

# **2019 First International Conference on Transdisciplinary AI (TransAI 2019)**

**Laguna Hills, California, USA  
25 – 27 September 2019**



**IEEE Catalog Number: CFP19S76-POD  
ISBN: 978-1-7281-4128-2**

**Copyright © 2019 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:	CFP19S76-POD
ISBN (Print-On-Demand):	978-1-7281-4128-2
ISBN (Online):	978-1-7281-4127-5

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# 2019 First International Conference on Transdisciplinary AI (TransAI) **TransAI 2019**

## Table of Contents

Message from General Chairs .viii.....  
Message from Program Chairs .ix.....  
Conference Organization .x.....  
Program Committee .xi.....

### Keynote

Emerging and Future Technology Trends in the Links between Cybercrime, Trafficking in Persons and Smuggling of Migrants .1.....  
*Felicity Gerry QC (Deakin University) and Peter Shaw (Massey University)*

### Session 6.3: TransAI-3 - Human Learning and Development

Measuring Group Personality with Swarm AI .10.....  
*Gregg Willcox (Unanimous AI), David Askay (California Polytechnic State University), Louis Rosenberg (Unanimous AI), Lynn Metcalf (California Polytechnic State University), Bryan Kwong (Unanimous AI), and Richard Liu (University of California, Berkeley)*

Short Paper: The Impact of Environmental Education with Immersive Environment on Learning Performance and Environmental Identity .18.....  
*Zhao Yu (Shanghai Jiao Tong University) and Xun lin (Shanghai Jiao Tong University)*

Satire vs Fake News: You Can Tell by the Way They Say It .22.....  
*Dipto Das (Missouri State University) and Anthony J. Clark (Missouri State University)*

Observing and Modeling User Behavior on Socio-Spatial Interaction Networks: Conformance, Exceptions, and Anomalies .27.....  
*Martin Atzmueller (Tilburg University), Cicek Güven (Tilburg University), Parisa Shayan (Tilburg University), Spyroula Masiala (Tilburg University), Rick Mackenbach (Tilburg University), and Werner Liebrechts (Tilburg University)*

## Session 7.3: TransAI-1 - Applications of Convolutional Neural Networks in the Robotics and Medical Fields

Convolutional Neural Networks for Speech Controlled Prosthetic Hands .35.....	
<i>Mohsen Jafarzadeh (The University of Texas at Dallas) and Yonas Tadesse (The University of Texas at Dallas)</i>	
Comparing CNN Inputs for Terrain Classification using Simulation .43.....	
<i>Anthony Clark (Missouri State University), Jesse Simpson (Missouri State University), and Jared Hall (Missouri State University)</i>	
3D Anchor-Free Lesion Detector on Computed Tomography Scans .48.....	
<i>Ning Zhang (University of Computer Science Lowell, US), Dechun Wang (University of Computer Science Lowell, US), Pengfei Zhang (University of Computer Science Lowell, US), Xinzi Sun (University of Computer Science Lowell, US), Chenxi Zhang (University of Computer Science Lowell, US), Yu Cao (University of Computer Science Lowell, US), and Benyuan Liu (University of Computer Science Lowell, US)</i>	

## Session 8: TransAI -Invited Session

Speak Up! Studying the Interplay of Individual and Contextual Factors to Physiological-Based Models of Public Speaking Anxiety .52.....	
<i>Megha Yadav (Texas A&amp;M University, USA), Amir Behzadan (Texas A&amp;M University, USA), and Theodora Chaspari (Texas A&amp;M University, USA)</i>	
Controversy Score Calculation for News Articles .56.....	
<i>Paul Kim (University of San Francisco), Ziyu Fan (University of San Francisco), Lance Fernando (University of San Francisco), Jacques Sham (University of San Francisco), Crystal Sun (University of San Francisco), Yixin Sun (University of San Francisco), Brian Wright (University of San Francisco), Xi Yang (University of San Francisco), Nicholas Ross (University of San Francisco), and Diane Woodbridge (University of San Francisco)</i>	
LabelMerger: Learning Activities in Uncontrolled Environments .64.....	
<i>Seyed Iman Mirzadeh (Washington State University), Jessica Ardo (University of California Irvine), Ramin Fallahzadeh (Stanford University), Bryan Minor (Washington State University), Lorraine Evangelista (University of Texas Medical Branch), Diane Cook (Washington State University), and Hassan Ghasemzadeh (Washington State University)</i>	

## Session 10.3: TransAI-4 - Applications of Convolutional Neural Networks: General

Generating Homeric Poetry with Deep Neural Networks .68.....	
<i>Annie Lamar (Stanford University, USA) and America Chambers (University of Puget Sound, USA)</i>	

ViSeR: A Visual Search Engine for e-Retail .76.....  
*Avadh Boriya (San Jose State University), Sai Supraja Malla (San Jose State University), Rikitha Manjunath (San Jose State University), Vineela Velicheti (San Jose State University), and Magdalini Eirinaki (San Jose State University)*

Short Paper: Understanding the Attention Model of Humans in Sarcastic Videos .84.....  
*Dipto Das (Missouri State University), Md. Forhad Hossain (Missouri State University), and Anthony J. Clark (Missouri State University)*

Short Paper: TigerAware Assistant: A New Serverless Implementation of Conversational Agents for Customizable Surveys on Smart Devices .88.....  
*Yohanes Handrianto (University of Missouri), Rui Huang (University of Missouri), and Yi Shang (University of Missouri)*

**Author Index 93** .....