

Research Proposal of Team Tourism

Amyr Lourensz, Dániel Elek, Marwa Rouah, Rens van den Berg, and Stijn Heesters

Breda University of Applied Sciences

Abstract

This research investigates the impact of Artificial Intelligence (AI) on tourism education and the tourism industry. Using qualitative and quantitative methods, we explore AI's role within these domains.

AI, a transformative technology, is reshaping tourism and education. Our study aims to provide insights that can guide curriculum enhancements to meet the evolving demands of the job market influenced by AI and data technologies.

We also look into the integration of AI tools, like ChatGPT, in education, considering their potential to streamline processes and enhance learning experiences. While doing so, we also address concerns about academic integrity by emphasizing AI's role in helping human educators and researchers.

Methodologically, we employ surveys and interviews to gather data on how students perceive and interact with AI in tourism studies while following serious data management practices.

In summary, this research explores the relationship between AI, tourism, and education, with the goal of informing curriculum adjustments and contributing to discussions about the evolving role of AI in education.

Research Proposal of Team Tourism

Introduction

This research endeavor is dedicated to the comprehensive examination and explanation of the inherent risks, impacts, and prospective applications of Artificial Intelligence (AI) within the dynamic landscape of the tourism industry. Employing qualitative and quantitative research methods, we aim to carefully collect relevant data and subsequently subject it to analysis, all in pursuit of answering our research questions. Our investigation will encompass a systematic exploration of various domains encompassed within the Tourism sector, with the aim of achieving a holistic understanding of the subject matter.

The insights gained from our research effort will play a main role in shaping strategic recommendations, specifically geared towards curriculum enhancements across their domains and programs. These recommendations will serve the purpose of ensuring that these programs continue or remain aligned with the ever-evolving future job market, which is increasingly being shaped by the influence of data and AI technologies.

Literature Review

AI tools, such as ChatGPT, are gaining more and more attention for their ability to mimic human-like language patterns and generate consistent text. In the field of education, AI serves as a versatile tool, assisting students, educators, and researchers alike. This game-changing technology offers the potential to streamline tasks, promote critical thinking, and enhance learning experiences.

The integration of AI tools into education and research, brings forth very diverse opinions. On one hand, there is excitement about the fair access to support and knowledge that they offer. When talking about the ‘tourism’ domain this could mean improved learning experiences and more potent research outcomes.

Concerns have however arisen regarding the authenticity and originality of academic work when AI tools are deployed, the AI tools might have taken over important tasks that normally would fall down on the creativity of the user. There is a

fine line between utilizing AI to enhance productivity and relying on it excessively, if relied on excessively there is the potential to compromise the integrity of both student and academy. These concerns sound across various academic divisions, questioning the quality of research, this would also include research within tourism and hospitality.

Nonetheless, proponents of AI emphasize its capacity to empower, rather than replace, human educators and researchers. AI complements human abilities, making every-day-tasks more manageable and helping with creative issues. Tourism education, in particular, could benefit from AI- tools to improve learning outcomes and research.

To unlock the potential benefits of AI in education and research, academies and institutions need to adapt their curricula and policies to suit the use of AI. Integrating AI-related content into courses, nursing digital skills development, and teaching ethical AI usage are crucial steps. Assignments can be redesigned to emphasize critical thinking, leveraging AI to handle repetitive and every-day tasks.

In addition, academic papers in the field of tourism and hospitality must adapt to the evolving landscape. Acknowledging AI as a valuable research tool is an important first step, with proper citation and recognition while preserving the responsibility of researchers for their work. [1]

Methodology

We have made a survey to collect qualitative and quantitative data from respondents. To make the distribution easier for everyone, every team put all of their surveys together into one that will be distributed by teachers across the university. To collect even more qualitative data, we have created an interview script, based on which we are going to interview tourism students to understand their opinions and feelings more deeply.

To ensure that the data is safely stored and fair, we have created a comprehensive data management plan, in which we outline this. We follow both GDPR and FAIR regulations. To make it even more certain that no data gets in the wrong hands, we are not going to collect any personally identifiable data and we are going to use Qualtrics, as it has a good history of not having data leaks.

For analysing the data, we are going to use the programming language R. Thanks to the power of this tool we will be able to clean up the data, do exploratory data analysis, manipulate the data and find correlations, as well as creating vivid and clearly understandable plots, to use for our research paper.

Purpose of Research

The primary objective of this study is to conduct a comprehensive assessment of the potential risks, impacts, and opportunities associated with the integration of artificial intelligence (AI) within the context of a Tourism management program. Additionally, we seek to assess the current levels of awareness and knowledge regarding AI within this domain. The reason behind this research initiative is the recognition of the rapidly evolving nature of the future job market, requiring a proactive response from BUAs. This research aims to provide valuable insights that will serve as a foundation for aiding in formulating strategic recommendations for curriculum adjustments within the Tourism management program. Our main research question is as follows:

What is artificial intelligence?

Artificial Intelligence (AI) represents a new frontier in the realm of technology and computer science. At its core, AI seeks to give machines the capability to perform tasks that typically require human intelligence, such as problem-solving, learning and decision-making. Unlike traditional software, which operates based on explicit instructions and predefined rules, AI systems possess the remarkable capacity to adapt, evolve, and make autonomous decisions, often by processing vast amounts of data.

AI is made of various subfields, each with its own unique applications. Natural language processing (NLP) focuses on the interaction between computers and human language. It includes chatbots and language translation tools, enabling machines to comprehend and generate human language. Computer vision, on the other hand, concentrates on teaching machines to interpret and understand visual information from the world, enabling facial recognition systems, autonomous vehicles, and medical image analysis.

It is not hard to see why the Tourism Industry could also benefit from such a technology.

How does AI affect the Tourism domain?

To provide an accurate answer to this research question, we have developed sub-research questions to help address the following aspects:

1. How does and will AI affect future jobs, and how do we prepare students for this?
2. What is the status regarding awareness, knowledge, perception, and acceptance of staff and students?
3. How do students and staff compare on these metrics?
4. What are the potential observed predictors for the outcome variables of research questions 1, 2, or 3?

Domains

We have allocated four domains to correspond with each specialization within the tourism management program that every student explores during their third year. This approach allows for a thorough examination of each domain, aligning with the research's overarching goal of conducting a comprehensive assessment of the potential risks, impacts, and opportunities associated with the incorporation of artificial intelligence (AI) within the context of the Tourism Management program.

E-tourism

- What is the relative importance of various factors influencing travelers' decisions to book their trips online rather than through traditional travel agencies?
- Does the level of utilization of AI technologies among students in the E-tourism specialization affect the students' academic performance?
- How does the perception of AI impact academic performance in the E-tourism specialization?

- What are the expectations and concerns of students regarding the integration of AI into the curriculum of the E-tourism specialization?

Tourism Design & Development

- Is there a correlation between the utilization of AI in tourism development and the influx of tourists?
- Does the level of utilization of AI technologies among students in the Tourism Design & Development specialization affect the students' academic performance?
- How does the perception of AI impact academic performance in the Tourism Design & Development specialization?
- What are the expectations and concerns of students regarding the integration of AI into the curriculum of the Tourism Design & Development specialization?

Tourism Business

- Can tourism businesses prioritize environmental sustainability while maintaining profit margins?
- Does the level of utilization of AI technologies among students in the Tourism Business specialization affect the students' academic performance?
- How does the perception of AI impact academic performance in the Tourism Business specialization?
- What are the expectations and concerns of students regarding the integration of AI into the curriculum of the Tourism Business specialization?

Tourist Experience

- Does the length of stay influence the overall satisfaction of tourists?
- Does the level of utilization of AI technologies among students in the Tourist Experience specialization affect the students' academic performance?

- How does the perception of AI impact academic performance in the Tourist Experience specialization?
- What are the expectations and concerns of students regarding the integration of AI into the curriculum of the Tourist Experience specialization?

First Two Years of the Study

- Do age and country of origin affect how students use and feel about AI?
- Does the level of utilization of AI technologies among students in the first two years of the study affect the students' academic performance?
- How does the perception of AI impact academic performance in the first two years of the study?
- What are the expectations and concerns of students regarding the integration of AI into the curriculum of the first two years of the study?

Expected Results

We expect the results to show that integrating artificial intelligence into tourism and the curriculum provides better results than before. We also expect AI to only serve as a smaller extra thing, as obviously tourism is something quite different and unique, so we will not make it better by adding AI into everything in it. Still, the addition of it might streamline processes as well as make things more comfortable and easy for customers.

[1] The development of cultural tourism in Europe. Cultural attractions and European tourism 3-29 doi:10.1079/9780851994406.0003
<https://www.cabidigitallibrary.org/doi/abs/10.1079/9780851994406.0003>