As a genre of social sciences, tourism research has been a core of interdisciplinary studies, merging with diverse study areas, such as geography, anthropology, economics, and sociology [1]. Smart tourism research (STR) seeks to identify better design and systems, effective methodologies and approaches, and efficient resource management in synthesizing new value propositions for tourists as well as tourism and hospitality business industries. Based on smart tourism phenomena, diverse technologies (e.g., application technologies, sensors, data analytics, optimization, and visualization) have taken a critical role to produce multiple levels of social materiality and economic impact [2].

Smart tourism is a social phenomenon arising from the convergence of citizens’ daily life in business [3] and tourism ecosystems [4] (see Fig. 1). The layers of smart city and tourism provide systems, which involve flows and exchanges of data and information. Such flows and exchanges constantly depend on interdependence and interact with external systems (e.g., transportation, healthcare, and payment systems), along with resource sharing for optimization. Optimization is achieved through advance technologies in the ecosystems with the support of residential government policies and systems integration [2–4].

“Smart” implies “smartness,” which means not only fast, convenient, cheap, and intelligent for a traveler, but also efficient, effective, productive, and creative for business in terms of providing and consuming tourism products and services through a network of cooperating businesses. These businesses can collaborate in an interoperable manner to seamlessly exchange data and information for achieving mutual goals with other companies or institutions through business processes. We suggest four dimensions categorizing the smart tourism state of converging businesses from the overlapped structures between smart city and tourism for a traveler, organization, and business (see Table 1).

Consequently, the tourism paradigm is transformed as types of infrastructure-oriented, knowledge-intensive, interoperable, and productive means for sustainable competitive advantage. The first important factor is connectivity methods (e.g., searching, booking, paying, reviewing, and recommending). These methods enable smart city citizens and smart tourism tourists, from outbound tourists (i.e., those leaving their residence country) to inbound tourists (i.e., those arriving in a different country), to find better tourism products and services in a particular context. Second, relationships should be robust under turbulent environment for existing companies to sustain stable tourism business activities. Third, creativity from outsiders or among stakeholders generates disruptive products and services for tourism markets. Finally, productivity indicates an attempt to increase operational excellence in productions between smart city and tourism ecosystems.

In IS research, STR is considered an imperative knowledge that explores new interpretations of contents, devices, and services. Particularly, they are related to the issue of digital convergence technology generating various new forms and features of digital innovations in tourism and hospitality industries [2,5]. Thus, STR interests and contributions are condensed into three major streams in the broader areas of IS, marketing, and tourism and hospitality research: (1) conceptual foundations and domains of smart tourism ecosystems [2,4,6], (2) ICT-enabled applications and artifacts for smart cities and smart tourism [7–9], and (3) theoretical directions and research methodologies [7,10,11].

Nonetheless, endeavors of established academic communities have encountered two research dilemmas. One is a difficulty to identify the contextual inquires of smart tourists, dealing with the completeness of total experience of tourists during traveling (e.g., motivations and desires before traveling, decisions and interactions during traveling, and extensions after traveling). The other is a difficulty to produce business models, services, economic input/output, and applications for smart city and smart tourism.

With these two research dilemmas as basis, this special issue highlights three research challenges. First, what patterns and protocols of tourists’ contextual inquires (e.g., spatial, temporal, and purposive criteria) can identify the forms and features of new ICT-enabled smart tourism applications for ensuring unexpected economic ramification, growth, and contributions for a digital society? Second, how can the tourists’ functional services (e.g., booking, payment, tracking transportations), latent behaviors (e.g., cognitive comments and affective emotions), and purposes of traveling (e.g., leisure and recreation, visiting friends and relatives, and business) be theorized on the established smart tourism applications? Finally, what methodological approaches are relevant or rigorous in elucidating effective and efficient tourists’ behaviors, decision making, and satisfaction during traveling?

Given this scope of the special issue, we provide an outline, which incorporates tourism issues in IS research. Thirty-five papers were received for publication consideration. After several rounds of rigorous review processes, we decided to publish 11 papers in this special issue.

The first article, “The effects of tourism information quality in social media on destination image formation: The case of Sina Weibo,” is by Ms. Sung-Eun Kim, Dr. Kyung Young Lee, Soo Il Shin, and Dr. Sung-Byung Yang. This paper investigates the role of content and non-content cues of tourism information quality in forming user destination image in social media. With an empirical analysis of the Sina Weibo data, the authors highlight the importance of non-content cue that suggests high quality information content structure and web design for effective destination marketing strategies, concerning different types of users’ contextual inquires.
The second article, “Social media analytics and value creation in urban smart tourism ecosystems,” is by Dr. Tobias Brandt, Dr. Johannes Bendler, and Dr. Dirk Neumann. The study determines the potential value of spatial and semantic analysis of social media message in smart tourism ecosystems. Based on the analysis of 600,000 Twitter messages in San Francisco, the authors elicit the spatial patterns, dealing with environmental and topical engagement for understanding urban citizen’s behaviors toward smart urban tourism.

The third article, “Shared experience in pretrip and experience sharing in postrip: The survey of Airbnb users,” is by Dr. Sung Joo Bae, Ms. Heonsuh Lee, Dr. Eung-Kyo Suh, and Kil-Soo Suh. They test how travelers make their purchase decisions in a smart tourism platform adopting experiences shared by others, and how the quality of their travel experience and perceived information discrepancy affect their behavior in sharing their experience. By analyzing survey data from Airbnb users, the authors argue how firms should manage the flow of travelers’ experience information and design smart tourism platforms.

The fourth article, “The effect of user controllable filters on the prediction of online hotel reviews,” is by Dr. Ya-Han Hu, Dr. Kuanchin Chen, and Dr. Pei-Ju Lee. In this established tourism product and service analysis study, TripAdvisor is empirically analyzed with three different analytic techniques (filters), providing a theoretical foundation of review helpfulness. The authors argue that the review rating and number of words are key predictors of helpfulness across all three filters, whereas the recency, frequency, and monetary model consistently supports all filters.

The fifth article, “How small hotels can drive value their way in information? The case of Italian hotels vs. OTAs and TripAdvisor,” is by Dr. Elisabetta Raguseo, Dr. Paolo Neirotti, and Emilio Paolucci. This study empirically tests online travel agencies (OTAs) and TripAdvisor, which are user-generated recommendation systems. By analyzing panel dataset, this study argues that hotels’ presence on a diversified tier of OTAs is more valuable and profitable than that on TripAdvisor. Based on this finding, the authors suggest an assertive direction of how small hotels should manage their online visibility and put their resources to capture beneficial revenue growth.

The sixth article, “Smart tourism technologies in travel planning: the role of exploration and exploitation,” is by Dr. Derrick Huang, Dr. Jahyun Goo, Dr. Kichan Nam, and Chul Woo Yoo. This work examines the mechanism of how travelers use smart tourism technologies to enhance travel satisfaction. Using the exploration and exploitation framework, the authors find that the attributes of smart tourism technologies promote both explorative and exploitative uses, whereas user security and privacy concerns exert a negative effect. With this result, this work theoretically identifies the actual usage of smart tourism technologies in travel planning and understands how the different usages influence tourists’ travel

Table 1: Types of Smart Tourism Business in Ecosystems.

<table>
<thead>
<tr>
<th>Types</th>
<th>Knowledge Intensity</th>
<th>Environmental Velocity</th>
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<tbody>
<tr>
<td></td>
<td>Infrastructure-oriented</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Robustness</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>Interoperability</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Infrastructure-based ecosystems changes rapidly</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>Infrastructure-based ecosystems are relatively stable</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Need response to external shock</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>Maintain interoperability with business processes</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Knowledge-driven ecosystem change rapidly</td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td>Ability to connect with other companies/industries (e.g., Uber, Airbnb)</td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Focus on productivity that can lead growth (e.g., Expedia, Priceline)</td>
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</table>
experience and satisfaction.

The seventh article, “A big-data analytics method for tourist behavior analysis,” is by Shah Jahan Miah, Ms. Huy Quan, Dr. John Gammack, and Dr. Michael McGrath. This study provides a big data analytics method for geotagged photo data to support strategic decision making in tourism destination management. In this design science research, the authors construct a big data analytics method and evaluate it with a case study, which deals with tourists’ behavior contexts in Melbourne, Australia.

The eighth article, “Content mining framework in social media: A FIFA World Cup 2014 case analysis,” is by Ms. Guillermine M. Thomaz, Dr. Alexandre A. Biz, Ms. Eduardo M. Bettoni, Dr. Luiz Mendes-Filho, and Dimitrios Buhalis. This work provides a social media content mining framework consisting of seven phases. The framework was tested during the FIFA World Cup 2014 at Curitiba, Brazil, which is one of the main host city destinations. With an ontological analysis based on the collected data (N = 58,686), the authors argue that their content mining framework and data analysis are appropriate to construct accurate and real-time information systems artifacts and services for tourists.

The ninth article, “Toward a holistic understanding of continued usage of social networking tourism: a mixed-methods approach,” is by Dr. Aaron M. French, Dr. Xin Luo, and Dr. Ranjit Bose. This study applies a mixed-methods approach to investigate critical factors of continued use in the context of social networking tourism. Using a qualitative method, this study identifies motivations for participation; it empirically tests a causal model evaluating tourists’ continued use intention of social networking from a tourism perspective.

The tenth article, “Explaining travelers online information satisfaction: A complexity theory approach on information needs, barriers, sources, and personal characteristics,” is by Dr. Panos Kourouthanassis, Dr. Patrick Mikalef, Dr. Iliaio Pappas, and Dr. Petros Kostagiolas. This work explores the online information seeking behavior of travelers aspiring to accumulate travel-related information during vacation planning. The authors synthesize a theoretical model of travelers’ contextual environment, focusing on information needs, information barriers, and information sources online. Through configurational analysis, they elucidate 13 behavioral paths for the online information satisfaction of travelers.

The eleventh article, “Likes-the key to my happiness: the moderating effect of social influence on travel experience,” is by Dr. Darshana Sedera, Dr. Sachitra Lokuge, Dr. Maura Atapattu, and Dr. Ulrike Gretzel. This study investigates whether the social influence (e.g. family and friends) can be sought and acquired through social media, in which the authors highlight social influence prior and during traveling behavior and experience. By analyzing longitudinal survey data, the authors argue that social influence adequately moderates the relationships among expectation, conformation, and satisfaction.

In this special issue, we highlight various theoretical, methodological, and practical contributions for expanding smart tourism research from traveler, organization, and business perspectives. Therefore, the papers in this special issue represent current researchers’ and practitioners’ response, through IS communities’ disciplines, to the smart tourism phenomena. We truly appreciate the multiple aspects of contributions in this special issue. These researchers’ endeavors provide future research directions and foundations for tourism and IS communities. In particular, we extend our gratitude to Prof. Patrick Chau, the Chief Editor of I & M, for his valuable advice and warm support during the review process of this special issue. The great efforts and clear decisions of a talented group of international reviewers make this special issue exceptional and certified. We hope that readers find this special issue informative and useful. Most importantly, we hope that this issue offers significant insights and theoretical foundations for developing ICT-enabled tourism and hospitality applications and solutions.

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