SUSTAINABILITY SCHOLARS PROGRAM

Summer 2021 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the Sustainability Scholars Program website to learn how the program works and to apply.
- Be sure to review the application guide to confirm your eligibility before applying.

Applications close at midnight on Sunday January 31, 2021.

Research project title
Can smart speaker technology make energy management more interesting? Defining the essential features that drive desired energy conservation outcomes.

Project description

Overview
Energy management for most people is a low interest topic, but does it need to be? With the advent of Smart Speaker/voice technology and artificial intelligence (AI), does energy consumption feedback have the potential to get a whole lot more interesting? Furthermore, can the use of this technology transform the way people interact with conservation programs? Can gamification and AI take the perceived "work" out of improving energy literacy and adopting conservation best practices? Smart Speakers provide an engaging, easy to access platform for interaction around the topic of energy management, but it is unclear what drives successful outcomes. How important are factors like; the entertainment aspect of the interaction, gamification aspects of the interaction, the use of AI/analytics in the interaction, the personalised nature of the interaction or the immediacy of the interaction in meeting the desired outcome of energy conservation behaviour change?

Purpose of the Project:
The use of Smart Speakers as an interaction channel has been used to varying degrees by several utilities and municipalities around North America. BC Hydro would like to learn from these jurisdictions, to determine what are the most successful applications of voice for energy management outcomes. In addition, BC Hydro would like to learn from sectors outside of utilities & energy to understand what are the critical design features of a Smart Speaker application that drive engagement and behavioural change. The outcome of this project will help to determine next steps for developing voice applications to increase energy literacy and drive energy conservation behavioural change/action.

Research will include:
- An environmental scan of smart speaker uses across utilities and several other sectors (such as banking, insurance, education, entertainment, etc.)

- An analysis/comparison of the best smart speaker app design features that could be applied/leveraged to influence behaviour change
    - Consideration for aspects such as:
        - what makes the voice app user experience engaging?
            - features, design aspects, multi modal aspects
        - what methods/tools are used to encourage usage?
        - levels of personalisation in the app content/user experience
        - gamification techniques
        - range of capabilities of the app
- Interviews with smart speaker app designers and industry experts to learn more about critical design features, best practices, future functionality, etc.
- Time and resources permitting, try out and test some of the voice apps/tools to understand what drives their success/usefulness.
- Recommendations on what areas to focus on (such as key design features and other signification considerations) in a smart speaker app design to encourage the desired energy management behaviour changes.

Deliverables

- The Scholar will deliver a final report containing a summary of their completed work complemented by a final presentation to key stakeholders. The report should include;
    - The results of the environmental scan
    - A summary of the information learned through expert interviews
    - Review of a range of successful smart speaker app designs across several sectors, including a comparison of the features and the qualities that make them engaging and addictive.
    - An analysis/recommendation of how these learnings can be applied in an energy conservation/energy management smartspeaker application.
    - An analysis/recommendation of how a smart speaker app could best engage the selected population segment and lead to behaviour change
    - A list of ideas for smart speaker app use cases or functions
    - Recommendations on next steps
- A final report or executive summary for the online Scholars Project Library

Time Commitment

- This project will take **350** hours to complete.

- This project must be completed between **May 3 and August 13.**

- The scholar is to complete hours between **8am – 5pm, on weekdays**,

- The scholar is to define a jointly agreed upon work plan and timeline for the key deliverables of the report.

Required/preferred Skills and Background

☒ Excellent research and writing skills

☒ Interest in energy conservation an asset

☒ Understanding of energy management best practices in residential settings an asset

☒ Interest in new technology; specifically, AI, smart home tech an asset

☒ Interest in or understanding of the smart speaker ecosystem of; products, services and vendors an asset

☒ Interest in, or understanding of the principles of gamification

☒ Interest in, or understanding of the principles of behavioural change

☒ Familiarity with research methodologies and survey techniques

☒ Familiarity with conducting online focus group research, an asset

☒ Comfortable interacting with strangers to conduct over the phone/WebEx/Zoom surveys/interviews

☒ Deadline oriented

☒ Project management and organizational skills

☒ A creative mindset that can apply learnings from one sector/industry vertical to another.

☒ Interest in the use of smart home technology or an active user of digital assistants/smart speakers, such as Google Home/Nest, Alexa, Siri, Bixby, Car vendor systems, etc. an asset.

☒ Comfortable working with ambiguity

Applications close **midnight Sunday January 31, 2021**
Apply here: [Click here to apply](#)
Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 19. [Click here for details and to register.](#)

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae

https://www.grad.ubc.ca/current-students/graduate-pathways-success

https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services