

Extended Summary

In 2025, according to the UN, approximately 70% of the population represents all the elderly worldwide. Therefore, the need to support the elderly is higher due to cognitive, physical, sensory and attitudinal changes.

This transition encompasses a broad set of changes. On the one hand, the survey performed by O'Brien (2012) states that an example of cognitive change is that the prior or preventive knowledge of that change could be a key guide for the development of better technologies and efforts for the elderly. On the other hand, the survey performed by Roger (2013) refers to another example of physical and sensory change noticing that older people are more prone to decrease control of movement, speed, coordination, sensation and perception (touch, sight or hearing).

Finally, the example of attitudinal change is performed by Barnard and Lloyd (2013). They discovered that the experiences of the elderly when learning a new technology depend on the characteristics of technology, affinity, transparency, perceptions and experiences of the individual, self-efficacy, intention to learn, availability of support, among others. Consequently, the WHO speaks about the research on active ageing and defines it as "the process of optimizing opportunities of health, participation and security with the aim of raise the quality of life as people get older".

Older people grows old slower due to emerging technologies and health. This is why it's necessary to create new measures and technologies that are suitable and improve the quality of life for all people as they are getting older,

as well as enhance today's ones. Actually, there are some low – skilled tools that have a high intricacy for the normal customer. This led elderly to a digital gap to be settled, and that's why the grown - up has several perspectives towards technologies. This kind of users perceives technologies as a threat either because they are unable to understand and learn their functioning or are out of reach for them due to economic woes. However, some ways technology can be helpful by supplying extra information needed for older people, so they perceive them as an opportunity, since they have access to ordinary and necessary information and can enjoy new technologies on an equal footing with general population.

In light of the need for developing optimistic technological environments that come up with a solution for aging population, Gerontechnologies can be used (Kwon, 2017). Several authors define Gerontechnology as an interdisciplinary field, combining gerontology and technology by ensuring good health, social participation and independent life throughout life (Bjering, 2014). Shonene (2014) defines Gerontechnology as the technology that manages to study and develop equipment, services and environments that can help the elderly and prevents the functional impairment caused by aging.

Gerontechnology is made up of: mobile telephony, home assistance, mobile assistance, UCT, warning by vibration, falls detecting, electronic products, etc.

What does the field of Gerontechnology intend to achieve? Gerontechnology helps older people to strengthen communication, takes care of healthcare and education, showing them how to use their free time in a powerful way.

¿What type of connection have the loneliness with the Gerontechnology? On the one hand, we have to differentiate the isolation with the loneliness. Isolation in elderly refers to separation from social or familial contact, social - inclusion or service access. On the other hand, the loneliness is an individual's personal, subjective sense of shortage of these things to the extent that they are wanted or needed.

Many authors consider loneliness an outbreak because affects a very large number of people in our country. For this reason, in this research, the bibliographic review is enlarged by the current state of Gerontechnology and its relation with loneliness in the elderly by using the PRISMA methodology.

The results obtained reveal that the gerontology in relation to lonesomeness is responsible for: creating awareness of the current situation of loneliness, generating security with the environment, actively promoting social participation, creating new bonds of friendship and finally establishing emotional ties with people who share the same interests, concerns and needs.

To some up, loneliness has detrimental effects on both our emotional and physical health, being a topic of special relevance in our increasingly aging population. For this reason, the field of Gerontechnology decreases the sense of loneliness and this ensures the individual to reach an optimal state of autonomy giving him greater independence.