



Aging, Technology & Gerontechnology

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Advancing the Aging and Technology Agenda in Gerontology

https://sagelink.ca/advancing_the_aging_and_technology_agenda_in_gerontology

The authors of this article aimed to consolidate what they knew about older adults and technology systems to propose future directions for research.

Aging and Technology: Taking the Research into the Real World

https://sagelink.ca/aging_and_technology_taking_the_research_into_the_real_world

This paper discusses how AGE-WELL (Aging Gracefully across Environments using Technology to Support Wellness, Engagement and Long Life NCE Inc.) proposes to take research outcomes and inform the development of devices and application in the real world.

Assistive Technology for Successful Aging: Perspectives from Developmental Behavioral and Neuroscience

https://sagelink.ca/assistive_technology_for_successful_aging

This paper reviews evidence of behavioural and neurocognitive plasticity in older age and highlights psychological principles for successful aging technologies.

Use or Non-Use of Gerontechnology – A Qualitative Study

https://sagelink.ca/use_or_non-use_of_gerontechnology

This article describes a qualitative study done in Hong Kong to explore the attitudes of older adults towards use of technology.

Implementation of an Innovative Web-Based Conference Table for Community-Dwelling Frail Older People, Their Informal Caregivers and Professionals: A Process Evaluation

https://sagelink.ca/implementation_of_web-based_conference_table_for_c-d_frail_older_people

The authors developed a shared Electronic Health Record combined with a communication tool for community-dwelling frail older people and primary care professionals called the Health and Welfare Information Portal (ZWIP). This article describes the process evaluation of its implementation.

Longitudinal Analysis of the Relationship Between Purposes of Internet Use and Wellbeing Among Older Adults

https://sagelink.ca/longitudinal_analysis_of_the_relationship_between_purposes_of_internet_use

This observational study tested the indirect impact of internet use on older adults' wellbeing by supporting social engagement and reducing loneliness.

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Older People's Perspectives Regarding the Use of Sensor Monitoring in Their Home

https://sagelink.ca/older_peoples_perspectives_sensor_monitoring_in_home

The authors conducted indepth interviews with older adults who had a sensor monitoring system installed in their homes to understand their perceptions of the technology.

Patterns of Technology Use Among Older Adults With and Without Disabilities

https://sagelink.ca/patterns_of_technology_use_among_OA_with_and_without_disabilities

The objective of this study was to report on technology use by older adults, 65+, specifically those with activity limiting symptoms, impairments or disabilities.

The Design of New Technology Supporting Wellbeing, Independence and Social Participation, for Older Adults Domiciled in Residential Homes and/or Assisted Living Communities

https://sagelink.ca/the_design_of_new_technology_supporting_wellbeing

This study sought to identify and validate the requirements for new technology supporting wellness, independence and social participation for older adults living in supportive housing.

The Design of Intelligent In-Home Assistive Technologies: Assessing the Needs of Older Adults with Dementia and their Caregivers

https://sagelink.ca/the_design_of_intelligent_in-home_assistive_technologies

The authors describe their research findings regarding the needs of older adults with dementia and their family caregivers during Activities of Daily Living (ADL), and the role of intelligent assistive technology (AT) in supporting these needs.

How Tailoring the Mode of Information Presentation Influences Younger and Older Adults' Satisfaction with Health Websites

https://sagelink.ca/how_tailoring_the_mode_of_information_presentation_influences_satisfaction_with_health_websites

The study described in this article shares helpful insights for researchers and others about digital health communication.

How are Online Health Messages Processed? Using Eye tracking to Predict Recall of Information in Younger and Older Adults

https://sagelink.ca/how_are_online_health_messages_processed

This article describes the differences found in recollection of different forms of online health messages between younger and older adults.

"My Hand Doesn't Listen to Me!": Adoption and Evaluation of a Communication Technology for the 'Oldest Old'

https://sagelink.ca/adoption_and_evaluation_of_a_communication_technology_for_the_oldest_old

This article discusses a study investigating the use of a novel communication appliance among five frail individuals who were categorized as the "oldest old" living in a long-term care facility. Factors which impact the adoption of this type of technology are explored.

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The Internet and Digital Technology

https://sagelink.ca/internet_and_digital_technology_nov_2017_CDA

This infographic from Statistics Canada provides an overview of findings on perceptions of technology and usage by age group across the country.

Mobile Telephone Text Messaging for Medication Adherence in Chronic Disease

https://sagelink.ca/mobile_telephone_text_messaging_for_medication_adherence_in_chronic_disease

This meta-analysis of randomized clinical trials sought to assess the effect of mobility phone text messaging in medication adherence in chronic disease.

“Grandma, You Should Do It—It’s Cool” Older Adults and the Role of Family Members in Their Acceptance of Technology

https://sagelink.ca/older_adults_and_the_role_of_family_members_in_their_acceptance_of_technology

This study illustrates the importance of including all family members when implementing technology in the lives of older adults.

Exploring Technology, Design & Dementia

https://tspace.library.utoronto.ca/bitstream/1807/82978/1/Jiancaro_Tizneem_201803_PhD_thesis.pdf

This pdf thesis describes three studies undertaken to understand the design of home technologies and the perspectives of the developers, people with dementia and their caregivers.

Disrupting Alzheimer’s: The Opportunities for Technology in Alzheimer’s Disease

https://sagelink.ca/disrupting_alzheimers

This paper aimed to analyze the current state of Alzheimer’s and technology to develop a framework for innovators seeking to create better solutions for those affected by AD.

Evaluation of an Intelligent Wheelchair System for Older Adults with Cognitive Impairments

https://sagelink.ca/evaluation_of_wheelchair_system_for_older_adults_with_CI

This study illustrates the efficacy of an add-on Intelligent Wheelchair System (IWS) which was developed to help those with cognitive impairment drive a powered wheelchair safely and effectively.

Gerontechnology: Providing a Helping Hand When Caring for Cognitively Impaired Older Adults – Intermediate Results from a Controlled Study on the Satisfaction and Acceptance of Informal Caregivers

https://sagelink.ca/gerontechnology-providing_a_helpful_hand_when_caring_for_CI_OA

This paper presents the findings of evaluations regarding user satisfaction, acceptance of technology services, as well as quality of life outcomes resulting from utilizing these services.

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Technology-Driven Interventions for Caregivers of Persons With Dementia: A Systematic Review

https://sagelink.ca/technology-driven_interventions_for_caregivers_of_persons_with_dementia

This systematic review investigated the effectiveness of technology-driven interventions for caregivers of persons with dementia.

Literature Review: The Cost Effectiveness of Assistive Technology in Supporting People with Dementia

https://sagelink.ca/the_cost_effectiveness_of_assistive_technology_in_supporting_people_with_dementia

This report describes the process and results of a literature review for the Dementia Services Development Trust.

Enhancing Equitable Access to Assistive Technologies in Canada

https://sagelink.ca/enhancing_equitable_access_to_assistive_technologies_in_Canada

This evidence brief reports on the issues of equitable access to assistive technologies which is of importance to many older Canadians.

Precarious Ageing: Questioning Access, Creating InterACTION

https://sagelink.ca/precarious_ageing_questioning_access_creating_interACTION

This paper discusses the relationships between older age, financial status and other conditions which impact access to communication technologies.

Ethical Challenges Related to Assistive Product Access for Older Adults and Adults Living With a Disability: A Scoping Review

https://sagelink.ca/ethical_challenges_related_assistive_product_access_for_older_adults

The authors of this scoping review sought to identify and map the literature to inform the development of policy.

Medical and Assistive Health Technology: Meeting the Needs of Aging Populations

https://sagelink.ca/medical_and_assistive_health_technology

The findings discussed in this paper offer a contextual analysis of policy gaps in the delivery and availability of assistive health technology and medical devices for aging populations.

Using Embedded Sensors in Independent Living to Predict Gait Changes and Falls

https://sagelink.ca/using_embedded_sensors_in_independent_living_to_predict_gait_changes_falls

This article describes a study which explored data gathered from sensors in independent living apartments to predict falls and pre-fall changes over a continuous period.

Wearable Sensors for Assisted Living in Elderly People

https://sagelink.ca/wearable_sensors_for_assisted_living_in_elderly_people

This opinion article explores the potential of wearable sensors and the value of the data they can collect in relation to the needs of elderly people.

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A Review of Wearable Technologies for Elderly Care that Can Accurately Track Indoor Position, Recognize Physical Activities and Monitor Vital Signs in Real Time

https://sagelink.ca/review_of_wearable_technologies_for_elderly_care

The authors of this article review the state-of-the-art in wearable technology for the care of the elderly. Considerations for future trends are also explored.

A Review of Activity Trackers for Senior Citizens: Research Perspectives, Commercial Landscape and the Role of the Insurance Industry

https://sagelink.ca/review_of_activity_trackers_for_seniors_citizens

This paper reviews the adoption of wearable devices in senior citizens, the options of consumer grade fitness trackers and the impact of these devices.

Average In-Home Gait Speed: Investigation of a New Metric for Mobility and Fall Risk Assessment of Elders

https://sagelink.ca/average_in_home_gait_speed

The authors describe a study which assessed how a new metric, average in-home gait speed (AIGS) measured using a low-cost, continuous monitoring system differs to a set of traditional assessments for mobility and fall-risk in the elderly.

Population Ageing and Socially Assistive Robots for Elderly Persons: The Importance of Sociodemographic Factors for User Acceptance

https://sagelink.ca/population_ageing_and_socially_assistive_robots_for_elderly_persons

This article discusses the findings of a systematic literature review investigating if and how evaluations of acceptance of socially assistive robots for older people took into account sociodemographic factors.

The Impact of Assistive Technologies on Formal and Informal Home Care

https://sagelink.ca/the_impact_of_assistive_technologies_on_formal_and_informal_home_care

This article describes a study investigating whether specific categories of assistive technologies were substitutes or supplements for human personal assistance.

Caregivers' Willingness to Pay for Technologies to Support Caregiving

https://sagelink.ca/caregivers_willingness_to_pay_for_technologies_to_support_caregiving

The authors report on the results of their study to assess how much or whether informal caregivers are willing to pay for assistive technologies to support their care recipients.

Framing the Evidence for Health Smart Homes and Home-based Consumer Health Technologies as a Public Health Intervention for Independent Aging: A Systematic Review

https://sagelink.ca/framing_the_evidence_for_health_smart_homes

The authors conducted a systematic review of health smart homes and home-based consumer health technology literature and classified them using a public health typography.

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Activity Limitations, Use of Assistive Devices or Personal Help, and Well-Being: Variation by Education

https://sagelink.ca/activity_limitations_use_of_assistive_devices_or_personal_help_and_well-being

This study examined the associations among self-care or mobility limitations, use of assistive devices or personal help, and well-being while giving special attention to 3 dimensions of well-being and older adults' educational attainment.

Development of a Wheelchair Skills Home Program for Older Adults Using a Participatory Action Design Approach

https://sagelink.ca/development_of_a_wheelchair_skills_home_program_for_older_adults_using_PAD

This article describes the development of a home based wheelchair skills training program delivered using a computer tablet that was designed using a participatory action design with older adults.

What it Takes to Successfully Implement Technology for Aging in Place: Focus Groups With Stakeholders

https://sagelink.ca/what_it_takes_to_successfully_implement_technology_for_aging_in_place

This article provides insights into the positions of stakeholder groups involved in the implementation of technology for aging in place.

Factors Influencing Acceptance of Technology for Aging in Place: A Systematic Review

https://sagelink.ca/factors_influencing_acceptance_of_technology_for_aging_in_place

This systematic review provides an overview of factors influencing the acceptance of electronic technologies that support aging in place by community-dwelling older adults.

Can Aging in Place Be Cost Effective? A Systematic Review

https://sagelink.ca/can_aging_in_place_be_cost_effective

This study sought to systematically review cost, cost-minimization and cost-effectiveness studies for assisted living technologies (ALTs) that specifically enable older people to age in place.

Older Adults' Reasons for Using Technology While Aging in Place

https://sagelink.ca/older_adults_reasons-for_using_technology_while_aging_in_place

The authors conducted a qualitative explorative field study involving home visits to community dwelling older adults to understand their perceptions and use of technology in their personal, social and physical context.

Technology to Reduce Social Isolation and Loneliness

https://sagelink.ca/technology_to_reduce_social_isolation_and_loneliness

This article reports on research focused on understanding the communication needs of people in environments associated with social isolation and loneliness, and how technology facilitates social connection.

The Effect of Information Communication Technology Interventions on Reducing Social Isolation in the Elderly: A Systematic Review

https://sagelink.ca/the_effect_of_ict_interventions_on_reducing_social_isolation_in_the_elderly

This paper discusses a systematic review which explored the effects of ICT interventions on reducing social isolation of the elderly.