

Supplementary file 2 – Literature search

The 3-step approach

Step 1: The initial search included two online databases relevant to the topic: MEDLINE & AgeLine.

e.g., Search in MEDLINE

#	Searches	Results
S1	(touchscreen*) OR (iPad) OR (tablet*) OR (mobile technology) OR (assistive technology)	62640
S2	(MH Dementia* OR Alzheimer)	120924
S3	Behav* OR Agitat*	1643776
S4	Social connection OR Quality of Life OR Psychosocial	398392
S6	S1 AND S2 AND S3	55
S7	S1 AND S2 AND S4	18

This initial search is then followed by an analysis of the text words contained in the title and abstract of retrieved papers, and of the index terms used to describe the articles.

Step 2: A second search using all identified keywords and index terms will then be undertaken across all selected databases: MEDLINE, AgeLine, Cumulative Index to Nursing and Allied Health, Cochrane, PsycINFO, and IEEE.

Search terms and their combinations in step 2

Touchscreen terms	Impact terms related to social connection	Impact terms related to behaviours
Touchscreen* iPad Android Assistive technology Mobile technology Mobile Applications	Psychological wellbeing Quality of life Emotion Caregiving	Behav* Agitat* Behavioural and psychological symptoms of dementia

Google will be used to search grey literature (i.e., organizational reports, newsletters, and other articles not indexed in a library database. For the Google search, we will perform phrase using the following terms

- (touchscreen OR ipad OR tablet) (dementia OR Alzheimer's)
- “assistive technology” “mobile technology” dementia Alzheimer's

Step 3: The resulting reference list of all identified reports and articles will be searched for additional studies. Google Scholar will be used to find published articles, organizational reports and related articles.