

Zhang Aijia



Title: Assistant Professor
Current Institution: Faculty of Humanities and Arts
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Research & Teaching Areas

Visual Communication Design, Information Design,
Interaction Design, Digital Therapeutics,
Social Innovation Design, Smart Service Design

Education

2022-2025 Macau University of Science and Technology / Theory and Practice of Art and Design / Ph.D.
2019-2022 Shandong University / Design / M.A.
2015-2019 Southwest Jiaotong University / Visual Communication Design / B.A.
/ Engineering Management / B.M. (Dual Degree)

Teaching Experience

2025-Present Assistant Professor / Faculty of Humanities and Arts / Macau University of Science and Technology

Publications

1. **Zhang, A.,** Luo, X., Lin, R., He, C., Wang, J., & Huang, G. (2024). Group arts therapies for patients with schizophrenia: a protocol of systematic review and meta-analysis. *BMJ open*, 14(6), e082076.
2. **Zhang, A.,** Luo, X., Ying, F., Wang, J., & Huang, G. (2024). Collaborative Arts Therapies as a Supportive Intervention for Autism Spectrum Disorders: Bibliometric Analysis, Insights, and Directions. *Heliyon*, 11(1), e41333.
3. **Zhang, A.,** Luo, X., Li, Y., Yan, L., Lai, X., Yang, Q., ... & Wang, J. (2024). Epigenetic changes driven by environmental pollutants in lung carcinogenesis: a comprehensive review. *Frontiers in Public Health*, 12, 1420933.
4. **Zhang, A.,** Lin, R., Luo, X., Li, H., & Huang, G. (2024). Co-Creation with AI: A Painting Therapy Program Aimed at Ameliorating Attention Deficits in Children with ADHD. *Applied Neuropsychology: Child*, 1-10.
5. **Zhang, A.,** Xu, J., Li, Y., & Huang, G. (2024). Developing a Collaborative Interactive Prototype Design Approach for Healthcare of Children with Autism. *The 2024 International Symposium on Ubiquitous Intelligence and Interaction Design (UIID2024)*.

6. **Zhang, A.**, Lin, R., He, C., & Huang, G. (2023). U+X: A Participatory Interaction Design Pattern for Improving Communication Skills in Preschoolers. In: *Zaphiris, P., et al. HCI International 2023 – Late Breaking Papers. HCII 2023*. Lecture Notes in Computer Science, vol 14060. Springer, Cham.
7. **Zhang, A.**, Huang, G., & Ying, F. (2022). Babbling: A Digital Book Application to Improve Preschool Children's Social Communication Ability. *DSIE*, 365, 379-389.
8. Luo, X., **Zhang, A.**, Li, Y., Zhang, Z., Ying, F., Lin, R., Yang, Q., Wang, J. and Huang, G. (2024), Emergence of Artificial Intelligence Art Therapies (AIATs) in Mental Health Care: A Systematic Review. *Int J Mental Health Nurs*, 33, 1743-1760.
9. Li, H., Xue, T., **Zhang, A.**, Luo, X., Kong, L., & Huang, G. (2024). The application and impact of artificial intelligence technology in graphic design: A critical interpretive synthesis. *Heliyon*, 10(21).
10. Luo, X., **Zhang, A.**, Li, H., Li, Y., Ying, F., Wang, X., Yang, Q., Zhang, Z., & Huang, G. (2024). The role of arts therapies in mitigating Sleep Initiation and Maintenance Disorders: a systematic review. *Frontiers in psychiatry*, 15, 1386529.
11. Xu, J., Wang, Q., **Zhang, A.**, Luo, X., & Huang, G. (2025). Sensory-Mediated 'Arts on Prescription': Emotional Arousal Mechanisms through Portuguese Azulejo Craft Workshop. *Frontiers in Psychology*, 16, 1595856.
12. Xu, J., Li, Y., **Zhang, A.**, Shen, J., & Huang, G. (2024). Exploring cross-modal Visual-Tactile therapy interactions for the modulation of generalized anxiety. *The 2024 International Symposium on Ubiquitous Intelligence and Interaction Design (UIID2024)*.
13. Li, Y., Xu, J., **Zhang, A.**, Shen, J., & Huang, G. (2024). System Design for the Protection and Dissemination of Sentimental Objects. *The 2024 International Symposium on Ubiquitous Intelligence and Interaction Design (UIID2024)*.
14. Lin, R., **Zhang, A.**, He, C., Huang, G., Zhou, J. (2023). Understanding the Design Rhythm of Vortex via Visualization. *HCII 2023*. Lecture Notes in Computer Science, vol 14056. Springer, Cham.
15. Li, Y., Luo, X., **Zhang, A.**, Ying, F., Wang, J., & Huang, G. (2024). The Potential of Arts Therapies in Parkinson's Disease Rehabilitation: A Comprehensive Review. *Heliyon*, 10, e35765.
16. Wang, Y., Huang, Y., Luo, X., Lai, X., Yu, L., Zhao, Z., **Zhang, A.**... & Wu, Q. (2024). Deciphering the role of miRNA-134 in the pathophysiology of depression: A comprehensive review. *Heliyon*, 10, e39026.

Awards

1. 2024, 9th Emerging Designer Competition • Huacan Award, First Prize
2. 2023, China University Design Competition & Exhibition • Milan Design Week, First Prize
3. 2022, UDA International Design Competition, Gold Award
4. 2021, UDA 2021 SSL Competition, Bronze Award

5. 2020, UDA 2020 International Idea Design Competition, Gold Award
6. 2020, Blue Awards International Competition for Product Culture & Design, Honorable Mention

Exhibitions

1. 2024, Asia Design Week: Artificial Intelligence and Experimental Art
2. 2021, UDA 10th United Designs Biennial
3. 2021, UDA 23rd International Invitation Exhibition

Patent

2024, Painting Wonderland: A Collaborative Painting Therapy APP for Children with ASD, Software Copyright, 2024SR1794210

Research Grants / Projects

1. 2024, Participant in National Social Science Fund of China: AI Art Therapy Assisted by the Principles of Psychographic Imaging Technology
2. 2024, Participant in China National Arts Fund: Sino-Portuguese Macau - Macau Handicraft Innovative Talent Training
3. 2024, Participant in the MUST Faculty Research Grants (FRG): Artificial Intelligence-based Drawing Therapy for Children with Attention Deficit Hyperactivity Disorder (ADHD)
4. 2022, Participant in the MUST Faculty Research Grants (FRG): AI-Generated Content and Copyright
5. 2022, Participant in China National Arts Fund: Lotus in Full Bloom: Fine Artworks Exhibition on the Theme of Macao's Return
6. 2020, Participant in Shandong University Horizontal Research Project: Science Education Picture Books for Adolescents and Children