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Habits and behaviors of e-health users: a study on the influence of the Interface in the perception of trust and credibility

Andreia Pinto de Sousa^{a*}, Ana Margarida Almeida^b

^{a. b} Universidade de Aveiro, Campus Universitário de Santiago 3810-193, Portugal ^aUniversidade do Porto, Praça de Gomes Teixeira 4099-002, Portugal

Abstract

Online health information and its exploitation in different digital contexts is increasing, creating new interaction experiences in which the perception of credibility and trust plays a fundamental role. In this processes, the Interface has a crucial function, mediating the interaction between users and information and, consequently, influencing health decision-making processes and supporting health promotion programs. However, more knowledge is needed to deeply understand this influence in order to comprehend how it works and how can it be improved. The study presented in this paper aims to contribute to this field, researching on the influence that the Interface can have in the perception of trust and credibility of e-health websites. Starting from a five-dimension interface framework that we have developed, and that goes behind the common visual perspective, we have collected data with an online survey and eye tracking sessions. These five dimensions (visual, information architecture, interaction, social presence and user experience) allowed us to reach a deeper understanding of our results, namely regarding the importance that the visual design, information architecture and user experience have on online health information habits and behaviors, particularly in what concerns searching, seeking, communicating and sharing health information.

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^{*} Corresponding author. E-mail address: andreia.sousa.pinto@ua.pt

1. Introduction

The increased demand for health information on the Internet reinforces the need to develop research on the quality of the available e-health information and on the strategies and procedures that consumers use to assess it. This problem has already been addressed by different studies, which results reveal the direct influence of the interface in the perception of credibility and trust¹⁻⁴. The importance of deepening knowledge about credibility and trust of e-health information, focusing on the relationship between the user and the interface, is mentioned in several studies that address the issue of online trust⁵⁻⁹. Some of the most important studies in this matter have been conducted by Fogg¹⁰⁻¹⁴, his work is of major importance under the context of the research presented in this paper, as he focuses on the e-health field, while most of the other studies on online credibility and trust have been developed on the e-commerce area. From our perspective, understanding how users evaluate the credibility of a website is of utmost importance when conduction e-health studies, enabling a better comprehension of education and health promotion¹⁵ as well as decision-making processes and adherence to treatment¹⁶⁻¹⁹.

Trust is based on interactions and is a process where there are always two parties involved; credibility is a perceived quality, not residing in an object, a person or a piece of information. Online trust and credibility are, therefore, directly related to the structure of the communication medium that, in the case of digital media, materializes itself on the Interface through different dimensions. The technological mediation between products and services directly influences the perception of the individual trust. The influence of the Interface on the perception of trust and credibility of online resources, particularly with regard to health information websites, is a critical area, namely concerning decision-making processes, and its study can produce results that can be extend to other areas²⁸, ²⁹

Our approach to the investigation presented in this paper considers other dimensions²⁰ beyond the visual or graphical (addressed most of the times in interface studies). We believe that Interface cannot be reduced only to visual aspects, as it mediates the experience through which we interact (with others, objects and spaces) acting like an important communication intermediary and thus influencing the relationship between digital systems and people. In order to make a more detailed analysis of the Interface and its influence in these processes, and based on the literature review^{6,15,17,21-24}, we have developed an Interface analysis framework with five interface dimensions: visual, information architecture, interaction, social presence and user experience^{20,25,26,27}. Although this framework was developed in the context of this study that focus on health information websites, we believe that it could be applied to study websites interfaces from all fields. Also it is not limited to the study of trust and credibility as it helps to look at the Interface as a structure with different layers and purposes in the user interface relationship. The results we already obtained on the influence of the Interface dimensions in trust and credibility showed that the most influent dimensions are the information architecture and user experience (88.9%) followed by the interaction dimension (84.30%), the visual dimension (66.2%) and finally the social presence dimension (57.6%)²⁷.

In this paper we present part of our study on the interface influence on the perception of trust and credibility of e-health websites, focusing on the results already obtained considering the search, communication and share habits and behaviors of e-health users.

2. Methods

In order to understand the interface contributions to the perception of credibility and trust by users in the field of e-Health, the methodology adopted for this study is mainly influenced by an user centered design approach²⁰.

In this specific paper we decided to present and discuss some of the results that we already obtained concerning the user analysis — user's characterization regarding the use, communication and share of health information and perception of its credibility and trust. We also obtained data that characterizes the perception of credibility and trust of the different interface dimensions under analysis³⁰. These results were obtained using the following instruments, above described: online survey and eye tracking sessions.

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