

Chapter 22

Information Architecture: A Study about Usability and Accessibility

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ABSTRACT

Due to the large number of information circulating on the Internet we must find ways of filtering, replicating and managing the flow of information. Castells (2006, p.8) states that the “Internet is a medium that allows for the first time, the communication of many to many, at any chosen time, on a global scale.” Therefore Information Architecture (IA) is a discipline that aims to evaluate and direct digital resources to user needs, so that the navigation and use enable better interaction between the information spaces and the people. The importance of IA is linked to the growth of connections to informational space, mostly by ordinary people without specific knowledge about the digital medium. Thus, a growing concern about issues of usability and accessibility in the digital environment, giving rise to standards and legislation. While usability is attentive to the satisfaction of users with specific profiles, accessibility points to the need of everyone.

INTRODUCTION

In the United States, where the internet had its origin in the fifties, the need for technologically overcome the Soviet Union led to heavy investments in technology. Thus, it was created the Advanced Research Projects Agency (ARPA), whose goal was to add search capabilities, especially in the academic world in order to promote research in interactive computing. The creation of the ARPANET computer network, “allowed the various computer centers and research groups

working for the agency to share online computation time” (Castells, 2006, p. 14). The ARPANET was created in the late 60’s, and worked from 1975 to 1989. ARPANET represents crucial stimulus for other technologies of communication and networking as we know it today (Campello, Cendón & Kremer, 2000).

According to Cunha (2003, p. 71), “The computer revolution brought by the reflection that leads to the development of knowledge must always have impacts and promote disruptions” . “The concept of information society born of the

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transformation caused by this revolution, and aimed to be the “stage of development of society that is characterized by the abundance of information organized”” (Oliveira, 2005, p. 113). This network, in its evolution, has become more than an environment to access and use the information, but also the sharing and dissemination of knowledge.

Due to the large number of information that circulates every day we must find ways of filtering, replicating and managing the flow of information. Castells (2006, p.8) states that the “Internet is a medium that allows for the first time, the communication of many to many, at any chosen time, on a global scale.” It is known that: “The ways of transmitting information were evolving and going through various stages, from the papyrus, books, magazines and newspapers, until we reach the present day, where you can publish a number of resources through numerous environments available on the Internet easily and with quick access” (Bottentuit & Coutinho, 2009, p. 1) .

The expansion of data volumes supported by networks, the variety of document formats and the ability to scan books and journals, for example, electronic documents, has made access to information sources on the Internet effectively . The scientific area has benefit directly from advances in information and communication technologies (ICT) since the dawn of the Internet. Approximately by the end of the 80s, at international level, Internet use was more significant by the scientific and academic community, and in Brazil. Almost all 500 Brazilian institutions that had a presence on the internet by 1995 - the year he was released his commercial use in the country - were universities or research institutions (Campello et al., 2000).

Before the provision of services and information resources on the Internet was considered modest and published literature on the importance of networks as a source of information, a rhetorical exaggeration (Lynch & Preston, 1990 as cited in

Campello et al., 2000) does not leave doubt that it is necessary to discuss and search for ways to not only provide the network access to sources of information, but that access is appropriate to the needs of each user.

In this context, Information Architecture (IA) arises, a discipline that aims to evaluate and direct digital resources to user needs, so that the navigation and use enable better interaction between the human and informational spaces. This new discipline contributes to supply the user needs and achieve their goals successfully. The importance of IA is linked to the growth of connections to information spaces, mostly by ordinary people without specific knowledge of the digital medium. For Silva and Dias (2008, p. 4), “meet the information needs of users is the great goal of information architecture on the web, through the organization of information on websites, so that users can find them and reach their goals.”

Thus, the web has become the most powerful means of communication today, and a growing concern about issues of usability and accessibility in the digital environment, giving rise to standards and legislation.

Usability should be observed in the various stages of the project, to avoid problems like navigation, where “users have trouble finding the desired information in the website or do not know how to return to a previously visited page” (Winckler & Pimenta, 2002, p. 4). The web accessibility is an issue much debated by governments, educational institutions and professionals in various fields, turning to the needs of people who have difficulty accessing content on the web, such as those with disabilities, but not only. While usability is attentive to the satisfaction of users with specific profiles, accessibility points to the need of everyone. The usability as part of the information architecture quality attributes to websites. Similarly, accessibility must be observed, especially in

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