

The Navigation Problem

Inefficiencies in the Telus Spark desktop navigation bar currently lead to redundant user paths and disorganized information architecture, negatively impacting the overall digital experience.

Problem Research

What's On	About
Experience Spark	The Land
Featured	Calgary Science Centre Story
Digital Immersion Gallery	Leadership
Infinity Dome theatre	Keep Calgary Curious
Open Studio	Community Access Program
Flint	Renfrew Solar Carport
RO5iE	Beakerhead
Live Science Shows	Impact Reports
Spark Science from Home	Media Room
Beakerhead	

An example of repetitive language and jargon present in TELUS Spark's current (Jan 2026) dropdown menu.

I would argue that navigation shapes the very foundation of a website and determines where a webpage is placed or organized. A website's navigation menu must be streamlined and understood by management in order to create a satisfactory user experience and to prevent 'scope creep', or in this case, 'content sprawl' (Flavián et al., 2006). Content sprawl is where menu items become redundant and disorganized because management is unsure of where to house them. The decentralized management of the TELUS Spark website has resulted in a vague, lengthy, and repetitive navigation function.

To pinpoint and justify these issues, I use a selection of Jakob Nielsen's 10 Usability Heuristics (1994). My findings show that when Heuristics

Usability Heuristics

2

Match; System and the Real World

- Speak the users' language.
- Avoid internal jargon.

6

Recognition Rather than Recall

- Information required to use the design should be visible or easily retrievable to minimize the user's memory load.

8

Aesthetic and Minimalist Design

- Extra units of information compete with relevant units, diminishing their relative visibility to the user.

2, 6, and 8 are applied to the current TELUS Spark desktop navigation bar, several issues become apparent. The use of internal jargon shows up in menu labels like "Flint" and "Rosie", which could leave visitors guessing over a lack of context. The Spark navigation may also cause visual over-stimulation for users due to its lengthy dropdown menus. Having repetitive items like "Beakerhead" appearing across multiple navigation bar categories blurs the site's identity and distracts users from being able to locate the information that they need — creating a digital experience that lacks a clear, singular plan and leads users through redundant, jargon-heavy paths.

Primary Audiences

Group 1: Telus Spark Guest Services Team

Telus spark relies on visitors, donations, and purchases as they are a not-for-profit educational organization. A website with a high degree of perceived usability “has a direct and positive relationship on the degree of consumer trust and satisfaction”. A website’s navigation bar is a key functional aspect of a website that contributes to its perceived usability. The issues with Telus Spark navigation bar detract from the user’s perceived usability of the website, which results in a negative impact on the satisfaction, trust, and therefore the loyalty and purchases given by that consumer to the Telus Spark brand (Flavián et al., Section 7, 2006). It is my assessment that the primary burden of inaccessible website information falls on the Telus Spark Guest Services Team. They must manage the resulting consumer dissatisfaction or increased questions because of a lack of accessible information.

Group 2: Parents & Teachers

Parents and Teachers were identified as the users who struggle the most with the Telus Spark website (Marisa Wong, Jan 26, 2026). The site’s navigation does not use categories that are familiar to the user, has lengthy dropdown menus, and suffers from redundant menu items that interfere with engagement and detract from the essential information that parents need to know, such as knowing which exhibits are open or closed to plan a visit with their children or class (Nielsen, 1994). Navigation bar issues lead to increased cognitive effort being used by website visitors, missed information, and a tiring user experience which does not encourage future website visits or on-site family or class visits (Flavián et al., 2006).

Theoretical Grounding

Jakob’s Law

Users prefer new sites to work the same way as the ones they already know, meaning designers should leverage familiar patterns so users can focus on their tasks rather than learning new systems (Yablonski, n.d.).

My navigation bar mimics TELUS Spark’s dropdown menu design. Since users expect my navigation bar to work like other sites they are familiar with, my design helps facilitate user experiences where users can focus on their tasks rather than on learning new models.

Cognitive Load Theory

Users have a limited capacity for processing information at one time, meaning that overly complex interfaces increase mental effort and impede task completion (Yablonski, n.d.).

The current TELUS Spark navigation bar demands excessive mental effort from users through its lengthy dropdown menus and jargon-heavy labels. By streamlining menu categories and using plain, familiar language, my design lowers the cognitive demand placed on users, allowing them to navigate the site more efficiently.

Choice Overload

Presenting users with too many options can lead to decision paralysis, ultimately making it harder for them to complete their intended tasks (Yablonski, n.d.).

My final design trimmed redundant menu items and consolidated overlapping categories that created confusion rather than clarity. By reducing and reorganizing these options, my design gives users a clearer, more decisive path through the navigation menu.

Design Process

1

To create the labels for this iteration, I analyzed the original TELUS Spark Navigation bar and consolidated the current items and categories into menu items that could house more specific subjects while reducing redundancy.

Plan Your Visit	Experience Spark	Programs	Our Mission	Get Involved
Tickets & Admission	The Science Halls	For Schools	The Land & Reconciliation	Donate
Hours & Location	Dome Theatre Shows	Summer & Day Camps	Our Story & Leadership	Volunteer
Navigating Spark	Digital Art Gallery	Indigenous Education	Sustainability	Careers
Dining & Shopping	Live Science Shows	Kids' Museum & Play	Impact & Media	Community Access & Requests
	Robot Demonstrations	Kids' Group Programs & Parties		
	Featured Events			

2

For my second iteration, I applied insights received from my first usability test and adjusted the navigation menu content after I consulted with Marissa Wong, the representative for TELUS Spark.

Plan Your Visit	Experience Spark	Programs	Our Mission	Get Involved	Indigenous Science
Tickets & Admission	The Science Halls	For Schools	Our Story & Leadership	Donate	Programs & Education
Hours & Location	Dome Theatre Shows	Summer & Day Camps	Sustainability	Volunteer	The Land & Reconciliation
Navigating Spark	Digital Art Gallery	Kids' Museum & Play	Impact & Media	Careers	
Dining & Shopping	Live Science Shows	Kids' Group Programs & Parties		Community Requests	
	Robot Demonstrations				
	Featured Events				

3

In my high-fidelity prototype, I further simplified menu labels, for example shortening ‘community requests’ to ‘requests’ under the ‘Get Involved’ category. I also conducted a deeper analysis of the source material to ensure all TELUS Spark navigation content was accounted for, which led to the addition of new menu items not present in earlier iterations. This prototype also features functional dropdown menus.

Plan Your Visit	Experience Spark	Indigenous Science	Programs	Get Involved	About
Tickets & Admission	Featured Events	Programs & Education	For Schools	Donate	Our Story & Leadership
Hours & Location	Science Galleries	The Land & Reconciliation	Summer & Day Camps	Careers	Sustainability
Navigating Spark	Dome Theatre Shows	Community Relationships	Kids' Programs & Parties	Volunteer	Impact & Media
Dining & Shopping	Kids' Museum & Play			Requests	
	Live Science Shows				
	Our Robots				

4

In my final design, after my second usability test, I applied my gathered insights in the form of renaming the ‘Experience Spark’ category to ‘Visit Us’. Additionally, I moved ‘For Schools’ from ‘Programs’ to ‘Plan Your Visit’. I added visual design aspects to improve readability, reduce the overlap of dropdown menus, and added some design aspects currently used for the TELUS Spark Navigation bar.

Plan Your Visit	Visit Us	Indigenous Science	Programs	Get Involved	About
Tickets & Admission	Featured Events	Programs & Education	Summer & Day Camps	Donate	Our Story & Leadership
Hours & Location	Science Galleries	The Land & Reconciliation	Kids' Programs & Parties	Careers	Sustainability
Navigating Spark	Dome Theatre Shows	Community Relationships		Volunteer	Impact & Media
For Schools	Kids' Museum & Play			Requests	
Dining & Shopping	Live Science Shows				
	Our Robots				



Scan to View Prototype:

Overview of User Testing & Key Insights

Stage 1: Open Card Sort

Five senior information design students participated in an in-person open card sort using 22 printed navigation labels derived from the original TELUS Spark navigation bar. Participants organized the cards into groups and labelled them independently, while think-aloud commentary and a post-survey captured qualitative feedback. A success threshold of 3/5 participants was used to validate category alignment.

Key insights:

- The average participant created 5 categories, confirming the proposed high-level architecture matched users’ natural mental capacity
- ’Donate’ and ’Volunteer’ were more intuitively placed under ’Our Mission’ than ’Get Involved’.
- Science galleries were expected to be grouped together rather than listed separately.
- ’Community Access & Requests’ was flagged as too lengthy, leading to it being shortened to ’Requests.’
- The ’Indigenous Science’ category was preserved as a distinct high-level item throughout.

Stage 2: Tree Test

Six non-information design participants completed an online tree test using UX Tweak, navigating the high-fidelity prototype through two scenario-based tasks. Quantitative metrics included task success rate, directness, time on task, and path analysis, supported by written post-study feedback.

Key insights:

- Users consistently defaulted to ’Plan Your Visit’ for both tasks, suggesting it functions as a dominant mental anchor.
- The separation between ’Programs’ and ’Plan Your Visit’ caused confusion and indirect navigation paths.
- Terms like ’Experience Spark’ were flagged as vague, reducing information scent and contributing to backtracking behaviour.

Theoretical Implementation Plan

A key advantage of my proposed design is its scalability. Each dropdown category has been intentionally structured to accommodate future content without disrupting the overall navigation hierarchy. This means that as TELUS Spark grows its programming and adds new pages, items can be added within existing categories rather than creating new top-level navigation items. This directly prevents the content sprawl that currently affects the site. Through the testing of my prototype, I feel that the redesign of the TELUS Spark navigation bar utilizes increasingly plain language, concise dropdown menus, and has fewer repetitive links so that user’s find that their website experience, and satisfaction with the Telus Spark brand, continues to grow.

Technological Considerations

Before my proposed navigation can be adopted, it would be important to identify what website platform or content management system (CMS) TELUS Spark currently uses, such as WordPress, Squarespace, or a custom-built solution, and evaluate whether it is compatible with my proposed navigation structure. Understanding the CMS would determine how much flexibility exists for restructuring the navigation and whether the dropdown functionality I designed in Figma can be replicated within the platform.

Required Skillsets

From there, a front-end developer would be needed to translate my Figma prototype into functional code and integrate it into the live site. The Figma file would serve as the developer’s blueprint, providing exact specifications for layout, labels, and dropdown behaviour.

Reflection & Development

This project allowed me to make meaningful progress in streamlining the original TELUS Spark navigation bar. The content featured in the prototyped navigation bar was effectively condensed into 6 categories and 23 items, compared to the original 8 categories and 53 items. Labels within my prototype are mostly familiar to users and do not overwhelm them with information.

Plan Your Visit	What's On	Indigenous Science	For Adults	For Schools	For Kids	Get Involved	About
Admission	Experience Spark	Community Relationships	Team Builders	Overview	Purple Galaxy Pass	Donate	The Land
Operating Hours	Featured	Science at Spark	Spark After Dark	Field Trips to Spark	Creative Kids Museum	Volunteer	Calgary Science Centre Story
Map of Spark	Digital Immersion Gallery	Indigenous Science Education		In Your Classroom	Camps	Community Requests	Leadership
Parking	Infinity Dome theatre	Reconciliation at Spark		Direct From the Operating Room	Brainasium	Supporters	Keep Calgary Curious
Shop and Dine				Birthday Parties		Careers	
Accessibility	Open Studio	Indigenous Science Night		Operation Minerva	Sleepovers		Community Access Program
	Flint	National Day For Truth and Reconciliation		Open Minds Science School	BLUprint		Renfrew Solar Carport
	ROSE			Field Trip Guidebook			Beakerhead
	Live Science Shows						Impact Reports
	Spark Science from Home						Media Room
	Beakerhead						Contact

Plan Your Visit	Visit Us	Indigenous Science	Programs	Get Involved	About
Tickets & Admission	Featured Events	Programs & Education	Summer & Day Camps	Donate	Our Story & Leadership
Hours & Location	Science Galleries	The Land & Reconciliation	Kids' Programs & Parties	Careers	Sustainability
Navigating Spark	Dome Theatre Shows	Community Relationships		Volunteer	Impact & Media
For Schools	Kids' Museum & Play			Requests	
Dining & Shopping	Live Science Shows				
	Our Robots				

The original Spark nav. bar (top) and the revised design (bottom)

However, I feel that more extensive usability testing beyond my capabilities and resources as a solo student is needed. For future developments, more intensive tree testing should be pursued, as I was limited by a free plan that only allowed me to give users two tasks. Additionally, a greater number of participants in both phases of usability testing would provide more obvious patterns and insights into navigational features that require further refinement.

Particular ideas that were out of scope, but that I would love to develop in the future, include designing webpage layouts to accompany the refined navigation menu. Designing webpage layouts would allow me to further explore information architecture and find increased opportunities to create user friendly organization. I would also like to incorporate additional navigational cues into my design, such as breadcrumbs, ALT text, and keyboard navigation. Finally, I want to design a 'tickets' button, similar to the one seen in the current TELUS Spark navigation bar, that redirects users to relevant sales information. Once those developments are completed, I would look into adapting my designs to be mobile-friendly, as opposed to exclusively desktop.