Digitalization of the Service Sector for the Rebuilding of Tourism & Hospitality

Seul Ki Lee, Ph.D.

Sejong University, Seoul Korea
Tourism Industry Data Analytics Lab (TIDAL), Department of Hospitality and Tourism Management
Digital Transformation and Tourism

- Digitization, digitalization, and digital transformation
- The importance of digital transformation
- Digital transformation of the tourism sector
Digitization, Digitalization, & Digital Transformation

- **Digitization** the conversion of analog data into a digital format

- **Digitalization** is the use of technologies and data, as well as interconnection, resulting in new activities or changes to existing activities

- **Digital Transformation** is the economic and societal effects of digitization and digitalization

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**Traditional Operators**

- Individual SMEs mindset
- Traditional business practices, low levels of digitalization focused on internal operations and creating value for tourists

**E-business**

- Focus on sales & marketing
- Digitalization improves internal operations, engage more effectively via digital marketing, online stores

**E-commerce**

- Digital business ecosystems

**Smart Tourism**

- Integrated destination ecosystems
- SMEs buy into smart destination vision, high level of innovation, real-time connections, new/innovative products, business models, connections into global value chains
The Importance of Digital Transformation

“Digitalization has the potential to **boost innovation**, to **generate economic and environmental efficiencies** and **increase productivity**, including in the highly globalized tourism sector”

OECD (2017), The Next Production Revolution: Implications for Governments and Business

“In the decade to 2025, digitalization will create up to USD 305 billion of additional value for the tourism sector alone through increased profitability…

…while around USD 100 billion of value generated in the sector will transfer from traditional players to new digital competitors with innovative business models and value-producing capabilities”

The utilization of digitalization in tourism across countries has not been uniform, for example, Nordic countries have higher uptake of digital technologies compared to other European countries. (Dredge et al., 2018)

Also, tourism SMEs have lower utilization rates compared to large enterprises. (Dredge et al., 2018)

Consumption habits of Millennials and Generation Z drive most of domestic and international tourists by 2040, who are most familiar with digital technologies. (OECD, 2018)
Best Practices & Trends in Digitalization

- Facilitating information from specific groups
- Collecting information for smarter management
- Physical and psychological accessibility through innovation
## Facilitating Information from Specific Groups

<table>
<thead>
<tr>
<th>Helsinki: WeChat Mini-program</th>
<th>Copenhagen: Tourism Sales Presentations</th>
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<tbody>
<tr>
<td>✦ Helsinki is increasingly popular with Chinese tourists</td>
<td>✦ Wonderful Copenhagen agents present 5-10 times a year at travel venues and present to up to 70 meetings a day</td>
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<tr>
<td>✦ Chinese overnight tourists have more than doubled in past 5 years</td>
<td>✦ Trying to sell Copenhagen to various types of travel agents with different needs</td>
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<td>✦ Tencent launched WeChat Helsinki mini program in Feb 2018</td>
<td>✦ Digital automated workflow via an iPad application auto-generates presentations</td>
</tr>
<tr>
<td>✦ The program gives information to tourists via the app in Chinese language</td>
<td>✦ Presentations are built with content from Wonderful Copenhagen CMS to ensure it is up to date</td>
</tr>
<tr>
<td>✦ Weather conditions; List of holidays and events; information on destinations; emergency help; translation services; tax refunds on purchases; payment via WeChat Pay</td>
<td>✦ After each presentation, a personalized email is generated in the local language, summing up all the elements discussed with a personal message from the salesperson</td>
</tr>
<tr>
<td>✦ Time saved, brand built</td>
<td></td>
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<tr>
<th>Nice: Digital Travel Itinerary</th>
<th>Málaga: Digital Travel Itinerary</th>
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<tbody>
<tr>
<td>✦ Paperless promotion</td>
<td>✦ Digital itineraries can be created and shared</td>
</tr>
<tr>
<td>✦ Tourists compile their own plan &amp; save it</td>
<td>✦ Audio guides for the city and museums</td>
</tr>
<tr>
<td>✦ Local events &amp; weather in real-time</td>
<td>✦ QR codes and beacons installed at places of interest</td>
</tr>
<tr>
<td>✦ Real-time availability for parking and self-service bikes</td>
<td>✦ Tourism website’s chat function makes tourist info accessible</td>
</tr>
<tr>
<td>✦ NFC tags and QR codes at tourist attractions</td>
<td>✦ Links to hotel sites for bookings</td>
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## Collecting Information for Smarter Management

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<tr>
<th>Helsinki: Regional Infoshare</th>
<th>Brussels: Entrepreneurship Support</th>
<th>Nice: Entrepreneurship Support</th>
<th>South Korea: Certification Monitoring</th>
</tr>
</thead>
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<tr>
<td>✤ Government data hub sharing data openly</td>
<td>✤ hub.brussels set up the cluster hospitality.brussels</td>
<td>✤ May 2017, Wonderful Copenhagen hosted the Open Tourism Days hackathon</td>
<td>✤ Countless private companies competing and have digitalized data</td>
</tr>
<tr>
<td>✤ Allows companies, individuals, and organizations to access the data via Application Program Interface (API)</td>
<td>✤ Supports entrepreneurship, training, innovation, and networking in the hospitality sector</td>
<td>✤ Participants given access to several data sources (e.g., weather data, Copenhagen Card App data) to create innovative solutions</td>
<td>✤ KTO streams visitors to those tourist resources</td>
</tr>
<tr>
<td>✤ Allows for new business models, new cooperation projects, better understandings of tourists, etc.</td>
<td>✤ Monitors smart tourism initiatives</td>
<td>✤ Goal is to give visitors a more local experience and disperse tourists away from the same spots</td>
<td>✤ Provides a rich source of information for tourists, increases traffic to stakeholders, and uses information to monitor/improve government services</td>
</tr>
<tr>
<td>✤ Data is integrated from over 2000 places of interest, restaurants, shops, events, activities, etc.</td>
<td>✤ Runs digital tourism pitching sessions and conferences</td>
<td>✤ Winning concept receives expert help and funds to help develop the project further</td>
<td>✤ Korea Quality is an ongoing accreditation program for accommodations</td>
</tr>
<tr>
<td>✤ KTO then flags low performing KQ accommodations</td>
<td>✤ Cluster members also benefit from tourism-trends tracking</td>
<td>✤ “Know Your Bro” application - self guided tours through local neighborhoods</td>
<td>✤ KTO scrapes online travel agency (OTA) review data to monitor performance over time (among other methods)</td>
</tr>
<tr>
<td></td>
<td>✤ Opportunities for collaboration on innovative projects</td>
<td></td>
<td>✤ KTO then flags low performing KQ accommodations</td>
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<td>✤ Utilizes data that is already existing</td>
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# Accessibility Through Innovation

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<th>Helsinki: Virtual Reality</th>
<th>Nantes: Cultural Experience Listings</th>
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<td>✤ Some people cannot travel due to physical conditions, lack of money, lack of time</td>
<td>✤ Voyage to Nantes, a website established by the local tourism authorities, collects all important headlines of cultural events and art in one place</td>
</tr>
<tr>
<td>✤ Helsinki2020 model is a VR experience of Helsinki that allows people to experience Helsinki in the future, present and past</td>
<td>✤ The website has all the city’s information and up-to-date agendas</td>
</tr>
<tr>
<td>✤ The model communicates with current weather, air quality and traffic conditions to show real-time renderings</td>
<td>✤ Users can check lists of cultural offerings through slideshow or actual map</td>
</tr>
<tr>
<td>✤ Shows what the city looked like in 1800s</td>
<td>✤ Users can first browse which cultural offerings to go to online before going to them offline</td>
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<th>Cagliari: Destination Mobile App</th>
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<td>✤ Helsingborg in Scania county, Sweden tries to meet changing tourist behavior</td>
<td>✤ Cagliari is a popular cruise ship destinations, and often cruise ship tourists are not familiar with the tourist sights or points of interest in the city</td>
</tr>
<tr>
<td>✤ Tourists seek out information from sites and platforms that they already know</td>
<td>✤ Due to the steep incline of the city, it is difficult for many tourists (especially those constrained by physical mobility) to reach the attractions of the city by walking</td>
</tr>
<tr>
<td>✤ City has its own tourism site, but also works with other online platforms and influencers</td>
<td>✤ With better understanding of the accessible routes and points-of-interest in the city, tourists could increase their satisfaction and have a better experience</td>
</tr>
<tr>
<td>✤ Pushes the right information where tourists see it</td>
<td>✤ A mobile application was developed to assist tourists with specific functionality to help those with physical impairments</td>
</tr>
<tr>
<td>✤ Invited influencers in northern Europe to stay and experience the area to “live like a local”</td>
<td>✤ The mobile application is able to customize to the needs of the user based on their specific mobility impairments</td>
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Digitalization of Bhutan’s Tourism Sector

- Developed plans for implementing a tourism-specific government data hub called TCB Hub
- Integrated many sources of information and service components for interconnectedness and synergy of information
- The results are a win for government, the private sector stakeholders, and tourists
Current Issues for Bhutan’s Tourism Council

- Poor information access by tourists
- Money transfer options are inconvenient
- Payment and disbursements of payments are non-transparent
- Visa and immigration processes are inefficient
- Visitors illegally taking non-antique items out of the country
- Collecting feedback from travelers is potentially biased
Solution: An Integrated Data Hub

- Tourism Council of Bhutan’s (TCB) data hub integrates existing systems as well as additional functions
- Accessible via website and mobile application
- Main components:
  - One-Stop Service Center
  - Electronic Visa System (i.e., “Tashel System”)
  - Payment Platform
- Auxiliary functions:
  - Messenger Service
  - Certification of Non-antique Souvenirs
  - Additional smart technologies (future proofing)
Solution: An Integrated Data Hub

- Data security and security protocols are of utmost importance
- User accesses need to be considered carefully
- User functionality and ease of use are addressed via the user interface
TCB Hub
User-Facing Site Map

One-Stop Service Center
Tashel Visa System
Payments
Auxiliary Services
  - messenger service
  - non-antique item e-certifications
TCB Hub
User-Facing Site Map

One-Stop Service Center
- Tashel Visa System
- Payments
- Auxiliary Services
  - messenger service
  - non-antique item e-certifications

Tourism Service Center

Accommodations
- Accommodation type
- Customer reviews & ratings

Activities & Attractions
- Activities
- Destinations
- Customer reviews & ratings

Tour Operators
- Tour type
- Customer reviews & ratings

Transportation
- Airlines
- Car and vehicle rentals
- Customer reviews & ratings

Tashel Visa System
- Apply for new visa
- Check visa status
- Tax exemption system

My Page

Messenger Service
- Contact list
- My chats
- Make payment
- Add funds to prepaid account
- Receipts

Payments
- My reservations
- My library
- Non-antique item e-certifications

My Services

News & Announcements
- What's new
- Upcoming scheduled events

Media Library
- Pictures
- Videos
- Other media content

Etc.

Resources

Legend of Service Inter-connectivity
- Service Center
- Payment System
- Visa System
- Auxiliary Services

Information on the visa system are expanded in the TCB Hub to allow real-time status viewing.

Linked information includes prices, availability, reservation dates, locations, party sizes, etc. Customers can review and rate all services. Users can sort by different characteristics. Bookings and payment can be made directly through TCB Hub. Users can send messages directly to service providers via the messaging service. Some service providers are able to view limited visa status information of travelers in order to determine if customers are able to reserve services.
Website & Mobile Application

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User-Facing Site Map

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Tashel Visa System
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Data Usage & Analytics

❖ The national tourism organization can use data to:
  - Analyze expenditures & travel behavior,
  - Monitor tourism flow areas & firm performance
  - Predict illegal exporting of non-antiques
  - Make processes more efficient & effective

❖ Service providers can use data to:
  - Analyze performance & customer satisfaction
  - Compare prices easily and transparently
  - Analyze their customers’ demographic information
  - Analyze sales data and other transactions,
  - Organize and message customers and other organizations
  - Make processes more efficient & effective

❖ Travelers to:
  - Compare service providers’ offerings
  - Communicate with service providers and government organizations
  - Pay for services and products before, during and after the trip
  - More transparently and securely make payments
  - Confidently apply and check visa status
  - Make processes more efficient & effective
Conclusion

✦ **Everybody-wins approach**
Successful digital transformation in tourism allows all parties to benefit

✦ **Tourists** get convenient information and new services

✦ **Private stakeholders** get increased tourism flows and data to increase competitiveness

✦ **Government organizations** get important information and can best allocate resources more efficiently