey used in this study provides some opportunities for comparing information derived from questions to user information derived from choices among predetermined categories, there is still a need for a more direct comparison of the two approaches in an actual DRS setting.

The increasing frequency with which category-based approaches appear on general consumer product as well as tourism-related Web sites indicates that marketers see a need for innovative ways of customizing their offerings without forcing the user through lengthy registration–assessment processes or requiring a rich inventory of past search and/or purchasing behavior. Personality types draw on users’ needs for self-expression and personalization without imposing many constraints in terms of effort and time. In addition, they are fun to use and allow users to quickly revise their specifications if the recommendations did not match their interests. Thus, they point out that the ultimate goal of recommendation system design is not necessarily to find the most precise matching algorithms, but rather to simplify the decision-making process by offering a reasonable subset of alternatives. In addition, successful system design efforts need to focus on creating meaningful user experiences.

Biographical Notes

Ulrike Gretzel is currently an Assistant Professor of Tourism at Texas A&M University. She received her Ph.D. in communications from the University of Illinois at Urbana-Champaign and holds a masters degree in International Business from the Vienna University of Economics and Business Administration. Her research focuses on persuasion in human–technology interaction, the representation of sensory and emotional aspects of tourism experiences, and issues related to the development and use of intelligent systems in tourism.

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