2nd European Conference on the Impact of Artificial Intelligence and Robotics (ECIAIR 2020)

Online 22 – 23 October 2020

Editor:

Florinda Matos

ISBN: 978-1-7138-2061-1

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright The Authors, (2020). All Rights Reserved. No reproduction, copy or transmission may be made without written permission from the individual authors.

Printed with permission by Curran Associates, Inc. (2020)

Review Process

Papers submitted to this conference have been double-blind peer reviewed before final acceptance to the conference. Initially, abstracts were reviewed for relevance and accessibility and successful authors were invited to submit full papers. Many thanks to the reviewers who helped ensure the quality of all the submissions.

Ethics and Publication Malpractice Policy

ACPIL adheres to a strict ethics and publication malpractice policy for all publications – details of which can be found here:

http://www.academic-conferences.org/policies/ethics-policy-for-publishing-in-the-conference-proceedings-of-academicconferences-and-publishing-international-limited/

Conference Proceedings

The Conference Proceedings is a book published with an ISBN and ISSN. The proceedings have been submitted to a number of accreditation, citation and indexing bodies including Thomson ISI Web of Science and Elsevier Scopus.

Author affiliation details in these proceedings have been reproduced as supplied by the authors themselves.

Published by Academic Conferences and Publishing International Ltd. 33 Wood Lane Sonning Common RG4 9SJ UK

Phone: 441 189 724 148 Fax: 441 189 724 691 info@academic-conferences.org

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

Email: curran@proceedings.com Web: www.proceedings.com

Contents

Paper Title	Author(s)	Page No
Preface		iii
Committee		iv
Biographies		vii
Research papers		
Artificial Intelligence Supported Cognitive Behavioral Therapy for Treatment of Speech Anxiety in Virtual Reality Environments	Fredrik Åhs, Peter Mozelius and Felix Dobslaw	1
Cultural Challenges of the Malicious Use of Artificial Intelligence in Latin American Regional Balance	Raynel Batista, Oscar Villar, Héctor González and Vladimir Milián	7
The Threat of Using Advanced Technologies by Terrorists: Psychological Aspect	Darya Bazarkina	14
Eliciting Personal Attitude Changes on Predictive Policing Based on a Multilinear Narrative	Manuel Brunner, Elke Brucker- Kley and Thomas Keller	21
Creation of Artificial Bureaucrats	Justin B. Bullock and Kyoung- cheol Kim	30
Mathematical Model of Human Decision: A Methodological Basis for the Functioning of the Artificial Intelligence System	Viacheslav Burlov	38
On Handling Ethical Dilemmas in Artificial Intelligence Systems	Jim Q. Chen	49
The Impact of Digitalization on the Importance of Intangibles for the Competitive Success in Medium-Sized Companies	Helmut Döring	58
IEEE P7010-2020 Standard: Use Cases in Ethical Impact on Human Wellbeing Studies	Alice Vo Edwards	64
User-Centric AI in Public Administration	Jan Etscheid	70
Using Text Mining to Analyse Digital Transformation Impact on People	Florinda Matos, Valter Vairinhos and Ana Josefa Matos	78
Relevant Distinctions in Relation to Explainability in the Public Sector	Hanne Marie Motzfeldt and Ayo Næsborg-Andersen	86
Deepfakes as the New Challenge of National and International Psychological Security	Konstantin A. Pantserev	93

Paper Title	Author(s)	Page No
Malicious Use of Deepfakes and Political Stability	Evgeny Pashentsev	100
Ethical Challenges in Collecting and Analysing Biometric Data	Anabela Pereira	108
Introducing the Concept of Digital-Agent Signatures for Human-Robot-Robot-Human Interaction	Alexander Pfeiffer, Alesja Serada, Mark Bugeja, Stephen Bezzina, Thomas Wernbacher and Simone Kriglstein	115
Forewarned is Forearmed and Other Risk Scenarios	Olga Polunina	123
Working Time and Digital Transition: A Complex and Ambiguous Relationship	Glória Rebelo, Eduardo Simões and Isabel Salavisa	128
Robotic Process Automation as a Change Agent for business Processes: Experiences and Expectations	Juha Saukkonen, Kirsi Kemell, Maija Haaranen and Erica Svärd	136
Politics of Technology or Technology of Politics?	Vincenzo Scalia and Caroline Stockman	146
"Like 9/11 on Steroids": Al in the age of Coronavirus	Keith Scott	153
Robotics and Artificial Intelligence (R&AI) Perceptions of Consumers and Producers: An International Comparison Among Portugal and Spain	Eduardo Tomé, Olga Rivera, David Lopez and Pedro Soares de Mello	161
Utilization of Sophisticated Cryptography Methods in Providing Security in Cyber-physical Context	Petri Vähäkainu, Martti Lehto and Antti Kariluoto	169
Blockchain, Facebook and a Polygraph	Paulo Vieira, Caroline Stockman and Paul Crocker	178
Explainability is not Enough: Requirements for Human-Al-Partnership in Complex Socio-Technical Systems	Toni Waefler and Ute Schmid	185
Phd Research Paper		195
How Artificial Intelligence Affect the Labour Market in Poland	Katarzyna Koput	197
Work In Progress Paper		204
Figure Follow: A Step by Step Liberating Device	José Cavaleiro Rodrigues, Tiago Dias and Catarina Silva	206