

Hospital Web Site Usability and Accessibility: A Comparison of Types and Continents

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Abstract:

Background: The usability of a site is defined as the use of a site- how easy it is to learn, to navigate within, to use the different features on the site and how well it prevents users from making errors. Accessibility is the programmers' and designers' way of guaranteeing that ALL users can use the site, even if they have a disability and are accessing the site with assistive technology. Accessibility is not only a smart method of programming, but in some countries it is the law. Both features have guidelines that can be followed to guarantee an accessible and usable site. These guidelines can also be used to measure how accessible and usable a site is. This study set out to examine the accessibility and usability state of hospital websites in four countries. It was expected that hospital websites would put more effort into their sites since they are public oriented sites that serve a varying and sometimes very large e-patient population.

Method: Three countries, Israel, Scotland and Singapore and one State, Louisiana, were selected, to represent four countries. All the general hospitals in the selected countries were identified and categorized based on the city population, hospital size, whether it was a public or private hospital and whether the website had health information or advanced online features. The study population was selected and all the selected websites were analyzed. The sites underwent a manual usability inspection and a number of automated accessibility analyses. The scores were then statistically analyzed using ANOVA tests, Pearson Correlation tests and Independent Sample T tests.

Results: The results showed significantly higher accessibility in hospital websites from Louisiana and Scotland, higher usability online help in Scotland, lower usability navigation in Louisiana and higher navigation in hospitals with health information on their websites.

Conclusions: The countries with more accessible websites, USA, and Scotland, were the countries that had specific laws regarding the need to make websites accessible. The countries with less accessible sites either had a law that only implied for accessible sites (Israel) or had no specific legislation at all (Singapore). These findings indicate that legislation is an important step in assuring accessible websites. The different guidelines have a strong effect on how a site will turn out, and that hospitals that invest in the content of their website will most likely invest in assuring easy navigation and easy access to the content.

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