

# E-services and Social media for Persons with Mild Acquired Cognitive Impairment.

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## Introduction

Mild acquired cognitive impairment (MACI) is a term used to describe a sub-group of persons with mild cognitive impairment who are expected to reach a stable cognitive level over time. One strategy that can be considered for further developing treatment for this group is the use of information and communication technology and e-services. The purpose of this study is to investigate the current use of common e-services and social media by persons with mild cognitive impairment and to explore their opinions and experiences.

## Materials and Methods

In collaboration with the Swedish Association of Brain Injury (Hjärnkraft), data were collected through a self-administered survey and analyzed using quantitative and qualitative methods. The questionnaire focused on the participants' use and experience with e-services. To estimate participants' degree and type of impairment, the Cognitive Failure Questionnaire (CFQ), measuring cognitive difficulties in performing everyday tasks, was added.

## Results

In total, 282 persons with acquired brain injury participated in the survey. The participants' total CFQ scores showed that they were suffering from mild to moderate cognitive impairments, most often acquired from traumatic brain injuries (40%). The majority (89%) used e-services in different categories whereof the most popular and essential ones were communication services/social media (59%) and banking services (39%). The usage of electronic devices decreased by age with the exception of electronic tablets that were used by older participants almost as much as other age groups.

## Discussion

Our survey study of persons with mild acquired cognitive impairment demonstrated that the majority are using personal computers and mobile devices mostly as communication and banking aides. The results showed that a large proportion of these persons use e-services and have a positive attitude towards using them. It also helps them to achieve a more self-

regulating and independent life. To the best of our knowledge, this study is one of the first to show persons' with MACI usage of e-services.

In addition areas such as navigation, alarms, memory, video and music services, writing, banking, seeking health information and specifically social interaction services are the most important aspects of information and communication technology for this group. However, further studies are needed on utilizing these identified e-services to support this group with their chronic condition. Similarly, further efforts are needed to popularize persons with MACI among the research community as a group with special needs and necessities towards using e-services. It may be interesting to explore the relationship between cognitive function and the use of e-services, in addition to the usage of the Internet and social media, more on an individual level.

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