Yi-Ching (Janet) Huang 黃怡靜

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Assistant Professor, Future Everyday group, Industrial Design, TU/e

RESEARCH INTEREST

Human-Computer Interaction (HCI), Artificial Intelligence (AI), Crowdsourcing & Social Computing, Computer-Supported Cooperative Work (CSCW), Creativity Support.

EMPLOYMENT

[2020.09 – now] Assistant Professor, Future Everyday group, Industrial Design, TU/e
[2018.12 – 2020.08] Post-Doctoral Researcher, Future Everyday group, Industrial Design, TU/e
- Mentor: Prof. Lin-Lin Chen
- Founded by the Dragon Gate Two-Year Program from Ministry of Science and Technology (MOST), Taiwan
[2018.11 – 2020.08] Post-Doctoral Researcher, National Taiwan University of Science and Technology
- Mentor: Prof. Rung-Huei Liang
- Went to TU/e to execute the research project (the Dragon Gate Two-Year Program), founded by Ministry of Science and Technology (MOST), Taiwan
[2018.07 – 2018.10] Research Scientist, KIXLab, School of Computing, KAIST
- Host: Prof. Juho Kim
[2011.09 – 2018.06] Research Assistant, Graduate Institute of Networking and Multimedia
- Mentor: Prof. Jane Hsu
- Collaborate with Prof. Hao-Chuan Wang about crowd-based writing support
[2013.08 - 2013.11] Researcher, Madeira Interactive Technologies Institute, Universidade da Madeira
- Mentor: Dr. Mon-Chu Chen
[2012.07 - 2012.08] Visiting Research Assistant, Carnegie Mellon University Silicon Valley
- Mentor: Dr. Ted Selker
[2009.10 - 2011.06] Software Developer, Plurk Inc.
[2008.08 - 2009.07] Assistant Research Fellow, Performing Technology Lab, Taipei National University of the Arts

EDUCATION

[2011.09 - 2018.06] Ph.D., Graduate Institute of Networking and Multimedia, National Taiwan University
[2006.09 - 2008.06] M.S., Dept. of Computer Science and Information Engineering, National Taiwan University
[2002.09 - 2006.06] B.S., Dept. of Computer Science and Information Engineering, Fu Jen Catholic University

HONOR & AWARDS

- Best Poster Honorable Mention Award, CSCW2023.
- Ph.D. Thesis Honorable Mention Award, the 2018 International Conference on Technologies and Applications of Artificial Intelligence (TAAI 2018), Taiwan.
- CMUSV Semester Final Showcase Best Demonstration Award, July, 2012.
- Digital Art Award, Interactive installations, the 5th Digital Art Festival Taipei, Taiwan, 2010. Team work with Yu-Chuan Tseng, Sheng-Po Shen, and Wei-Ting Chen.
- Master Thesis Honorable Mention Award, Institute of Information & Computing Machinery (IICM), Taiwan, 2008
- Second Place, Microsoft Imagine Cup 2007 Software Design Competition, Taiwan Site
- Phi Tau Phi Award, honorary member of the Phi Tau Phi Scholastic Award Society, Taiwan, 2006

RESEARCH FUNDINGS & GRANTS

- Mingler Scholarship 2023   EUR 10,000
  - Topic: Field Guide to the Artificial Intelligence Bestiary
  - A collaboration project between Pei-Ying Lin (artist) and Yi-Ching Huang (scientist)
- EAISI Startup Fund, TU/e, Netherlands   *EUR 250,000*
  - Topic: Tools that Learn: Human-AI Data Sensemaking for Collaborative Clinical Decision Making
  - PI: Janet Huang
- Dragon Gate Program from Ministry of Science and Technology (MOST), Taiwan   *TWD 5,540,000 (USD 181,390)*
  - Topic: Designing Interaction in IoT with AI
  - PI: Rung-Huei Liang, Co-PI: Jane Yung-jen Hsu
  - My Role: I contribute to ideas and proposal writing about "Human-AI interaction" for IoT design.
- Travel Grants: CSCW 2018, CHI 2018, CHI 2017, HCOMP 2017, CSCW 2015, HCOMP 2015, TEI 2014, IUI 2013.

DIGITAL ART EXHIBITIONS & INTERACTIVE PERFORMANCE

[2019] Wonder of Art and Technology, 2018 Taipei Art District Festival, Taipei, Taiwan
[2019] Urban Tribes I-Urban Caravan, TAAC Tribeca/ E.Tay/R Gallery, 39 White Street, NYC.
[2019.10] Chimera, DOX, Prague.
[2018.11] Trans Robotics, 2018 Digital Art Festival, Songshan Cultural and Creative Park, Taipei, Taiwan.
[2018] NEXT ART TAINAN: THE METAMORPHOSIS , Asir Art Museum,Tainan
[2018.02] "Lost in the Net Dream", National Taiwan Museum of Fine Arts, Taichung, Taiwan.
[2017] ART TAICHUNG 2017, Millennium Hotel Taichung, Taiwan.
[2017] 2017 ART FORMOSA, Songshan Cultural and Creative Park, Eslite hotel, Taipei, Taiwan.
[2016] *Future Direction* - Exchange Exhibition of Young Artists, Liu-Haisu Art Museum, Shanghai, China.
[2016] Sunrise Heartbeat, Taipei Art District, Taipei, Taiwan.
[2015] Started with Hatsune Miku Contemporary Art Exhibition, The Pier-2 Art Center, Kaohsiung, Taiwan.
[2014.12] Cultural Capsules, international arts and design exhibition, Jamaica Center for Arts and Learning, NY, USA
[2014.05] The Return of Analog Poetry, MOT/ARTS, Taipei, Taiwan
[2014.02] Chimeras' World-Solo Exhibition by Yu-Chuan Tseng, Digital Art Center, Taipei, Taiwan (Team: Yu-Chuan Tseng, Kuan-Ying Wu, Chi-Ping Chin, Wei-Ting Chen)
[2013.11] Post-humanist Desire: Sexuality and Digitality in Contemporary Art, Museum of Contemporary Art, Taiwan
[2013.07] ILLUMINATIONS – Media Art from Taiwan, Institute of Contemporary Arts Singapore, Singapore.
[2013.03] Being here, now: Yu-Chuan Tseng Solo Exhibition, Art and Culture Center of BUAA, Beijing, China
[2012.10] The Third Phase: "Body/Interface" Digital Art Exhibition, Digital Art Center, Taipei
[2012.08] A Dialogue with the Space and Time, National Taiwan Museum of Fine Arts, Taichung, Taiwan (Yu-Chuan Tseng, Sheng-Po Shen, Yi-Ching Huang, Wei-Ting Chen)
[2012.01] Transjourney - 2012 Future Media Festival by Kuandu Museum of Fine Arts, Taiwan.
[2011.12] Photon+, The International Techno Art Exhibition of New Taipei City 2011, Beauty Forever Living Art Center, New Taipei City, Taiwan.
[2011.09] Dinner of Luciérnaga, Interactive Multimedia Performing Arts, Collaborative Technology, Quanta Arts Foundation–Quanta Hall, Taoyuan, Taiwan.
[2010] Where are You - Net Art exhibition, Shin Leh Yuan Art Space Taipei, Taiwan. (Yu-Chuan Tseng, Sheng-Po Shen, Yi-Ching Huang, Wei-Ting Chen)
[2010] Taiwan Digital Art Pulse Stream Plan- The First Phase; "Body, Gender, Technology" Digital Art Exhibition, Digital Art Center, Taipei, Taiwan.
[2010] "Cluster" Digital Art Festival Taipei 2010, Bopiliao Historic Block, Taipei, Taiwan.

ILLUSTRATION EXHIBITIONS

[2015.04] "How are you in this year?" Joint Exhibition, Action Space, Taichung, Taiwan.
[2013.04] WAALAND - Woman Artist Exhibition, WAA house, Taiwan Women's Art Association, WAA Taipei.
[2012.03] "HELLO" Solo Illustration Exhibition, Action StudiolSpace, Taichung, Taiwan.

INVITED TALKS

[2022.05] An invited online talk, "Thing Constellation Visualizer: Exploring Emergent Relationships of Everyday Objects", UC Davis CS Colloquium / Speaker
[2021.11] An invited online talk, "Human-AI Co-Learning and Co-Evolution in Complex Creative Tasks" in PhD 4TU winter school at Delft / Speaker
[2020.04] An online guest talk, "Designing Hybrid Intelligence: From Interaction to Co-Learning", IST402: Crowdsourcing and Crowd-AI Systems, Pennsylvania State University / Speaker
[2014.09] An invited talk, "Transferring Sensing to a Mixed Virtual and Physical Experience" at Cyber-Physical Arts in CPSCom 2014 / Speaker
[2013.01] An invited talk, "Designing physical and digital experience in social web" in WebConf / Speaker
[2011.08] "Openframeworks x Smartphone!!" in the Conference for Open Source Coders, Users and Promoters (COSCUP 2011) / Speaker

TEACHING EXPERIENCES

Co-Lecturer

[2020.09-Now] DBM180: Designing with Advanced Artificial Intelligence (MSc course), TU/e.
[2020.09-Now] DCM210: Creativity and Aesthetics of Data and AI (MSc course), TU/e.
[2020.09-Now] DCB180: Digital Craftsmanship (BSc course), TU/e.
[2020.09-2021.08] DBB220: Intelligent Interactive Products (BSc course), TU/e.

Senior Supervisor
[2020.09-Now] 2IAB0: Data Analytics for Engineers (BSc course), TU/e. Role: supervising student mentors

Lecturer
[2013.04] Design thinking implementation class (Topic: ipad interactive guiding book design) in NCCU
[2013.05] iOS application development class in Industrial Technology Research Institute (ITRI) (18 hrs)
[2012.11] iOS application development class in ITRI (18 hrs)
[2012.04] Design thinking implementation class in NCCU (Topic: ipad game app design)
[2012.03] iOS application development class in ITRI (18 hrs)
[2011.11] iOS application development class in ITRI (18 hrs)
[2009.09] JAVA application development class in Tamkang University (9 hrs)

Teaching Assistant
[2016 Spring] Intro of AI (NTU CSIE) for Jane Yung-jen Hsu
[2015 Fall] Advanced Topics in Artificial Intelligence (NTU CSIE) for Jane Yung-jen Hsu
[2014 Spring] Multiagent Systems (NTU CSIE) for Jane Yung-jen Hsu
[2014 Fall] Innovation Design for IoTs (NTU & NTUST) for Lin-Lin Chen
[2018 Spring] Topics in Internet of Things (NTU & NTUST) for Hao-Hua Chu, Jane Hsu, Rung-Huei Liang

INTERACTION DESIGN WORKSHOP EXPERIENCES

[2015.05] Digital Art x Play, 2015 ICID International Day in National Cheng Kung University / Lecturer
[2011.11] Physical Building Projection Workshop in National Taichung University of Science and Technology/ Lecturer
[2011.11] OpenHealth Workshop/ Workshop Organizer
[2011.07] OpenHCI Workshop / Teaching Assistant
[2011.04] "Designing Personal Physical Emo-Avatar" Workshop / Lecturer
[2011.01] "Interaction in Design" Workshop / Lecturer
[2009.10] "10 Innovations - 10 Solutions" Interactive Media Art Workshop / Lecturer
[2009.08] "Resonating with Nature" Interaction Design Workshop / Teaching Assistant
[2008.11] Interaction Jam! Workshop 2008 / Student
[2007.08] Nightmarket 2007 Workshop / Student
[2006.06] Nightmarket 2006 Workshop on Interaction Design, Augmented Reality, and Telecommunication / Student

PROFESSIONAL SERVICES

Organizing Services
CUI 2023 Local Co-Chair, HCOMP 2022 Social Media Co-Chair, MobileHCI 2022 Demo Co-Chair, TAICHI 2016 Poster/Demo Co-Chair, TAICHI 2017 Poster/Demo Co-Chair, IUI 2013 Student Volunteer

Program Committees
DIS 2023, C&C 2022, EICSPACM 2021, C&C 2021, DIS 2021, CHI 2021 LBW, CHI 2021, CHI 2020 LBW, MobileHCI 2020

Reviewers
TAICHI 2016 Poster/Demo, TAICHI 2017 Poster, CHI 2017, CHI 2019, CHI 2019 LBW, C&C 2019, IJDesign 2019, CSCW 2019, MobileHCI 2019, CHI 2020, IJDesign 2020, CSCW 2020, CHI 2021, CHI 2021 LBW, UIST 2021, TAICHI 2021 Poster/Demo, CHI 2022, DIS 2022, TAICHI 2022 Poster/Demo, CHI 2023, CHI 2023 LBW

PUBLICATIONS

Refereed Journal and Conference Papers

<u>Huang, Y.-C. J.</u>, Stephan, W., and Funk, M. (2023). Experiential speculation in vision-based ai design education: Designing conventional and progressive ai futures. *International Journal of Design*, 17 (2), 1–17.

Bi, N.*, <u>Huang, Y.-C. J.*</u>, Han, C.-C., and Hsu, J. Y.-J. (2023). You know what i meme: Enhancing people's understanding and awareness of hateful memes using crowdsourced explanations. *Proc. ACM Hum.-Comput. Interact.*, 7(CSCW1). (* both authors contributed equally to this research)

<u>Huang, Y.-C. J.</u>, Cheng, Y.-T., Liang, R.-H., Hsu, J. Y.-j., and Chen, L.-L. (2021). Thing constellation visualizer: Exploring emergent relationships of every- day objects. *Proc. ACM Hum.-Comput. Interact.*, 5(CSCW2).

You, C.-W., Chuang, Y., Lin, H.-Y., Tsai, J.-T., <u>Huang, Y.-C.</u>, Kuo, C.-H., Huang, M.-C., Wu, S. J., Liu, F. W., Hsu, J. Y.-

J., and Wu, H.-C. (2019). Sobercomm: Using mobile phones to facilitate inter-family communication with alcohol-dependent patients. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT), 3(3):119:1–119:31.

Huang, Y.-C., Huang, J.-C., Wang, H.-C., and Hsu, J. Y.-j. (2017a). Supporting esl writing by prompting crowdsourced structural feedback. In *Proceedings of the Fifth AAAI Conference on Human Computation and Crowdsourcing (HCOMP- 2017)*, Canada. (Full paper, accepted rate: 28.9%)

Lin, C.-C., Huang, Y.-C., and Hsu, J. Y.-j. (2014). Crowdsourced explanations for humorous internet memes based on linguistic theories. In *Proceedings of the Second AAAI Conference on Human Computation and Crowdsourcing (HCOMP-2014)*, Pittsburgh, Pennsylvania, USA. (Full paper)

Tseng, Y.-C., Huang, Y.-C., Wu, K.-Y., and Chin, C.-P. (2012). Dinner of luciérnaga: An interactive play with iphone app in theater. In *Proceedings of the 20th ACM International Conference on Multimedia*, MM '12, pages 559–568, New York, NY, USA. ACM. (Full paper, accepted rate: 20%)

Huang, Y.-C., Hung, C.-C., and Hsu, J. Y.-j. (2009). Tag-based profile presentation with semantic relationship. *Institute of Information & Computing Machinery (IICM)*, 12(2).

Hung, C.-C., Huang, Y.-C., and Hsu, J. Y.-j. D´ej`a vu: Social network agents for personal impression management. In *Proceedings of Prima 2007: the 10th Pacific Rim International Workshop on Multi-agents*, Bangkok, Thailand, 2007.

Poster, Demo, and Workshop Papers

Jeung, J. L., and Huang, J. Y.-C. (2023). Correct me if i am wrong: Exploring how ai outputs affect user perception and trust. In *Companion Publication of the 2023 Conference on Computer Supported Cooperative Work and Social Computing*, 323–327.

Bi, N., and Huang, Y.-C. J. (2023). I create, therefore i agree: Exploring the effect of ai anthropomorphism on human decision-making. In *Companion Publication of the 2023 Conference on Computer Supported Cooperative Work and Social Computing*, 241–244.

Cheng, Y.-T. and Huang, Y.-C. J. (2021). When people vanish: A study to investigate how human presence changes the scenario speculation. In *Companion Publication of the 2021 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '21 Companion)*.

Han, C.-C., Huang, Y.-C. J., Bi, N., and Hsu, J. Y.-j. (2021). Hate2explain: Crowdsourced explanations as a cultural bridge in understanding hateful memes. In *Proceedings of the 9th AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2021)*. (Work-in-Progress)

Cheng, Y.-T., Tsai, G.-L., Lin, H.-A., Huang, Y.-C., Liang, R. H., and Chen, L.-L. (2019). Call me by my name: Exploring roles of sci-fi voice agents. In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems*, CHI EA '19, New York, NY, USA. ACM.

Huang, Y.-C., Wang, H.-C., and Hsu, J. Y.-j. (2018b). Feedback orchestration: Structuring feedback for facilitating reflection and revision in writing. In *Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing*, CSCW '18 Companion, pages 257–260, New York, NY, USA.

Huang, Y.-C., Chan, J. Y.-H., and Hsu, J. Y.-j. (2018). Reflection before/after practice: Learnersourcing for drawing support. In *CHI '18 Extended Abstracts on Human Factors in Computing Systems*, CHI EA '18.

Huang, Y.-C. Designing Systems for Complex Creative Problem Solving. In *Doctoral Consortium of Conference on Human Computation and Crowdsourcing (HCOMP' DC)*, 2017.

Huang, Y.-C., Wang, H.-C., and Hsu, J. Y.-j. (2017b). Bridging learning gap in writing education with a crowd-powered system. In Proceedings of CHI 2017 Workshop on Designing for Curiosity. (Poster)

Huang, Y.-C., Wang, H.-C., and Hsu, J. Y.-j. (2015). Enhancing diversity and coverage of crowd-generated feedback through social interaction. In *Proceedings of the Third AAAI Conference on Human Computation and Crowdsourcing (HCOMP-2015)*, San Diego, USA. (Work-in-Progress)

Huang, Y.-C. (2015). Designing a micro-volunteering platform for situated crowdsourcing. In *Proceedings of the 18th ACM Conference Companion on Computer Supported Cooperative Work and Social Computing*, CSCW'15 Companion, pages 73–76, New York, NY, USA. ACM.

Huang, Y.-C. and Hsu, J. Y.-j. (2014). Crowd-aware space monitoring by crowdsourcing a micro qa task. In *Proceedings of the Second AAAI Conference on Human Computation and Crowdsourcing (HCOMP-2014)*, Pittsburgh, Pennsylvania, USA. (Work-in-Progress)

Chen, M.-C., **Huang, Y.-C.**, and Wu, K.-Y. (2014a). Gaze-based drawing assistant. In ACM SIGGRAPH 2014 Posters, SIGGRAPH '14, pages 50:1–50:1, New York, NY, USA. ACM.

Chen, M.-C., Wu, K.-Y., and **Huang, Y.-C.** (2014b). Scopophobic kitties in wonderland: Stories behind the scene of a gaze contingent environment. In *CHI '14 Extended Abstracts on Human Factors in Computing Systems*, CHI EA '14.

Huang, Y.-C., Wu, K.-Y., and Chen, M.-C. (2014). Seeing aural - an installation transferring the materials you gaze to sounds you hear. In *Proceedings of the 8th International Conference on Tangible, Embedded and Embodied Interaction*, TEI '14. (Art track)

Huang, Y.-C., Wang, C.-I., Yu, S.-Y., and Hsu, J. Y.-j. (2013c). In-hit example-guided annotation aid for crowdsourcing ui components. In *Proceedings of the First AAAI Conference on Human Computation and Crowdsourcing (HCOMP-2013)*. (Demo)

Huang, Y.-C., Wang, C.-I., and Hsu, J. Y.-j. (2013b). Leveraging the crowd for creating wireframe-based exploration of mobile design pattern gallery. In *Proceedings of the Companion Publication of the 2013 International Conference on Intelligent User Interfaces Companion*, IUI '13 Companion, pages 17–20, New York, NY, USA. ACM.

Huang, Y.-C., Tsai, B.-L., Wang, C.-I., Yu, S.-Y., Liang, C.-W., Hsu, J. Y.-j., and Selker, T. (2013a). Leveraging persuasive feedback mechanism for problem solving. In *Proceedings of AAAI 2013 Spring Symposium Series on Shikakeology: Designing Triggers for Behavior Change.*

Hung, C.-C., **Huang, Y.-C.**, Hsu, J. Y.-j., and Wu, D. (2008). Tag-based user profiling for social media recommendation. In *Proceedings of AAAI 2008 Workshop on Intelligent Techniques for Web Personalization and Recommender Systems*, Chicago, Illinois, USA.

Huang, Y.-C., Hung, C.-C., and Hsu, J. Y.-j. (2008). You are what you tag. In *Proceedings of AAAI 2008 Spring Symposium Series on Social Information Processing*, Stanford.

Thesis

Huang, Y.-C., "Designing for Complex Creative Task Solving". National Taiwan University Ph.D. Thesis. 2018.

Advisor: Jane Yung-jen Hsu

Huang, Y.-C., "Tag-based Profile Presentation with Semantic Relationship". National Taiwan University Master's Thesis. 2008.

Advisor: Jane Yung-jen Hsu

REFERENCES

- **Berry Eggen** (J.H.Eggen@tue.nl)
  Full Professor and Chairman of Future Everyday group, Department of Industrial Design
  Eindhoven University of Technology
- **Lin-Lin Chen (Advisor in TU/e)** (l.chen@tue.nl)
  Full Professor and Dean of Department of Industrial Design, Future Everyday
  Eindhoven University of Technology
- **Jane Yung-jen Hsu (Advisor in NTU)** (yjhsu@csie.ntu.edu.tw)
  Professor, Department of Computer Science and Information Engineering
  Director, Intel-NTU Connected Context Computing Center
  Nation Taiwan University
- **Juho Kim** (juhokim@kaist.ac.kr)
  Associate Professor, School of Computing
  KAIST
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  Associate Professor, Department of Computer Science
  University of California, Davis