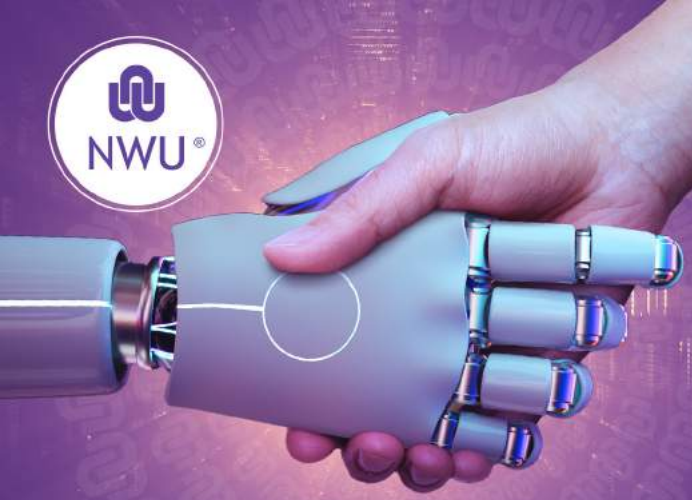


The Optentia Research Unit
invites you to the following symposium:

TECHNOLOGY, HUMANITY, AND THE ETHICAL COMPASS:
Charting the Course of Capability Development

TECHNOLOGY, HUMANITY, AND THE ETHICAL COMPASS

DATE: 4 April 2024
TIME: 10:00 - 13:30
PLACE: North-West University, Potchefstroom Campus, PC-C1-135 (in person) or YouTube (online)
REGISTRATION: https://bit.ly/AI_Symposium
CONTACT PERSON: Lynn Booysen: lynn.booysen@nwu.ac.za

AIM OF THE SYMPOSIUM

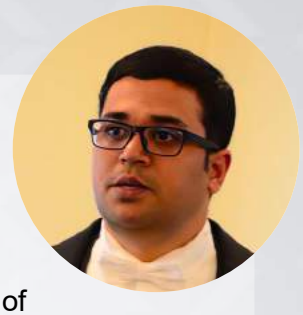
The symposium aims to chart a course for the future of capability development that is ethically grounded, human-centric, and socially responsible, fostering a dialogue among researchers, practitioners, and policymakers from diverse fields to collaborate towards a more equitable and humane technological future.

PROGRAM

- Welcoming: Prof. Ian Rothmann, Director: Optentia Research Unit, North-West University
- **Topic 1:** AI as a mediator of human values: A dynamic sociotechnical systems perspective (Prof. Olya Kudina)
- **Topic 2:** Algorithmic Appreciation, aversion, and algoactivism: Where we are now and where we are heading (Prof. Aman Dhir)
- **Topic 3:** Navigating knowledge frontiers: Digital storytelling for critical thinking and emotional learning (Prof. Shirley Chen)
- **Topic 4:** Tactile experience in merged reality for learning (Prof. Sufen Chen)
- **Topic 5:** Crossing wires: The 'techtures' that enable us (Dr Lance Bunt)
- **Topic 6:** New approach in counseling and psychological service: Metaverse counseling (Prof. Sang Min Lee)
- **Topic 7:** Technology-enabled decolonial practice. A state of translation (Prof. Japie Greeff)
- Integration and conclusion
- Networking and refreshments

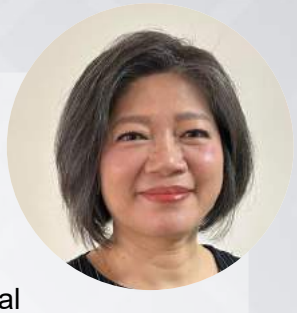
THE TOPICS

Topic 1:
AI as a mediator of human values: A dynamic sociotechnical systems perspective. In this talk, Prof. Olya Kudina will present a perspective on ethics and its main infrastructure unit, i.e., human values, as evolving next to technologies, such as AI. She will build on philosophical theories of pragmatism and post-phenomenology to show that humans are not and have never been independent in crafting their moral compass but that technologies, such as AI, play a role in it. To this end, she will also conceptualize AI not primarily in its technical dimension but as a dynamic sociotechnical system comprising the interrelation of the social, technical, and institutional components. Illustrating the talk with numerous examples, she will outline several ways AI and human values are interrelated and consider this from the perspective of responsible design and use of AI.



Topic 2:
Algorithmic Appreciation, aversion and algoactivism: Where we are now and where we are heading. According to Prof. Aman Dhir, the increased automation and augmentation of human resource management practices due to the use of artificial intelligence technologies and machine learning have seen an exponential increase in algorithmic management. Algorithms are taking over multiple functions associated with human resource management spanning from recruitment to performance management and even disciplining of employees, especially in the gig economies. However, relatively little is known about employees' reactions to these algorithms' takeover of human resource management functions traditionally performed with the human touch and empathy. Consequently, furious debates are underway in the practitioner and academic circles about how employees perceive algorithmic decision-making and react to its position as the "boss". These debates seem to swing between extremes wherein algorithms are either seen as (a) the most opaque, faceless, and critical supervisor that is severely detrimental to employee morale or (b) as an objective and rational decision-maker that brings all employees, regardless of their contexts, onto an equitable platform, thus enhancing employee experiences. Fueled by the desire to reconcile and expand on these contrasting points of view among employees, this ongoing project delves deep into the emotional, psychological, and behavioral correlates of employees' experience with and responses to algorithmic human resource management. In this talk, we will discuss the bright and dark aspects of algorithmic human resource management and showcase that this technological application has a Janus-faced nature with the potential to create critical impacts on future workplaces.

Topic 3:
Navigating knowledge frontiers: Digital storytelling for critical thinking and emotional learning. In this talk, Prof. Shirley Chen explores the intersection of digital storytelling with critical thinking and emotional learning. Critical thinking, characterized as a cognitive skill, requires individuals to analyze, synthesize, and evaluate information. Emotional learning, on the other hand, delves into the psychological realm, addressing the nuanced development of attitudes and emotional responses to counteract the impact of negative emotions. Our research suggests that digital storytelling, with its diverse applications, serves as a holistic approach to education, spanning the domains of cognitive and emotional learning. Through engaging narratives and interactive media, digital storytelling becomes a conduit for cultivating critical thinking skills and enhancing emotional intelligence. Join us in exploring the frontiers of knowledge, where the integration of digital storytelling transcends traditional boundaries to provide a comprehensive educational experience that addresses the multifaceted dimensions of learning.



Topic 4:
Tactile experience in merged reality for learning. In this talk, Prof. Sufen Chen discusses how virtual reality and merged reality support learning. Based on empirical studies that compare reading in a hard copy vs. onscreen and virtual vs. physical laboratories, merged reality that incorporates tactual sensation is designed to optimize learning. Relevant theories in cognitive science are introduced with examples.

Topic 5:
Crossing wires: The 'techtures' that enable us. Dr Lance Bunt's talk will explore the nuanced interplay between technology and work capabilities, focusing on the overlooked margins and interstitial spaces that offer substantial opportunities for employee empowerment and organizational growth. This investigation centers on the critical areas of human competencies, capabilities, activities, and specializations, aiming to uncover transformative insights at the intersection of technology and human potential.

Topic 6:

New approach in counseling and psychological service: Metaverse counseling. In this talk, Prof. Sang Min Lee introduces metaverse counseling. In the era of technology, the metaverse emerges as a transformative space for social interaction, entertainment, and personal development. This presentation explores the intersection of mental health and the metaverse, focusing on innovative counseling methods for the new generation. Digital natives, who embrace the metaverse in their social landscape, encounter unique challenges that demand fresh counseling approaches. Delving into virtual reality (VR), augmented reality (AR), and immersive technologies, this presentation unveils their potential as therapeutic tools. From virtual support groups to immersive mindfulness, the metaverse provides a frontier for mental health professionals to assist the new generation. He will explore fostering a healthy younger generation through innovative counseling methods in the ever-expanding virtual landscape.

Topic 7:

Technology-enabled decolonial practice: A state of translation. According to Prof. Japie Greeff, there is a drive in South Africa, and specifically in tertiary education institutions, not only to decolonize one's practice but also to bring about a level of functional multilingualism in the classroom. This is complicated by the fact that not all university teachers can necessarily speak a large number of languages, and these are also not likely to be aligned with the multilingual language policies of the universities in which they operate. This leads to a situation where academics are aligned with the spirit of multilingualism in principle, but the practicalities of reaching such a state make getting there very challenging. In this presentation, he explores the current state of the art regarding artificial intelligence translation, audio generation, and video generation to determine if these tools can provide a pathway to functional multilingualism. He proposes a solution that is currently at the proof-of-concept stage while also exploring the limitations of such a system and what would need to be explored next to make it a production-ready environment that non-technical people can use and how we should be approaching the elephant in the room – assessment.

THE PRESENTERS

Dr Lance Bunt is a lecturer in Vanderbijlpark, South Africa, specializing in game-based learning within the School of Computer Science and Information Systems at the North-West University (NWU). He boasts a varied academic background, beginning with a Communications degree from NWU in 2013, an Honors in Communication and Media Studies in 2014, a Master of Science in Information Technology (IT) in 2020, and culminating in a PhD in IT in 2023. His research explores various facets of serious game design, including stakeholder involvement, enterprise architecture, game production, instructional technology, human-computer interaction, and systems engineering.

Prof. Hsiu-Ling (Shirley) Chen is a Professor of Digital Learning and Education and Vice Dean of Academic Affairs at the National Taiwan University of Science and Technology. She received her Ph.D. from the University of Texas at Austin. Her main research interests are ICT integration in education, including digital storytelling, computer-supported collaborative learning, social-emotional learning, and higher-order cognitive skills (critical thinking, creative thinking, problem-solving, metacognition). Recent work includes the creation of an emotional learning platform with Emotional Scaffolding-Infused Digital Storytelling, using four NVC (Nonviolent Communication) steps: 1) Observations 2) Feelings 3) Needs 4) Requests as emotional scaffolding to help students express, identify and moderate emotions. Her ongoing research goals are to enhance students' emotional intelligence and further promote positive thinking.

Prof. Sufen Chen is chair professor and provost at the National Taiwan University of Science and Technology, Taiwan, and an extraordinary professor at North-West University, South Africa. She is also the director of the Empower Vocational Education Research Center, and president of the Women in Science and Engineering, NTUST. She has research interests in the areas of science education, technology-enhanced learning, metacognition, achievement emotions, and social media. She received the Outstanding Research Award from the Ministry of Science and Technology, Taiwan, in 2020. She was the 2021-22 Stanford-Taiwan Social Science Fellow at the Center for Advanced Study in the Behavioral Sciences, Stanford University.

Prof. Amandeep Dhir (DSc, PhD) is a Professor of Research Methods at the University of Agder, Norway. He is a visiting professor at the Norwegian School of Hotel Management, University of Stavanger, Norway, and an extraordinary professor at Optentia Research Unit, North-West University, South Africa. His research appears in the Journal of Business Ethics, Human Relations, British Journal of Management, Tourism Management, Journal of Travel Research, Asia Pacific Journal of Management, Journal of Sustainable Tourism, International Marketing Review, Psychology and Marketing, Technology Forecasting and Social Change, Journal of Business Research, Technovation, Business Strategy and Environment, IEEE Transactions on Engineering Management, Computers in Human Behaviour, Computers in Industry, International Journal of Hospitality Management, Information Technology & People, among others.

Prof. Japie Greeff is the Deputy Director of the School of Computer Science and Information Systems at North-West University (NWU). He is also a program leader in Technology and Capability at the Optentia Research Unit, a member of the Unit for Data Science and Computing, and a NITheCS Associate. Further, he serves as a council member of the Big Data and Artificial Intelligence Professional Working Committee of the International Alliance of Skills Development. He holds a Ph.D. in Electronic Engineering with a focus on engineering education, and his main areas of interest lie in artificial intelligence, serious game development, gamification, and the creation of technology artifacts that impact people on a human level.

Prof. Olya Kudina is an Assistant Professor in Ethics/Philosophy of Technology exploring the dynamic interaction between values and technologies. She combines the phenomenological and pragmatist focus with cultural sensitivity to study morality as an evolving system. Her expertise in empirical philosophy helps Olya to connect ethics and design in fostering responsible human-AI collaborations, with a recent focus on AI in (mental) healthcare. Olya holds a Ph.D. in Philosophy of Technology from the University of Twente. Her previous work outside academia adds to her skill set in diplomacy, (inter)governmental work, data protection, and privacy.

Prof. Sang Min Lee has been a Professor of Psychological Counseling at Korea University since 2006. He earned his Ph.D. in School Counseling from the University of Florida and served as an Assistant Professor of Counseling at the University of Arkansas. His research interests encompass work-related and academic stress, as well as burnout syndrome. For six consecutive years, starting in 2016, Sang Min Lee has been honored with the ‘Seok-top Distinguished Research Award’ from Korea University. Sang Min Lee’s recent papers have been featured in esteemed international journals, including the Journal of Counseling and Development, Stress and Health, among others. Over the past 15 years, he has authored more than 200 articles. Recently, Sang Min Lee has broadened his research scope by engaging with new technologies, such as avatar-based metaverse psychological counseling services.