

Website User Experience:

Comparing Destination Website Designs Using Physiological Sensors

By

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Introduction

Consumers have an extremely wide variety of websites to choose from when searching for information online. When it comes to travel websites, there are hundreds of options that give users the ability to book hotels, tours, or tickets to a destination. With such high competition between websites, if a consumer does not quickly find what they are looking for on one website, they will simply go on to the next (Sauro, 2016). It is essential for businesses to analyze and assess which specific aspects of website design captivate the attention of users in order to serve them effectively. Major destinations are shifting their funding from typographical marketing to online marketing, producing more in-depth websites that allow users to do more online (Inversini et al., 2014). Organizations can maximize the percentage of users staying on their website, coming back to it, and recommending it to others by understanding the aspects that users enjoy. This research is crucial to helping destination websites succeed because it can take as little as 7 seconds for a user to make an impression of a website, whether it be good or bad (Tuch et al., 2012).

Online searches are one of the first steps consumers take in the decision-making process, and online resources have become the most prominent way users learn about and plan vacations and trips (Liang et al., 2017). However, current research does exist surrounding the topic of website user experience and tourism information websites. However, further research has the potential to uncover the existing patterns that guide users to certain destinations' websites over others. The goals of this study are to examine what factors of website design users' value most, and thus contribute to greater success, and to pinpoint how website experiences impact users' perceptions and decisions.

Experiment Measures and Procedures

Utilizing the Tobii Pro eye-tracking technology, this experiment measures users' attention and gaze patterns across two different destination websites. The Tobii Pro Glasses track users' eye movements and fixation patterns as they browse a website. This approach captures a more comprehensive understanding of certain cognitive and emotional responses during the participant's interactions with each website which gives the researcher the opportunity to discover valuable findings that may not arise through the surveys and interviews. The websites alternated with each participant to avoid the priming effect affecting results. Prior to looking at either website, users filled out a questionnaire with questions about age, demographic, and prior knowledge of either website. Users also took a survey after each website with Likert questions asking about attractiveness, usability, and overall enjoyment. They also were given a chance to mention any other input they had, positive or negative, related to either website.

The data was analyzed using the Tobii Pro Lab software. Areas of interest were found by uploading screenshots of each website's homepage and using the Tobii Pro Lab Areas of Interest (AOI) tool. The recordings were then analyzed using the gaze data captured by the Tobii Pro eye-tracking glasses to determine participant fixation on each area of interest with metrics such as duration, quantity, and order.

Results

The study included 20 participants: 8 females and 12 males. All the participants' ages ranged from 43-59. The participants were from a variety of different professions, including but not limited to lawyers, dentists, teachers, business owners, and homemakers. A majority of the participants were from the West Coast, 14 indicating they were born and raised in California, and 1 in Oregon. Three participants indicated they were born and raised in Texas, 1 in Virginia, and 1

in Florida. Being that all of our participants are from a variety of backgrounds and professions, they all have a variety of different skill sets.

The results show the different findings in visual patterns of the participants while browsing both Disneyland and Hearst Castle's websites. The heat map shows users gaze all over the screen, with the red representing more gazes and for longer, and green representing less.

Figure 1 shows a screenshot of the Disneyland website homepage with the heatmap on top. The heatmap shows that areas of interest on Disneyland's homepage were the upper left-hand corner, as well as the center image area. The upper left-hand corner has an area where you can choose dates, as well as how many people you are booking for. The center area has a large text that describes a Halloween themed experience that will be taking place in October. The heat map in **Figure 2** shows the hotspots of users' gaze patterns on Hearst Castle's website homepage. The areas of interest are in the upper left hand corner, where the 'Plan your trip' tab is, on the right hand side where it says 'Reserve your tickets', as well as in the center, where it says 'A museum like no other.' From this, we can see that users focused on similar areas on both pages, the upper left corner and centered large text. We can also see that on both websites, there is a greater focus on the left side of the page. This aligns with existing literature that reaffirms the concept of left-to-right reading patterns influencing other areas. Based on this, our recommendations are to

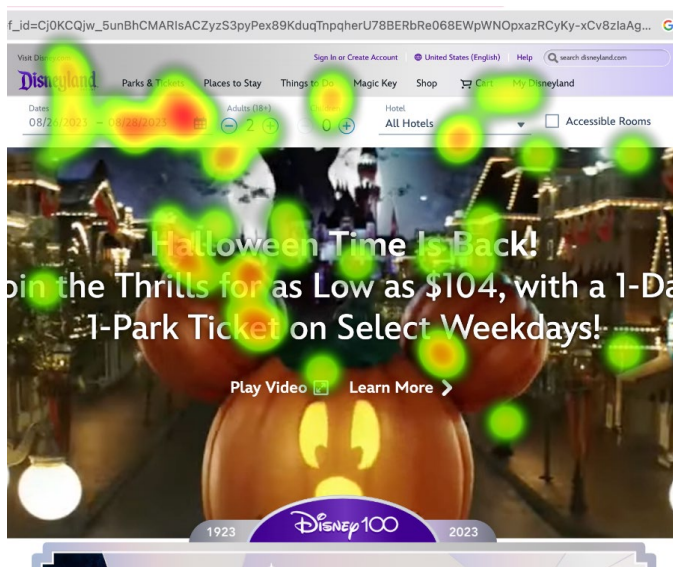


Figure 1. Disneyland website homepage.

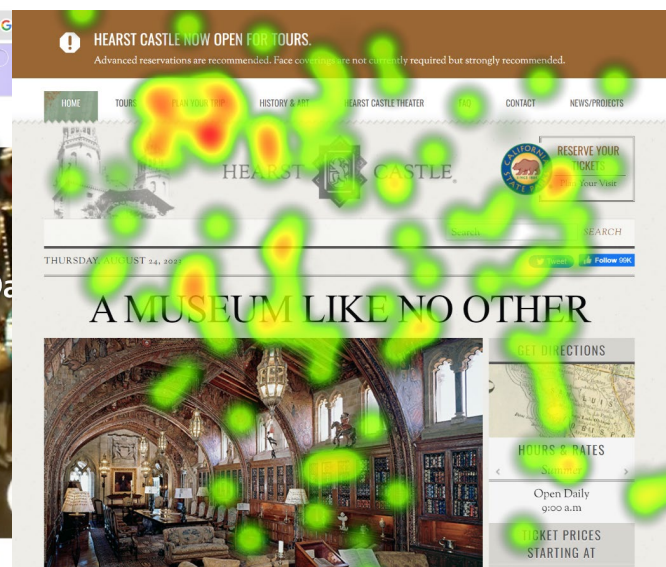


Figure 2. Hearst Castle website homepage.

place the elements of highest importance on the left hand side of the page, as users consistently allocated most of the time viewing the left side. Additionally, large text in the center of the page is almost guaranteed to be viewed by participants, so including important information there provides a near guarantee that viewers will read it.

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