# 2020 IEEE First International Workshop on Requirements Engineering for Well-Being, Aging, and Health (REWBAH 2020)

Zurich, Switzerland 31 August 2020



IEEE Catalog Number: ISBN: CFP20Y82-POD 978-1-7281-8355-8

# Copyright © 2020 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

*Copyright and Reprint Permissions*: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

### \*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number:	CFP20Y82-POD
ISBN (Print-On-Demand):	978-1-7281-8355-8
ISBN (Online):	978-1-7281-8354-1

#### Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400 Fax: (845) 758-2633 E-mail: curran@proceedings.com Web: www.proceedings.com



## 2020 IEEE First International Workshop on Requirements Engineering for Well-Being, Aging, and Health (REWBAH) **REWBAH 2020**

### **Table of Contents**

Welcome from the Organizers .vii Daniel Amyot (University of Ottawa, Canada), Meira Levy (Shenkar College of Engineering and Design, Israel), Lin Liu (Tsinghua University, China), and Eric Yu (University of Toronto, Canada)

Program Committee .ix.....

#### **REWBAH 2020: First International Workshop on Requirements** Engineering for Well-Being, Aging, and Health

Using Work System Design, User Stories and Emotional Goal Modeling for an mHealth System .1.... Nik Nailah Binti Abdullah (Monash University Malaysia), John Grundy (Monash University Australia), Jennifer McIntosh (Monash University Australia), Yen Chia How (Hospital Queen Elizabeth II, Malaysia), Sahrin Saharuddin (Hospital Queen Elizabeth II, Malaysia), Koh Keng Tat (Heart Failure Clinic, Malaysia), Eng Shinye (Heart Failure Clinic, Malaysia), Angie Julaina Anak Rastom (Heart Failure Clinic, Malaysia), and Noorma Liyana Binti Othman (Heart Failure Clinic, Malaysia) A Multi-aspectual Requirements Analysis for Artificial Intelligence for Well-being 11..... Mamello Thinyane (United Nations University Institute in Macau) and Lauri Goldkind (Fordham University, USA) Developing Wellbeing Service Effectiveness Platform: Some RE considerations .19..... Sami Jantunen (South-Eastern Finland University of Applied Sciences), Arto Pesola (South-Eastern Finland University of Applied Sciences), Petri Janhunen (South-Eastern Finland University of Applied Sciences), Tuomas Reijonen (South-Eastern Finland University of Applied Sciences), and Viljo Kuuluvainen (South-Eastern Finland University of Applied Sciences) A Multi-method Approach for Requirements Elicitation for the Design and Development of Smartphone Applications for Older Adults .25..... Bilal Ahmad (Lero – The Science Foundation Ireland Centre for Software Research University of Limerick, Ireland), Ita Richardson (Lero – The Science Foundation Ireland Centre for Software Research University of Limerick, Ireland), and Sarah Beecham (Lero – The Science Foundation

Ireland Centre for Software Research University of Limerick, Ireland)

Emotional Requirements for Well-being Applications: The Customer Journey .35 Meira Levy (Shenkar College of Engineering, Design and Art, Israel; University of Haifa, Israel)
GP Benchmark: Engineering a Crowd-Sourcing Platform for Real-Time Understanding of Personality and Cognitive Biases in Clinical Error 41 Wesley Hutchinson (Lancaster University, UK), Sumi Helal (Lancaster University, UK), and Christopher Bull (Lancaster University, UK)
Understanding Requirements for Technology-Supported Healthy Aging .47 Ziqi Wei (Tsinghua University), Yijian Liu (Tsinghua University), Lin Liu (Tsinghua University), Eric Yu (University of Toronto), John Mylopoulos (University of Toronto), and Carl K Chang (Iowa State University)
Including Human Factors and Ergonomics in Requirements Engineering for Digital Work Environments .57 Ebba Håkansson (Lund University, Sweden) and Elizabeth Bjarnason (Lund University, Sweden)
Software Engineering Issues: An Exploratory Study into the Development of Health Information Systems for People with Mild Intellectual and Developmental Disability .67 Muneef Alshammari (Lero – The Science Foundation Ireland Centre for Software Research, University of Limerick, Ireland), Owen Doody (University of Limerick, Ireland), and Ita Richardson (Lero – The Science Foundation Ireland Centre for Software Research and University of Limerick, Ireland)
Translating Advances in Medical Knowledge to Software Requirements - The Lead User Requirements Engineering Method - LURE .77. Iryna Davies (University of British Columbia, Canada), Jens H. Weber (University of Victoria, Canada), and Morgan Price (University of British Columbia, Canada)

Author Index 87.