# Lanjing Liu

#### Interaction Designer | Design Researcher | Design Educator

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#### RESEARCH INTERESTS

Design Education, Participatory Design with Children, Child-Computer Interaction, Learning Technologies, User Research, Action Research, Service Design

#### **EDUCATION**

Tongji University, Shanghai, China

09/2020 - 06/2023 (expc.)

M.A. in Design History and Theory, GPA 4.45 / 5.00, advised by Prof. Lei Zhang

Thesis: A Study on the Theory and Practice of Youth Design Education Oriented to Holistic Education

Jiangnan University, Wuxi, China

09/2016 - 06/2020

B.E. in Industrial Design, GPA 3.70 / 4.00 (WES), advised by Prof. Dongjuan Xiao

Chiba University, Chiba, Japan

09/2018 - 02/2019

Exchange Student in Industrial Design

#### **DESIGN RESEARCH EXPERIENCE**

# Action Research on Scaffolding Youth Empathy Development through Design Education

Research Center for Design Education and Pedagogy, Tongji University

05/2021 - 09/2021

Lead Researcher, team of 3, advised by Prof. Lei Zhang and Prof. Qi Wang

- Conducted three-cycle action research over four-month with a total of 40 children aged from 10 to 13.
- Iteratively designed a card-based design tool to support children's empathy development in design thinking activities based on the framework for empathy in design.
- Conducted a qualitative user study with 12 children to examine the effectiveness of our tools.
- Wrote a research paper in submission to *IDC 2023* [c.2.].

#### A Study of the Design Education Movement in the UK (1970-1995)

 $Research\ Center\ for\ Design\ Education\ and\ Pedagogy,\ Tongji\ University$ 

11/2021-11/2022

Lead Researcher, advised by Prof. Lei Zhang

- Examined the design education movement in the UK through historical method, 1970-1995.
- Analysed the reasons for and difficulties of introducing design into the national curriculum in the UK.
- Explored how design research has supported design education led by Bruce Archer and Ken Baynes.
- Gained familiarity with education reform and design and technology education in the UK.
- Wrote a research paper in submission to *Zhuang Shi (CSSCI)* [j.2.].

#### **DESIGN EDUCATION EXPERIENCE**

#### Rethink and Redesign Wild Places in the Community

Co-Support: Shanghai Youth Institute of Design and Innovation

Summer 2022

- Lead Lecturer, 9 Students aged from 10 to 15, 2 Weeks
- Developed course syllabus and completed teaching independently. [Link]
- The syllabus and teaching tools have been implemented in some primary schools in Shanghai.

## **Design for People in the Community**

Co-Support: Shanghai Youth Institute of Design and Innovation

Summer 2021

- Lead Lecturer, 15 Students aged from 10 to 13, 1 Week
- Led a teaching team to develop the syllabus and teaching tools. [Link]
- Conducted indoor and outdoor teaching activities.

#### The 5th Shanghai Youth Innovation and Entrepreneurship Team Action

Co-Support: Shanghai Youth Academy of Sciences, Fablab Shanghai

Spring 2021

- Teaching Assistant, 8 Students aged from 10 to 15, 4 Weeks
- Helped students to rethink and iterate on projects from a design perspective.
- Students' projects were exhibited at the China International Import Expo 2021. [Link]

## Design a Community with Sandbox Game

Co-Support: Shanghai Youth Institute of Design and Innovation, Tencent Inc., Roblox Inc.

Fall 2020

- Teaching Assistant, 2 Students aged from 10 to 12, 8 Weeks
- Involved in developing the course syllabus, content, and implementation, and provided design thinking input to other teachers and students.
- Summarised the course and wrote articles for peer reference [j.1.]. [Link]

#### Publications & Manuscripts

- j.2. Lei Zhang, **Lanjing Liu**. 2022. A Study of the Design Education Movement in the UK: an Investigation Centered on the Royal College of Art (1974-1995). In Submission to *Zhuang Shi (CSSCI)*. *Under Review*.
- j.1. **Lanjing Liu**, Lei Zhang. 2021. Design Education for Youth Using Gamification Design Tools. *Tencent leg Social Value Insights*. 7, 2, 28–34.
- c.2. Lanjing Liu, Zhaohui Xu, Xiaoshan Wang, Chao Zhang, Lei Zhang. 2023. DetectiveMap: a Card-Based Toolkit for Promoting Children's Empathy in Design Activities. In Submission to 2023 ACM Interaction Design and Children Conference (IDC '23).
- c.1. Anonymous Authors (as a Co-Author). 2023. Observe It, Draw It: An Observational Drawing System that Promotes Children's Connectedness to Nature. In *2023 CHI Conference on Human Factors in Computing Systems (CHI '23). Under Review.*

#### **DESIGN AWARDS**

a.1. iF Talent Award, OneShoe, iF Design Award, Germany. [Link]

2021

a.2. **iF Talent Award Final List**, *Empathy Card*, iF Design Award, Germany.

2022

## **PATENTS & SOFTWARE COPYRIGHTS**

- p.2. A Sketch Recognition and Generation Method based on Raspberry Pi and Recurrent Neural Network. 2020. China National Invention Patent. Application No. 202011322789.4
- p.1. A Sentiment Analysis and Visualization Method Combining Video and Pop-Ups. 2019. *China National Invention Patent*. Application No. 201910287517.6
- sc.1. Enterprise Network Opinion Analysis and Visualization Software. 2019. *China Software Copyright*. Registration No. 2019SR0428088

#### SKILLS

Language: Native Chinese (Mandarin), Fluent English (IELTS 6.5)

**Research**: Participatory Design, Action Research, Historical Method, Grounded Theory, Interview, Survey, Experimental Design, Thematic Analysis, LaTeX

**Design**: User Experience Design (Figma, Sketch), 3D Modelling and Rendering (Cinema 4D, Rhino 3D, Keyshot), Graphic Design (Adobe Photoshop, Adobe Illustrator Adobe InDesign), Video Editing (Adobe Premiere Pro)

Prototype: 3D Printing, Laser Cutting, Arduino, Processing, HTML, CSS