Documents

Embarak, F.^{a b}, Ismail, N.A.^c, Ghazali, M.^d, Mahmud, M.^e, Othman, N.Z.S.^c, Hasan, L.^c, Said, C.S.^f, Yong, P.Y.^c, Alsayed, A.O.^c

ONLINE SOCIAL INTERACTION COMMUNITY MODEL FOR UNMET NEEDS OF OLDER PEOPLE

(2023) Journal of Theoretical and Applied Information Technology, 101 (22), pp. 7255-7265.

^a Faculty of Information and Technology, University of Ajdabyia, Ajdabiya, State of Libya

^b School of Basic Sciences, Libyan Academy for Postgraduate Studies, Ajdabiya, State of Libya

^c Faculty of Computing, Universiti Teknologi Malaysia, Johor Bahru, Malaysia

^d Malaysia-Japan International Institute of Technology, Universiti Teknologi Malaysia, Kuala Lumpur, Malaysia

^e Kulliyyah of Information and Communication Technology, International Islamic University Malaysia, Kuala Lumpur, Malaysia

^f Faculty of Computing and Meta-Technology, Universiti Pendidikan Sultan Idris, Perak, Tanjong Malim, Malaysia

Abstract

Modern medicine and technology have enhanced the average life expectancy of a person, but this has not improved the quality of life for those who are getting older. Elderly persons struggle to take care of their fundamental requirements, and family members are unable to give them the attention they require. An online community based new method of communication and interaction for the elderly could be a solution to address the situation, however, there are difficulties observed with the elderly persons throughout the design stage. In order to address the unmet everyday needs of older adults, this study investigated the design methodology and design process for an online social interaction community (OnSocialCom). A conceptual model was proposed specifically for senior people who live alone and was based on social connectedness, social support models, structural Camberwell evaluation of need for the elderly theories, and 4W (What-Where-When-Who) models. Its application in the actual setting was investigated through empirical investigations involving users and experts. The developed model contains five modules; online social interaction, profile management, unmet needs interaction, unmet needs plan, and recommendation. Additionally, evaluation was performed during the design process by experts for review analysis to clarify the needs of the users and assist in optimising the functionality of the conceptual model. © 2023 Little Lion Scientific.

Author Keywords

Elderly People; Recommendation; Social Connectedness; Social Interaction; Unmet Needs; Users

References

- (2017) World Population Ageing Report,
- Newcomer, R., Kang, T., Laplante, M., Kaye, S. (2005) Living Quarters and Unmet Need for Personal Care Assistance Among Adults With Disabilities,

Donovan, N. J., Blazer, D. Social Isolation and Loneliness in Older Adults: Review and Commentary of a National Academies Report

(2020) The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry, 28 (12), pp. 1233-1244.

- Angelov, S., Grefen, P.
 The 4W framework for B2B e-contracting (2003) International Journal of Networking and Virtual Organisations, 2 (1), pp. 78-97.
- Ordonez-Ordonez, Jorge O., Bravo-Torres, Jack F., Sari-Villa, Oscar D., Ordonez-Morales, Esteban F., Lopez-Nores, Martin, Blanco-Fernandez, Yolanda

Stimulating Social Interaction among Elderly People through Sporadic Social Networks

(2017) 2017 International Caribbean Conference on Devices, Circuits and Systems, ICCDCS 2017, pp. 97-100.

- Coelho, José, Rito, Fábio, Duarte, Carlos
 You, Me & TV' Fighting Social Isolation of Older Adults with Facebook, TV and Multimodality

 (2017) International Journal of Human-Computer Studies, 98, pp. 38-50.
 (February)
- Muñoz, Diego, Gutierrez, Francisco, Ochoa, Sergio F., Baloian, Nelson Enhancing Social Interaction between Older Adults and Their Families (2013) Ambient Assisted Living and Active Aging, 8277, pp. 47-54.
 edited by Christopher Nugent, Antonio Coronato, and José Bravo, Lecture Notes in Computer Science. Cham: Springer International Publishing
- Fowler, Christianne Nesbitt, Haney, Tina, Lemaster, Margaret Helping Dementia Caregivers Through Technology (2016) *Home Healthcare Now*, 34 (4), pp. 203-209.
- Mehta, Kala M., Gallagher-Thompson, Dolores, Varghese, Mathew, Loganathan, Santosh, Baruah, Upasana, Seeher, Katrin, Zandi, Diana, Pot, Anne Margriet ISupport, an Online Training and Support Program for Caregivers of People with Dementia: Study Protocol for a Randomized Controlled Trial in India (2018) *Trials*, 19 (1), p. 271.
- Kobayashi, Toru, Katsuragi, Kazushige, Miyazaki, Taishi, Arai, Kenichi
 Social Media Intermediation Robot for Elderly People Using External Cloud-Based Services

 (2017) 2017 5th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering (MobileCloud), pp. 31-38.
 San Francisco, CA, USA: IEEE
- Wannatrong, Napaphat, Yoannok, Sujitra, Srisuk, Kulganya The Development of Online Community Model to Promote the Life Quality Level of the Elderly in Urban Society (2018) 2018 16th International Conference on ICT and Knowledge Engineering (ICT&KE), pp. 1-6. Bangkok: IEEE
- Willard, Sarah, Cremers, Ger, Man, Yan Ping, van Rossum, Erik, Spreeuwenberg, Marieke, de Witte, Luc
 Development and Testing of an Online Community Care Platform for Frail Older Adults in the Netherlands: A User-Centred Design (2018) *BMC Geriatrics*, 18 (1), p. 87.
- Ha, Tuan V, Hoang, Doan B
 An Assistive Healthcare Platform for Both Social and Service Networking for Engaging Elderly People
 (2017) 2017 23rd Asia-Pacific Conference on Communications (APCC), pp. 1-6. Perth, WA: IEEE
- Wongpun, Sukontip, Guha, Sumanta
 Design and Development of an Online Support System for Elder Care
 (2018) Intelligent Information and Database Systems, pp. 653-663.
 edited by Ngoc Thanh Nguyen, Duong Hung Hoang, Tzung-Pei Hong, Hoang Pham, and Bogdan Trawiński, 10751: Lecture Notes in Computer Science. Cham: Springer International Publishing

- Embarak, F., Ismail, N. A., Othman, S.
 A systematic literature review: the role of assistive technology in supporting elderly social interaction with their online community

 (2021) Journal of Ambient Intelligence and Humanized Computing, 12 (7), pp. 7427-7440.
- Embarak, F., Azman Ismail, N., Shahin, O. R. R., Alabdali, R. N. N. **Design of autonomous online social community architecture for older adults** (2022) *Computers and Electrical Engineering*, 100, p. 107900.
- Angelov, Samuil, Grefen, Paul The 4W Framework for B2B E-Contracting (2003) International Journal of Networking and Virtual Organisations, 2, pp. 78-97.
- Ashida, Sato, Heaney, Catherine A.
 Differential Associations of Social Support and Social Connectedness With Structural Features of Social Networks and the Health Status of Older Adults (2008) Journal of Aging and Health, 20 (7), pp. 872-893.
- Reynolds, Tom, Thornicroft, Graham, Abas, Melanie, Woods, Bob, Hoe, Juanita, Leese, Morven, Orrell, Martin
 Camberwell Assessment of Need for the Elderly (CANE): Development, Validity and Reliability
 (2000) British Journal of Psychiatry, 176 (5), pp. 444-452.
- Goswami, Suparna, Köbler, Felix, Leimeister, Jan, Krcmar, Helmut Using Online Social Networking to Enhance Social Connectedness and Social Support for the Elderly (2010) ICIS 2010 Proceedings, January
- Embarak, F. M., Ismail, N. A., Alsayed, A. O., Buhalfaya, M. B., Younes, A. A., Naser, B. H. The 4W Framework of the Online Social Community Model for Satisfying the Unmet Needs of Older Adults
 (2022) International Journal of Advanced Commuter Science and Applications, 42 (6)

(2022) International Journal of Advanced Computer Science and Applications, 13 (6).

 Dalal, S., Alwan, M., Seifrafi, R., Kell, S., Brown, D. E.
 A Rule-Based Approach to the Analysis of Elders' Activity Data: Detection of Health and Possible Emergency Conditions (2005) Undefined,

Publisher: Little Lion Scientific

ISSN: 19928645 Language of Original Document: English Abbreviated Source Title: J. Theor. Appl. Inf. Technol. 2-s2.0-85180095144 Document Type: Article Publication Stage: Final Source: Scopus



