WEI–MING (DAVID) CHUNG 莊偉銘

Interaction Design Researcher
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RESEARCH INTEREST

Human–centered design, UI/UX, creativity support, design futuring, interdisciplinary collaboration, intermediate–level knowledge, game–based interactive design, object–oriented programming

EDUCATION

2011–2021, PhD in Dept. Design, National Taiwan University of Science and Technology, Taiwan

- Doctoral dissertation: Exploring Designerly Tools for Shaping Technology Futures
- Advisor: Assoc. Professor Rung–Huei Liang
- GPA: 4.00

2006–2007, MS in Dept. Information Systems and Applications, National Tsing Hua University, Taiwan

- Thesis: Image Surveillance System with Digital Watermarking for Image Authentication
- Advisor: Professor Long–Wen Chang
- GPA: 3.53

2000–2004, BS in Dept. Computer Science and Information Engineering, National Chiao–Tung University, Taiwan

PROFESSIONAL EXPERIENCE

2024–2024, Postdoctoral Research Scholar, Taiwan AI Center of Excellence (Taiwan AICoE), Taiwan

- I collaborated on an interdisciplinary project with Professors Rung–Huei Liang and Yu–Ting Cheng (National Taiwan Tech) to help researchers from ITRI and the Taiwan AICoE envision the future of generative AI. Our team designed kits using generative AI to explore future AI scenarios and employed an experiential future approach combined with a retrospective narrative method. We conducted the '2049 AI Summit,' where research participants were engaged in a time–travel scenario to 2049, reconstructing major AI developments around the year 2034. The workshop generated speculative profiles of Taiwan AI, revealing five genealogies of AI–human relations. [proceedings]

2023–2024, Postdoctoral Research Scholar, NTU IoX Center (Intel–NTU Center), Taipei, Taiwan

- From July 2023, I worked as a postdoctoral research scholar at National Taiwan University's IoX Center. The center facilitates research collaborations between NTU and the industry partner, Cathay Life Insurance Company. My primary responsibility is to support the center's cross–disciplinary teams in envisioning their future research in the field of FinTech (financial technology). Through several creative and iterative design workshops, I assist the project researchers in exploring scenarios and envisioning how AI and big data can support these scenarios.

2016–2020, Project–Appointed Research Assistant, NTU IoX Center (Intel–NTU Center), Taipei, Taiwan

- From May 2016 to December 2020, I worked as a research assistant at National Taiwan University's IoX Center. The center facilitated global research collaboration among NTU, Intel, and the National Science Council of Taiwan and consisted of experts in AI, IoT, HCI, and design. During my time at the center, I supported the Natural and Seamless Interaction team under the four Principal Investigators, including Prof. Lin–Lin Chen, Prof. Yaliang Chuang, Prof. Rung–Huei Liang, and Prof. Mathias Funk. Additionally, I helped Prof. Liang lead the Design Fiction team.

  My main responsibilities were to support the center's cross–disciplinary teams in imagining potential technology possibilities. I accomplished this by creating novel and speculative digital designerly tools, proposing innovative design methods, and conducting design workshops. My work had two aims: to catalyze joint research across the center and industry partners, and to empower our target audience to explore,

extend, or populate new design space and facilitate new technological potentials of their research.

I made four significant contributions during my time at the center, including proposing playful, collaborative, and participative approaches; pushing knowledge boundaries; connecting industry partners (such as Intel and Delta) with the IoX research engineers; and making methodological contributions to creativity support.

2019, Student Volunteer Chair, TAICHI'19, Taiwanese Association of Computer–Human Interaction, Taiwan

- SIGCHI is committed to promoting the development of Human–Computer Interaction in Eastern Asia and to enabling regional HCI communities to participate fully in the global HCI community. To make the CHI conference more accessible to participants from Eastern Asia, SIGCHI encouraged the creation of TAICHI conferences in Taiwan. In 2019, I served as the Student Volunteer Chair of the TAICHI'19 conference, where I actively organized the student volunteer program to support the operational needs of the conference.

2014–2017, Editorial Committee of Technical Review and Publication Board, International Journal of Design (IJDesign), Taipei, Taiwan

- The International Journal of Design is a peer–reviewed journal that publishes research papers in all fields of design. The journal is indexed in SCI–E, A&HCI, SSCI, and Scopus. As an assistant, I worked with the Editor–in–Chief and Managing Editor to edit articles and ensure a consistent format for the publications, with a focus on HCI and interaction design research. My primary responsibilities included copy editing, language editing, and checking grammar and citations.

2008–2011, Game Designer, Dept. of Game Design, 2nd Business Div., USERJOY Technology Co. Ltd., Taipei, Taiwan

- From May 2008 to July 2011, I worked as a game planner (online game designer) for Angel Love Online 2 at USERJOY TECHNOLOGY, a game company involved in developing console games, online games, and mobile games in Taiwan. I have three years of experience in designing digital experiences. My job involved designing for different types of online game players and enriching their social connections. Specifically, I focused on data–driven rewards and analysis, virtual economy design and management, in–game social media design, hierarchy of challenges for achievements, and hierarchy of needs for collaborations or competitions. In addition to my regular responsibilities, I served as the marketing executive of Angel–Senki for the Japanese product line of Angel Love Online 2. I was responsible for improving marketing plans unique to Japanese players, evaluating and monitoring ongoing activities of Japanese players to customize new rewards that meet their needs, and conducting in–game data analysis to identify business opportunities and propose new marketing strategies.

PUBLICATION (Journal)

Tsai, W.–C., **Chung, W.–M.***, & Liang, R.–H. (2025, in press). Speculative Entanglement: Toward a Real–Fictional Interplay Between a Speculative Kit and Technology Practitioners. *Interacting with Computers*. **(SCI–E, SSCI) (*Contact author)**

Chung, W.–M., Tsai, W.–C., Liang, R.–H., Liu, M.C., Kong, B., Huang, Y., & Chang, F.–C. (2024). Soundscape Fiction: Designing and Situating Sonic Design Fiction to Stimulate the Imagination. *Digital Creativity*, 1–23. **(A&HCI)**

Chung, W.–M., & Liang, R.–H. (2021). Listening is believing: Exploring the value of sounds in an audio drama board game for shaping technology futures. *International Journal of Design, 15*(2), 55–68. **(SCI–E, A&HCI, SSCI, Scopus)**

David W. Chung & Rung–Huei Liang. 2015. The construction of intermediate–level knowledge in ideation with Interaction Tarot. *Journal of Design, 20*(3), 21–44. **(THCI Core, CSSCI, Scopus)**

PUBLICATION (Conference)

David Chung, Wenn–Chieh Tsai, Rung–Huei Liang, Bowen Kong, Yin Huang, Fu–Chieh Chang, and MengChi Liu. 2020. Designing Auditory Experiences for Technology Imagination. In *32nd Australian Conference on Human–Computer Interaction* (OzCHI '20). Association for Computing Machinery, New York, NY, USA, 682—686. DOI: https://doi.org/10.1145/3441000.3441025

Wenn–Chieh Tsai, **David Chung**, MengChi Liu, Bowen Kong, Chun–Cheng Huang, and Rung–Huei Liang. 2020. Designing a Speculative Kit for Technology Imagination with Makers. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (CHI EA '20). Association for Computing Machinery, New York, NY, USA, 1—8. DOI: https://doi.org/10.1145/3334480.3383013 **(*Contact author)**

David Chung, Mathias Funk, Rung–Huei Liang, and Lin–Lin Chen. 2018. Explorations on Reciprocal Interplay in Things Ecology. In *Proceedings of the 2018 ACM Conference Companion Publication on Designing Interactive Systems* (DIS '18 Companion). ACM, New York, NY, USA, 51–56. DOI: https://doi.org/10.1145/3197391.3205411

Yu–Ting Cheng, Wenn–Chieh Tsai, **David Chung**, and Rung–Huei Liang. 2018. Once Upon a Future: An Audio Drama Game for Episodic Imagination. In *Proceedings of the 2018 ACM Conference Companion Publication on Designing Interactive Systems* (DIS '18 Companion). ACM, New York, NY, USA, 159–163. DOI: https://doi.org/10.1145/3197391.3205429

David W. Chung. 2017. From Exploring and Constructing to Understanding: Mediating Intermediate–Level Knowledge. In *Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems* (DIS '17 Companion). ACM, New York, NY, USA, 393–395. DOI: https://doi.org/10.1145/3064857.3079168

David W. Chung and Rung–Huei Liang. 2015. Interaction Tarot: A card–based design of knowledge construction for brainstorming in HCI. In *Proceedings of the 6th IASDR Conference on Design Research* (pp.476–495), Queensland, Australia: Queensland University of Technology.

David Chung and Rung–Huei Liang. 2015. Understanding the Usefulness of Ideation Tools with the Grounding Lenses. In *Proceedings of the Third International Symposium of Chinese CHI* (Chinese CHI '15). ACM, New York, NY, USA, 13–22. DOI: https://doi.org/10.1145/2739999.2740002

Wei–Ming Chung, Ling–Yuan Chiu, and Rung–Huei Liang. 2013. The Twins: Lighting design based on rich movements. In *Proceedings of the 5th IASDR Conference on Design Research* (pp. 2510–2520). Tokyo, Japan: Shibaura Institute of Technology.

Rung–Huei Liang, **Wei–Ming Chung**, Hsin–Liu Kao, and Tsen–Ying Lin. 2013. InTouch: Crossing social interaction with perception. In *A. Marcus (Ed.), Design, user experience, and usability. User experience in novel technological environments* (pp. 306–315). Berlin: Springer. **(EI)**

LEADERSHIP EXPERIENCE

2015, Steering Committee, the 6th Student–organized Workshop on Human–Computer Interaction, OpenHCI 2015: 喚體 Haunting Artifact, Taiwan

2014, Steering Committee, the 5th Student–organized Workshop on Human–Computer Interaction, OpenHCI 2014: 延滯因子 Lagontology, Taiwan

2013, Sponsorship Committee, the 4th Student–organized Workshop on Human–Computer Interaction, OpenHCI 2013: 快步慢遊 , Taiwan

- From 2012 to 2017, I volunteered to co-organize OpenHCI, a multidisciplinary design workshop focused on human-computer interaction (HCI). The workshop involved master and Ph.D. students from different disciplines in universities across Taiwan. The goal of OpenHCI was to explore new or alternative interaction possibilities through prototyping artifacts. Participants were recruited from various disciplines, including interaction design, art, design, electronic engineering, computer science, music, and social science. In 2014 and 2015, I served as the design mentor for OpenHCI, coaching and supporting students in needfinding for their interaction design projects. In 2013, I served on the Sponsorship Committee and was responsible for public relations and sponsorship programs.

LECTURE and TALK

2024–present, Adjunct Lecturer, "Computer Aided Commercial Design," Dept. of Commercial Design, Ming Chuan University, Taiwan

- This course introduces the basics of UI/UX design with a focus on web and mobile applications. Students will learn to use Adobe XD and Photoshop for creating user-friendly interfaces, exploring iOS app design concepts, and web design techniques. By the end of the course, students will develop practical design skills and appreciate exemplary commercial design projects.

2021–present, Adjunct Lecturer, "Case study: Design for futures," Dept. of Product Design, Ming Chuan University, Taiwan

- Beyond human-centered design, which focuses on user experiences in the present, this course motivates possible technology futures that do not yet exist. Students will craft speculations by presenting plausible future proposals with emerging technologies, cultural issues, or ecological changes. Designed artifacts will also be used to embrace diverse perspectives and ideologies and enable critical debates, technological imaginations, and further reflections.

2017–present, Adjunct Lecturer, "Experience-centered design," Dept. of Product Design, Ming Chuan University, Taiwan

- The objective of this course is to help product designers gain a better understanding of Human-Computer Interaction (HCI). Students will need to gather insights from field observations in daily life to identify design opportunities. Based on that, they will be encouraged to prototype tangible or graphical user interfaces for the target audience to enhance people's lived experiences.

2019.04, Presentation, "Once Upon a Future," Intel Face-to-Face meeting, Santa Clara, CA

- I worked as a research assistant at National Taiwan University's IoX Center from May 2016 to December 2020. In April 2019, I represented the Natural and Seamless Interaction team of the center at the 2019 Face-to-Face Meeting. I presented how we facilitated technology imaginations and promoted project synergies with our designerly tools over four years.

2017.07, Speaker in the invited talk, "Card-based Design for HCI Ideation," HoCuln'17: Design your third hand, Dept. of Computer Science and Information Engineering, National Taiwan University, Taiwan

2017.04, Speaker in the invited talk, "From Exploring and Constructing to Understanding: Mediating Intermediate-Level Knowledge," Dept. of Communications Design, Shih Chien University, Taiwan

2023.08, Judge for final presentation and demo, the 13th Student-organized Workshop on Human-Computer Interaction, OpenHCI 2023: Unity, Taiwan

2017.07, Consultant in design review, the 8th Student-organized Workshop on Human-Computer Interaction, OpenHCI 2017: 重構 Re:__, Taiwan

2015.07, Workshop lecturer, the 6th Student-organized Workshop on Human-Computer Interaction,

OpenHCI 2015: 喚體 Haunting Artifact, Taiwan

2014.07, Workshop lecturer, the 5th Student–organized Workshop on Human–Computer Interaction, OpenHCI 2014: 延滯因子 Lagontology, Taiwan

- I was actively engaged in coaching and supporting workshops for OpenHCI in 2012, 2013, 2014, 2015, 2017, and 2023. In 2023, I served as a design judge for OpenHCI, providing design critiques to students in the final presentation and demo. In 2017, I served as a design review consultant for OpenHCI, providing design critiques to students during the early stages of the workshop. In 2014 and 2015, I served as a workshop lecturer for creativity activities in OpenHCI, coaching and supporting the use of designerly tools, including the Interaction Tarot developed for the early design phase.

CURATION and EXHIBITION

2012.07, Exhibition curator and host, the 3th Student–organized Workshop on Human–Computer Interaction, OpenHCI 2012: OpenTaipei, Taiwan

- I was actively involved in the planning and curation of the OpenHCI workshop in 2012. I served as the interactive programming coach, exhibition curator, and host of the final presentation.

2004, Photography exhibition, " 靜謐 ", 2004 Group exhibition by NCTU arts clubs, [The National Yang Ming Chiao Tung University Arts Center](), Taiwan

- I have been enthusiastic about photography for a long time. My photography work not only captures what I see in my daily life but also reflects my aesthetics in photography, such as timing, proportion, and lighting. During my undergraduate studies, I was actively involved in the NCTU photo club and organized various activities, such as a joint photo camp with the photo club students of Fu Jen Catholic University, regular training sessions, and exhibitions at the National Yang Ming Chiao Tung University Arts Center. My first film camera was a Canon AE–1 borrowed from my father. Due to its damaged shading spongy inside the side cover, I experimented with a particular overexposure quality and presented my work in a non–traditional way. In the 2004 Group exhibition by NCTU arts clubs, I presented my experimental photography " 靜謐 " which I accidentally took by considering a particular exposure time at midnight.

EDUCATIONAL SERVICE

2005–2007, Voluntary Docent in the TSMC IC Exhibition, TSMC Education and Culture Foundation, National Museum of Natural Science, Taichung, Taiwan

2005–2007, Voluntary Docent in the Storytelling Program, TSMC Education and Culture Foundation, Hsinchu, Taiwan

ACHIEVEMENT and AWARD

2020, Best Reviewer Awards, the 32nd Australian Conference on Human–Computer Interaction (OzCHI '20), Association for Computing Machinery, Online

2009, Merit Award in Game Design Competition (Top 6, 6/63), Userjoy Technology Co. Ltd., Taiwan

2006, Superior Volunteers in TSMC IC Exhibition Program, TSMC Education and Culture Foundation, Taiwan

2005, Superior Volunteers in Storytelling Program, TSMC Education and Culture Foundation, Taiwan

2004, Merit Award in Package Design Competition for Storage Products (Top 3, 2/764), Imation Technology Co. Ltd., Taiwan

2004, Merit Award, Multimedia Application Innovation Competition (Top 10), Microsoft & PChome Technology Co. Ltd., Taiwan

2009, Merit Award in Game Design Competition (Top 6, 6/63), Userjoy Technology Co. Ltd., Taiwan

2000, Honorable Mention in Programming Competition, National Chiao Tung University, Taiwan

1998, Merit Award in Sketch Competition, National Hsinchu Senior High School, Taiwan

MEMBERSHIP

2022–present, TAICHI membership in Taiwan Association of Computer–Human Interaction (TAICHI)

2016–present, SIGCHI membership in ACM Special Interest Group on Computer–Human Interaction (SIGCHI)

2015–present, Membership in Chinese Institute of Design

REFERENCE

Rung–Huei Liang, Associate Professor, Department of Design, National Taiwan University of Science and Technology, liang@mail.ntust.edu.tw, 02–2737–6549

Lin–Lin Chen, Professor and chair of Design Innovation Strategy, Department of Industrial Design, Eindhoven University of Technology, L.Chen@tue.nl, +31 40 247 8682

Wenn–Chieh (Joe) Tsai, Project Assistant Professor, D–School, National Taiwan University, wctsai@ntu.edu.tw