Approaches and Principles for UX Web Experiences: 
A Case Study Approach

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ABSTRACT

The challenge of creating user experiences involves a panoply of multidisciplinary competences in terms of knowing tools, processes and the business itself. This study intends to identify and synthesize the main approaches and principles adopted by web design and e-business companies to create immersive user experiences. In order to achieve this objective, the authors conducted six semi-structured interviews with web design and e-business companies. They highlight that companies adopt specific-device design, responsive design and adaptive design approaches. Companies considered fundamental to attend technology life-cycle, heterogeneity of technologies and devices, identification of customer needs, relevance of test phase, scalability of applications, and accessibility and usability issues. Additionally, the customer experience testing is considered a key element to measure user experiences and companies expect that business and technological dimensions will be two key factors with future impact in their business.

KEYWORDS

INTRODUCTION

The web design process is changing dramatically in these last years. Web pages themselves are no longer the core of the Internet experience. As a consequence, web designers are gradually moving for ensuing challenges by looking for new products and ecosystems. Web design is currently emerging as a combination of tech and cultural trends highlighting the need for a broader approach. Nouvel (2015) states that the emergence of high quality templates, mature design patterns, automation, artificial intelligence, and mobile technology are signalling the end of web design as we know it.

The Professional Association for Design (AIGA) formulates that top competencies for web designers in 2015 should include the ability to create and develop visual response to communication problems, as well as an understanding of hierarchy, typography, aesthetics, composition and construction of meaningful images and, simultaneously, the ability to solve communication problems including identifying the problem, researching, analysing, reaching a solution, generating, prototyping, user testing and outcome evaluation (AIGA, 2015).

One of main drivers that is changing the market is the increased importance of social networks and mobile users. According to Statista (2015), the number of global internet users surpassed 3 billion in early November 2014 and around 63% of them used mobile phones to access their social accounts. Additionally, Bosomworth (2015) analysed the most popular devices used to search content in the
Internet, and states that PC/Laptop has a quote of 91% followed by smartphones (80%), tablet (47%) and console games (37%). Furthermore, Bosomworth (2015) predicts that the main emerging devices used to search the Internet will be smart TV (34%), smart watch (9%) and smart wristband (7%).

The ubiquity of mobile and new emerging devices presents technical and design challenges. Nowadays, a large range of different devices exist to visit websites and each of them has a different screen size. So, web designers have to deal with the problem of how to present the website on different screens. On large screens, there is space for more information than on tiny screens. Furthermore, mobile and new emerging devices users, such as smart TVs, console games or smart watches, have other needs than a user who browses from a PC. Besides that, users tend to create a first opinion about a website after 5 seconds once the page loads and 88% of the users are less likely to return if they had a bad user experience (Zorzini, 2014).

This paper intends to identify and synthesize the main approaches and principles in the process of engaging UX Web experiences. For that, we adopt a qualitative design approach based in case studies from six European Web design companies. This is the first study based on a qualitative design approach that analyzes and summarizes the main approaches and principles adopted in practice by well established companies in market for the creation of UX Web Experiences. The findings establish as fundamental to attend technology life-cycle, heterogeneity of technologies, and devices, identification of customer needs, importance of the test phase, scalability of applications since their conception, and mitigation of accessibility and usability issues. The paper is organized as follows: we initially perform a revision of literature in the field by analyzing the process of designing a website, the determinants of successful website design, the appearance of responsive and adaptive design, and a comparative analysis of responsive design frameworks. After that initial phase, we present the case study design approach by describing the research question, case study propositions, analyzing data process, and background and context of each case study. Then, we analyze and discuss the main results obtained from these interviews considering four dimensions (contextual, diagnostic, evaluation and strategic). Finally, the conclusions of this work are drawn.

LITERATURE REVIEW

Website Design and Conception Process

Nowadays businesses are increasingly becoming more complex against businesses from a decade ago. The complexities exist and grow, not only in terms of scale, size and reach, but also in terms of global and social connectivity, security, compliance and sustainability. In recent times, the challenge for a company is no longer about having a digital presence, but rather how the Web site of the company reflects its business. As considered by Chin (2008), a Web site is a business’s face to the world and, consequently, must reflect the tone and style of the business in a professional and polished manner.

Diffily (2006) defines the Website conception process as the full activity of creating a new website or implementing changes to one already in use (e.g., by adding a significant new section to a live site). The process can be represented in a framework of eight activities: planning, content, design, construction, test, hosting, publicity, and review. Besides performing these activities, the processes that underlie it are the same as for any other project. For example, it needs a team to carry out the work, a timescale to operate within and a set of resources to sustain it.

The website planning is the process of identifying the business goals and user needs that drive the development cycle; Website content encompasses all the information and applications available on the website; Website design is a crucial point in a website development process. It involves the arrangement of content into graphical models that can be used as a basis for coding a site; Website construction is typically a fundamental technical phase that involves converting content and design into web code; Website testing is a process for evaluating the conformance of a site to an agreed set of guidelines; Website hosting refers to the service that allows a site to be stored on and accessed from the internet; Website publicity includes the tasks associated for the promotion of the website;
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