UNWTO Conference on Tourism and Technology

Nara, Japan, 02 June 2016

Technical Note

1. Background

Over the past fifty years, the travel and tourism industries have been at the forefront of technological change. The transport sector has seen constant innovation in the quest to carry more passengers more quickly, more safely and at lower cost, whether by land or by air; and to enable people to travel longer distances to other parts of the world at a price that is affordable to substantial segments of the world’s population.

The travel sector was also one of the first to use computers to enhance business processes on a macro scale, notably through the Global Distribution Systems established by airlines during the 1960s to enable travel agents to access their inventory easily and to book multiple leg journeys on a properly scheduled basis. These and booking systems developed for the major hotel and car rental groups were upgraded constantly during the early years of widespread computing, to better meet the needs of travel agents and their customers.

During the 1980s, the scope of information and reservation systems extended to cover other forms of travel and accommodation and to enable customers to start to make bookings directly. Many systems were developed, some successfully, some not, but there was increasing recognition of the opportunities that information and communication technologies offered to enhance customer services.

In the mid-1990s, the advent of the Internet and the World Wide Web as tools for widespread public and business use brought about a sea of change in computer-based information and booking systems. Applications were developed rapidly and major new players emerged on the tourism scene – Expedia (established by Microsoft), Travelocity (established by the Sabre GDS) and many more, large and small. It was a time of huge innovation in the sector, opening up the potential for major changes in business processes, particularly marketing and sales. Recognising this, UNWTO commissioned a seminal report, ‘Marketing Tourism Destinations Online’, which was published in 2000. It was the first publication of this type to focus on the ways in which the first wave of online technologies, applications and distribution opportunities should be used by the travel and tourism industries and was followed by a series of highly successful conferences and seminars in different parts of the world, over a period of about three years.

Since 2004-5 the digital world has transformed dramatically, with the emergence of smart mobile applications and social media, which have combined to bring about fundamental changes in the ways that consumers behave and services are delivered. Control of the activity moved strongly towards the consumer.
Now a third phase of change is emerging – again, a combination of disruptive new technologies and applications that will change the way people behave. In the words of Fjord, an Accenture Design and Innovation consultancy: “Over the next five years, sensors, the cloud, connected smart devices and real-time analytics will combine to deliver a new layer of connected intelligence that will revolutionise the ability of organisations to offer interesting and increasingly indispensable digital services to travellers”. GPS and mapping services (notably Google Maps and Google Earth) became widely available for use on and its application became a widely-used service in portable devices and car navigation systems, enabling a major new set of geospatial applications, such as route planning and navigation and spatial search.

The new technologies will further change the ways in which people work and play, including their interaction with friends and family, with businesses and with tourism destinations. These will include wearable technology, Big Data, ‘Mobility as a Service’ applications for travellers, driverless cars, robotic devices, 3D Printing, new mobile payment applications, wireless optical networking technology (Li-Fi), the ‘Internet of Me’, gesture technology, voice recognition and instant and efficient mobile translation.

These technology-based applications pose major challenges through disruption of traditional ways of doing – and also exciting opportunities for those who are willing and able to innovate. One example of innovation, which is bringing about a fundamental shift in consumer behaviour, is the ‘Sharing Economy’. This concept is already well established, and will potentially have a much broader impact on the way in which society will work, in terms of goods and services available on a shared basis.

All the while that the digital technology revolution has been taking place, there have continued to be major advances in engineering technology and material science that have enhanced ground and air transport systems and brought about further advances in speed, economy and comfort of travel and access to a vastly increased range of destinations.

These twin aspects of technological change have reinforced each other, enabling the dramatic growth in tourism that we have seen over the past thirty years. This conference will enable delegates to learn lessons from the innovation that has taken place over this time and understand better the innovations that may be expected in the years ahead and their implications for travel and tourism nationally and internationally.

2. Objectives

The conference is designed to help tourism destination organisations and businesses to understand current and emerging technologies that are of primary relevance for them, in particular:
• Effective use of new technology in marketing, including the attraction of new markets and
customer relationship management (including the role of social media); and content
acquisition and distribution.

• Technologies that will enhance industry performance, through new business models,
increased access to knowledge and skills, business networking and partnerships,
strengthened sustainability and new applications, including robotics

• Enhancing the experience of visitors travelling to and within destinations and increasing
access to travel opportunities, through more efficient transportation, automated processes
and the use of techniques such as VR (virtual reality) and AR (augmented reality).

The conference will also seek to raise awareness in other sectors of the economy of the need
and opportunities for new technological applications in different sectors of tourism.

3. Methodology

The Conference will begin with an opening session at which there will be welcome speeches
and introductory comments by the Japanese Minister of Land, Infrastructure, Transport and
Tourism, the Secretary-General of UNWTO, the Governor of Nara Prefecture and a Japanese
Business Industry Leader.

This will be followed by the keynote session, which will provide an overview of the ways in
which new technologies (of all types) have impacted on the tourism and travel industries and
stimulated major changes in markets, in terms of choice of destinations and types of activity
undertaken.

There will then be three conference sessions looking at the impacts of new technologies on
different sectors of travel and tourism. The first will focus on the new technologies and their
impacts on air and rail travel, the travel trade, hotels/resorts and theme parks. The second will
focus on the impacts of new technologies on tourism destination organisations. The third
session will focus on companies that have introduced major innovations and new business
models that have had major impacts on different sectors of the industry and on consumer
choices of destinations and activities. Each session will conclude with a summary by the
moderator of the key issues and conclusions.

4. The Participants

1) The international participants are primarily National Tourism Administrations and National
   Tourist Organizations from Asia and the Pacific

2) The national participants will include national and local government, tourism industry
   members; travel agents, transport services, Universities and media.
1) The audience will also include delegates from manufacturing and ICT sectors, in order to raise awareness about the importance of tourism