Senior Mobility and the "Super Suit"

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According to the United Nations, our ageing populations around the globe constitute "one of the most significant social transformations of the twenty-first century".[1] Indeed, the number of people aged 60 years or older is projected to more than double by 2050.[2]

The Challenge of Reduced Mobility

Mobility is likely to be a challenge for ageing populations, as it can become ever more difficult for the elderly to move at home, at work, and throughout public areas.

We may associate reduced mobility with chronic diseases such as diabetes and arthritis. But, even the healthiest of older individuals must contend with the impacts of muscle loss. "(A)lthough age-related muscle loss begins relatively early in life, once you hit 60, the process accelerates dramatically, doubling from 0.5% per year to 1%, then 2% at age 70, 4% at 80 and so on," says Michael Rennie, Professor of Clinical Physiology at the University of Nottingham Medical School in Derby.[3]

It becomes ever more important for the ageing population to minimize muscle loss through some form of exercise, to include resistance training. It will be important for us to make sure that our populations understand the need to remain active to minimize the impacts of muscle loss. Not to mention, the wide ranging benefits that can be attained through exercise.

This everyday challenge for the growing number of people over 60 is often tackled with the use of products such as canes, walkers, or wheelchairs. Or, the challenge may be largely unmet by those who decide simply to limit their activity.

The 'Super Suit' Powered Clothing

A wearable technology that shows some promise in meeting the needs of many with reduced mobility is the 'super suit', designed by Seismic – a wearable robotics spin-off from the American non-profit research institute SRI International.[4]

The 'super suit' helps boost the power of the wearer's muscles through the integration of 'electric muscles' around the joints of the body.[5] Seismic posted a brief video on its Vimeo channel last year that

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[1] United Nations Website. *Global Issues > Ageing*. Available at: http://www.un.org/en/sections/issues-depth/ageing/. Accessed on July 31, 2018.

[2] *Ibid*.

[3] Green, Siski. *Preventing Muscle Loss*. SAGA. June 15, 2015. Available at: https://www.saga.co.uk/magazine/health-wellbeing/exercise-fitness/strength/preventing-muscle-loss. Accessed on July 31, 2018.

[4] Schumacher, Helene. *The 'super suit' that helps people move*. BBC Website. July 5, 2018. Available at: http://www.bbc.com/future/story/20180705-the-super-suit-that-can-help-people-walk. Accessed on July 31, 2018.

[5] *Ibid*.

explains the product category they have termed Powered Clothing.[6] The same introduction video is posted on the homepage of the company's website.[7] The website does not provide much detail beyond the video, a link to some related news articles, and the statement: "Seismic strives to shape human potential through a new integration of apparel and robotics we call Powered Clothing™".[8]

A July BBC article, "The 'super suit' that helps people move", provides some photos of the suit. It is to be the first offering in their range of powered clothing. The company aims to launch the suit by the end of this year in markets including the US, Japan, and the UK.[9]

The Seniors Market and Beyond

The seniors market is a natural target market for this and future Seismic products. But, there is also "research underway to develop products to assist those who have suffered strokes and children with muscular dystrophy. There also are occupational safety and industrial applications – for example for people working in warehouses or construction sites."[10]

[6] Seismic Vimeo Channel. *Discover Seismic Powered Clothing*. Vimeo. November 29, 2017. Available at: https://vimeo.com/245030878. Accessed on July 31, 2018.
[7] Seismic Website. Available at: https://www.myseismic.com/. Accessed on July 31, 2018.
[8] *Ibid*.
[9] Schumacher. *op. cit*.
[10] *Ibid*.