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Travel Personality Testing for Destination Recommendation Systems

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1. 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) that seeks to provide personalized and situation-specific recommendations. Although collaborative filtering and case-based reasoning approaches have been developed to provide more suitable destination recommendations (Ricci *et al.*, 2002b), there seems to be a need for more explicit ways of capturing user preferences so that the resulting recommendation can reflect personal and trip-related needs for a specific point in time. Leading the user through a series of questions in a sort of self-assessment process as suggested by Franke (2002) and Rumetshofer *et al.* (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, consequently, more suitable to capture user characteristics that are relatively stable. For recommendations based on frequently changing preferences and/or situation-specific variables, however, approaches that can quickly and rather effortlessly capture the necessary information are needed. A potential solution to this problem is providing users with a choice among predefined travel types or decision-making styles (Delgado and Davidson, 2002; Grabler and Zins, 2002; Zins, 2003). This idea of predefined categories has been implemented most frequently by inviting users to select a product-related personality category and providing recommendations based upon predetermined preferences that characterize the selected personality type. The aim of this chapter 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.

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2. Background

Personality traits are believed to be able to accurately predict behaviour over time and across situations (Woszczyński *et al.*, 2002). Most importantly, consumer behaviour research has found a linkage between individuals' personality and their preferences for certain brands, suggesting that personality type is an important indicator for product choice (Malhotra, 1988; Aaker, 1997). 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 (Nickerson and Ellis, 1991; Madrigal, 1995). 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 and 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 *et al.*, 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 predefined personality categories to predict actual behaviour.

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 *et al.*, 2000). Also, particularly in the case of destination recommendations, these categories are often based on preferences for certain travel-related activities (e.g. hiking, sightseeing) rather than preferences directly linked to any 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 of personality categories found on the Web 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. This chapter looks at the most commonly implemented typology on travel websites (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 short cut to more personalized and, therefore, more relevant destination recommendations.

3. Methodology

The findings presented in this chapter 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 non-respondents 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 comprised a series of questions related to travel style, psychographic characteristics and actual travel behaviour. 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 by a short paragraph (Fig. 8.1). The descriptions were initially adapted from examples found on the Web such as the travel personality feature Travelocity.com used to have in its 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 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

Below are 12 different travel personalities. Pick a travel personality that 'best' describes you as you travel in the Midwest; then, choose one that does not describe your personal travel style at all. Please select only one for each category.

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

Travel personality that 'best' describes you (A–L): _____

Travel personality that does not describe you at all (A–L): _____

Fig. 8.1. Travel-related personality types.

placed on stability vs excitement, family vs self, being passive vs being active, learning vs dropping out and following tradition vs trying new things.

Actual travel behaviour was elicited by asking survey respondents to indicate which destinations they had visited and which activities they had participated in 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 or relatives and other) were excluded from further analyses. Table 8.1 lists the travel personality types, destinations and activities on which the analyses presented in this chapter are based.

Table 8.1. Travel personalities, destinations and travel activities included in analyses.

Travel personalities		Destinations		Travel activities	
1	Culture Creature	1	Shipshewana	1	Antique shopping
2	City Slicker	2	Michigan City	2	Beach/waterfront
3	Sight Seeker	3	South Bend	3	Biking
4	Family Guy	4	Nappanee	4	Birdwatching
5	Beach Bum	5	Middlebury	5	Boat/auto/antique show
6	Avid Athlete	6	Goshen	6	Boating
7	Shopping Shark	7	Merrillville	7	Dining
8	All Arounder	8	Elkhart	8	Festival/special event
9	Trail Trekker	9	Chesterton	9	Gambling
10	History Buff	10	Valparaiso	10	Golfing
11	Boater	11	La Porte	11	Hiking
12	Gamer	12	Hammond	12	Hunting/fishing
		13	Crown Point	13	Museum/play/concert
		14	Angola	14	Nightlife
		15	Warsaw	15	Shopping
		16	Mishawaka	16	Sightseeing
		17	Plymouth	17	Visit historic site
		18	Portage		
		19	Lagrange		
		20	Ft Wayne		

Additional data was 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 travelled 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 taken from the inquiry database of the Northern Indiana tourism office used in the previous survey effort. The focus group members were presented with a sheet of paper that featured the same 12 personality types used in the survey questionnaire. However, in contrast to the mail survey, the personality type descriptions were enhanced with small graphics and the focus group participants were allowed to choose more than one personality type if necessary.

A series of analyses were conducted to investigate the potential contribution of such travel personality categories to the recommendation process. First, the 12 travel personality categories were analysed 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 or 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. Second, the personality types were described in terms of the personality profiles gained from the numerous personality and travel style-related questions asked in the survey to examine the specific personality traits underlying each predefined personality category. Finally, correspondence analyses were conducted to assess the degree to which personality types, activities and destinations could be matched.

4. Results

Table 8.2 shows the frequency distributions for both choice settings: travel personality that describes best and travel personality that describes least. 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 crosstabulation 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 one would expect from the overall frequency distribution of those categories. Similarly, Family Guy and Gamer seemed to be mutually exclusive

Table 8.2. Frequency distribution of travel personality categories.

Travel personality that describes best	Percent of respondents	Travel personality that describes least	Percent of respondents
All Arounder	24.6	Gamer	38.8
Sight Seeker	21.6	Avid Athlete	17.1
Culture Creature	14.6	City Slicker	12.6
Family Guy	10.6	Beach Bum	9.3
Trail Trekker	9.5	Boater	8.1
History Buff	7.7	Trail Trekker	4.6
Shopping Shark	4.1	Shopping Shark	3.3
Beach Bum	3.0	Culture Creature	2.3
Gamer	2.2	History Buff	2.0
Boater	1.3	Family Guy	1.1
Avid Athlete	0.6	All Arounder	0.5
City Slicker	0.3	Sight Seeker	0.2

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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 travellers 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 described 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 8.3 presents the top 20 destinations visited in Northern Indiana. As can be seen, Shipshewana (41.4%), Michigan City (22.2%) and South Bend (20.9%) were the three most popular destinations. However, smaller Amish villages including Nappanee and towns with natural environments including Middlebury were also popular places to visit. In general, Northern Indiana visitors explored 2–3 cities or towns during their stay (mean = 2.5 places). The top three activities were dining (65.5%), shopping (65.1%) and sight-seeing (51.3%). In addition, antique shopping, visiting a festival or special event, beach or waterfront and historic sites were common activities of visitors to Northern Indiana. Overall, respondents participated in 4–5 activities up to a maximum of 13 (mean = 4.4 activities).

4.1 Results of discriminant analyses

The second phase of the study examined the degree to which travel needs and/or 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

Table 8.3. Frequency distribution.

Destinations	Percent of respondents	Travel activities	Percent of respondents
Shipshewana	41.4	Dining	65.5
Michigan City	22.2	Shopping	65.1
South Bend	20.9	Sightseeing	51.3
Nappanee	19.9	Antique shopping	39.0
Middlebury	19.2	Festival/special event	29.2
Goshen	14.3	Beach/waterfront	25.4
Merrillville	12.0	Visit historic site	24.0
Elkhart	11.7	Museum/play/concert	14.0
Chesterton	11.3	Hiking	12.4
Valparaiso	11.2	Gambling	9.5
La Porte	10.0	Birdwatching	8.9
Hammond	7.8	Boating	5.9
Crown Point	7.4	Nightlife	5.8
Angola	7.1	Boat/auto/antique show	5.4
Warsaw	6.4	Hunting/fishing	5.1
Mishawaka	6.1	Golfing	3.1
Plymouth	5.4	Biking	2.8
Portage	5.4		
Lagrange	4.8		
Ft Wayne	4.2		

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.

Cross-tabulations and chi-square tests were used to examine the personality traits and styles underlying each personality category. Avid Athlete and City Slicker had to be excluded from this analysis as the sample size for these categories was too small. The results confirm the distinctiveness of the travel personality categories with respect to all values, motivations, planning and travel style-related variables. Most importantly, the personality profiles obtained are consistent and make intuitive sense. Consequently, the results illustrate that the predefined travel categories serve as very good

proxies for capturing user personality traits and preferences and can be used to make specific destination recommendations. The following provides a brief description of the personality types and their underlying extended personality profiles.

4.1.1 Culture Creature

This personality type values excitement, being active, learning and trying new things. Experiencing new things and learning a lot is also an important travel motivation for this type. Further, Culture Creatures are less likely to travel to the Midwest to relax and do nothing than all other personality types except for History Buffs. Culture Creatures tend to visit more than one destination during a trip and most often use a base camp strategy, i.e. they stay overnight at one destination to visit places nearby. They specifically look for destinations that offer cultural sites or events as well as festivals and fairs. Historic sites are also frequently visited by this personality type. In general, travellers who identify with this personality type plan major aspects of a trip in advance but leave specifics open.

4.1.2 Sight Seeker

Sight Seekers value excitement, activity and learning. Trying new things is more important for them than following traditions. They enjoy taking chances by visiting new destinations and visit more than one destination during a trip. They are more likely than other personality types to visit destinations on the way to the main destination and also enjoy touring a region. Sight Seekers have a particular interest in destinations that offer historic sites and they also tend to keep their travel plans more flexible than most other personality types.

4.1.3 Family Guy

Family is a central value for this personality type and following traditions is more important for this type than for most other personalities. Visiting family and friends is an important motivation for Family Guys, as are spending more time with the children and relaxing and doing nothing. In comparison to other personality types, Family Guys are also more likely to seek out destinations that offer activities for children. Beautiful scenery matters less for this personality type than for other types, and convenience to home is more important when choosing a destination. This personality type tends to visit familiar destinations and plans vacations to a greater detail than others.

4.1.4 Beach Bum

Some Beach Bums value excitement; others, stability. The same is true for being passive vs being active; however, Beach Bums overall value being passive much more than other personality types and dropping out is more prominent as a value for this group than learning. Visiting friends and family is not an important travel motivation, whereas relaxing and doing nothing is. Beach Bums are also highly motivated by a desire to get away from work and daily life. In addition, Beach Bums are likely to stay at one destination

and visit other places in the area. In general, they like to do different things when they travel. They most likely choose destinations that offer beaches or waterfronts, or destinations that have attractive lakes and rivers. Shopping and outdoor activities at the destination are also important and beautiful scenery is a must. Further, this travel personality type most often chooses destinations that are a nice quiet place and provide a unique experience. The Beach Bum category is the least likely to have flexible travel plans and most often plans everything in advance.

4.1.5 Shopping Shark

Shopping Sharks value stability and being passive. They also value the self much more than family. Dropping out is more important than learning for this personality type and following traditions is more central than trying new things. Meeting other people while travelling is not an important motivation and neither is experiencing new things and learning a lot. Spending more time with children is definitely not a high motivating factor for Shopping Sharks and being physically active and/or practising sports is a thought that rarely crosses Shopping Sharks' minds when they think of travel. Shopping Sharks keep going to destinations they know and do not enjoy touring a region. They do not like to do many different things while on vacation. This personality type visits destinations that offer festivals and craft fairs as well as general shopping opportunities. Shopping Sharks are thrifty travellers always looking for bargains. They most often choose destinations that offer reduced rates and seek out good value for time and money. This personality type is also drawn to destinations with lots of different kinds of food experiences. Shopping Sharks appear to have a wide variety of planning styles, ranging from total advance planning to en route planning.

4.1.6 All Rounder

All Rounders are thrill seekers. They value excitement more than any other personality type and being active is extremely important to them. Their desire for excitement is also reflected in the great emphasis they place on trying new things. Visiting family and friends is an important motivation and meeting people while on vacation is also a greater motivating factor for this group than for others. The thrill-seeking focus of this personality category is also apparent in their wish to travel in order to get more excitement into their lives. When on vacation, All Rounders do things they usually do not have time to do and they enjoy taking chances by visiting new destinations. All Rounders enjoy touring regions and, as their name suggests, do a lot of different things when they travel. They choose destinations that offer lots of things to do and see and prefer places that offer unique experiences. This personality type plans major aspects of a trip in advance, but is also to some extent open for changes.

4.1.7 Trail Trekker

Trail Trekkers seek a balance between stability and excitement. Importantly, they are the group that places the greatest value on being active, and learning

is also an important aspect of their lives. They like trying new things but they do not necessarily travel to get more excitement into their lives. Being physically active and/or practising sports is their main travel motivation. They enjoy taking chances by visiting new destinations and especially like to explore places that are not typical vacation destinations. Trail Trekkers clearly like places where they can hike and bike and choose destinations that are great for outdoor activities. Destinations with attractive lakes and rivers and quiet places are also very important to them. Trail Trekkers are definitely not interested in gambling or shopping. In general, Trail Trekkers do a lot of different things when they travel and make many travel-related decisions while en route.

4.1.8 History Buff

History Buffs value both family and self, and being active is more important for them than being passive. Learning is a central value for this personality type and relaxing and doing nothing while on vacation is definitely not a motivating factor for this group. History Buffs travel to experience new things and learn a lot, as well as to do things for which they usually do not have time. History Buffs enjoy visiting new destinations instead of going to destinations they know. Further, History Buffs are highly likely to visit more than one destination when on a trip. They visit places on the way to the main destination and also like touring regions. When doing so they like to combine places that offer similar activities and experiences. History Buffs also like to explore places that are not typical vacation destinations. They most often choose destinations that have interesting historic sites, offer beautiful scenery, have quaint towns or villages and provide unique experiences. Most History Buffs plan major aspects of their trips but leave specific decisions open.

4.1.9 Boater

Boaters place equal value on family and self. Excitement is important for them; yet, a substantial number of boaters also value stability. Accordingly, they seek a middle path between following traditions and trying new things. Importantly, being active is definitely a core value that members of this personality category share; however, when Boaters travel, relaxing and doing nothing is an important motivation, as is getting away from work and daily life. Boaters also often travel to visit family and friends and to spend more time with their children. Boaters like to take chances by visiting new destinations; however, they typically select a single destination and do not like to tour regions or visit other destinations in the area while staying overnight at one place. They could not care less about historic or cultural sites and events at a destination, are also not interested in hiking or biking, but participate in outdoor activities as long as they have something to do with boating. They naturally seek destinations with beaches, waterfronts, lakes or rivers and choose places with beautiful scenery. Boaters also prefer destinations that are convenient to home and offer good value for time and money. Whether a destination offers lots to see or do does not matter for Boaters because they do

not like to do a lot of different things when they travel. Importantly, Boaters tend to plan major aspects of a trip in advance.

4.1.10 Gamer

Gamers value excitement, dropping out and trying new things. Gamers do not travel to visit family and friends or to relax and do nothing. Meeting people or being physically active is definitely not on the Gamer's mind when travelling; instead, what drives Gamers to travel is the desire to get excitement into their lives. Gamers keep going to destinations they know and are clearly less likely to take chances by visiting new destinations than other personality types. They do not like touring regions but sometimes visit other destinations close to where they stay overnight. When doing so, they combine places or activities that offer the same kind of experience. Gamers do not enjoy visiting places that are not typical vacation destinations and, of course, they prefer destinations that offer gambling. Whether the destination has cultural sites, provides beautiful scenery or offers outdoor activities is irrelevant. Interestingly, this personality type wants to visit places that provide lots to see and do, quality accommodations and good value for time and money. Gamers have a clear preference for destinations that offer good and/or different kinds of food, which fits with the general indulgence theme that surrounds this travel personality. Gamers also like to gamble when it comes to travel by leaving their travel plans flexible and open.

4.2 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. Correspondence analysis was used first to examine the relationship between personality types and activities. Again, 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 (see Fig. 8.2). 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 Fig. 8.3, 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 vs Culture Creature and museum.

The results reveal a close correspondence between travel personalities and respective activities. For instance, Boater and boating map almost

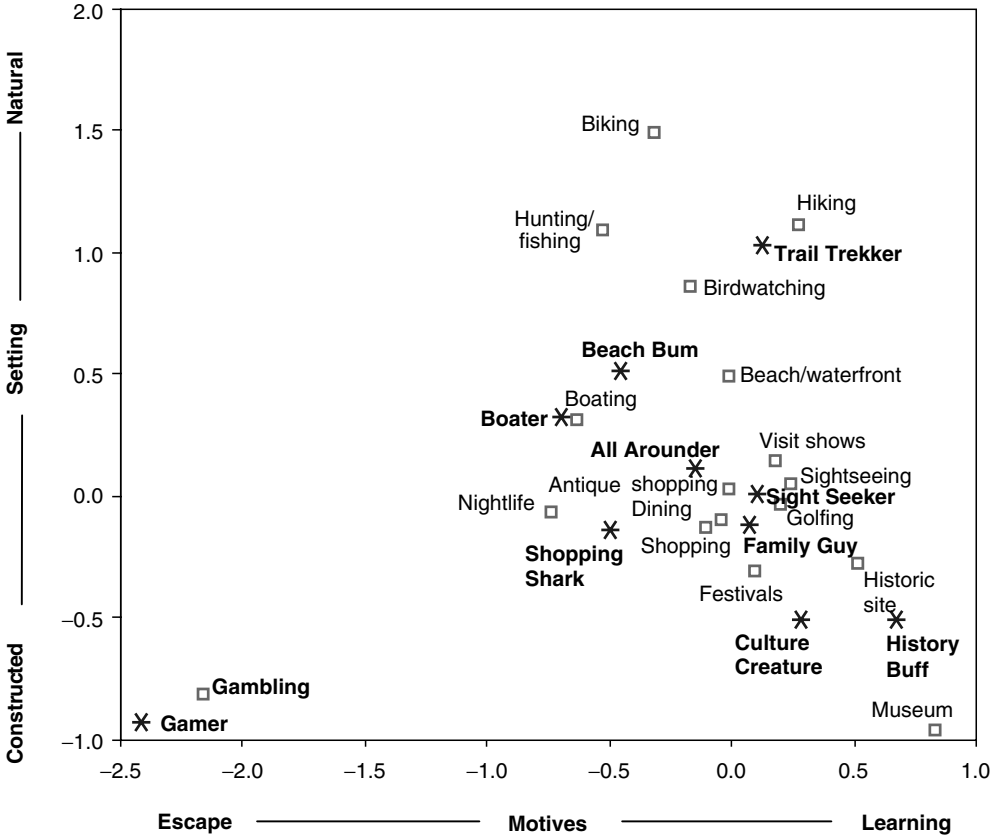


Fig. 8.2. Relationship between travel personality and travel activities.

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, 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, hunting or 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

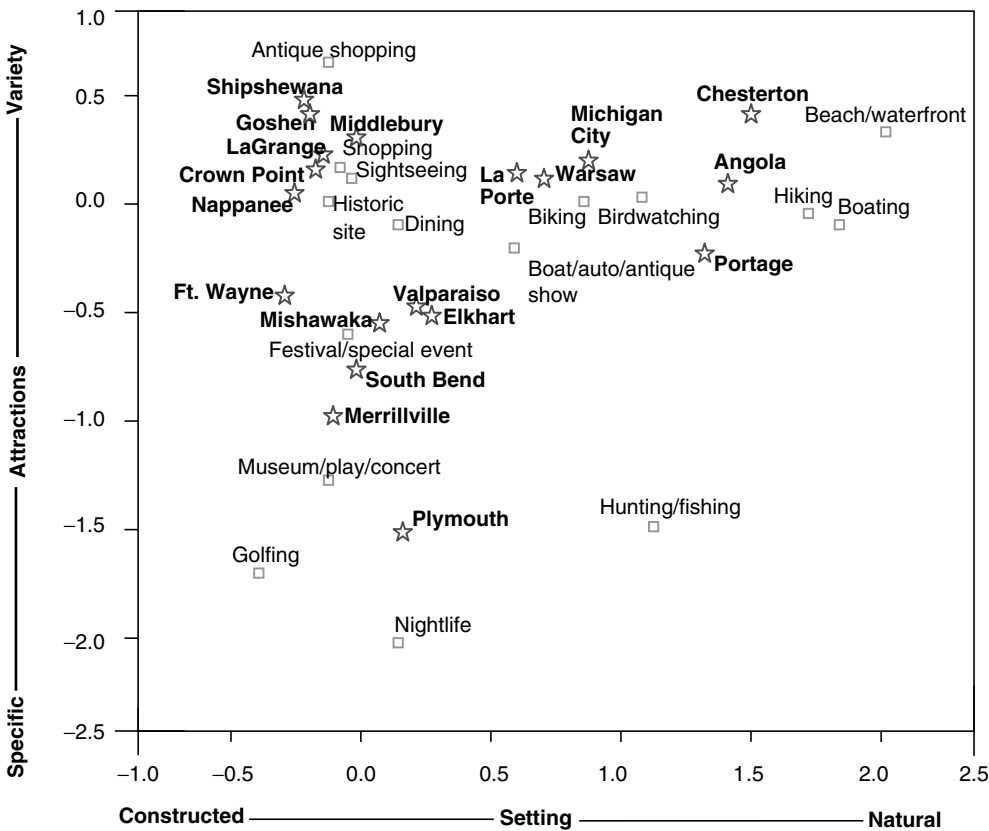


Fig. 8.3. Relationship between travel activities and destinations.

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 Nappanee, Indiana, which has a historic and cultural centre that explains the Amish way of life to visitors.

Since a direct matching of personality types with destinations was found to be difficult, a correspondence analysis of travel activities and destinations was conducted to potentially provide the 'missing link' in recommending destinations to different travel personality types. Gambling is a very distinct activity and was clearly associated with Hammond (nearly half of Hammond's visitors come to the destination to gamble) so that it dominated the correspondence plot and caused other places to appear extremely similar. For this reason, Gambling and Hammond were removed from the analysis (Bendixen, 1996). The resulting solution with two dimensions accounts for 58.5% of the inertia. A third dimension increases the value to 71.6%; however, only the two-dimensional solution is presented in this chapter as it is clearly easier to illustrate and interpret. Figure 8.3 shows that

activities and destinations were matched based on constructed vs natural settings. The second dimension is less clear but seems to distinguish between destinations with specific offers and destinations like Shipshewana, which provide a greater variety of attractions that are being enjoyed by many types of visitors. In general, the destination and activity matches correspond to the product offerings of the destinations, e.g. Chesterton is the home of the Indiana Dunes State Park and was associated with beach or waterfront, whereas Shipshewana is known as an antique and shopping destination. Further, Plymouth has a renowned golf resort and Merrillville provides its visitors with an opportunity to enjoy entertainment in the Star Plaza Theatre.

5. 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 different with respect to actual destination choice behaviour. 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 were tested in the context of a less homogeneous area, e.g. destinations throughout a state, province or country. The results further suggest that for tourism regions with similar destinations, activities can serve as an efficient route for recommending potential places to visit.

Importantly, the study results 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 literature, 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 chapter 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 pre-determined 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 websites 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 behaviour. Personality types draw on users' needs for self-expression and personalization without imposing many constraints in terms of effort and time. In addition, they allow users to quickly revise their specifications if the recommendations do 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 and travel personality categories which are fun to use and allow users to express their uniqueness. Most importantly, providing users with the opportunity to select a personality type implies choice and, consequently, makes subsequent destination recommendations more relevant and more persuasive.

Chapter Summary

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 in order 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 chapter has explored travel personality categories as a possible simple approach to classify users. The results of this study suggest that travel personality types can, indeed, be matched up with certain travel activities, and through these activities with specific destinations.