ERASMUS+ Technical Professional Training

Trainer : Alessandro Fiorentino

Alessandro Fiorentino graduated with honours in Economics and Commerce from the University of Naples Federico II and subsequently obtained, the Master of Science in Tourism Management, with distinction, from the University of Surrey in Great Britain.

Since January 2016 he is Partner of Mode Consulting SRL, a management consultancy company and he specialises in tourism, hotel & wellness and transport sectors, in the areas of strategy, sustainability, marketing, organisational design, capacity building and training. He is a board member of the luxury Grand hotel Excelsior Vittoria in Sorrento, Italy. During his professional activity he travelled for work projects in Europe, Japan, Africa and in Uzbekistan, central Asia where he lived and worked in 2019.

From 2002 to 2015 he worked as manager in the Business Strategy Unit of Trentialia s.P.A., part of Ferrovie dello Stato Italiane (Italian Railways).Prior to Trenitalia, he worked in corporate management consultancy for different companies, including Deloitte Consulting, in many projects in tourism, hospitality, luxury travel and retail. He currently works as consultant and lecturer and teaches marketing at Sapienza University of Rome and American University of Rome, as well as hospitality management at Rome Business School and Luiss University.

During this session, Alessandro shared his expertise in the fields of AI in tourism, tourism marketing, and digitalisation in tourism.

Trainer : Franco Arcieri

Franco Arcieri is a qualified engineer who graduated from Universita degli Studi di Roma ''La Sapienza''. Throughout his career, he has held several prominent positions, including serving as a consultant at the Ministry of Agriculture and Forestry Policies and as a project monitor at the Ministry of Finance. He also served as the national representative for e-Government with UNCEM (National Union of Mountain Municipalities, Communities and Authorities).In addition, he has held the role of Research and Development Director for various Italian SMEs, contributing to innovation and technological advancement.

His academic background is equally distinguished, with teaching experience at the University of Rome ''Tor Vergata'', where he has taught subjects such as Cooperative Distributed Systems and Information Systems Security, as well as at the International Medical University in Rome, where he lectured on IT and Data Processing Systems.

 In this session, he shared his expertise on the use and ethics of artificial intelligence, among other topics.

Trainer : Andrea Dimitri

Andrea holds a degree in Statistics and Economics, graduating with honours. With over 30 years of uninterrupted experience, he has developed specialized expertise in the fields of Artificial Intelligence, Machine Learning, Security of Distributed Applications, Application Tracing Systems, and Anomaly Detection Systems amongst others. Throughout his career, he has served as a Senior Programmer and Project Leader for both public and private sector organizations.

In addition to his professional roles, Andrea has been actively engaged in academia. He teaches in the Master's Degree Program in Computer Science and in various second-level postgraduate programs. Moreover, he is also the professor of the Artificial Intelligence and Machine Learning course at Unicusano University.

In this session, Andrea shares his expertise on GPT and big data.

Context

In collaboration with EUPA, the Malta Tourism Authority participated in an Erasmus+ Technical Professional Training programme hosted by Accademia Informatica in Rome during November 2024 and January 2025. The initiative targeted managerial and supervisory staff in the tourism sector, focusing on key areas such as digitalisation, innovation, AI, digital skills, inclusiveness, and sustainability. Participants engaged in practical sessions using tools like ChatGPT and explored AI-driven content creation and solutions.

The MTA produced this learning tool with the salient outcomes of this training session.

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Section 1: AI in Tourism

What is AI in Tourism?

Artificial Intelligence (AI) in hospitality refers to the use of intelligent systems and machine learning to perform tasks that typically require human input. These systems enhance hotel operations, guest experiences, and business decision-making.

Key Functions:

• Automating check-ins, bookings, and guest messaging

• Personalizing services based on guest preferences

• Adjusting room rates dynamically using real-time data

• Analyzing customer feedback to improve service

Benefits of AI in Tourism

✓ **Revenue Growth** – AI enables dynamic pricing and personalized marketing that increase direct bookings.

✓ **Operational Efficiency** – Automates repetitive tasks like check-ins and queries, saving time and labor costs.

✓ **Enhanced Guest Experience** – Personalized services, faster responses, smart room controls.

✓ **Data-Driven Insights** – AI analyzes guest behavior and preferences for better business decisions.

✓ **Scalability** – Easily expands services as business grows without proportional staff increases.

✓ **Cost Savings** – Reduces power usage with smart systems, lowers support costs with automated replies.

How is AI Used in the Tourism Industry?

Applications:

1. **Personalization:** Tailored recommendations, dynamic itineraries, and targeted content

2. **24/7 Customer Support:** AI chatbots handle inquiries across time zones and languages

3. **Operations:** Automates reservations, forecasts demand, and manages workflows

4. **Marketing:** AI segments audiences and creates customized campaigns

5. **Visual Content Creation:** Tools like Canva and Synthesia generate images, videos, and avatars

6. **Translation & Voice Control:** Breaks language barriers, allows smart room controls

Steps to Implement ChatGPT in Hotels

1. **Identify Use Cases** – Focus on guest service, training, or marketing

2. **Customize** – Train it with your hotel's data and tone

3. **Integrate** – Connect to systems like CRM or PMS

4. **Improve** – Monitor feedback and fine-tune performance

" Digital isn't just about technology – it's about what technology can enable. It involves new ways of solving problems, creating unique experiences, and accelerating business performance. It's about your business thriving at the intersection of human and technology to enable your tomorrow, today.

pwc

Examples of how AI is Being Implemented in Hotels

I. **EasyWay -used to enhance guest communication** – AI reception and concierge in over 100 languages

II. **Myma.ai** - **used to enhance guest experiences** – Full guest journey support via personalized AI

III. **Ivy the Direct Messenger** – **used to automate guest interactions-** A guest messaging system that automates 90% of hotel interactions, streamlining communication during stays.

IV. **Aiosell- used to automate revenue management -** Adjusts hotel room prices 24/7 using AI to maximize revenue and occupancy

Section 2 : ChatGPT

Introduction to ChatGPT

What is ChatGPT?

- A chatbot powered by GPT models (e.g., GPT-3.5, GPT-4).

- Developed by OpenAI and launched in 2022.

- Simulates human conversation, answers questions, and generates text.

- Available in free and premium (ChatGPT Plus) versions.

How could one use ChatGPT?

- Act as a tour guide

- Act as a recruiter

- Create a sequence

- Improve an existing text

- Act as a marketing expert

Benefits & Limitations

Benefits

1. Great Starting Point

- Provides structured, coherent responses quickly
- Useful for brainstorming and drafting content

2. Flexible Across Contexts

- Can be applied in many domains (e.g., marketing, education, tourism)
- Best used when the user has some subject-matter knowledge

3. Constantly Evolving

- Features and capabilities are regularly improved

Limitations

1. Lacks Deep Understanding

- Generates text based on patterns, not true comprehension
- Responses may feel shallow or unnatural

2. Limited Context & Accuracy

- Doesn't cite sources or provide in-depth analysis
- May misunderstand questions or focus on irrelevant details

3. Restricted in Scope

- Cannot detect sarcasm or irony
- Avoids political topics and complex emotional nuance

Malta
Gozo & Comino

Alternatives & Takeaway

There are other text generator **alternatives** to ChatGPT, such as:

- AI-Writer.

- Copysmith.

- DeepL Write.

- Google GEMINI

- Jasper.

- Magic Write.

Takeaway: ChatGPT is a powerful and accessible AI tool that can significantly support content creation, idea generation, communication, and problem-solving. However, it should be seen as an assistant, not an authoritative source.

Section 3: Prompt Frameworks

What are Prompt Frameworks?

Prompt frameworks are structured ways to write instructions for AI tools (like ChatGPT) to get clear, accurate, and useful responses.

Why should one use a prompt framework?

•Avoid vague prompts

•Ensure the AI understands what you need

•Save time and improve results

Examples of Prompt Frameworks

1. **APE (Action, Purpose, Expectation)**

Action: What should the AI do?

Purpose: Why are you asking?

Expectation: What should the result look like?

2. **RACE (Role, Action, Context, Expectation)**

•Role: Who is the AI acting as?

•Action: What should be done?

•Context: What's the background?

•Expectation: What result is expected?

When and How does one use a Prompt Framework?

When to Use:

❑ Writing SOPs or training guides

❑ Creating marketing content

❑ Customer service scripts

❑ Interview prep or simulations

How to Use:

➢ Pick a framework that fits your task

➢ Fill in each section clearly

➢ Review and refine the output

Tip: Even just adding a *Role* and *Expected Output* can improve prompt quality dramatically.

Section 4: The Data Economy Era

Understanding AI and the Data Economy

The fourth industrial revolution: The Data Economy Era

•Organizations now thrive by extracting value from vast data sources.

•Performance and service quality improve when data is effectively used.

There are two goals Artificial Intelligence (AI):

- Mimic human intelligence

- Create autonomous intelligent systems

Big Data

Primary sources of big data:

1.Internet – platforms like Google, Amazon, Facebook.

2.Social Networks – connections inform behaviour prediction.

3.Log Files – from servers, tracking user activity and trends.

4.Internet of Things (IoT) – sensors and smart devices (e.g., health tracking).

5.Telecommunications – real-time analytics from calls and messages.

How can we use big data?

•Marketing personalization

•Customer behavior analysis

•Predictive analytics in healthcare

•Fraud detection and social network profiling

AI + Big Data + IoT = A New Industrial Revolution

Existing AI tools overview:

•Generalist AI Models: ChatGPT, Claude, Google Gemini

•Workflow/Automation Tools: CrewAI, Zapier AI

•Vertical Platforms: Lindy AI, MindPal

•Developer Tools: Replit, API-based platforms

Why do we need AI tools?

✓ For data analysis

✓ To store, search and process huge masses of data

✓ To investigate complex social relationships

✓ To communicate the results of analysis

Section 5: Marketing

What is Marketing?

•*"Marketing is the process by which companies engage customers, build relationships, and create value."* – Philip Kotler

•It's both a **philosophy** (company mindset) and an **orientation** (how it operates).

Why does it matter:
•Drives revenue and builds brand identity.
•Helps businesses understand and adapt to consumer needs.
•Builds lasting customer relationships in a competitive market.

Strategic marketing process

WE MAKE A GREAT TEAM

Where?
Which markets?
For whom?
Which customers?

Who are we?

Which resources?

What to do?
Which objectives?

When?

Digital Marketing

Definition:

Achieving marketing goals through digital technologies (web, mobile, cloud, social media).

Benefits:

✓ Measurable results

✓ Broader reach at lower cost

✓ Real-time engagement with customers

"Phygital" Marketing:

•Blends **physical** and **digital** experiences to enhance customer engagement.

Why Is Digital Marketing Crucial In Tourism?

✓ Highly competitive – marketing helps businesses stand out.

✓ Builds brand image and attracts/retains customers.

✓ Supports adaptation to changing travel trends and consumer behaviours.

✓ Improves customer satisfaction

Examples:

Major OTAs(Online Travel Agencies) collectively invested a staggering **$16.8 billion** in marketing during 2023—an increase of **20%** over the previous year's spend of $14 billion:

1. Booking Holdings (parent of Booking.com, Priceline, Agoda) focused its budget on global TV, digital video, and performance marketing, leveraging advanced targeting algorithms to reach high-intent travelers and drive app installs.

2. Trip.com Group saw the most dramatic rise, nearly doubling its marketing outlay to **$1.3 billion**—up **117%** from 2022Their campaigns blended short-form video on platforms like TikTok with localized search ads to recapture domestic and outbound travelers.
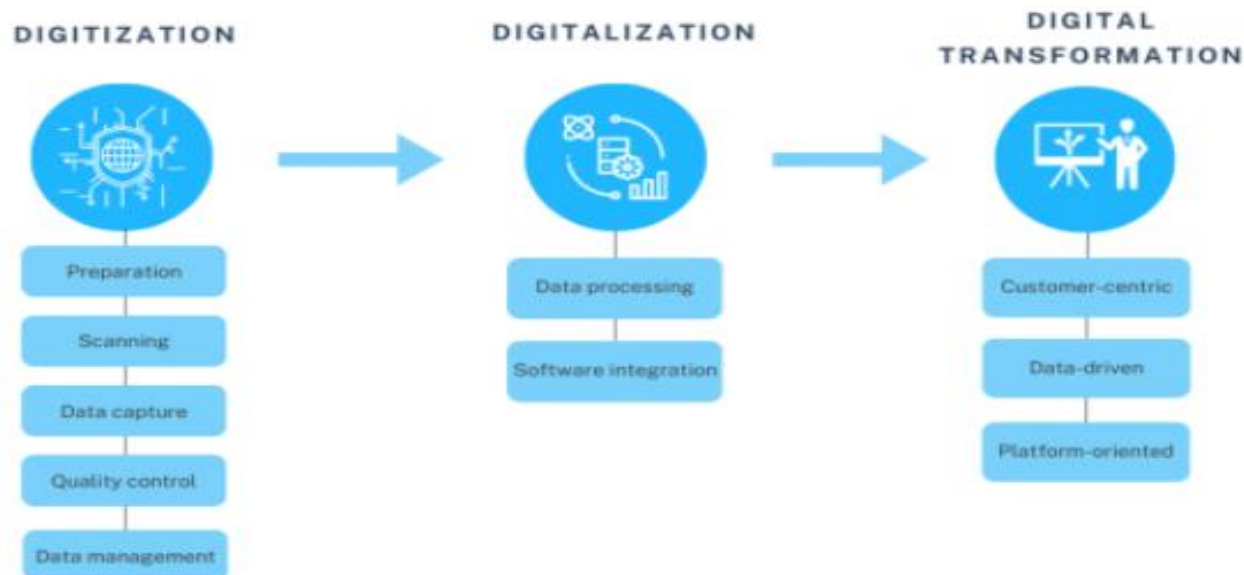
Section 6: Digitalisation in Tourism SMEs

Digitisation vs. Digitalisation

- **Digitisation**: Turning analog info into digital (e.g., scanning paper documents).

- **Digitalisation**: Using digital data and tech to improve how businesses work and create value.

From digitization to digital transformation

Benefits and Limitations of Digitalisation in Tourism SMEs

Benefits for SMEs

✓ Greater efficiency and productivity.

✓ Cost savings from reduced manual work and infrastructure.

✓ Enhanced customer satisfaction through personalization and speed.

✓ Broader market reach and improved brand visibility.

✓ Flexibility and scalability to adapt quickly to market trends.

Limitations

❖ Investing in new technologies can be costly.

❖ Employees may lack the digital skills required for new systems.

❖ Adopting new processes can face internal resistance.

❖ Initial setup and technology investments can be expensive.

❖ Increased reliance on digital tools exposes businesses to potential threats. can you summarise these too please

Examples Of Digitalisation In Tourism

- **Edwardian Hotels**

In 2016, Edwardian Hotels London introduced Edward, an AI-powered chatbot that helps guests with room service, local recommendations, and handling complaints. Available in 12 Radisson Blu hotels, Edward acts as a digital concierge, responding to natural language and connecting to staff when needed. It's part of the hotel's effort to meet the growing demand for tech-friendly guest experiences.

- **AI-Driven Dynamic Pricing Solution for Hotel Booking**

AI-driven dynamic pricing helps hotels automatically adjust room rates in real time based on demand, competitor prices, guest behavior, and market trends. This smart pricing strategy can boost revenue—up to 30% during busy periods—by charging more during high demand (like the 2022 World Cup) and offering better deals when demand is low. It helps hotels stay competitive and maximize bookings

Section 7: Ethics in AI

AI Ethics in Tourism

What is AI Ethics?

- Ensures AI is used responsibly, fairly, and transparently.

- Critical in hospitality where guest data and services are involved.

Why is it considered crucial?

- Builds guest trust.

- Prevents misuse of data.

- Supports fair treatment and accountability in AI-driven decisions

Key Ethical Concerns

A. **Data Privacy** – Guest information must be protected and handled lawfully.

B. **Bias in AI** – AI systems can unintentionally discriminate if trained on biased data.

C. **Accountability** – Clear responsibility is needed for decisions made by AI tools.

D. **Job Displacement** – AI may replace roles, requiring fair workforce transition and upskilling.

Examples of AI Ethics in Tourism

Example 1: AI in Hotel Personalization

Benefit: Enhanced guest experience through tailored services.

Ethical Issue: Data privacy and security when collecting and analysing personal preferences.

Example 2: Predictive Maintenance in Hotels

Benefit: Reduced costs and improved guest satisfaction.

Ethical Issue: Transparency in data use and ensuring informed consent for data-driven operations.

Example 3: AI Chatbots for Customer Service

Benefit: Faster response times and improved efficiency.

Ethical Issue: Balancing automation with human interaction to maintain empathy and guest connection.

Additional Material

1. The 1997 Steve Jobs interview where he lays out the strategy for saving Apple from bankruptcy-
   https://www.youtube.com/watch?v=xchYT9wz5hk

2. Top 10 Digital Trends of 2024- Top 10 Digital Trends: January 2024

3. Digitization vs Digitalization vs Digital Transformation- https://www.youtube.com/watch?v=Io0gX0LQn-0

4. WTM Global Travel Report- WTM-Global-Travel-Report-v4.pdf.coredownload.990096961.pdf

5. The 7Ds of Digital Marketing - What is digital marketing? - Dave Chaffey Digital Marketing

6. Mindtrip: Introducing Mindtrip for Business- hpps://www.youtube.com/watch?v=VIRZpMcKhTY

7. Booking.com Launches New AI Trip Planner to Enhance Travel Planning Experience-
   https://news.booking.com/bookingcom-launches-new-ai-trip-planner-to-enhance-travel-planning-experience/

8. Robot-staffed hotel opens in Japan- https://www.youtube.com/watch?v=HVVk0b9DX8Q