3<sup>rd</sup> Edition

Tourism Information
Technology

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**COMPLIMENTARY TEACHING MATERIALS** 

# Chapter I

Introduction to Tourism and Information Technology

# Chapter I Learning Objectives

After studying this chapter you should be able to:

- Define key terms and concepts in information technology;
- 2. Describe the **evolution** of information technology;
- 3. Recognize the **types** of information technologies relevant to tourism;
- 4. Explain the **synergies** between the travel industry and information technology; and
- 5. Evaluate the **strategic applications** of information technology in tourism organizations and destinations.

# **Key Concepts**

- Characteristics of tourism services
- Evolution of computing technologies
- Information systems
- Information technology
- Moore's Law
- Artificial intelligence
- Space-time collapse
- Typologies of information
- Web 1.0 / Web 2.0



### **Definitions**

### Information Technology (IT)

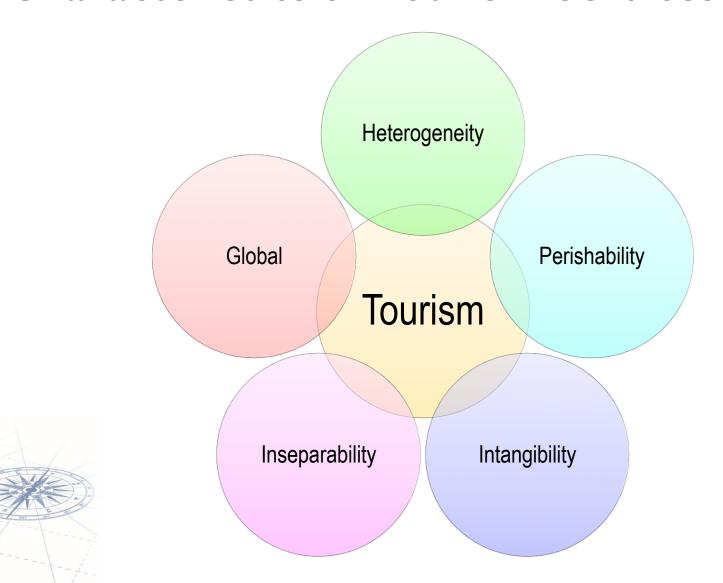
• the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data (Daintith, 2012)

### **Information Systems**

• Information systems are combinations of hardware, software and telecommunications networks that people build and use to collect, create, and distribute useful data, typically in organizational settings" (Valacich & Schneider, 2014)



### **Characteristics of Tourism Services**



## **Applications of IT in Tourism**

- Aviation
- Travel intermediaries
- Hospitality
- Attractions, events and entertainment
- Destinations
- Travelers



# **Typologies of Information**

Trip Stage	Static	Dynamic
Pre-trip	Brochures, guidebooks, fax, photos, videos, some information on websites	Phone, email, websites, social media, Internet booking engines, Global Distribution Systems
In-trip	Brochures, guidebooks, signs, maps, kiosks, TV channels in hotels, some mobile apps	Phone, fax, email, websites, social media, mobile apps
Post-trip	Brochures, guidebooks, photos, video	Blogs, social networks, media sharing, reviews



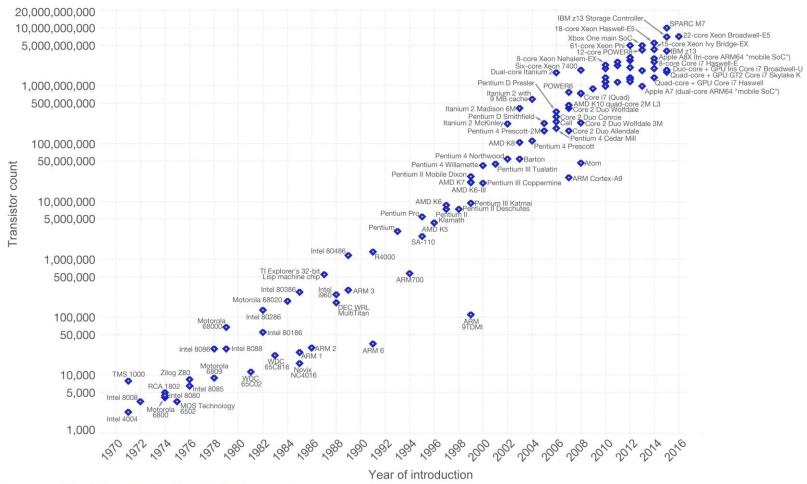
# **Evolution of Computing Technologies**

30,000 BC 1800 1900 2000 2025 1950 1950 1975 **Manual Counting Aids & Ubiquitous Technologies Mechanical Computers Electronic Computers** IBM5100 / Osborne 1 **Calculators** Punched Cards Vacuum Tubes **ENIAC Arithometers** Newton Tally Bones Difference/Analytical Engines **Transistors Smartphones** Abacus UNIVAC I / IBM650 **Typewriters Tablets** Antikythera Mechanism **Tabulators Integrated Circuits** Astrolabe App stores Mouse Digital assistants **Gutenburg Press** Spectra 70 / IBM360 Cloud computing Slide Rules Microprocessors Artificial intelligence Pascaline Microcomputers **GUI OS & Software Networking & Internet** ARPAnet Email Ethernet Internet WWW Web browsers Search engines Social networks Sharing platforms Cellular networks Wifi

#### Moore's Law – The number of transistors on integrated circuit chips (1971-2016)



Moore's law describes the empirical regularity that the number of transistors on integrated circuits doubles approximately every two years. This advancement is important as other aspects of technological progress – such as processing speed or the price of electronic products – are strongly linked to Moore's law.



Data source: Wikipedia (https://en.wikipedia.org/wiki/Transistor\_count)
The data visualization is available at OurWorldinData.org. There you find more visualizations and research on this topic.

Licensed under CC-BY-SA by the author Max Roser.

## Strategic Thinking & IT



**MARKETING** 

FIGURE 1.1 Impact of IT on the Production and Marketing of Different Industries

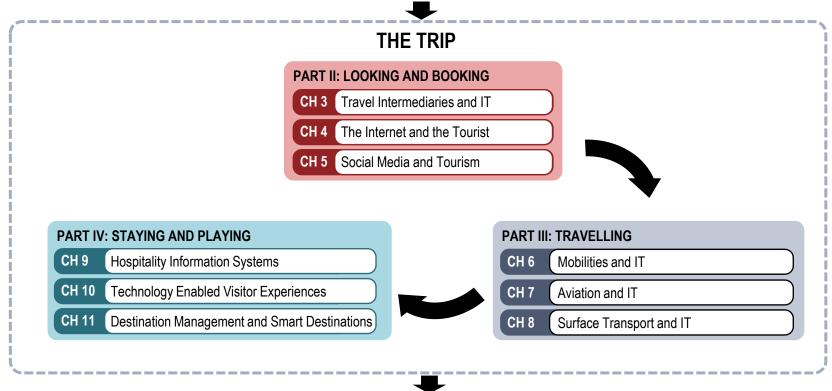
# **Strategic Thinking & IT**

- Managing Value Chains
- Managing Knowledge and Information
- Marketing and Competitive Advantage
- Service Delivery and Customer Relationship Management (CRM)
- Strategic Listening



# **FIGURE 1.2**Outline of Chapters







### **Discussion Questions**

- I. In your opinion, what are the three most important inventions that have led to the information technologies we have available today? Provide examples to justify your answer.
- 2. Why is tourism such an information intensive industry? Explain and give some examples.
- 3. What is the difference between static and dynamic tourism information? Give examples of each.
- 4. A hotel manager asks you why she should incorporate more technology in to her hotel. How would you respond to this question so that they are inspired to invest?
- 5. Identify one travel organization in your area that you think has used technology in a particularly creative way. Which of the strategic applications discussed at the end of the chapter would it fit in to?
- 6. Which part of the textbook (based on the diagram of the chapters) are you most looking forward to studying? Why?

### **Useful Websites**



**Eye for Travel** 

www.eyefortravel.com



**International Federation for Tourism and Technology** 

www.ifitt.org



**International Hospitality Information Technology Association** 

hita.camp7.org



Tnooz.com

www.tnooz.com



**Travel Technology Initiative** 

www.tti.org

### Case Study Intercontinental Hotels Group

- Crowne Plaza, Holiday Inn, InterContinental Hotels
- 4,503 hotels and 656,661 rooms
- Spends about \$200 million annually on IT innovations (about 1.2% of revenue)
- Atlanta Crowne Plaza Hotel's customer database holds 200 million guest profiles which can be mined for customer activity, trends and preferences
- BOSS search technology
  - O Google Integration
  - O GPS support and voice search
- iPhone and Google apps
- Touchscreen kiosks in lobbies and concierge iPads
- Camelot cloud computing environment