

Acessibilidade, Tempo de Execução,
Desafios:
Uma Busca de Literatura

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Processo

- Busca por “accessibility journal” no Bing
- Fontes de Informação:
 - Journal of Accessibility and Design for All -- 11
 - JMIR Hum Factors -- 14
 - UsARE: International Workshop on Usability- and Accessibility-Focused Requirements Engineering Usability- and Accessibility-Focused Requirements Engineering -- 3
 - Computer –1
 - Augmentative and Alternative Communication -- 1
 - Universal Access in the Information Society -- 9
 - Requirements Engineering (Journal, Conference) -- 5
 - <https://www.usability.gov/> -- 2

Resultados - RQ1

- Understanding disability and the importance of design for all
 - This paper will address recent debates surrounding the nature and cause of the complex process of disablement and their relevance to understanding calls for a universally accessible physical and cultural environment. It is divided into three main sections. The first part will explore changing perceptions of disability. Attention will centre on the traditional individualistic medical approach, the socio-political understanding or 'social model of disability' and the recent 'biopsychosocial' model of disability exemplified by the World Health Organisation's International Classification of Functioning, Disability and Health. This will be followed by a discussion of the usefulness of the concept of 'universal design'. The final section will discuss the significance of these developments in light of globalisation, associate economic, political and social crises, and the struggle for a fairer and just global society.

Resultados - RQ1

- Assessment of the accessibility legislation in Spain and its effective application
 - The existence of legislation on accessibility does not always imply it is enforced effectively. This article aims to answer the following question: Is the existence of accessibility legislation enough to make physical environments truly accessible? This study assesses the current Spanish legislation as well as any existing voluntary regulations in the country. This assessment is done chronologically, so as to show the historical evolution of the accessibility regulations in Spain. In order to determine whether accessibility legislation has been truly effectively enforced, the issue is studied as it affects Spanish municipalities with respect to urban planning, public buildings, public transportation and websites. The conclusion of this study is that the existence of accessibility legislation per se is not enough to ensure its practical application, and ultimately, to render physical environments, products and services accessible to the majority of the population regardless of their functional capabilities.

Resultados - RQ1

- First International Workshop on Usability and Accessibility focused Requirements Engineering (UsARE 2012) – Summary Report
 - Usability and accessibility issues are common causes why software fails to meet user requirements. However, requirements engineers still focus on functional requirements and might ignore to also elicit system usability and accessibility requirements. This is a high risk which can lead to project and software failure. Improving the usability and accessibility of a system in a later development stage is costly and time consuming. Targeting these concerns, the workshop envisioned that research must address the proper integration of system usability and accessibility requirements into the requirements engineering process and also must focus on how to manage and control the evaluation of these requirements in a systematic way. UsARE 2012 provided a platform for discussing issues which are relevant for both fields, the Requirements Engineering (RE) and the Human Computer Interaction (HCI). The workshop aim was to bring together people from these two communities (RE and HCI) to explore this integration. Researchers and practitioners were invited to submit contributions including problem statements, technical solutions, experience reports, planned work and vision papers. Envisioned results may help aligning RE and HCI processes in order to overcome open issues in these fields

Resultados - RQ1

- Documenting the accessibility of 100 US bank and finance websites
 - Digital access to banking and financial systems is no longer merely a way to augment physical transactions or experiences. It is now the primary way that consumers interact with banking and financial services. As a result, it is essential and equitable that full digital access to these services be provided for people with disabilities. Building on a recently published survey that investigated the accessibility issues within banking and financial systems for blind users, this evaluation of 100 banking and financial websites in the USA provides a current analysis of the broader state of banking and finance website accessibility for people with disabilities. The results of our research not only document these current findings as an accessibility baseline for banking and finance websites but also reveal common problems and strategies that may benefit the banking and finance industries.

Resultados – RQ2

- Development of a Just-in-Time Adaptive mHealth Intervention for Insomnia: Usability Study
 - Background: Healthy sleep is a fundamental component of physical and brain health. Insomnia, however, is a prevalent sleep disorder that compromises functioning, productivity, and health. Therefore, developing efficient treatment delivery methods for insomnia can have significant societal and personal health impacts. Cognitive behavioral therapy for insomnia (CBTI) is the recommended first-line treatment of insomnia but access is currently limited for patients, since treatment must occur in specialty sleep clinics, which suffer from an insufficient number of trained clinicians. Smartphone-based interventions offer a promising means for improving the delivery of CBTI. Furthermore, novel features such as real-time monitoring and assessment, personalization, dynamic adaptations of the intervention, and context awareness can enhance treatment personalization and effectiveness, and reduce associated costs. Ultimately, this “Just in Time Adaptive Intervention” for insomnia—an intervention approach that is acceptable to patients and clinicians, and is based on mobile health (mHealth) platform and tools—can significantly improve patient access and clinician delivery of evidence-based insomnia treatments. Objective: This study aims to develop and assess the usability of a Just in Time Adaptive Intervention application platform called iREST (“interactive Resilience Enhancing Sleep Tactics”) for use in behavioral insomnia interventions. iREST can be used by both patients and clinicians. Methods: The development of iREST was based on the Iterative and Incremental Development software development model. Requirement analysis was based on the case study’s description, workflow and needs, clinician inputs, and a previously conducted BBTI military study/implementation of the Just in Time Adaptive Intervention architecture. To evaluate the usability of the iREST mHealth tool, a pilot usability study was conducted. Additionally, this study explores the feasibility of using an off-the-shelf wearable device to supplement the subjective assessment of patient sleep patterns. Results: The iREST app was developed from the mobile logical architecture of Just in Time Adaptive Intervention. It consists of a cross-platform smartphone app, a clinician portal, and secure 2-way communications platform between the app and the portal. The usability study comprised 19 Active Duty Service Members and Veterans between the ages of 18 and 60. Descriptive statistics based on in-app questionnaires indicate that on average, 12 (mean 12.23, SD 8.96) unique devices accessed the clinician portal per day for more than two years, while the app was rated as “highly usable”, achieving a mean System Usability Score score of 85.74 (SD 12.37), which translates to an adjective rating of “Excellent”. The participants also gave high scores on “ease of use and learnability” with an average score of 4.33 (SD 0.65) on a scale of 1 to 5. Conclusions: iREST provides a feasible platform for the implementation of Just in Time Adaptive Intervention in mHealth-based and remote intervention settings. The system was rated highly usable and its cross-platformness made it readily implemented within the heavily segregated smartphone market. The use of wearables to track sleep is promising; yet the accuracy of this technology needs further improvement. Ultimately, iREST demonstrates that mHealth-based Just in Time Adaptive Intervention is not only feasible, but also works effectively.

Resultados – RQ2

- Bridging the Gap Between Requirements Engineering and Human-Computer Interaction
 - This book is intended to discuss important issues concerning Requirements Engineering (RE) and Human-Computer Interaction (HCI), especially the ones related to usability and accessibility. It is dedicated to observations, concepts, approaches, frameworks and practices that promote understanding, facilitating, and increasing the awareness of the role of usability and accessibility requirements and their proper integration into the requirement engineering process. The book is based on the two workshops on Usability- and Accessibility-focused Requirements Engineering (UsARE), which took place in 2012 and 2014. The first event, UsARE 2012 [8], was supported by IEEE and was held on June 04, 2012 in conjunction with the IEEE 34th International Conference on Software Engineering (ICSE 2012) in Zurich, Switzerland. The second event, UsARE 2014 [9], was supported by IEEE and IFIP and was held on August 25, 2014 in conjunction with the 22nd IEEE International Requirements Engineering Conference (RE 2014) in Karlskrona, Sweden. On both occasions, each submission was reviewed by at least three program committee members. This was followed by discussions amongst the organizers which led to a total number of 7 accepted papers for UsARE 2012 and 8 accepted papers for UsARE 2014. On both occasions, the workshop proceedings were published online by the IEEE Xplore Digital Library. The workshop summary and the results of the interactive session of the first event were published as a report in the ACM Software Engineering Notes in the issue of January 2013 [2].

Resultados – RQ3

- Web Accessibility for Visually Impaired People: Requirements and Design Issues
 - Access to web content continues to be a challenge for the visually impaired, as the needs of such community are very diverse. The access is further hindered by the fact that designers continue to build websites non-compliant with Web Content Accessibility Guidelines (WCAG). To better understand the needs of the visually impaired community, three workshops were organized with various stakeholders coming from three different countries. The results from the workshops suggest that one-solution-fits-all model is inadequate without considering the levels of visual impairment when providing customized web experience. A set of requirements devised from the workshops guided the process of building a middleware prototype. Using eight adaptation techniques, the prototype provides the required user experience based on users level of visual impairment. Preliminary evaluation of the middleware suggests that several adaptation techniques perform better with non-WCAG compliant websites compared to those being compliant.

Resultados – RQ3

- Constructing a holistic view of shopping with people with visual impairment: a participatory design approach
 - We report and reflect on a participatory design (PD) process in which we engaged with people with visual impairments (PVI) over an extended period of time; these interactions were aimed at understanding and assessing PVI experiences about shopping and assistive technologies. In particular, we examined in detail how PVI conduct grocery shopping with the help of different technologies, and found that activities taking place in the homes of PVI reflect aspects of the shopping activity that are challenging but understudied in prior work. Our participants revealed that identifying products that have run short, itemizing needed products in a list, and organizing newly purchased products at home were difficult for them; we also discussed the tools they used and whether the tools did or did not help. We synthesize our findings and explain how the extended PD activities informed our ideas for future design, as well as suggesting principles for PD engagement with PVI participants.

Resultados – RQ3

- Support Method to Elicit Accessibility Requirements
 - Various accessibility guidelines have been developed to meet the increased demand for accessible software, but due to the numerous elements within these guidelines, applying all elements to target software is burdensome and expensive. Additionally, whether all the elements should be applied depends on the software's purpose and target end users, who do not often clearly recognize difficulties. Moreover, accessibility requirements elicited in the late software development phase cannot always be applied. To ensure that these requirements are implemented properly, they must be elicited in the early software development phase by considering end users' conscious and unconscious characteristics. Here a method to elicit accessibility requirements in the early software development phase is proposed. Specifically, end users complete checklists, which are designed to determine disabilities with respect to guidelines. Then guideline elements are prioritized and applied to the target software as specified by the accessibility requirements.

Resultados – RQ4

- <https://webstandards.hhs.gov/guidelines/>
 - Chapter 3: Accessibility
 - Section 1, Comply with Section 508
 - Section 2, Design Forms for Users With Assistive Technologies
 - Section 3, Do Not Use Color Alone to Convey Information
 - Section 4, Enable Users to Skip Repetitive Navigation Links
 - Section 5, Provide Text Equivalents for Non-Text Elements
 - Section 6, Test Plug-Ins and Applets for Accessibility
 - Section 7, Ensure that Scripts Allow Accessibility
 - Section 8, Provide Equivalent Pages
 - Section 9, Provide Client-side Image Maps
 - Section 10, Synchronize Multimedia Elements
 - Section 11, Do Not Require Style Sheets
 - Section 12, Provide Frame Titles
 - Section 13, Avoid Screen Flicker
- <https://webstandards.hhs.gov/standards/>
 - These standards are required for the design and development of all HHS/OS and priority websites.

Resultados – RQ4

- Legal Requirements, Compliance and Practice: An Industry Case Study in Accessibility
 - U.S. laws and regulations are designed to support broad societal goals, such as accessibility, privacy and safety. To demonstrate that a product complies with these goals, businesses need to identify and refine legal requirements into product requirements and integrate the product requirements into their ongoing product design and testing processes. We report on an industry case study in which product requirements were specified to comply with Section 508 of the U.S. Rehabilitation Act Amendments of 1998. This study sought to identify: limitations in existing requirements-acquisition methods; compliance gaps between previously specified product requirements and Section 508; and additional sources of knowledge that are necessary to refine legal requirements into product requirements to comply with the law. Our study reveals the need for a community of practice and generalizable techniques that can reduce ambiguity, complexity and redundancy in legal and product requirements and manage innovation in product requirements. We present these findings with several examples from Section 508 regulations and actual product requirements that are implemented in Cisco products.

Resultados – RQ5

- A novel context-aware system to support healthcare environments
 - The possibility of offering information and functionality to users based on their context and needs represents an advantage of current technology. However, context-aware systems can be improved by extending the level of customization. Targeting on healthcare environments, this paper presents a solution, named Ubi4Health, which generates a new context-aware ecosystem for the daily life of medical staff, patients and care-home residents. Regardless of where the user is, the solution adapts the user experience, offering the appropriate interaction mechanism, interface and device at all times. In this sense, Ubi4Health provides users with the required tool in the appropriate way.