

Thank you for participating in our study “**Toward Developing an Assistive Technology Framework for Older Adults with Dementia: A User-Centred Design Approach**”.

The purpose of the survey is to help us address the different needs of individuals living with dementia and their caregivers from technology as influenced by different social factors, such as education, age, gender, religion and cultural backgrounds. The survey is expected to help technology developers to develop more useful and effective devices and systems that can help caregivers to provide better care and help people with dementia to be more independent. Therefore, your responses are important to us. Please attempt to answer every question. The survey will take approximately 30 minutes to complete. Thank You!

Note: The Caregiver in this content refers to family members or friends who are currently taking care of people with dementia.

Section A – Caregiver Demographics

To begin, we would like to know more about you, the Caregiver. Please tell us about yourself by responding to the following questions.

1. Your age in years: _____

2. Gender:

☐ Male

☐ Female

3. Marital Status:

☐ Married

☐ Living common-law

☐ Divorced

☐ Separated

☐ Widowed

☐ Single-Never Married

4. In what Country were you born? _____

5. If you were not born in Canada, what year did you come to Canada? _____

6. Race/Ethnicity:

- ☐ White
- ☐ Aboriginal
- ☐ Black
- ☐ Hispanic/Latin
- ☐ East Asian (e.g., Chinese, Korean, Japanese, etc.)
- ☐ South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
- ☐ Southeast Asian (e.g. Vietnamese, Cambodian, Malaysian, Laotian, etc.)
- ☐ West Asian (e.g., Iranian, Afghan, etc.)
- ☐ Other, please specify _____

7. What language do you speak most often at home?

8. Do you speak any other languages on a regular basis at home?

- ☐ No
- ☐ Yes, please specify _____

9. Highest level of education:

- ☐ Less than a high-school diploma
- ☐ High School Diploma or the equivalent (GED)
- ☐ College Diploma
- ☐ University Degree
- ☐ Post-graduate Degree

10. Employment Status:

- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Unemployed
- ☐ Retired
- ☐ On disability
- ☐ Other, please specify _____

11. Household income before taxes:

- | | |
|--|---|
| <input type="checkbox"/> Less than \$15,000 | <input type="checkbox"/> \$55,001 - \$65,000 |
| <input type="checkbox"/> \$15,000 - \$25,000 | <input type="checkbox"/> \$65,001 - \$75,000 |
| <input type="checkbox"/> \$25,001 - \$35,000 | <input type="checkbox"/> \$75,001 - \$85,000 |
| <input type="checkbox"/> \$35,001 - \$45,000 | <input type="checkbox"/> \$85,001 - \$95,000 |
| <input type="checkbox"/> \$45,001 - \$55,000 | <input type="checkbox"/> \$95,001 - \$100,000 |
| | <input type="checkbox"/> Over \$100,000 |

12. In general, how do your family finances work out at the end of the month?

- ☐ Not enough to make ends meet
- ☐ Just enough to make ends meet
- ☐ Some money left over
- ☐ More than enough

13. In what type of dwelling are you now living?

- ☐ Single detached house
- ☐ Townhouse
- ☐ Duplex
- ☐ Condominium
- ☐ Apartment
- ☐ Mobile home or trailer
- ☐ Other, please specify _____

14. Is this dwelling:

- ☐ Owned by you or a member of your household
- ☐ Rented by you or a member of your household

15. Your postal code will help us determine what geographic area you live in. What are the first three digits of your postal code?

— — —

16. What, if any, is your religious preference?

- | | |
|---|--|
| <input type="checkbox"/> No Religion (Agnostic, Atheist) | <input type="checkbox"/> Lutheran |
| <input type="checkbox"/> Anglican (Church of England, Episcopalian) | <input type="checkbox"/> Mennonite |
| <input type="checkbox"/> Baptist | <input type="checkbox"/> Pentecostal |
| <input type="checkbox"/> Buddhist | <input type="checkbox"/> Presbyterian |
| <input type="checkbox"/> Greek Orthodox | <input type="checkbox"/> Roman Catholic |
| <input type="checkbox"/> Hindu | <input type="checkbox"/> Sikh |
| <input type="checkbox"/> Islam (Muslim) | <input type="checkbox"/> Ukrainian Catholic |
| <input type="checkbox"/> Jehovah's Witness | <input type="checkbox"/> United Church |
| <input type="checkbox"/> Jewish | <input type="checkbox"/> Other, please specify _____ |

17. How important are your religious or spiritual beliefs to the way you live your life?

- ☐ Very important
- ☐ Somewhat important
- ☐ Not very important
- ☐ Not at all important

18. How often do you usually attend religious services?

- ☐ Nearly everyday
- ☐ At least once a week
- ☐ A few times a month
- ☐ A few times a year
- ☐ Less than once a year
- ☐ Never

19. How long have you been currently caring for a person with dementia?

- ☐ Less than 1 year
- ☐ 1 to 2 years
- ☐ 3 to 5 years
- ☐ 6 years or more

20. Please indicate, on average, approximately how many hours per week you spend caring for a person with dementia:

Section B – Caregiver Health

In this section, we will ask you a series of questions about your health. Please answer every question by placing a check mark in the appropriate box. If you are unsure about how to answer, please provide the best answer you can.

1.

| | Excellent | Very good | Good | Fair | Poor |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| In general, would you say your health is: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. During the past 4 weeks, have you had any of the following problems with your work or during any other regular daily activities as a result of your physical health?

| | Yes | No |
|--|--------------------------|--------------------------|
| Accomplished less than you would like | <input type="checkbox"/> | <input type="checkbox"/> |
| Were limited in the kind of work or other activities | <input type="checkbox"/> | <input type="checkbox"/> |

3.

| | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| During the <u>past 4 weeks</u> , how much did <u>pain</u> interfere with your normal work (including both work outside the home and housework)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. These questions are about how you have felt and how you have been during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much time during the past 4 weeks:

| | All of the time | Most of the time | A good bit of the time | Some of the time | A little of the time | None of the time |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Have you felt calm and peaceful? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have you had a lot of energy? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have you felt downhearted and blue? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5.

| | All of the time | Most of the time | Some of the time | A little of the time | None of the time |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| During the <u>past 4 weeks</u> , how often has your <u>physical health or emotional problems</u> interfered with your social activities (like visiting with friends, relatives, etc.)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Section C – Care Recipient

Now we will ask you a few questions about the person with dementia for whom you provide care. This person will be referred to here as the “Care Recipient.” Please answer the following questions to the best of your ability.

1. What is your relationship to the Care Recipient? Is he or she your (choose one of the following):

- ☐ Father / Father-in-Law
- ☐ Mother / Mother-in-Law
- ☐ Grandfather
- ☐ Grandmother
- ☐ Husband
- ☐ Wife
- ☐ Son
- ☐ Daughter
- ☐ Sibling
- ☐ Relative (please specify) _____
- ☐ Other (please specify) _____

2. How old in years is he or she?

3. What is the Care Recipient’s Marital Status?

- ☐ Married
- ☐ Living common-law
- ☐ Divorced
- ☐ Separated
- ☐ Widowed
- ☐ Single-Never Married

4. Was the Care Recipient born in Canada or outside of Canada?

- ☐ In Canada
- ☐ Outside of Canada

5. What is the Care Recipient's primary language?

6. In what type of housing does the Care Recipient live?

- ☐ In a private household
- ☐ In supportive housing
- ☐ In an institution or care facility (such as a hospital or nursing home)
- ☐ In some other type of housing. Please specify _____

7. How close to you does the Care Recipient live?

- ☐ Lives in same household
- ☐ Lives in the same building
- ☐ Less than 10 minutes by car
- ☐ 10 minutes to 30 minutes by car
- ☐ 30 minutes to 1 hour by car
- ☐ 1 hour to 3 hours by car
- ☐ 3 hours or more by car
- ☐ Live in another province

8. During the past 12 months, how frequently did the Care Recipient receive help from paid professionals or organizations (e.g., visiting nurses, home care providers, support from community organizations)?

- ☐ Every day
- ☐ 2 to 3 times a week
- ☐ Once a week
- ☐ 2 to 3 times a month
- ☐ Once a month
- ☐ Less than once a month
- ☐ Never

9. Would you say that, other than professional care, the Care Recipient considers you to be his or her primary caregiver (the person from who he or she receives the most care and resources)?

- ☐ Yes
- ☐ No
- ☐ Not sure

10. Has the Care Recipient been clinically diagnosed with Alzheimer's disease?

- ☐ Yes
- ☐ No
- ☐ Don't know

11. If no, has the Care Recipient been clinically diagnosed with another form of dementia (e.g., vascular, or frontotemporal dementia)?

- ☐ Yes
- ☐ No
- ☐ Don't know

12. If the Care Recipient has been clinically diagnosed with Alzheimer's disease or another form of dementia, approximately how long ago was this diagnosis made?

- ☐ Less than 1 year ago
- ☐ 1 to 3 years ago
- ☐ 3 to 6 years ago
- ☐ 6 to 10 years ago
- ☐ Over 10 years ago
- ☐ Not applicable
- ☐ Don't know

13. On a scale of 0 to 10, with 0 meaning "not dependent at all" and 10 meaning "completely dependent," how dependent would you say the Care Recipient is on you for help?

0 1 2 3 4 5 6 7 8 9 10

14. The following questions were designed to reveal the everyday abilities of people who have memory difficulties of one form or another. For each activity (Numbers 1 – 20), statements A to E refer to a different level of ability.

Thinking of the last 2 weeks, check the box that represents the Care Recipient's AVERAGE ability. (If in doubt about which box to tick, choose the level of ability which represents their average performance over the last 2 weeks. Check 'Not applicable' if the Care Recipient never did that activity before they started to experience the symptoms of dementia.

| | | |
|----------------------|--------------------------|--|
| 1. Preparing food | <input type="checkbox"/> | a) Selects and prepares food as required |
| | <input type="checkbox"/> | b) Able to prepare food if ingredients set out |
| | <input type="checkbox"/> | c) Can prepare food if prompted step by step |
| | <input type="checkbox"/> | d) Unable to prepare food even with prompting and supervision |
| | <input type="checkbox"/> | e) Not applicable |
| 2. Eating | <input type="checkbox"/> | a) Eats appropriately using correct cutlery |
| | <input type="checkbox"/> | b) Eats appropriately if food made manageable and /or uses spoon |
| | <input type="checkbox"/> | c) Uses fingers to eat food |
| | <input type="checkbox"/> | d) Needs to be fed |
| | <input type="checkbox"/> | e) Not applicable |
| 3. Preparing a drink | <input type="checkbox"/> | a) Selects and prepares drinks as required |
| | <input type="checkbox"/> | b) Can prepare drinks if ingredients are left available |
| | <input type="checkbox"/> | c) Can prepare drinks if prompted step by step |
| | <input type="checkbox"/> | d) Unable to make a drink even with prompting and supervision |
| | <input type="checkbox"/> | e) Not applicable |
| 4. Drinking | <input type="checkbox"/> | a) Drinks appropriately |
| | <input type="checkbox"/> | b) Drinks appropriately with aids (e.g., straw) |
| | <input type="checkbox"/> | c) Does not drink appropriately with aids but attempts to |
| | <input type="checkbox"/> | d) Has to have drinks administered (fed) |
| | <input type="checkbox"/> | e) Not applicable |
| 5. Dressing | <input type="checkbox"/> | a) Selects appropriate clothing and dresses self |
| | <input type="checkbox"/> | b) Puts clothes on in wrong order and /or back-to-front and /or dirty clothing |
| | <input type="checkbox"/> | c) Unable to dress self but moves limbs to assist |
| | <input type="checkbox"/> | d) Unable to assist and requires total dressing |
| | <input type="checkbox"/> | e) Not applicable |
| 6. Hygiene | <input type="checkbox"/> | a) Washes regularly and independently |
| | <input type="checkbox"/> | b) Can wash self if given soap, washcloth, towel, etc. |
| | <input type="checkbox"/> | c) Can wash self if prompted and supervised |
| | <input type="checkbox"/> | d) Unable to wash self and needs full assistance |
| | <input type="checkbox"/> | e) Not applicable |
| 7. Teeth Cleaning | <input type="checkbox"/> | a) Cleans own teeth /dentures regularly and independently |
| | <input type="checkbox"/> | b) Cleans teeth /dentures if given appropriate items |
| | <input type="checkbox"/> | c) Requires some assistance, toothpaste on brush, brush to mouth etc. |
| | <input type="checkbox"/> | d) Requires full assistance when cleaning teeth |
| | <input type="checkbox"/> | e) Not applicable |

| | | |
|-----------------------------|--------------------------|--|
| 8. Bathing/ Showering | <input type="checkbox"/> | a) Bathes regularly and independently |
| | <input type="checkbox"/> | b) Needs bath to be drawn /shower turned on but washes independently |
| | <input type="checkbox"/> | c) Needs supervision and prompting to wash |
| | <input type="checkbox"/> | d) Is totally dependent and needs full assistance |
| | <input type="checkbox"/> | e) Not applicable |
| 9. Toileting | <input type="checkbox"/> | a) Uses toilet appropriately when required |
| | <input type="checkbox"/> | b) Needs to be taken to the toilet and given assistance |
| | <input type="checkbox"/> | c) Incontinent of urine OR feces |
| | <input type="checkbox"/> | d) Incontinent of urine AND feces |
| | <input type="checkbox"/> | e) Not applicable |
| 10. Transferring | <input type="checkbox"/> | a) Can get in /out of chair unaided |
| | <input type="checkbox"/> | b) Can get into a chair but needs help to get out |
| | <input type="checkbox"/> | c) Needs help getting in and out of a chair |
| | <input type="checkbox"/> | d) Totally dependent on being put into and lifted from chair |
| | <input type="checkbox"/> | e) Not applicable |
| 11. Mobility | <input type="checkbox"/> | a) Walks independently |
| | <input type="checkbox"/> | b) Walks with assistance (e.g. hold on to furniture or another person's arm for support) |
| | <input type="checkbox"/> | c) Uses aids to mobilize (e.g., cane, wheelchair) |
| | <input type="checkbox"/> | d) Unable to walk |
| | <input type="checkbox"/> | e) Not applicable |
| 12. Orientation – Time | <input type="checkbox"/> | a) Fully orientated to time /day /date etc. |
| | <input type="checkbox"/> | b) Unaware of time /day etc. but seems unconcerned |
| | <input type="checkbox"/> | c) Repeatedly asks the time /day /date |
| | <input type="checkbox"/> | d) Mixes up night and day |
| | <input type="checkbox"/> | e) Not applicable |
| 13. Orientation – Space | <input type="checkbox"/> | a) Fully orientated to surroundings |
| | <input type="checkbox"/> | b) Orientated to familiar surroundings only |
| | <input type="checkbox"/> | c) Gets lost in home, needs reminding where bathroom is, etc. |
| | <input type="checkbox"/> | d) Does not recognize home as own and attempts to leave |
| | <input type="checkbox"/> | e) Not applicable |
| 14. Communicating | <input type="checkbox"/> | a) Able to hold appropriate conversation |
| | <input type="checkbox"/> | b) Shows understanding and attempts to respond verbally with gestures |
| | <input type="checkbox"/> | c) Can make self understood but difficulty understanding others |
| | <input type="checkbox"/> | d) Does not respond to, or communicate with others |
| | <input type="checkbox"/> | e) Not applicable |
| 15. Telephone | <input type="checkbox"/> | a) Uses telephone appropriately, including obtaining correct number |
| | <input type="checkbox"/> | b) Uses telephone if number given verbally /visually or pre-dialed |
| | <input type="checkbox"/> | c) Answers telephone but does not make calls |
| | <input type="checkbox"/> | d) Unable /unwilling to use telephone at all |
| | <input type="checkbox"/> | e) Not applicable |
| 16. Housework/ Gardening | <input type="checkbox"/> | a) Able to do housework /gardening to previous standard |
| | <input type="checkbox"/> | b) Able to do housework /gardening but not to previous standard |
| | <input type="checkbox"/> | c) Limited participation with a lot of supervision |
| | <input type="checkbox"/> | d) Unwilling /unable to participate in previous activities |
| | <input type="checkbox"/> | e) Not applicable |

| | | |
|--------------------|--|--|
| 17. Shopping | | a) Shops to previous standard |
| | | b) Only able to shop for 1 or 2 items with or without a list |
| | | c) Unable to shop alone, but participates when accompanied |
| | | d) Unable to participate in shopping even when accompanied |
| | | e) Not applicable |
| 18. Finances | | a) Responsible for own finances at previous level |
| | | b) Unable to write cheque. Can sign name & recognizes money values |
| | | c) Can sign name but unable to recognize money values |
| | | d) Unable to sign name or recognize money values |
| | | e) Not applicable |
| 19. Games/Hobbies | | a) Participates in pastimes /activities to previous standard |
| | | b) Participates but needs instruction /supervision |
| | | c) Reluctant to join in, very slow needs encouragement |
| | | d) No longer able or willing to join in |
| | | e) Not applicable |
| 20. Transportation | | a) Able to drive, cycle or use public transport independently |
| | | b) Unable to drive but uses public transport or bikes |
| | | c) Unable to use public transport alone |
| | | d) Unable /unwilling to use transport even when accompanied |
| | | e) Not applicable |

Section D – Caregiver Stress

This section of the survey contains questions about how you feel and how things have been going for you as a Caregiver in the past month.

1. The following is a list of statements which reflect how people sometimes feel when taking care of another person. After each statement, indicate how often you feel that way: Never, Rarely, Sometimes, Quite frequently, or Nearly always. There are no right or wrong answers.

| | Never | Rarely | Sometimes | Quite frequently | Nearly always |
|---|-------|--------|-----------|------------------|---------------|
| Do you feel that, because of the time you spend with the Care Recipient, you don't have enough time for yourself? | 0 | 1 | 2 | 3 | 4 |
| Do you feel stressed between caring for the Care Recipient and trying to meet other responsibilities for your family or work? | 0 | 1 | 2 | 3 | 4 |
| Do you feel that the Care Recipient affects your relationships with other family members or friends in a negative way? | 0 | 1 | 2 | 3 | 4 |
| Do you feel strained when you are around the Care Recipient? | 0 | 1 | 2 | 3 | 4 |
| Do you feel your health has suffered because of your involvement with the Care Recipient? | 0 | 1 | 2 | 3 | 4 |
| Do you feel you have lost control of your life since the Care Recipient's illness? | 0 | 1 | 2 | 3 | 4 |

2. Here are some statements about your energy level and the time it takes you to do the things you have to do. Please indicate how well each statement describes you:

| | Completely | Quite a bit | Somewhat | Not at all |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| You are exhausted when you go to bed at night. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| You have more things to do than you can handle. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| You don't have time just for yourself. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| You work hard as a caregiver but never seem to make any progress. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. The next 10 questions ask about reasons you provide care. Using responses ranging from “Strongly Disagree” to “Strongly Agree”, please indicate how you feel about the following statements:

| I give care because: | Strongly disagree | Disagree | Agree | Strongly agree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| It is my duty to provide care to elderly dependent family members. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| It is important to set an example for the children in the family. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I was taught by my parents to take care of elderly dependent family members. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Of my religious and spiritual beliefs. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| By giving care to the elderly dependent family members, I am giving back what has been given to me. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| It strengthens the bonds between me and them. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I was raised to believe care should be provided in the family. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| It is what my people have always done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel as though I am being useful and making a family contribution. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| My family expects me to provide care. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. The following statements relate to the financial costs of caring for a person with dementia. Please indicate the extent to which you Disagree or Agree with the following statements:

| | Strongly disagree | Disagree | Agree | Strongly agree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| I feel that caring for the Care Recipient is causing me (or will eventually cause me) to dip into savings meant for other things. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel that my family and I must give up (or will have to give up) necessities because of the expense to care for the Care Recipient. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel that my family and I cannot (or will not be able to) afford those little extras because of the expense to care for the Care Recipient. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel that caring for the Care Recipient is (or will be) too expensive. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Section E – Intelligent Assistive Technology

In this section, we will ask you about your knowledge of Intelligent Assistive Technologies that are designed to help caregivers as they provide care for people with dementia. We will also be asking you for feedback on what aspects or features of Intelligent Assistive Technology you feel are most important. Please answer these questions even if you or your Care Recipient have not used Intelligent Assistive Technology.

Assistive Technology is any item or piece of equipment that can help a person with a physical or cognitive disability complete various tasks and activities. An example of an Assistive Technology is a wheelchair.

Intelligent Assistive Technology is any computer-based technologies designed to help a person with a disability to carry out their activities of daily living and to support people with cognitive impairment. An example of an Intelligent Assistive Technology is a device that automatically recognizes that a person with Alzheimer's disease has forgotten to take his or her medication and then provides him or her with a reminder to do so.

1. First, we will ask you about the technology you currently own and how often YOU - the caregiver - use it. Please indicate how often you use each of the following devices/appliances by placing a checkmark in the appropriate box. If you do not own the device/appliance, put a check mark in the "Don't have one" box, or if you have the device and don't use it, put a check mark in the "Have it, but don't use it box."

| Technology | Daily | Weekly | Monthly | Less often than monthly | Don't have one | Have it, but don't use it |
|------------------------------|-------|--------|---------|-------------------------|----------------|---------------------------|
| Telephone | | | | | | |
| Cell phone | | | | | | |
| Smart phone or Blackberry | | | | | | |
| Tablet (e.g., iPad) | | | | | | |
| E-reader (e.g., Kindle) | | | | | | |
| CD player | | | | | | |
| Television | | | | | | |
| VCR/ DVD/Blu-ray disc player | | | | | | |
| Word processing (computer) | | | | | | |
| Email | | | | | | |
| Internet | | | | | | |

| Technology | Daily | Weekly | Monthly | Less often than monthly | Don't have one | Have it, but don't use it |
|--|-------|--------|---------|-------------------------|----------------|---------------------------|
| X-box, Nintendo, or PlayStation | | | | | | |
| MP3 player (e.g., iPod) | | | | | | |
| Bank machine | | | | | | |
| Answering machine/ voicemail | | | | | | |
| Digital camera | | | | | | |
| Video camera | | | | | | |
| Microwave | | | | | | |
| Household security system | | | | | | |
| Programmable thermostat | | | | | | |
| Car GPS System | | | | | | |
| Other (please list) | | | | | | |

2. How much do you know about **Intelligent Assistive Technology** that supports cognitive disabilities like dementia?

- ☐ A great deal
- ☐ Some
- ☐ Not much
- ☐ Nothing at all

3. Have you ever used **Intelligent Assistive Technology** to help care for a person with dementia?

- ☐ Yes
- ☐ No

If the answer to the above question is "Yes", what is the name of the **Intelligent Assistive Technology** that you have used?

4. The following is a list of 6 potential features of **Intelligent Assistive Technology** that would be relevant when first setting up the device. Please rank them in order of importance by placing the numbers 1 through 6, with “1” representing the most important feature and “6” the least important, in the space provided beside each feature. Only use each number once.

- ___ Easy to install
- ___ Clear operating instructions
- ___ Easy to learn how to use
- ___ Availability of training
- ___ Aesthetics of the technology
- ___ Cost

5. The following is a list of 6 potential features of **Intelligent Assistive Technology** that would be relevant when using the device. Please rank each potential feature in order of importance with “1” representing the most important feature and “6” representing the least important. Only use each number once.

- ___ Easy to get help if device is broken
- ___ Reliability of device
- ___ Ability for the system to work without manual input from the user
- ___ Ability to set-up features on the device and customize its operation
- ___ Ability to receive performance reports about user performance and the system operation
- ___ Accessible outside of the home (e.g. via Internet, smart phone, etc.)

6. Intelligent Assistive Technology may be helpful to people with dementia and their caregivers when they are completing various tasks and /or activities. The following is a list of activities of daily living. Using the scale from 0 to 5, with “0” indicating “Would not benefit at all” from the use of an intelligent assistive technology, and “5” indicating “Would benefit a great deal” from the use of an intelligent assistive technology, please indicate how much you think your Care Recipient would benefit from having help with the activity.

| Activities of daily living | How much would assistance from an Intelligent Assistive Technology device help the Care Recipient? | | | | | |
|--|--|---|---|---|---|---|
| 1. Preparing food | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. Eating | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. Preparing a drink (e.g. coffee or tea) | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. Drinking | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. Getting dressed | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. Taking a shower | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. Brushing teeth | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. Taking a bath | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. Using the toilet | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. Mobility | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. Reminding the Care Recipient of the time | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. Reminding the Care Recipient of the location | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. Having daily conversation with the Care Recipient when no one's around | 0 | 1 | 2 | 3 | 4 | 5 |
| 14. Making phone calls | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. Reminding the Care Recipient to do the housework | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. Reminding the Care Recipient to take their medication | 0 | 1 | 2 | 3 | 4 | 5 |
| 17. Paying bills | 0 | 1 | 2 | 3 | 4 | 5 |
| 18. Washing hands | 0 | 1 | 2 | 3 | 4 | 5 |

7. The following is a list of Intelligent Assistive Technologies that have been developed to assist people with dementia. Using the scale from 0 to 5, with “0” indicating “Not at all useful” and “5” indicating “Very useful”, please indicate how useful you think this technology would be to you as you care for a person with dementia. If you have never heard of the technology or do not know what it is, place a check mark in the “Never heard of it” box.

| | Never heard of It | How useful is it? | | | | | |
|---|--------------------------|-------------------|---|---|---|---|---|
| Intelligent Assistive Technologies | | | | | | | |
| Personal emergency response systems | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Automated fall detection systems | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Lifestyle monitoring systems | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Environmental control systems | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Health / Physiological monitoring | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Prompting systems | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Interactive systems | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |

8. The following is a list of Intelligent Assistive Technologies that have been used to collect information that is required for their operations and have been developed to assist people with dementia. Using the scale from 0 to 5, with “0” indicating “Not at all useful” and “5” indicating “Very useful”, please indicate how useful you think this technology would be to you as you care for your friend or relative with dementia. If you never heard of the technology or do not know what it is, place a check mark in the “Never heard of it” box.

| | Never heard of it | How useful is it? | | | | | |
|---|--------------------------|-------------------|---|---|---|---|---|
| Intelligent Assistive Technologies | | | | | | | |
| Sensing switches | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Motion sensors | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Video cameras <u>with</u> a person monitoring the images | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Video cameras <u>without</u> a person monitoring the images | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Sensors worn on the person’s body | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |
| Sensors that need to be carried by the person | <input type="checkbox"/> | 0 | 1 | 2 | 3 | 4 | 5 |

Section F – Opinions of Intelligent Assistive Technology

In this section, we are interested in your opinions of Intelligent Assistive Technology. Please indicate whether you Agree or Disagree with the following statements.

1.

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|--|-------------------|----------|---------|-------|----------------|
| By using assistive technologies the person I care for would be able to remain at home longer even when their health declines and they need more care | 1 | 2 | 3 | 4 | 5 |
| Personal help will still be required when using assistive technologies | 1 | 2 | 3 | 4 | 5 |
| I would try to fully rely on assistive technologies | 1 | 2 | 3 | 4 | 5 |
| The use of assistive technologies would make someone less dependent on personal assistance | 1 | 2 | 3 | 4 | 5 |
| I would want the cost of an assistive technology for my Care Recipient to be subsidized so I do not have to personally pay for it | 1 | 2 | 3 | 4 | 5 |
| Assistive technologies foster loneliness | 1 | 2 | 3 | 4 | 5 |
| People with dementia can contribute to the cost of an assistive technology if it is needed | 1 | 2 | 3 | 4 | 5 |
| Assistive technologies are a good solution for certain problems | 1 | 2 | 3 | 4 | 5 |
| If I had an assistive technology, I could do things my own way when caring for my Care Recipient | 1 | 2 | 3 | 4 | 5 |
| Assistive technologies are developed by people who know nothing about caring for people with dementia. | 1 | 2 | 3 | 4 | 5 |
| I am willing to invest in assistive technologies | 1 | 2 | 3 | 4 | 5 |
| I will need less help caring if I use assistive technologies | 1 | 2 | 3 | 4 | 5 |
| I'm afraid that if I use assistive technologies for caring, I'll become isolated and lose support | 1 | 2 | 3 | 4 | 5 |
| Assistive technologies for caring allow me to do things faster | 1 | 2 | 3 | 4 | 5 |

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|-------------------|----------|---------|-------|----------------|
| Assistive technologies for caring make caring easier | 1 | 2 | 3 | 4 | 5 |
| Using Assistive technologies for caring could give me a sense of security | 1 | 2 | 3 | 4 | 5 |

2. If you could buy an Intelligent Assistive Technology Device that can help you with providing care to your Care Recipient, how much would you be willing to pay for it?

- ☐ Less than \$100
- ☐ \$100 - \$500
- ☐ \$501 - \$1000
- ☐ Over \$1000

Contact Information Sheet

We greatly appreciate your participation in our research about technology that can assist people with dementia and their caregivers. In addition to this survey, we are conducting interviews and focus groups (group interviews) so that we can explore the results of this survey in more detail. Again, the goal of our interviews and focus groups is to learn about the needs that both caregivers and people with dementia have for technologies that can support them. We are particularly interested in the experiences of people from different ethnic and cultural backgrounds and how ethnicity and culture affects their needs and the design and appearance of technologies so that they can be modified to increase their usefulness.

We would appreciate your voluntary participation in a post-survey interview (approximately 1 hour long) or focus group (approximately 1.5 hours long). Please check the box(es) that reflect your interest in participating in the second phase of our research and provide your contact information.

- ☐ I am interested/willing to participate in a one-on-one interview about caregiving and technology for people with dementia.
- ☐ I am interested/willing to participate in a focus group (group interview) about caregiving and technology for people with dementia.
- ☐ I am interested/willing to participate future surveys and research related to technology and caregiving.

Name:

(Note: Full name is not required, but please leave either your phone number or email if you would like to participate in the future studies).

Phone number:

Or

Email:

(Note: Your name and contact information will be separated from your survey responses when you submit this survey to ensure that your responses remain anonymous. Your contact information will be kept in separate, password protected computer file stored on a Toronto Rehabilitation Institute server. Similarly, your survey responses will be stored in a password protected computer file and remain anonymous.)

Thank you for your participation!