Group Project Proposal

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Introduction

In a world where the use of communication technologies has become essential in our everyday lives (Jenkins, 2001), it is easy to take for granted that not all adults possess the digital literacy required to navigate the increasing complexity and intricacy of the digital world (Moore and Hancock, 2022). Individuals with low levels of digital literacy are particularly susceptible to fake news, image and video manipulation and are targets for online scams and fraud (DFRAC_ORG, 2021). Our project aims to create an online Digital Literacy Hub that provides adult learners with engaging learning materials and interactive resources to increase their digital literacy and in doing so, help them navigate the many pitfalls of modern digital interaction. Our website will incorporate Issa and Isaias's (2015) seven "Usability Criteria" as a framework of reference, namely: Learnability, Flexibility, Robustness, Efficiency, Errors and Satisfaction, as well as additional educational theories, in order to deliver lasting learning.

Project Description: Digital Literacy Hub

Our focus is on developing a comprehensive resource of digital literacy skills for adult learners, providing them with a library of lessons covering different topics, such as everyday tasks, online safety, searching and accessing trustworthy information online and using cloud workspaces such as Google Suite. We strongly prioritize inclusivity and accessibility, recognizing the importance of creating learning materials and platforms that cater to diverse needs and abilities. Our commitment to accessibility includes ensuring compatibility with assistive technologies and providing alternative content formats. Additionally, we emphasize the significance of usability and user interface (UI) design to facilitate intuitive navigation and engagement within online learning environments.

Above all, we seek to develop a user-friendly, engaging website that equips adult learners with essential digital literacy skills. This resource includes a strong emphasis on identifying credible sources, recognizing misinformation, and understanding online privacy and security. By providing practical guidance and best practices in these areas, our goal is to empower educators and learners alike to navigate the digital landscape confidently and responsibly.

How to use the Digital Literacy Hub

The Digital Literacy Hub is a website that delivers bite-sized educational content on relevant digital literacy-related subjects for adult learners. A landing page will direct learners to four key topic areas: Digital Media, Security and Privacy, Online Communication, and Health & Wellbeing. Each of these four topics will include overviews, interactive content, and links to additional resources. Additionally, there will be an area for users to share ideas, comments and/or resources via an embedded Padlet board.

Target Audience

The target audience for the Digital Literacy Hub comprises adult learners with varied levels of digital literacy, including those re-entering education, seeking to upskill for professional development, or simply aiming to navigate the digital world more effectively. We recognize the unique needs and characteristics of adult learners, including their diverse backgrounds, motivations, and learning styles. Our resource is designed to provide them with practical strategies and resources tailored to the specific challenges and opportunities present in adult education settings.

Usability Assessment

Woolgar (1990) positions usability as a complex, multi-faceted process in which the machine plays just as much a role in shaping the user as the user plays in shaping the

machine. Careful consideration of this interplay will be vital in ensuring a high degree of usability for our end product.

A key aspect of Woolgar's paper that we will incorporate is an alignment in our conception of the configured user. Woolgar describes a scenario in which every stakeholder contributing to the machine's design has their own idea of who the user is and how they should be configured, leading to incongruities and shortcomings in the machine's usability. As such, our conception of the user will be as follows.

Our intended users will be adult learners with varying levels of prior knowledge and technical expertise. The course will accommodate beginners while still providing sufficient engagement for more advanced users.

Being adult learners, our users have significant time constraints. To account for this, the learning material will be short and easily digestible, favouring short text, slides, and brief interactions over attention-requiring videos and lengthy readings.

Our users require the flexibility afforded by a portable course whether it is technology access limitations or the desire to dig into the material while on the go, the course will be accessible on a variety of devices.

Lastly, our users seek material that is relevant to their current experience. This aligns with Malcolm Knowles' description of Andragogy, in which adults orientate towards problem-centered learning in contrast to children's subject-centered learning. (Knowles, 1973).

Educational Usability

Usability as a concept championed by Nielson (1994, as cited in Pham et al., 2023) within the software development field and then for web-based design (Nielson & Loranger, 2006, as cited in Pham et al., 2023), has come a long way, especially in the context of digital

education. Many researchers (Oztekin et al., 2010; Pham et al., 2023; Vlasenko et al., 2023) have developed pertinent usability criteria for e-learning systems that go beyond traditional usability studies (that primarily focus on technological aspects) to include other indicators, such as pedagogical and social aspects of learning.

Our project will identify and integrate key usability principles and evaluation methodologies from relevant and current edtech literature into the instructional design of a web resource focused on digital literacy skills for adults. An example of such a usability framework is proposed by Zaharias (2011), providing thirteen usability parameters with corresponding usability measurement criteria. Such a framework is a valuable tool for elearning design and usability as it extends and augments 'traditional' usability constructs with instructional design and learning strategies, thus "addressing the specificities of the double persona of the user – learner" (Zaharias, 2011, p. 134). We aim to apply this usability framework to develop design guidelines for our web resource and specifications to evaluate its usability.

Usability Specification

Usability specifications will play a crucial role in determining the effectiveness of our web resource's usability and its value to the intended audience. We will be developing usability specifications along the lines of performance measures and preference measures, as defined by Issa & Isaias (2015, p. 34). Other than the seven usability criteria they specify, we will also reference other frameworks to address the socio-technical-pedagogical usability aspects of the project (Pham et al., 2023, p.2868). Possible key specification areas are: Navigation, Accessibility (following WCAG - Web Content Accessibility Guidelines standards), Readability, Interactive Learning Elements, Feedback Mechanisms, Progress Tracking and Multimedia

Integration. We will also integrate iterative improvement of the website during the process of design itself using our own insight and feedback as adult learners.

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