

Title: Digital Equity in Beasley

First Text Box:

Title - Purpose

Description: To propose Wi-Fi technologies that the Beasley Neighbourhood Association (BNA) can use to provide accessible public internet with strong and stable connectivity in order to reduce the digital equity divide in Hamilton, ON.

Second Text Box to the Left:

Title - BNA Goals

Description: The first is to provide access to high-speed internet. Another goal is to provide consistent and reliable Wi-Fi. A third goal is to enable the Beasley community to complete technology-related tasks related to work and school.

Third Text Box to the Right:

Title - Digital Equity Benefits

Description: One benefit is to promote employment opportunities by learning technology related skills and having access to tech. A second benefit is that digital equity would improve education in schools that are reliant on technology. A third benefit is that locals can maintain connection with the community.

Fourth Box:

Title - The Three Options

Description - There are three alternatives suggested for the BNA to implement as part of a future project. The first option is the use of MESH Networks which consists of multiple mesh nodes working together to create a large wireless Wi-Fi system. The second option is the use of Starlink Receivers which is a satellite connected to a power supply and router provided by SpaceX. The third and final option listed are hotspots which are an internet router that wirelessly provides Wi-Fi for individuals in close proximity to the router. Below these three options is a disclaimer that states "As with every endeavour, there are risks associated with each alternative that need to be considered."

Fifth Box to the Left:

Title - MESH Networks

Description: The benefits of MESH networks are that it limits the amount of 'dead spots' and connection issues. They cost \$109 per point. Included is an illustrated image of a MESH network.

Sixth Box to the Right:

Title - Hotspots

Description: Hotspots are strategically located in Community centers and they have a range of 1000 feet with 120 degree coverage. It costs \$459 per antenna. Included is an illustrated image of a hotspot.

Seventh Box:

Title - Starlink Network

Description: The benefits of a Starlink Network are that they provide an ultra-fast Wi-Fi connection and it can be set up anywhere with a view of the sky. It is also a user-friendly setup. It costs \$759 for the initial hardware cost, and \$140/month to maintain usage of the network. Included is an illustrated image of a Starlink receiver.

Eight Box:

Title - City Enrichment Fund

Description: Funding granted by the city of Hamilton will enable the BNA to support projects that help Hamiltonians bridge the gap in digital equity. These projects further promote local efforts to educate and provide opportunity to residents.

Bottom of Infographic:

*Included is the logo for CityLAB Hamilton and a logo for Redeemer University.

Team Members: Julia Bootsma, Dan deGelder, Alissa Heagy, Elisabeth Krstevski, and Rylan Vanderwoude.

Course: CTS-410 Core Capstone Experience

Instructors: Professor Chuck Ma

City Partners: Kelly Austen, Senior Project Manager, Digital Innovation and Juliana Weber, CityLAB Project Coordinator

CityLAB Hamilton is an innovation hub that brings together student, academic, and civic leaders to inspire, energize, and build a healthy, sustainable, and more vibrant Hamilton by co-creating and designing real-world projects. CityLAB is a collaboration between the City of Hamilton, McMaster University, Mohawk College, and Redeemer University.