Eat&Travel: A New Immersive Dining Experience for Restaurants

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Abstract. Modern society is moving towards a busier lifestyle, people have less time to enjoy themselves despite the increasing leisure options. Also, many countries around the world are facing a financial crisis, making people less wiling to travel abroad. In this paper we describe Eat&Travel, an interactive solution that ties dining and traveling together, offering restaurants the possibility to offer their customers an opportunity to enjoy a unique regional meal combined with a virtual trip in a river, where they can appreciate the landscape and learn more about the country and the culture, using an immersive CAVE environment, without the need to travel abroad.

Keywords: CAVE, Dining Experience, Virtual Travel, Local Culture, River Cruising.

1 Introduction

Today's society is moving towards a busier lifestyle despite of the available leisure options. Hence, people look for options to recover the energy spent with their busy lives, get rest and enjoy meaningful moments. One of the ways that people can do this is by traveling. In order to travel, people need to be in good health, financially fit, available time wise, and ultimately willing to explore unknown places. Having all these factors working together is very hard, especially for families with children.

So people in order to fulfill this search for meaningful moments turn to their meal breaks. With this in focus, we see a relevant opportunity to bring together the meal-time with the desire of fleeing from stressful routine in seeking engaging activities and unique environments, such as touristic destinations. Along goes the customer's desire to try out new things, novel experiences or new sources of stimulation.

In the current competitive economy, the restaurant industry seeks to provide memorable experiences, constant novelties, aiming for customers' loyalty and satisfaction. Studies indicate that the service's atmosphere is an essential aspect to customer satisfaction as well as determining repeated patronage [1, 2]. The physical set-up of a

CAVE enables the development of immersive environments in which users can engage with each other as well as with the images projected within the CAVE [3]. We identified that little attention has been paid to the potential of CAVEs in creating a new and memorable experience in traditional places such as restaurants.

Eat&Travel creates a solution that ties dining and traveling to offer restaurants, the ability to provide their customers with the novelty of memorable experiences by allowing them to travel the world while enjoying a unique menu.

2 Eat&Travel

The setting of the Eat&Travel restaurant consists of a "cruise ship" like dining space divided in two different spaces: the waiting area and the dining area. The Waiting Area is where the customers arrive and wait until the "trip" starts. The Dining Area is a space enclosed by screens that replicates exactly an 180° view of the landscape through video projections thus creating an immersive environment. It enables customers to visit off-location destinations in an immersive journey through the rivers around the world. A cruise ship in a river is the perfect setting since it provides a calm journey that can cross many famous cities. Therefore becoming the ideal setting to enjoy a meal and sightseeing. The menu is specifically designed with reference to the destination's gastronomy for a whole experience. Consequently, customers are led in a multi-sensory experience where taste plays an important role in driving the experience into the visited location.

Additionally, this experience will enable customers to interact with their journey by self-indulged curiosity with venue-specific information. The outcome is a pervasive learning process.

2.1 Dining Experience: Captain Jack Jones and His Journal

It's a known fact that every cruise ship must have a captain and that a captain uses a log to record his traveling's. Therefore, we designed the whole experience around Captain Jack Jones and his Journal. Usually cruise ship captains are experience sailors, who traveled around the world many times and certainly, in most of the cases, have many experiences to share. The first contact that customers will have is in the waiting area where the captain will welcome the guests and arouse the customer's curiosity about the trip. Once the captain is ready to embark, one of his assistants, a waiter, leads the customers to the dining area. Along the trip Captain Jones will appear several times to highlight places of interests appearing on the panoramic screen. Customers could also learn more about the surrounding area using a copy of his journal, a digital tablet, placed on every table in the restaurant.

In the journal, Captain Jones wrote interesting facts and stories about the places, people, fauna, flora and food. His deep passion for food is well documented through the journal in his meticulous notes and recipes. To support various needs from different customers, the journal will provide customers with information they can relate to (for a celiac customer it is important to know what contains gluten and the available gluten-free options) and information they seek for (cooking process, food origin, historic info about dishes, curiosities).

3 Implementation

For our prototyping purpose, we used the CAVE room in our lab for implementation and testing. The prototyping platform consisted of a CAVE with four 135-inch screens four projectors, a surround sound system, two LCD screens, a webcam and a tablet. The set up enabled us to create a fully unified and immersive experience. It is planned to implement the system in a real restaurant in the near future.

3.1 The Waiting Area

The LCD screen in the waiting area is equipped with a webcam that can detect the presence of people. When any customer approaches, the captain immediately appears and interacts with the customers. During the idle mode, (i.e. when no customers are around) it shows the map of the trip, highlighting the different locations along the river.



Fig. 1. Waiting Area

3.2 The Dining Area

Each table will have a tablet displaying the Captain Jones' journal where the customers can learn more information related to the food and the journey by flipping through the pages of the journal. Customers can also order the food and access the order and to change at any time. Finally when done with their selections they can send the order to kitchen and enjoy the trip while their food is being prepared.





Fig. 2. Screenshot of the interface of the journal

In order to make the Captain visible to all customers for the entire dining area, four LCD screens are to be placed in the four different corners of the room. Whenever the Captain feels there something worth mentioning to the customers, he will appear on

the LCD screens and talk to the customers. All the systems are interconnected, in that way to synchronize the projections with the captain appearing on the LCD screens highlighting the points of interest so that the customers can see it at that precise moment in the projections.



Fig. 3. Dining room

4 Conclusion and Future Work

Our findings highlight the success of our prototype. The Eat&Travel restaurant provided an immersive experience that engaged visitors to interact and explore. Visitors felt immersed with our CAVE like environment highlighting the feeling on being on a cruise ship. Customers also felt tempted to learn more about the food, reading and sharing trivia information as well as the recipe. Having the captain appearing at predetermined moments in the trip to point out places of interest, such as castles and monuments as well a fauna and flora helped to guide the visitors along the trip and to built a meaningful connection between customers and the captain. We aim to continue our work to test the Eat&Travel experience tested in a real restaurant, and to have a menu specifically designed with reference to the destination gastronomy for a whole experience. With this prototype, we achieved the goal to deliver an immersive and unified experience. We believe that this platform can provide a significant breath of fresh air to the current competitive restaurant industry.

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