# Development and Evaluation of Adaptive User Interfaces to Expedite the Selection of Medical Products for Users of Healthcare E-Commerce: A Qualitative Study

Background:

When making online healthcare purchases, different types of users (i.e. caregivers, clinicians, older adults) will be seeking specific information unique to their needs (i.e. chronic illnesses, cognitive and functional disabilities, comfort).
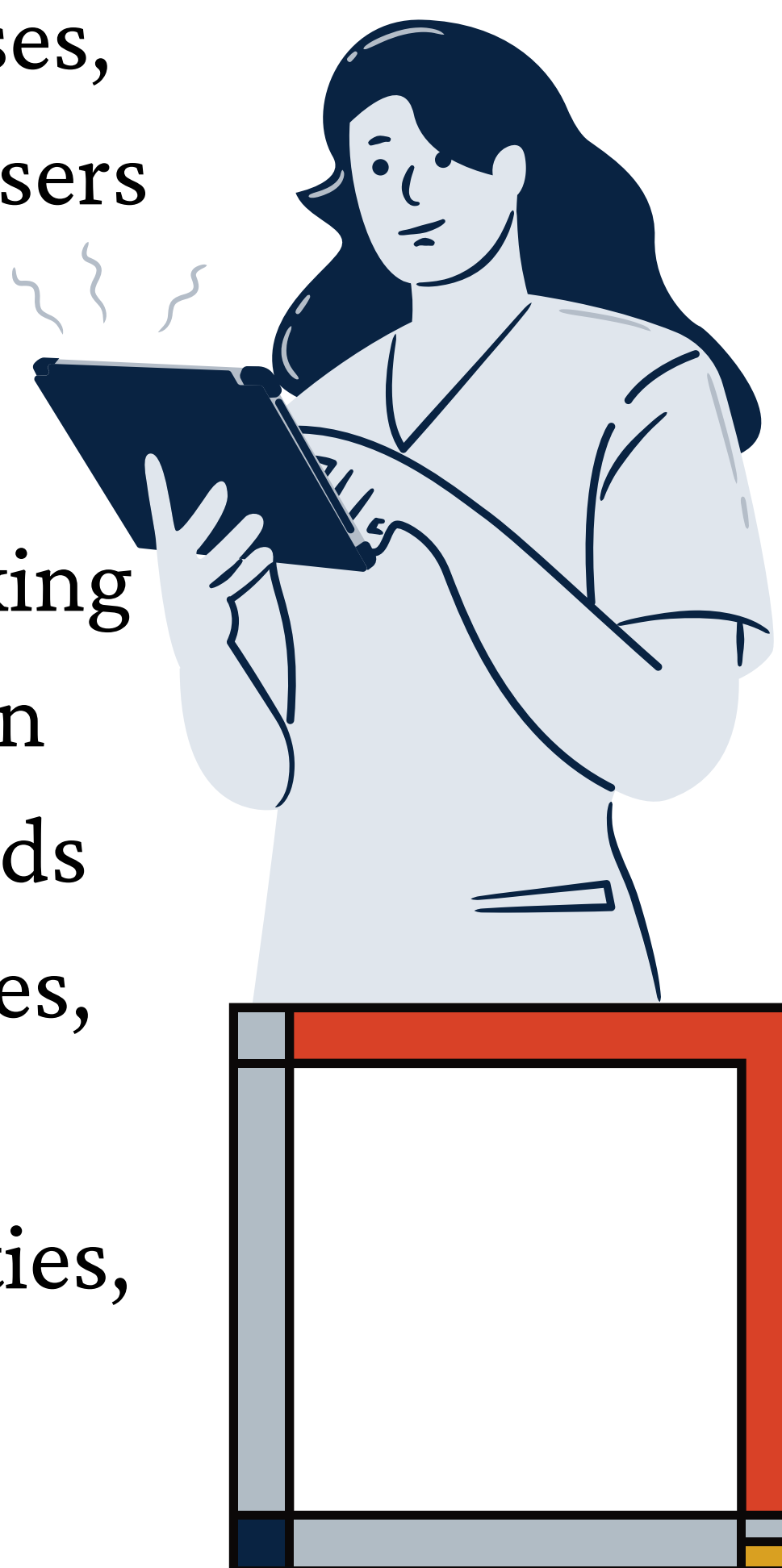
Users have to verify that their products meet their needs or seek a health practitioner to determine what products are appropriate or what technologies are out there. Ultimately, users have little guidance to help in the selection process for suitable products and technologies. To resolve this issue, research into user information needs can allow e-commerce websites to structure their user interfaces to adaptively meet the demands of these groups.

Objectives

This research seeks to answer:

- What information do users want when selecting medical and assistive products and technologies from e-commerce websites?,

- Can this information be given by e-commerce websites?, and

- Does providing this information through adaptive e-commerce user interfaces result in more informed and satisfying purchases?
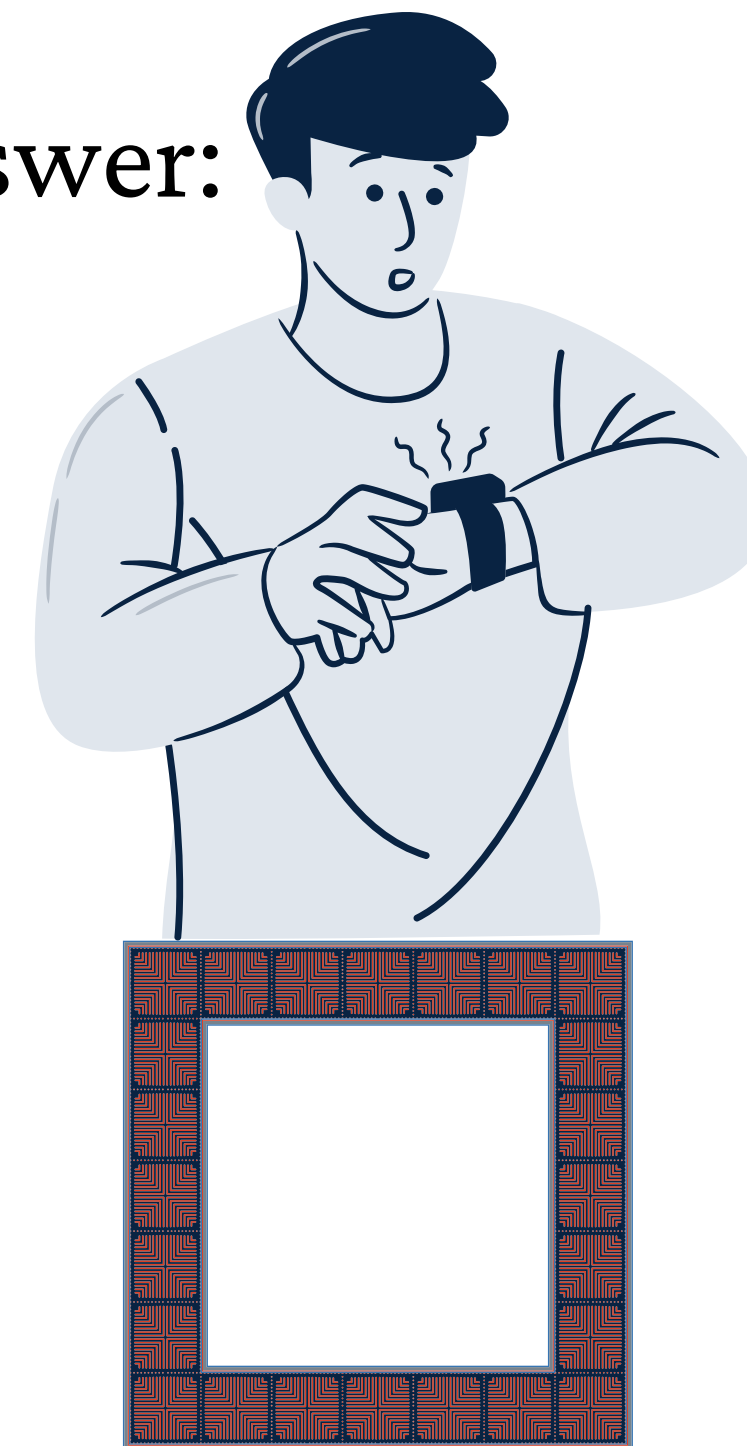
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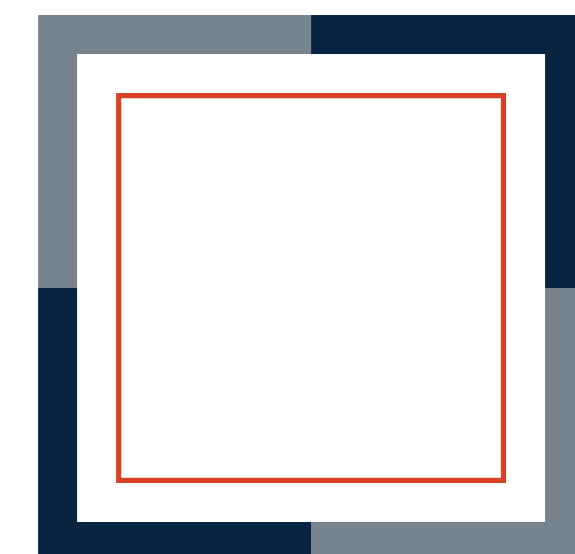
My research will simplify and expedite selection of healthcare products and technologies by supporting decision-making for users when using e-commerce websites. Specifically, design choices that provide informative details will be explored and tested, so it can improve the e-commerce product selection experience by reducing frustration.

While this research will explore gaps in the literature, it is limited by a small sample size and sparse theoretical background.

Methods:

1 Research will be conducted in four phases. First, a literature search is performed on the consumer behaviour of users, especially regarding medical products and e-commerce. User profiles will be built to outline decision-making behaviour, information-seeking behaviour, biases, and other parameters from the literature.

2 The second phase will utilize the user profiles to evaluate popular e-commerce websites' user interfaces and identify areas which promote and inhibit how users select medical and assistive products and technologies (i.e. legibility, navigation, utility).

3 The third phase will use the results of the second phase to build a mock-up based on a popular e-commerce website. This mock-up will have modules and extensions intended to provide additional information on products.

4 Finally, a small usability study of 10-20 participants will be conducted with the mock-up. Recording software will be used to document participants' thoughts and actions as they evaluate the mock-up through a think-aloud protocol.

Acknowledgements:

Authors:

1. **Ryan Kletke,** B.Sc., University of Victoria, Victoria BC
2. **Elizabeth Borycki,** RN, HBScN, MN, PhD, University of Victoria, Victoria BC