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## Using socio-ecological model to inform the design of persuasive applications (Conference Paper)

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### Abstract

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Diverse persuasive applications that aim for behavioural changes have been developed. However, the method in which particular persuasive design principles are chosen over others remains unclear. Meanwhile, the use of socio-ecological model has been widely utilized in clinical research, as a basis to understand the factors in the entire ecological system that influences behavioural patterns. Because persuasive technology aims to change the behaviour and attitudes of users, we believe that the use of socioecological model would be beneficial to inform the design of persuasive applications. Accordingly, in this paper, we attempt to demonstrate the mapping of the socio-ecological factors and persuasive design principles by conducting interviews and expert reviews. Based on our approach, 12 socio-ecological factors that influence physical activity behaviour, and corresponding relevant persuasive design principles to deal with these factors, are identified. Copyright is held by the author/owner(s).

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Health behaviour change Persuasive technology Requirements elicitation Socioecological model

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- 1 Fogg, B.J.  
**Persuasive Technology: Using Computers to Change What We Think and Do**  
 (2003) *Persuasive Technology: Using Computers to Change What We Think and Do*, pp. 1-282. Cited 1117 times.  
<http://www.sciencedirect.com/science/book/9781558606432>  
 ISBN: 978-155860643-2  
 doi: 10.1016/B978-1-55860-643-2.X5000-8  
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- 2 Albaina, I.M., Visser, T., Van Der Mast, C.A.P.O., Vastenburger, M.H.  
**Flowie: A persuasive virtual coach to motivate elderly individuals to walk**  
 (2009) *2009 3rd International Conference on Pervasive Computing Technologies for Healthcare - Pervasive Health 2009, PCTHealth 2009*, art. no. 5173635. Cited 38 times.  
 ISBN: 978-963979942-4  
 doi: 10.4108/ICST.PERVASIVEHEALTH2009.5949  
 View at Publisher

- 3 Consolvo, S., Klasnja, P., McDonald, D.W., Landay, J.A.  
 Goal-setting considerations for persuasive technologies that encourage physical activity  
 (2009) *PERSUASIVE '09*. Cited 2 times.  
 ACM

- 4 Davis, J.  
**Early experiences with participation in persuasive technology design**  
 (2012) *ACM International Conference Proceeding Series*, 1, pp. 119-128. Cited 6 times.  
 ISBN: 978-145030846-5  
 doi: 10.1145/2347635.2347653  
 View at Publisher

- 5 Fogg, B.J.  
 Creating persuasive technologies: An eight-step design process  
 (2009) *PERSUASIVE '09*  
 ACM

- 6 Oinas-Kukkonen, H., Harjumaa, M.  
**Persuasive systems design: Key issues, process model, and system features**  
 (2009) *Communications of the Association for Information Systems*, 24 (1), pp. 485-500. Cited 351 times.  
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=3424&context=cais>