

Consulting Technology Final Report

Final Personal Report

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Macau "Tourism+"

The country advocates innovative development in the tourism industry, which not only makes Macau's tourism industry more digital, networked, and intelligent, but also attracts more inland Chinese tourists to visit Macau. I will analyze how the concept of "tourism+" is driving the development of Macau by combining the tourism industry, gambling, commerce, and cuisine with consulting technology.

As is well known, China's legalized gambling industry in Macau has always been one of the four pillar industries in Macau. The legitimate development of the gambling industry has attracted many tourists from mainland China to Macau, and the combination of tourism and gambling has continuously and stably assisted Macau's economy. Some tourists will choose construction projects such as Venetians that integrate exhibitions, performances, shopping, hotels, and casinos to enjoy. For tourists, Venetians almost cover all the purposes they want to travel. For example, some tourists prefer to experience casinos and comfortable travel experiences, choosing landmark buildings that integrate casinos and hotels such as New Portugal. Casino hotels pay more attention to the diversity, professionalism, and luxury of the facilities within the casino, and provide comfortable five-star hotels, providing tourists with more comfortable entertainment journeys and sensory enjoyment. Nowadays, with the development of the times, many technologies such as big data have been applied in casinos to ensure their long-term operation. Because Chinese law does not allow online gambling, I will focus on the IT technology used in offline casinos. Firstly, there is AI facial recognition technology, which allows casinos to quickly build a tidal model for personal analysis by analyzing tourists entering the casino. Combining facial recognition technology with big data can analyze more tourists' approximate backgrounds, habits, and hobbies. At the same time, this facial recognition technology can also help casinos eliminate some unwelcome tourists, including those who often cause annoyance to other tourists or use cheating devices. Secondly, RFID technology is also used in casinos, which uses radio waves transmitted from one device to another as a communication channel. This technology can help casinos maintain slot machines, casino chips, and continuously track them remotely to prevent illegal means such as theft or fraudulent transactions. In addition, there is an automated data modeling that can identify the behavioral patterns of tourists when choosing new games. It can collect a large amount of real-time data on tourist preferences, assisting designers in better creating bonuses for new games that meet customer needs. This technology can help casinos stabilize their economic income and improve the entertainment experience for customers. Overall, the development of big data and the internet has enabled more technology to be applied to the gambling tourism industry, ensuring a certain level of fairness in gambling while being networked and intelligent.

The second aspect is the introduction and analysis of the tourism+business model. In the first part, an example of Venetians was also mentioned, which is not only a building that combines exhibitions, performances, shopping, hotels, and casinos, but also uses many intelligent search and navigation systems in the shopping area. Due to the relatively complex internal architectural structure of Venetians and the close proximity of their interior decoration to natural scenery, as well as the integration of the architectural style of Venice's water town, many tourists, although

more immersive in experiencing the 'indoor water town', are also more likely to lose their sense of direction. This intelligent search and navigation system can help foreign tourists find their desired retail stores more quickly. With the help of the mall's floor plan, the intelligent navigation system accurately plans routes for tourists in the form of dynamic routes, truly making tourism intelligent and intelligent. Another example is that with the rapid development of mobile payment, we can also use WeChat, Alipay and other mobile payment methods in Macao (mobile payment is also part of commerce). With the increasing number of inland tourists visiting Macao, it is also for the common development and progress of one country, two systems for the economic development of Macao. Taking WeChat and Alipay as examples, their biggest advantage in the payment process is the automatic exchange rate conversion, which saves complex human calculations. With the QR code and payment software scanning function, not only the payment speed is faster than cash payment, but also the payment becomes more accurate. When necessary, payment records become an important evidence, avoiding a lot of trouble. And with the development of various apps, such as Macau Electric Recruitment, mFood, bus stop announcement, etc., with the support of computer networks, big data, Internet of Things, and artificial intelligence technologies, it has met people's needs for fast payment, time-saving and labor-saving, and one mobile phone can play all over China. Therefore, the combination of mobile payments, navigation systems, and other commercial and tourism aspects not only eliminates more obstacles between transportation, communication, and delivery, but also demonstrates the promotion and progress of IT technology in various aspects of the tourism industry, while allowing more inland tourists to visit Macau.

The third aspect is that Macau's unique geographical location and historical and cultural background have made it a city that integrates Chinese and Western cuisine and culture. Therefore, the combination of tourism and cuisine has become one of the symbols of Macau's development. Taking Guanye Street in Macau as an example, although its total length is only 121 meters, the street has become an important check-in point for mainland tourists due to the decoration style of each restaurant on both sides and various cuisine from different cultures. Nowadays, with the development and growth of the internet, more tourists will introduce and share the delicious food they taste on Guanye Street to more netizens in the form of posts, which undoubtedly attracts more people to visit Macau. Big data will recommend key information about Macau's tourism and cuisine to more people who want to travel and try out cuisine. Online sharing among netizens around the world will also enable more people to understand Macau's cuisine and culture. Taking Xiaohongshu as an example, visitors from various regions in China can become part of the sharing and dissemination of Macau's culinary culture. It is precisely because of the interconnection of the Internet that more people understand Macau's geography, cuisine, architectural style, history, and culture. With the development of social software, Macau's cuisine has become a link between Macau and inland people. Many people pay attention to Macau, which is not just a stereotypical place with gambling, because they aspire to try food from all over the world. The diversity of culinary culture not only makes more mainland Chinese tourists willing to learn more about the historical background of Macau, but also encourages netizens to take action, personally visit Macau and try Macau's cuisine. These internet promotions undoubtedly promote the development of Macau's economy and complement the development of the internet. From a historical perspective, although Macau was ruled by Portugal for over 400 years,

authentic Portuguese cuisine has also become an important component of Macau's culinary culture. Authentic Portuguese cuisine such as Portuguese chicken and Ma Jiexiu is something that Chinese people can taste in Macau without having to personally visit Portugal. In addition, Beijing Roast Duck, Northeast Spicy Hot Pot and other Chinese food can also be met in Macao. There are more unique cuisine and beverages from countries around the world such as France, the UK, Italy, Spain, Canada, and more. Similarly, the wine culture also holds a place in Macau's cuisine. The combination of Chinese and Western cuisine and culture in Macau undoubtedly does not attract Chinese tourists to explore Macau's history and other cultures, and more importantly, they enjoy the pleasure of traveling while fully satisfied. Therefore, more Chinese tourists have a more comprehensive understanding of Macau not only in the form of tourism, but also in the form of the internet.

Overall, the true smart tourism is the significant contribution made by IT technologies such as the Internet to the integration, promotion, and development of Macau's tourism industry and other fields. For both mainland Chinese tourists and foreigners, the interconnectivity, networking, and intelligence of the Internet have attracted more tourists and made significant contributions to the economic and cultural development of Macau.

Visiting the Science Museum

There are over ten exhibition halls in the Macau Science Museum that integrate various industries with IT technology. I was deeply impressed by the Department of Biodiversity and the Department of Data Science. Below, I will provide a detailed review of two technologies that left a deep impression on me in the exhibition hall.



The first one is a biodiversity simulation game in the Biodiversity Hall, which is a separate game machine. The main purpose of this game is to allow players to win by acquiring more native species within the game, and players will encounter different events in the game that will increase or decrease species. This game console is a trade like game that allows players to trade species between their continent and other continents with different native species. Through events that benefit their continent, the native species on their continent can achieve victory at most. This game combines IT technology such as scientific simulation and computer computing in the background with the fun of the game, allowing me to understand that biological species on a certain continent can be simply divided into local and foreign species, and species between continents will disappear or proliferate due to some sudden events. The settings of this game,

although simple, are full of randomness, leaving a deep impression on me and a good gaming experience (I played for half an hour in this exhibition hall). This combination of games and knowledge of biological species undoubtedly allows tourists to learn a lot of knowledge while enjoying themselves, and the learning of these knowledge is different for each individual. The reason why I would like to recommend this exhibition hall to other readers is because there are not too many explanations about biodiversity next to it. Instead, a game formed by combining computer technology and biological knowledge allows tourists to experience knowledge about biodiversity on their own. After playing this game, I believe that there is uncertainty in the species of every continent, and each species can change due to random events or environmental factors. Let people not only admire nature, but also cannot ignore the impact of humans on biological species.



The second one is the Data Science Hall. As an exhibition hall that also left a deep impression on me, I saw many simulators, such as: "Hacker account changing experience" simulator, "Password leakage" simulator, "Smart camera cracking experience" simulator, "Malicious mobile phone charging station" simulator, "Wireless WiFi security peeping experience" simulator, "NFC privacy leakage" simulator, and so on. These simulators utilize IT technology, computer technology, and other technologies to combine with the most easily accessible network illegal hacker technology, allowing people to understand and enhance their awareness of prevention. I believe that the combination of this technology and simulators has analyzed many illegal criminal technologies that are detrimental to people's privacy and security, allowing people to understand the principles of criminal technology while also ensuring their own safety. For example, in the "Wireless WiFi Secure Peeping Experience" simulator, I learned the principle of "Sheep Wall". The principle of Sheep Wall is to lure users into connecting through a Wi Fi access point. When users browse web pages through this Wi Fi, they can read the account password and other information transmitted in plaintext. Log in remotely to a router with a Linux like system installed through SSL, execute TCPDUMP on the router, and save all packets. Extract the account password and target website from the package through a local analyzer and store them in the database. Read the account password in the database through a wekUI and display 'This little lamb is really cute!'. This is also the origin of the name 'Sheep Wall'. Therefore, by understanding the prying effects of these "black technologies" on people's privacy, people can become more aware of protecting

themselves from different aspects. This exhibition hall showcases not only the current advanced network and IT technologies, but also the deep protection of people's security. Many people have seen more of the positive aspects of the internet era (such as convenience, efficiency, etc.), but they also need to pay more attention to the "shadows" in the internet. People can better protect themselves and their relatives and friends by understanding these dark aspects, so the existence of this data science exhibition hall is of great help and significance.



Through my experience in the Biodiversity Hall, I have gained some insights into the future. Learning is not necessarily just one way, but more can come from everyday life, games, and everything that happens. With the development of the internet and the rise of IT technology, while learning to break away from being addicted to electronic products, I should also absorb knowledge that is beneficial to me online. By learning a little bit about biology through this game, I have re viewed the impact of the game on me. Perhaps I can also invent a game in the future to help more people learn about biology. Similarly, through the Data Science Department, I am now and in the future paying more attention to the security of my private information, reducing the risk of fraud and data leakage. Finally, I would like to thank the teacher for recommending the Macau Science and Technology Museum, as well as the exhibition hall that combines knowledge and consulting technology from various industries. It has allowed me to learn more knowledge and learn more ways to protect myself and my family.

Reference:

1. https://www.zhihu.com/question/280099750?utm_id=0
2. [AI For Casinos: How This New Technology is Being Used \(online-casinos.com\)](https://online-casinos.com)