AIRLINE TICKET BOOKING

Jyotsna Tyagi

Computer Science Department, Raj Kumar Goel Institute of Technology for Women/UPTU, Noida, (India)

ABSTRACT

The world globalization is widely used, and there are several definitions that may fit this one word. However the reality remains that globalization has impacted and is impacting each individual on this planet. It is defined to be greater movement of people, goods, capital and ideas due to increased economic integration, which in turn is propelled, by increased trade and investment. It is like moving towards living in a borderless world. With the reality of globalization, the travel industry has benefited significantly. It could be said that globalization is benefiting from the flight industry. Regardless of the way one looks at it, more persons are traveling each day and are exploring several places that were distant places on a map. Equally, technology has been growing at an increasingly rapid pace and is being utilized by several persons all over the world. With the combination of globalization and the increase in technology and the frequency in travel there is a need to provide an intelligent application that is capable to meeting the needs of travelers that utilize mobile phones all over. It is a solution that fits in perfectly to a user's busy lifestyle, offers ease of use and enough intelligence that makes a user's experience worthwhile. Having recognized this need, the Agent based Mobile Airline Search and Booking System is been developed that is built to work on the Android to perform Airline Search and booking using Biometric.

Keywords- Agents, Biometric

I. INTRODUCTION

Airline reservations systems contain airline schedules, fare tariffs, passenger reservations and ticket records. An airline's direct distribution works within their own reservation system, as well as pushing out information to the GDS. A second type of direct distribution channel are consumers who use the internet or mobile applications to make their own reservations. Travel agencies and other indirect distribution channels access the same GDS as those accessed by the airlines' reservation systems, and all messaging is transmitted by a standardized messaging system that functions on two types of messaging that transmit on SITA's HLN [high level network]. These message types are called Type A [usually EDIFACT format] for real time interactive communication and for informational and booking type of messages. Message construction standards set by IATA and ICAO, are global, and apply to more than air transportation. Since airline reservation systems are business critical applications, and their functionally quite complex, the operation of an in-house airline reservation system is relatively expensive. Prior to deregulation, airlines owned their own reservation systems with travel agents subscribing to them. Today, the GDS are run by independent companies with airlines and travel agencies as major subscribers. The Airline industry controls the world of travel and this industry alone has managed to reduce the distance between places that are geographically miles apart to merely in hoursand minutes. According to investopedia, "Few inventions have changed how people live and experience the world as much as

IJATES

the invention of the airplane". There are thousands of airlines worldwide that cover thousands of miles daily and travel has become an acceptable part of our routine. Therefore, to ensure that we get to where we need on time, individuals have to book flights in advance or have someone book the flights on their behalf. In some situations unless a flight is booked well in advance, then one may have to miss such a flight. As the world progresses in these areas, it has become apparent that technology has to play a key role and hence many individuals Use the internet to assist in making world of travel a little easier.

Fig. Airline Ticket Booking

II. HISTORY

The history of airline reservations systems began in the late 1950s when American Airlines required a system that would allow real-time access to flight details in all of its offices, and the integration and automation of its booking and ticketing processes. As a result, the first electronic reservations system, Magnetronic Reservisor, was introduced in 1952. Many years later, Sabre (Semi-Automated Business Research Environment) was developed and launched in 1964. Sabre's breakthrough was its ability to keep inventory correct in real time, accessible to agents around the world. Prior to this, manual systems required centralized reservation centers, groups of people in a room with the physical cards that represented inventory, in this case, seats on airplanes.

Fig. Agent Set of Magnetronic Reservisor

III. FARE QUOTE AND TICKETING

The Fares data store contains fare tariffs, rule sets, routing maps, class of service tables, and some tax information that construct the price – "the fare". Rules like booking conditions (e.g. minimum stay, advance purchase, etc.) are tailored differently between different city pairs or zones, and assigned a class of service corresponding to its appropriate inventory bucket. Inventory control can also be manipulated manually through the availability feeds, dynamically controlling how many seats are offered for a particular price by opening and closing particular classes.

The compiled set of fare conditions is called a fare basis code. There are two systems set up for the interchange of fares data – ATPCO and SITA, plus some system to system direct connects. This system distributes the fare tariffs and rule sets to all GDSs and other subscribers. Every airline employs staff who code air fare rules in accordance with yield management intent. There are also revenue managers who watch fares as they are filed into the public tariffs and make competitive recommendations. Inventory control is typically manipulated from here, using availability feeds to open and close classes of service.The role of the ticketing complex is to issue and store electronic ticket records and the very small number of paper tickets that are still issued. Miscellaneous charges order (MCO) is still a paper document; IATA has working groups defining the replacement document the electronic multipurpose document (EMD) as at 2010. The electronic ticket information is stored in a database containing the data that historically was printed on a paper ticket including items such as the ticket number, the fare and tax components of the ticket price or exchange rate information. In the past airlines issued paper tickets; since 2008 IATA has been supporting a resolution to move to 100% electronic ticketing. So far, the industry has not been able to comply due to various technological and international limitations. The industry is at 98% electronic ticket issuance today although electronic processing for MCOs was not available in time for the IATA mandate.

IV. APPLICATION OF RESERVATION SYSTEM

Computer Reservations Systems (CRSs) are used for hosting airline seat inventory and seat reservation transactions. Originally designed, owned and operated by airlines, the use of CRS shad been extended to travel agents as a distribution tool. Over the years CRSs have evolved into Global Distribution Systems (GDSs) that host inventory of multiple airlines and other modes of travel and travel related associated services such as room reservation, ticket reservation systems for football games, train reservation for reserving train seats and many more others.

V. REVIEW OF AIRLINE RESERVATION SYSTEMS

The history of the Computer Reservation Systems (CRS) in Airline industry dates back to 1970s when airlines began modifying and enhancing their internal reservation systems to make the sale of airline tickets through travel agents more efficient. The CRS gave travel agents access to information about flight schedules, fares, and seat availability. It also enabled them to make reservations and issue of tickets automatic. Although the computer reservation systems are owned and operated by particular airlines, travel agent can use systems take extreme care in securing the financial details for booking, still there are some discrepancies in the system that lead to fraud and identity theft. With all this in mind one has to be careful of how booking is done as there are several sites that exist that basically mimic real sites so the concept of booking flights online by entering all your

information in view of the security challenges that currently exist is not ideally safe. So with all these in mind, we here have developed Intelligent Agent based Flight Search and booking system which searches the Airline based on user criteria and makes intelligent decision rather than leaving to the user to make decision. Also booking flight been carried out using Biometrics to avoid credit card fraud. However, before going into those details, we will review in brief about Intelligent Agent technologies followed by AI in flight Reservation system and biometrics.

VI. CONCLUSION

The system provides real time viewing of flight arrivals and departures but this is just for the users viewing as future work. Users could be allowed to select any flight they see in the departure dashboard and book it. Additionally the system is built to provide Intelligent Agent based flight search and secured booking capabilities but as we look at trends with similar applications and similar facilities we may find the need in the future to expand the work and offer potential users a more holistic service in terms of not just flight search and booking but assistance with booking of hotels using agent technology and the popularity and rating module built within the current application.

VII. ACKNOWLEDGEMENT

We take this opportunity to express our deepest gratitude and appreciation to Ms. Kadambari aggarwal and Ms. Nidhi gupta mam who have helped us towards the successful completion of this paper.

VIII. REFERENCES

[1] http://thesai.org/Downloads/IJARAI/Volume1No4/Paper_3Intelligent_Agent_based_Flight_Search_and_Booking_System.pdf
[2] http://www.scribd.com/doc/127931451/AIRLINE-RESERVATION-SYSTEM
[3] Hannan, J. F. (1957). Approximation to Bayes risk in repeated plays. Contributions to the Theory of Games, 3:97–139
[4] Information, Technology and Tourism. (2009). Retrieved from http://EzineArticles.com/3292939

IJATES