Co-Design of a Hierarchical Assistive Device for Non-Visual Internet Navigation.

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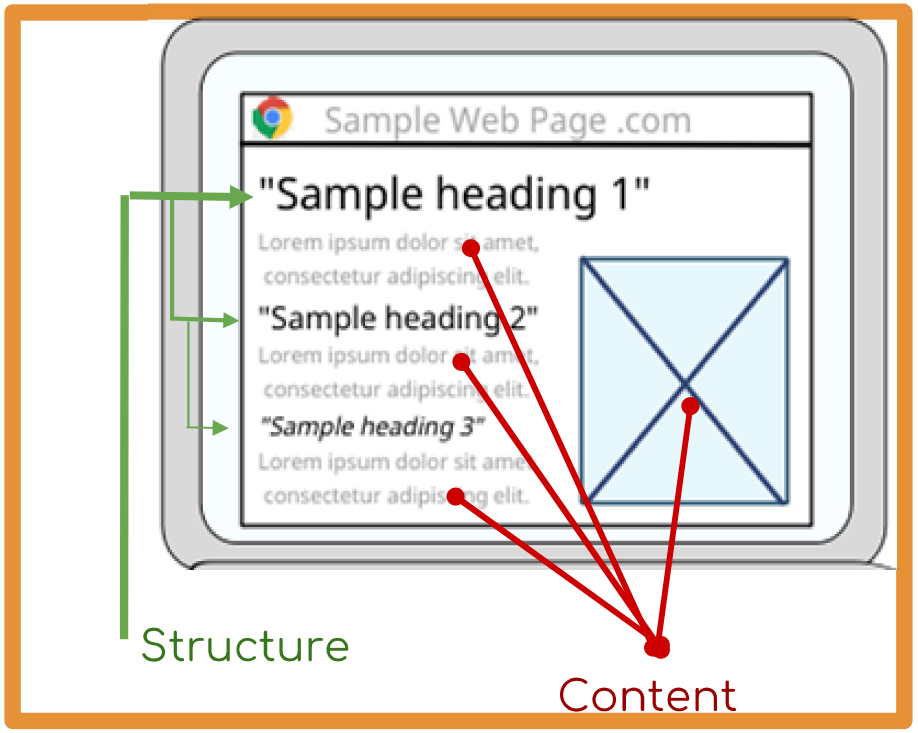
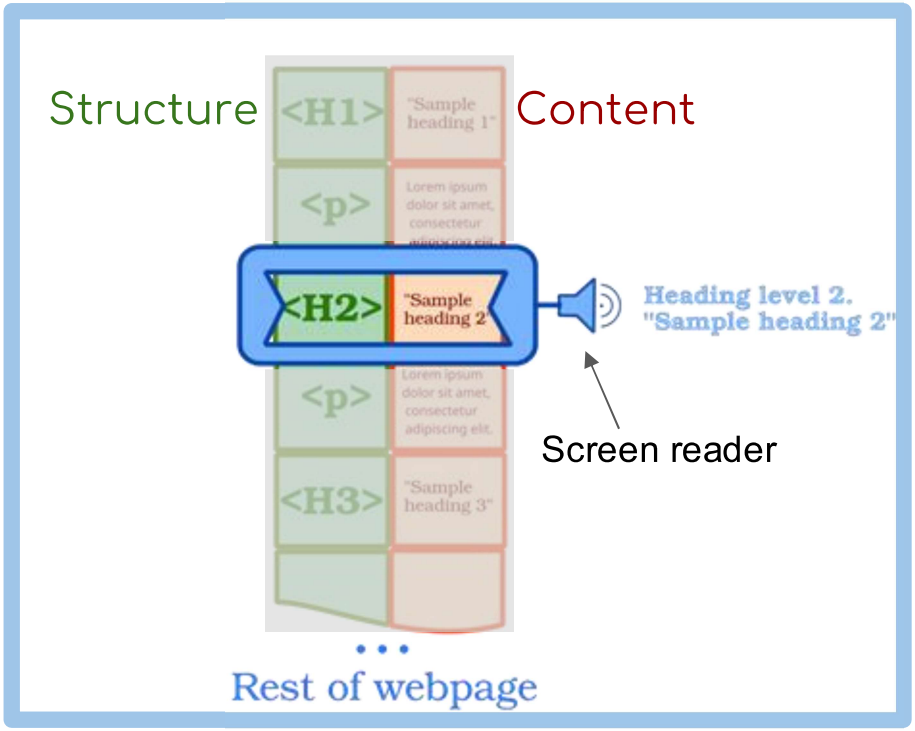
Visual vs Screen Reader Internet Experience.

Visual presentation



Can look anytime at:
Structure & Content

Aural presentation

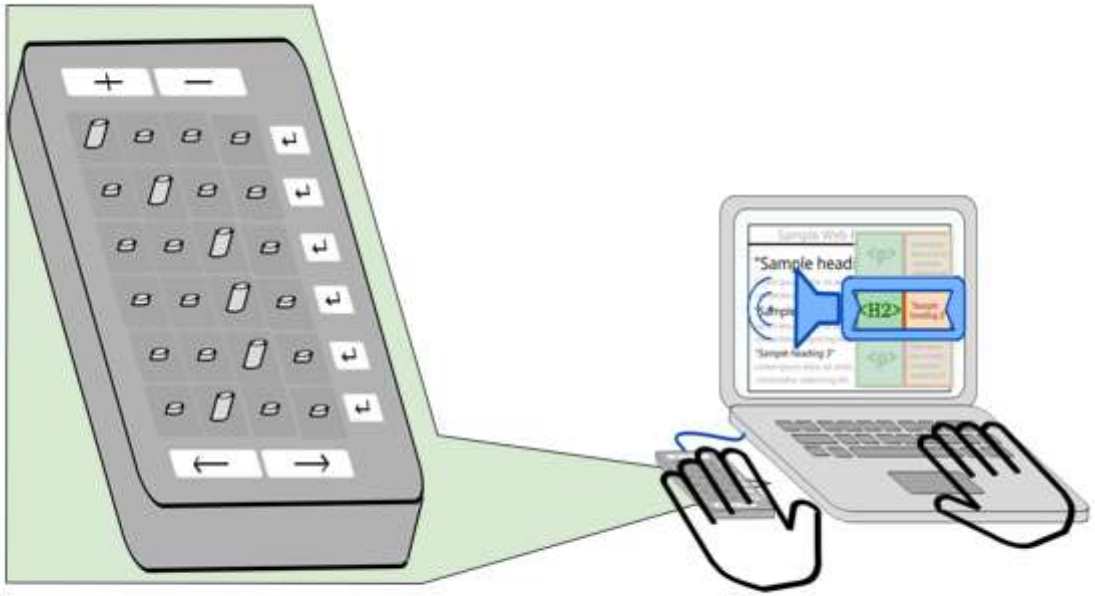


Has to discriminate and remember :
Structure & Content

Complementing Screen Reader Internet Experience.

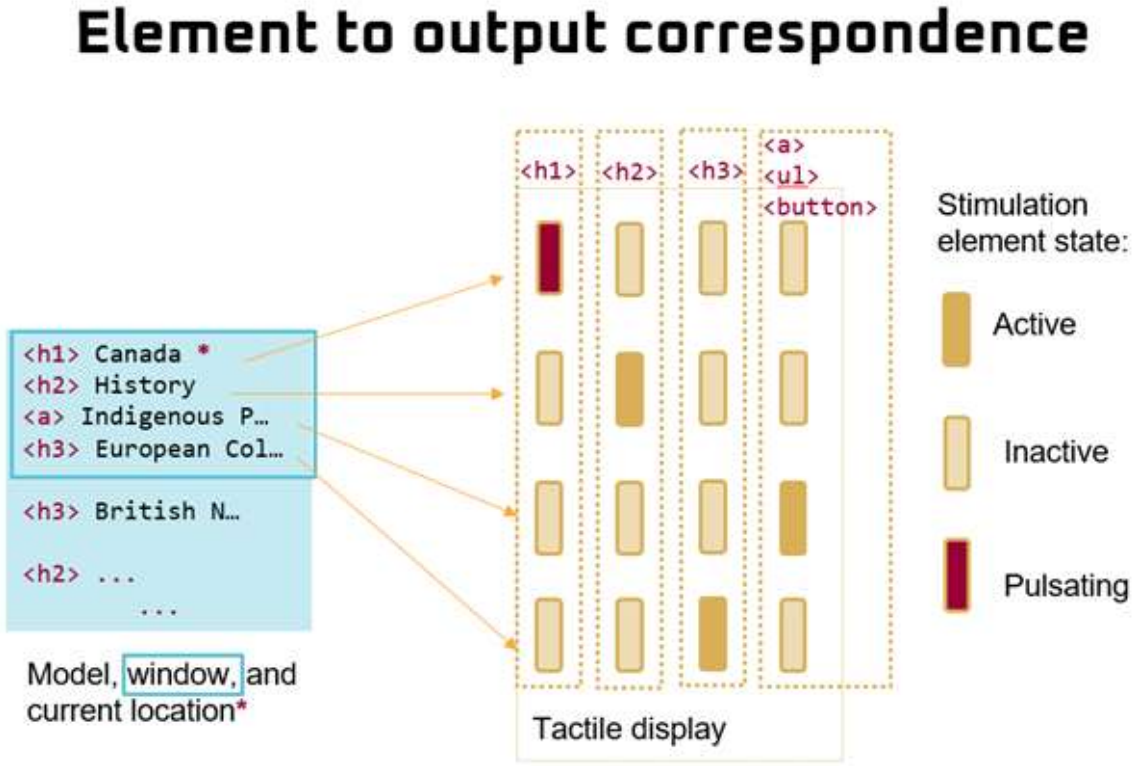
SR companion device

Aural presentation



Can feel Structure
while listening to Content

Page hierarchy to tactile output



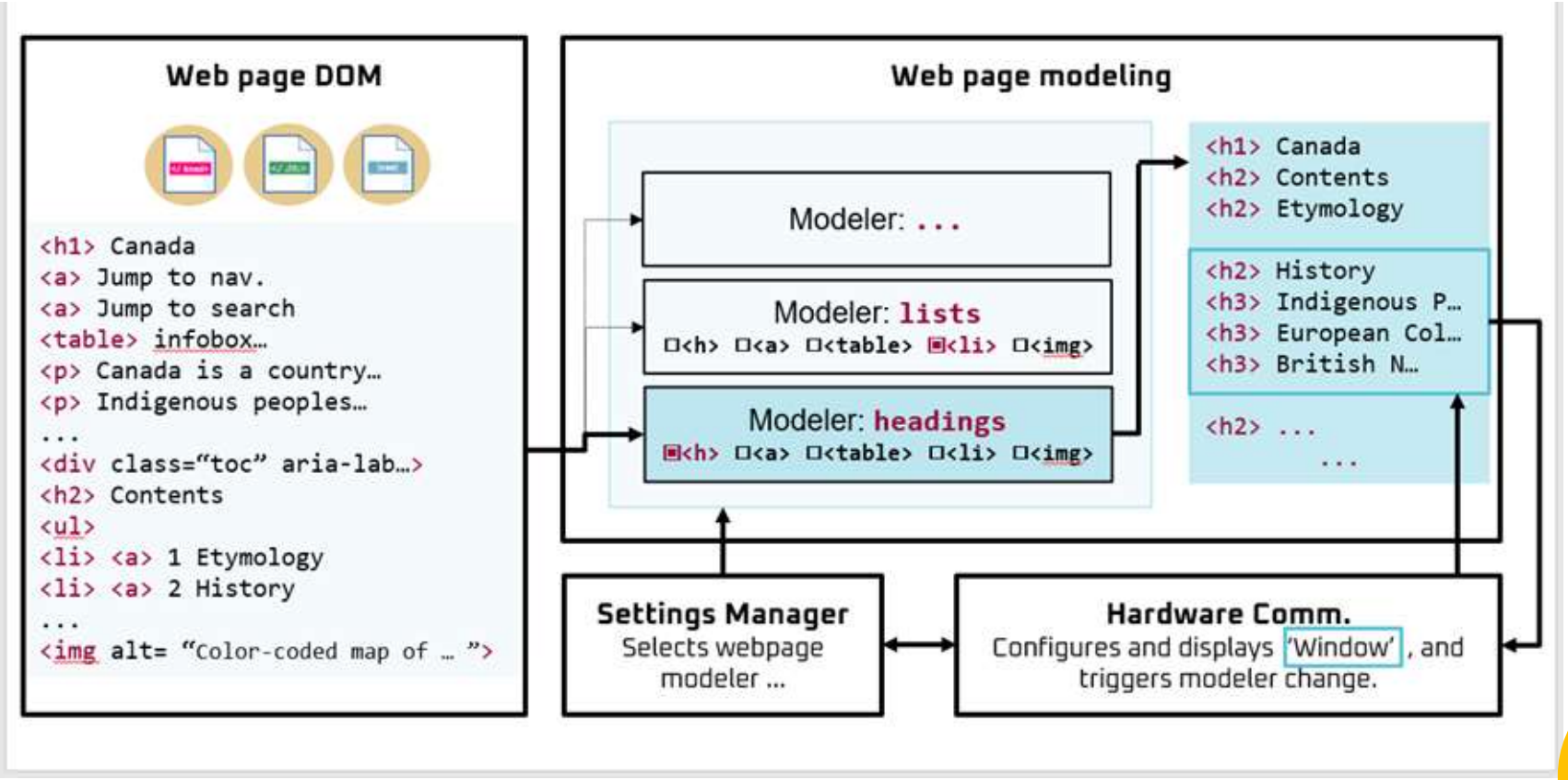
Use cases:

1. Simple navigation

1. Learning device

1. ~~Extension to the SR functions (AI)~~

System architecture



Operation modes:

- Basic
- Favorites
- ~~Changes~~

interaface gesture \ operation mode			Main Operation Modes		
			Basic	Favorites	Changes
Device stimulation points	Element to output mapping	1st	<h1>^1		
		2nd	<h2>^1		
		3rd	<h3>^1		
		4th	<a> <table><img><regions>or<form controls>^1		
Navigation buttons gestures	Row buttons	T	voice row element		
		TT	navigate (scroll cursor) to row element		
		PH	save row element to favorite		
		TPH	show only elements of same type		
	>	T	Navigate (scroll cursor) to next element		
		TT	Navigate (scroll cursor) to next different element		
		PH	Navigate (scroll cursor) to previous element		
		TPH	Navigate (scroll cursor) to previous different element		
Display buttons gestures	/\ , \/	T	Show Next/Previous window		
		TT	Show Next/Previous 5 windows		
		PH	Show First/Last window		
		TPH	Auto-present all windows from/up to current without navigating		
	+ , -	T	Display more/less elements on window		
		TT	Display max/minimal elements on window ^1		
		PH	Group elements by type (type view) / enter element explorer for the current selected element		
		TPH	Increase/decrease verbosity level & AI output readback ^1		
	*	T	Cycle through the next operation mode		
		TT	Cycle through the next 'element explorer' operation mode		
		PH	Trigger keyword search ^1		
		TPH	Go to settings		

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inclusive society

https://societeinclusive.ca/en/projets/dispositif-assistance-navigation/

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