Questionnaire: Usage and Requirement Analysis of Intelligent Transportation Tourism Recommendation System

Description:

Greetings! Thank you for participating in our questionnaire. The purpose of this questionnaire is to understand your transport choices and path planning habits in your travel behaviour, as well as your needs for an intelligent travel recommendation system. Your answers will help us to optimise our intelligent transportation-based travel recommendation system. All responses in the questionnaire are anonymous and will be used for academic research only.

I. Basic information

2. your age group:

- [ ] Under 18 years of age

- [√ ] 18-25 years old

- [ ] 26-35 years old

- [ ] 36-45 years old

- [ ] 46-60 years old

- [ ] Over 60 years old

4. Your current place of residence:

- [√] City

- [ ] Suburbia

- [ ] Rural

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

5. the frequency with which you use your smart device as a travel aid (e.g. smart navigation, location search, etc.):

* Every trip requires
* Used when travelling frequently
* It will only be used in unfamiliar places
* infrequent
* Basically, I don't need it.

II. Tourism behaviour

5. The average number of trips you make per year:

- [ ] One or less

- [] 2-3 times

- [ ] 4-5 times

- [√] 6 or more

6. Your usual mode of travelling (multiple choice):

- [√] Self-drive

- [ ] Group Tours

- [√] Self-guided tours

- [ ] Backpacker.

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

7. Your transport options at your travel destination (multiple choice):

- [√] Public transport (e.g. bus, metro)

- [ ] Taxi/network car

- [ √] Self-drive

- [ ] Car hire

- [ ] Walking

- [ √] Cycling (e.g., bike sharing)

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

8. Factors you value most when choosing a tour route (multiple choice):

- [√] Accessibility of routes

- [√] Distribution and number of attractions

- [√] Scenic beauty of the route

- [√] Historical and cultural background of the route

- [√] Transport accessibility

- [√] Tourism costs

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

III. Intelligent Transport Tourism Recommendation System

9. Have you ever heard of or used an intelligent transport travel recommendation system?

- [ √ ] I've heard of it and used it.

- [ ] I've heard of it, but I haven't used it.

- [] Not heard of

10. How interested would you be in using an intelligent transport travel recommendation system that could recommend the best travel routes based on your travel preferences and real-time traffic conditions?

- [ ] Very interested.

- [√] More interested

- [ ] General

- [ ] Not really interested.

- [ ] Not interested at all.

11. What are the most important features you look for when choosing an intelligent transport travel recommendation system? (Multiple choices possible)

- [√ ] Real-time traffic updates

- [√ ] Personalised Travel Itinerary Recommendations

- [√ ] Detailed information on attractions

- [ √] Seamless multi-modal transport connections

- [ √] Time and cost estimates for routes

- [√] Recommended neighbourhood facilities (e.g. restaurants, petrol stations)

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

12. What do you think would be the benefits to your travelling experience if you were to use an intelligent transport travel recommendation system? (Multiple choice)

- [√] Save time.

- [√] Reducing the cost of tourism

- [√ ] Improving the efficiency of tourism

- [ √ ] Discover more interesting attractions

- [ √ ] Providing safer travel options

- [ √ ] Increased flexibility in travelling

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

IV. Route planning and optimisation

13. Which tools or platforms do you typically use when planning your travel itinerary? (Multiple choice)

- [√] Mapping applications (e.g., Google Maps, AutoNavi)

- [√] Travel guide sites (e.g., Mabee's Nest, Poor Traveller)

- [√] Travel social platforms (e.g., Xiaohongshu)

- [√ ] Personal experience and recommendations

- [ √ ] Travel agency

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

14. What do you think are the shortcomings of current AI route navigation tools/travel route planning tools? (Multiple choice)

- [ ] Lack of personalised recommendations

- [ √] Real-time information is not updated in a timely manner

- [] Route selection too homogeneous

- [ ] Seamless multi-modal transport connectivity not supported

- [√ ] Incomplete information on attractions and routes

- [ ] Unfriendly user interface

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

15. What are your expectations for route planning and optimisation of intelligent transport travel recommendation systems? (Multiple choice)

- [√ ] More precise route recommendations.

- [√ ] Faster real-time traffic updates

- [ ] Diversified touring options available

- [ ] Support for personalised preferences

- [ ] Integration of social media and user reviews

- [ ] Other: \_\_\_\_\_\_\_\_\_\_

V. Open questions

16. What transport and route planning-related problems have you encountered while travelling?

Construction information on trails is not updated in a timely manner to allow real-time feedback from other users in this area to be reflected effectively

17. Regardless of whether you have used an ITS or not, what features would you prefer to see in the system that would make travelling or tourism more convenient?

Real-time graphic feedback associated with locations on the scenic map, and enables users to make corrections to the official presentation on the website and have it reviewed for a new version

18. During your travelling experience, have you ever encountered situations where you had to change your itinerary due to unexpected events (e.g. weather changes, traffic accidents)? How can intelligent systems help you better cope with these situations?  
 For example, the system automatically adjusts the itinerary, recommends alternative attractions or routes, and so on.

Encountered, system notification of relevant information

19. Do you need to get more background information or history of the site while travelling? If yes, how do you think the intelligent tourism system should provide such information?  
 For example, through voice guides, AR displays, interactive maps, etc.

Interactive map with some categorization of relevant information

20. Have you ever wished you had a system to help you plan your day when travelling, including meals, leisure activities, etc.? What features would you like this system to have?  
 For example: recommendations based on your preferences, taking into account the weather, providing customised suggestions, etc.

Yes, multiple plans can be provided for users to choose independently and the details of the plan can be modified appropriately.

21. How do you think ITS can provide personalised recommendations and services while protecting individual privacy?  
 For example, data encryption, anonymisation, user control of data usage rights, etc.

Compliance with relevant laws and regulations

22. When travelling, would you like to have a deeper interaction with the local culture or inhabitants through an intelligent system? What features do you think could help to achieve this?  
 For example: recommendations for local tour guides, notifications of cultural events, bilingual communication tools, etc.

Yes, such as helping foreign tourists obtain more comprehensive information guidelines

23. How do you think smart travel systems can help you get the best travel experience within your budget?  
 For example: recommending activities and attractions based on budget, providing information on special offers, real-time budget tracking, etc.

Special offers, attractions and services that are more adequate to your needs

24. What are your expectations of the ITS in terms of helping people with disabilities, the elderly or children to travel without barriers?  
 For example, accessible route recommendation, special needs reminder, simplified operation interface, etc.

The system needs to reflect the various types of green passages to the relevant users and, more importantly, to provide more supporting services to the attractions.

Thank you for your participation!

Thank you for taking the time to participate in our survey. Your feedback is important to our research project "Improvement of Intelligent Traffic Travel Recommendation System". If you have any further questions or suggestions, please feel free to contact us.