

Billions of people around the world rely on (or are addicted to) technology-based social networks such as Facebook. At first glance, particularly for aging adults with mobility challenges, internet-based networking seems like a panacea. At second glance, navigating through the thicket of 'bots', fraudsters and "fake friends" may turn out to be a plague. At third glance, technology-based interaction platforms are not that new (telegraph, telephone) and not that unusual. I examine the population-level trends in social network use by aging adults and discuss a recent CREATE intervention study, PRISM, that used a computer-based platform to try to reduce social isolation and loneliness in older adults at risk for social isolation.

OLDER PEOPLE AND TECHNOLOGY: THE GOOD, THE BAD, AND THE UGLY

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The use of multiple technologies in the service of social relations is widely evident. It is not at all clear, however, that we recognize the fundamental changes in social relations that are occurring as a result. Some changes are quite positive, e.g., low cost maintenance of geographically distant but emotionally close relationships. Others can be quite negative, e.g., the lost ability to gauge emotional reactions through face-to-face contact, often resulting in unnecessarily hurtful behaviors. Preliminary data indicate that people selectively use different forms of communication under positive circumstances, e.g. to transmit good news; or negative circumstances, e.g. resolve a dispute/express anger and dependent on the nature or closeness of the relationship e.g., parent, spouse, child. We need to be mindful of the good, the bad, and the ugly of technology; and, its specific effect on the relationships of and with older people.

TECHNOLOGY DESIGN TO SUPPORT SOCIAL ENGAGEMENT FOR OLDER ADULTS

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Evidence that loneliness and isolation are precursors to myriad negative health issues is accumulating. For older adults, social engagement may be particularly important due to life-changing events that can accompany older adulthood, including retirement, disease, or mobility limitations. Individuals vary in their levels of social engagement, and these differences may have consequential effects on quality of life. Technology has the potential to create and enhance social engagement opportunities for older adults at risk for social isolation. For such technology innovations to be effective and widely adopted, designers must consider the unique needs, capabilities, limitations, and preferences of older adults. I will describe technologies that currently exist (e.g., apps, mobile devices, social networking) or are being developed (e.g., robotics, telepresence, virtual reality) to support social engagement, connectedness, and community participation. I will discuss the potential of these technologies as well as the design and training challenges unique to older adults.

SOCIAL ISOLATION AND OLDER ADULTS: WHAT ROLE CAN TECHNOLOGY PLAY?

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Social isolation and loneliness are prevalent among older adults especially those who live in rural locations, have mobility restrictions, are in the older cohorts, live alone or live in residential institutions such as assisted living facilities or nursing homes. The detrimental consequences of isolation and loneliness on physical, cognitive, and emotional health are well documented. Technology applications such as the email, social media sites and online support groups hold promise in terms of enhancing engagement and providing support to older people and mitigating the negative impact of isolation and enhancing quality of life. Recent data indicate that use of these types of applications is increasing among older adults but there is still an age-related digital decline. This presentation will present findings from CREATE and other trials regarding the access to and use of these applications among older adults and the resultant impact on the social connectivity, loneliness and social support.

SESSION 1135 (SYMPOSIUM)

VACCINATION TO PROMOTE HEALTH THROUGHOUT LIFE AS A HEALTHY AGING STRATEGY

Chair: Leonard Friedland, *GSK Vaccines, Philadelphia, Pennsylvania, United States*

This symposium addresses the role of vaccination to promote healthy aging, the process of developing and maintaining the functional ability that enables wellbeing in older age. Life-span immunization of adults across all age categories can help to reduce morbidity and mortality. Healthy aging is critical for our global society to counter the surge in healthcare costs that is coming as a result of the demographic shift to older age. Immune system function and response to vaccination declines with advancing age. Generating effective immune responses against new infectious disease targets can be difficult in older individuals. Important progress has been made in understanding the mechanisms underlying immunosenescence, the age-related decline of the immune response to infections and vaccinations. Innovative research and the development of new technologies, such as adjuvants, substances that can enhance and shape the immune response to the target antigen(s), has facilitated the development of vaccines specially tailored for adults. This evidence-based approach to the development of innovative vaccines addressing immunosenescence is an important clinically relevant healthy aging strategy to promote health throughout life.

ADJUVANTED VACCINES TO ADDRESS IMMUNOSENESCENCE AND PROMOTE HEALTH THROUGHOUT LIFE

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Immunosenescence creates a challenge in developing vaccines tailored for older adults. Recent advances in immunology, molecular biology and systems vaccinology have enabled greater understanding of the innate and adaptive immune mechanisms behind vaccine responses in adults. Novel approaches to vaccine design for this population include adjuvant technology. New knowledge and accumulating experience enables evidence-based selection of the right antigen and