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# Well-Being in the Information Society

**When the Mind Breaks**

9th International Conference, WIS 2022  
Turku, Finland, August 25–26, 2022  
Proceedings

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# Preface

“When the Mind Breaks” was the motto of the ninth biannual conference on Well-being in the Information Society (WIS 2022). The conference topic couldn’t be timelier than after having endured a pandemic following the COVID-19 virus outbreak. What first seemed like an event that fostered, and even accelerated, the digital transformation in ways almost unimaginable before, also challenged the well-being of those affected by isolation and lack of human contact more than ever. Here, the Russian aggression against Ukraine with all its consequences inside and outside the war-affected territories furthered these tendencies even more.

We felt that the topic was relevant and academic discussion around it was much needed; hence, it was selected as the main theme of this year’s conference, which once again was organized by the University of Turku in cooperation with Åbo Akademi University and Tampere University.

The submitted papers consisted of academic contributions on the topics at the intersection of health, ICT, and society as seen from different directions and contexts. Thanks to the international reviewers, we were able to accept 14 papers to be presented at the conference, which was to be held in a hybrid way allowing both remote and in-person presentations. We are grateful for the efforts of the reviewers in identifying relevant and topical research papers for WIS 2022.

This interdisciplinary conference shows nicely how the topic of Well-being in the Information Society requires a thorough understanding of psychology, information systems, medicine, societal development, and systems theory. Dealing with one of these issues alone does not allow one to understand the complexity of the topic as a whole. Only the combination of knowledge, understanding, and contextualization presents the rich details of this topic. If the conference on Well-being in the Information Society didn’t exist already, now would certainly be the time when it would be founded again.

The proceedings are structured in four sections: i) Mental Well-being and E-Health, ii) Social Media and Well-being, iii) Innovative Solutions for Well-Being in the Information Society, and iv) Driving Well-being in the Information Society.

The first section includes four papers reflecting the issues of mental health and well-being through the use of information and communication technology (ICT). In the first paper, titled “Well-Being of Hong Kong DSE Students in the Post-COVID-19 age: Opportunities and Challenges for Mental Health Education and Promotion”, Wai Sun Derek Chun, Siu Ho Yau, Wai Man Chan, and Ting Ting Fung discuss how the mental health of the student population in Hong Kong, a system which is known for focusing on examinations, was affected by COVID-19. The second paper by Vincent Peter C. Magboo and Sheila A. Magboo focuses on “Important Features Associated with Depression Prediction and Explainable AI”, whereby they analyze how artificial intelligence can help to understand and predict being affected by depression. The third paper in this section by Dana Naous and Tobias Mettler discusses the dilemma around “Mental Health Monitoring at Work: IoT Solutions and Privacy Concerns”, where employers try to support their staff by monitoring for mental health issues, which raises serious concerns

about their privacy. In the final paper of this section, Prima Pangsrisonboon, Aung Pyaea, Noppasorn Thawitsri, and Supasin Liulak present the issues around mental health for Thai students in their study titled “Design and Development of an NLP-Based Mental Health Pre-screening Tool for Undergraduate Students in Thailand: A Usability Study”.

The second section collates three papers dealing with how social media is increasingly affecting our society’s well-being, not least since the Cambridge Analytica scandal has shown the vulnerability of our political systems, and the fears around the pitfalls of social media become more and more evident. The first of these papers is authored by Linda Achilles, Thomas Mandl, and Christa Womser-Hacker. In their paper focused on “Thinspiration Inspired by K-pop: A Comparison of K-pop Related Thinspiration Imagery and Texts to Regular Thinspiration Content on Tumblr”, they explore how social media posts on Tumblr can affect eating disorders and body dissatisfaction. The second contribution titled “Mental Health Communication on Social Media in India: Current Status and Predictors”, by Sairaj Patki and Anika Iyer, presents the Indian experience with mental health communication in social media and how COVID-19 supported such communication. Aung Pyae and Shahrokh Nikou, in the concluding paper of this section titled “Understanding University Students’ Health Information Seeking Behaviors on Social Media During the COVID-19 Pandemic: A Developing Country Perspective” address how social media affected university students’ health (mis-)information during the pandemic, due to lack of alternatives.

The third section provides an overview of three innovative solutions around well-being. The first paper, “Classification of Healthcare Robots” by Rong Huang, deals with how we can differentiate different robots in the area of health. The second contribution reviews how the poor can use information society tools to improve their situation in a paper titled “Digital Solutions for the Marginalised in Society: A Review of Systems to Address Homelessness and Avenues for Further Research” by Michael Oduor. The third paper deals with virtual reality and new ways of working, titled “Investigating Students’ Engagement, Enjoyment, and Sociability in Virtual Reality-Based Systems: A Comparative Usability Study of Spatial.io, Gather.town, and Zoom” and authored by Summa Sriworapong, Aung Pyaea, Arin Thirasawasd, and Wasin Keereewan.

The fourth and last section provides an interesting insight into different approaches to providing well-being in the information society. The first paper by Hamed Ahmadinia deals with “A Review of Health Beliefs and Their Influence on Asylum Seekers and Refugees’ Health-Seeking Behavior”. The second paper, by Eva Collanus, Emilia Kielo-Viljamaa, Janne Lahtiranta, and Antti Tuomisto, is on the important topic of “Measuring the Maturity of Healthcare Testbeds”. The third contribution addresses “Study Structures in the Interplay of Stress and Coping in Higher Education” and is authored by Eija-Liisa Heikka, Pia Hurmelinna-Laukkanen, Outi Keränen, and Pia Partanen. The final paper by Tina Long deals with the important issue of “What Drives User Engagement of Theme Park Apps? Utilitarian, Hedonic or Social Gratifications”.

We want to express our deepest gratitude to our organizing institutions that have constantly supported us with the conference in several ways. We also want to thank the Finnish Foundation for Economic Education for financial support, all the authors for contributions, and all the reviewers for their hard work to ensure the quality of WIS 2022. Further, we acknowledge the support received through Horizon 2020 funding with grant

number 857622 for the work of Robert Krimmer. Our conference management group consisting (in addition to us) of Hongxiu Li, Chenglong Li, Maedeh Ghorbanian Zolbin, Kaisa Mishina, Brita Somerkoski, and Tapio Vepsäläinen also deserves a big thanks. Finally, we are grateful to Springer for again accepting our proceedings for publication.

August 2022

Robert Krimmer  
Jukka Kärkkäinen  
Reima Suomi



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# Contents

## Mental Well-being and E-Health

Well-Being of Hong Kong DSE Students in the Post-COVID-19 Age: Opportunities and Challenges for Mental Health Education and Promotion . . . . .	3
<i>Derek Wai Sun Chun, Siu Ho Yau, Wai Man Chan, and Ting Ting Fung</i>	

Important Features Associated with Depression Prediction and Explainable AI . . . . .	23
<i>Vincent Peter C. Magboo and Ma. Sheila A. Magboo</i>	

Mental Health Monitoring at Work: IoT Solutions and Privacy Concerns . . . . .	37
<i>Dana Naous and Tobias Mettler</i>	

Design and Development of an NLP-Based Mental Health Pre-screening Tool for Undergraduate Students in Thailand: A Usability Study . . . . .	46
<i>Prima Pangrisomboon, Aung Pyae, Noppasorn Thawitsri, and Supasin Liulak</i>	

## Social Media and Well-being

Thinspiration Inspired by K-pop: A Comparison of K-pop Related Thinspiration Imagery and Texts to Regular Thinspiration Content on Tumblr . . . . .	63
<i>Linda Achilles, Thomas Mandl, and Christa Womser-Hacker</i>	

Mental Health Communication on Social Media in India: Current Status and Predictors . . . . .	78
<i>Sairaj Patki and Anika Iyer</i>	

Understanding University Students' Health Information Seeking Behaviours on Social Media During the COVID-19 Pandemic: A Developing Country Perspective . . . . .	94
<i>Aung Pyae and Shahrokh Nikou</i>	

## Innovative Solution for Well-being in the Information Society

Classification of Healthcare Robots . . . . .	115
<i>Rong Huang</i>	

Digital Solutions for the Marginalised in Society: A Review of Systems to Address Homelessness and Avenues for Further Research .....	124
<i>Michael Oduor</i>	
Investigating Students' Engagement, Enjoyment, and Sociability in Virtual Reality-Based Systems: A Comparative Usability Study of Spatial.io, Gather.town, and Zoom .....	140
<i>Summa Sriworapong, Aung Pyae, Arin Thirasawasd, and Wasin Keereewan</i>	
<b>Driving Well-being in the Information Society</b>	
A Review of Health Beliefs and Their Influence on Asylum Seekers and Refugees' Health-Seeking Behavior .....	161
<i>Hamed Ahmadinia</i>	
Measuring the Maturity of Healthcare Testbeds .....	179
<i>Eva Collanus, Emilia Kielo-Viljamaa, Janne Lahtiranta, and Antti Tuomisto</i>	
Study Structures in the Interplay of Stress and Coping in Higher Education .....	192
<i>Eija-Liisa Heikka, Pia Hurmelinna-Laukkanen, Outi Keränen, and Pia Partanen</i>	
What Drives User Engagement of Theme Park Apps? Utilitarian, Hedonic, or Social Gratifications .....	204
<i>Ting Long</i>	
<b>Author Index</b> .....	221