

# Dementia and Technology

**Regional adaptation of a Computer Interactive Reminiscence Conversation Aid to Support Persons Living with Dementia** S. Otalvaro Zapata, E. Rossnagel, A. Phinney, J. Jakobi, A. Astell, and S. Freeman. *Gerontechnology* 25(s)

**Purpose** Dementia affects over 55 million people worldwide and affects everyday communication, relationships and quality of life for persons living with dementia and their caregivers. Reminiscence therapy, increasingly delivered through digital multimedia, can support mood, identity and engagement. CIRCA (Computer Interactive Reminiscence and Conversation Aid) is a touchscreen-based system that uses photos, video and music to facilitate conversation and reduce caregiver strain, but generic content may not resonate across diverse cultural and geographic contexts [1], making co-creation and regional adaptation critical. Building on Canadian work with CIRCA [2], the CIRCA-BC project aims to co-create and evaluate region-specific content for British Columbia and to identify design principles for culturally grounded digital reminiscence prompts. **Method** A participatory co-design approach was used to create CIRCA-BC. Older adults with and without dementia took part in two focus groups. In the first session, participants engaged with existing CIRCA materials, discussed cultural relevance, and suggested BC-specific additions. In the second session, participants reviewed the updated CIRCA-BC, provided further insights, and voted on which new images they found most meaningful. Sessions were recorded, transcribed, and analyzed thematically. **Results and Discussion** Forty-two older adults participated in the focus groups. Five interrelated themes described what made images feel “reminiscent”: place-marked orientation, rules and regulations, movement and borders, modest abundance and material limits, and infrastructures of everyday life. Voting patterns reinforced these themes, with near-unanimous endorsement for cues such as *Don Messer’s Jubilee*, Christmas oranges wrapped in tissue paper, and Sears catalogues. As illustrated in Figure 1, prompts reflecting these thematic elements consistently received the highest reminiscence ratings across content categories, demonstrating convergence between thematic analysis and participant voting. Together, these findings show that BC-specific prompts reliably elicited layered reminiscence when they combined recognizable places, visible social rules, and familiar infrastructures of everyday life. Engagement was inferred as a qualitative indicator of effective reminiscence, based on sustained discussion, spontaneous elaboration of personal memories, and consistent participant endorsement of regionally specific cues.

## References

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*Figure 1. Reminiscence ratings for CIRCA-BC image cues by theme and specific prompt.*

	< 25% reminiscent	≈ 50% reminiscent	>75% reminiscent	100% reminiscent	
<b>Nights Out</b>	Community Concert with Dancing	Movie Theatre Marquee and Crowd	Wooden Cinema Chairs	Drive-In Restaurant with Classic Cars	Legion Dance – Older Couple
<b>Sports and Recreation</b>	Track and Field – Hurdle Race	Vancouver Canucks Players	Ice Hockey Home Game	Cross-Country Skiing at Winter Lodge	Leather Ice Skates
<b>Radio and Music</b>	CBC Radio Flashback Quiz Show	The Lone Ranger Rides Again - Poster	Battery Portable Radio	Elvis Presley in Jailhouse Rock	Don Messer’s Jubilee
<b>Holidays</b>	People Disguised as Easter Bunny with Children	Christmas Tree with Candles	Eaton’s Vancouver Christmas Lights	Children wearing hats with Easter Baskets	Christmas Oranges in Tissue Paper
<b>TV and Movies</b>	Black and White TV to Color TV	Hockey Night in Canada Sportscasters	I Love Lucy Poster	Television with Rabbit Ear Antennae	Transmission Coronation of Queen Elizabeth II
<b>School</b>	Wooden Rural Schoolhouse	One-Room Schoolhouse with Students	Wooden School Desk with Inkwell	School Class Portrait	Schoolchildren Playing Jump Rope
<b>Shopping</b>	Ingledew’s Shoes Storefront	Women with Grocery Carts in a Supermarket	Simpsons-Sears Department Store	Preserve Jars with Paper-Tied Lids	Simpsons-Sears Men’s Catalogue
<b>Worklife</b>	Children Fruit Picking Outdoors	Babysitting – Girl with Baby in Crib	Grocery Store Worker Stocking Shelves	Teacher Leading Classroom Lesson	Nursing Women in Uniforms with Hat
<b>Travel</b>	Cruise Ship in Harbour	Coastal Ferry with Passenger	Blank and White Airplane Passengers Disembarking	Downtown Vancouver City Bus	Classic 1950s Car in Exhibition