

The background features a vibrant, stylized illustration of various leaves and a watermelon slice. The leaves are in shades of red, orange, yellow, teal, and purple, set against a light yellow circular backdrop. A slice of watermelon with black seeds is visible in the bottom left corner.

UX RESEARCH PORTFOLIO

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I am a **UX Design Researcher and Computer Scientist** specializing in equitable design, fully remote research methods, and building excellent online work experiences for creators.

I was trained in Technology and Social Behavior at **Northwestern University** and have led UX research projects for **Adobe Research, Facebook, the University of Tokyo** (Japan), and **Piktochart** (Malaysia).

ABOUT ME

MIXED-METHODS RESEARCH

As a mixed-methods researcher, I choose research methods based on research questions, goals, as well as time and budget constraints. Here are some of the methods I've used:

**EXPERIMENT
DESIGN**

**PROTOTYPE
TESTING**

**INTERVIEWS
AND FOCUS
GROUPS**

**PARTICIPATORY
DESIGN**

**COMPETITIVE
ANALYSIS**

**BIG DATA
ANALYSIS**

SURVEYS

CARD-SORTING

**DESIGN
SPRINTS**

**USER
PERSONAS**



A photograph of four diverse young women laughing and holding a horizontal bar. The image is overlaid with a semi-transparent yellow filter. The women are positioned from left to right: a woman with long blonde hair in a black top, a woman with long dark hair in a white crop top, a woman with curly brown hair in a patterned shirt, and a woman with short dark hair in a white sweater. They are all smiling and laughing, with their arms raised or resting on the bar.

CASE STUDY 1

How might we design tools to support gender pay equity in online freelancing marketplaces?



PROJECT OVERVIEW

Offline, **women have historically earned less than men** due to childcare responsibilities and needs for flexible work. Flexible online freelancing marketplaces, like Upwork, have the opportunity to change that by letting millions of people find work whenever and wherever they want to.

I conducted **mixed-methods research** to understand:

- 1) *What is the extent of **gender rate gaps** in the online labor market?*
- 2) *How might **pricing strategies** account for gender rate gaps online?*
- 3) *How might we **design tools to support gender equity in pay and negotiation** for the flexible, online freelancing market?*



RESEARCH SETUP

1: BIG DATA ANALYSIS

- Analyzed and cleaned data from **55k Upwork users to understand differences in bill rates**
- Causal inference analysis showed **women ask for \$6.28 lower bill rates than men**, controlling for education, job category, and time on platform
- But women worked enough hours to surpass men in revenue, suggesting differences in pricing strategies

Publication: Foong, E., Vincent, N., Hecht, B., & Gerber, E. M. (2018). Women (still) ask for less: Gender differences in hourly rate in an online labor marketplace. Proceedings of the ACM on Human-Computer Interaction, 2(CSCW), 1-21 [View online](#)

2: SURVEYS

- Conducted pilot survey and larger survey with **399 freelancers on Upwork to understand strategies for choosing a bill rate**
- Men and women reported similar concerns with pricing (e.g., platform costs, online work experience), **but factors like more women freelancing part-time could explain gaps**

Publication: Foong, E., & Gerber, E. (2021, May). Understanding Gender Differences in Pricing Strategies in Online Labor Marketplaces. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (pp. 1-16). [View online](#)

3: PARTICIPATORY DESIGN

- Led 7 researchers to design and run **remote participatory design workshops** with 19 part-time and full-time female freelancers across the globe in less than 10 weeks to **understand challenges with negotiation and rate-setting**
- Analyzed social media posts related to negotiation and conducted a competitive analysis to understand high-level challenges and design empowering workshops (see next page for process)

Introductions and Experience Banking (10 mins)

Learn about background and one pleasant and unpleasant experience to position users as experts



Reflecting on Negotiation Best Practices (20 mins)

Present video clips from a freelancing negotiation expert about negotiation tactics and provide personalized reflection opportunities

HOW I RUN EMPOWERING REMOTE DESIGN WORKSHOPS

Understanding Challenges (5 mins)

Define 1-3 challenges around rate-setting or negotiation for later design activity



HOW I RUN EMPOWERING REMOTE DESIGN WORKSHOPS

“Crazy 6s” and Tarot Cards of Tech (20 mins)

Sketch 6 solution ideas in 4 minutes to answer the “How Might We” statement and use “tarot card” prompts to discuss top ideas



“How Might We” Statement (5 mins)

Help the participant choose and re-frame one of their challenges about negotiation as a “How might we...” statement (e.g., “How might we prevent freelancers from accepting lowball offers from clients?”)



Results

Participants leave feeling gaining something for themselves beyond pay

E.g., “It was a pleasure being able to participate in the study and it inspired me.” - Female data collection freelancer in Sri Lanka; current rate \$7/hour

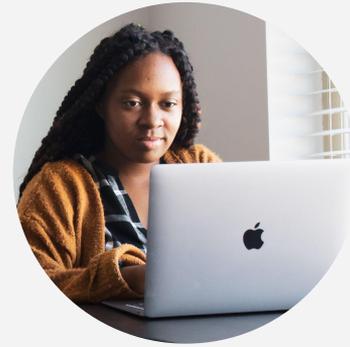


KEY INSIGHTS AND DESIGN OPPORTUNITIES

Women are **reluctant to try negotiation strategies because of the competition** they have to build trust with online clients, and risks in sending more job proposals

→ Design Opportunities:

- Avoid telling users to lower their rates
- Come up with alternatives to programs that create risk for applying to new jobs (e.g., Connects on Upwork)
- Remind users they can go outside a client's budget and that they have value regardless of location



"The competition on the market intimidates me...I don't want to sound too pushy and scare clients away."

-Freelance writer on Upwork from South Africa with more than 10 paid jobs



CASE STUDY 2

How might we design tools to support online freelance creators in regularly improving their professional portfolios?



PROJECT OVERVIEW

One of the challenges of working for yourself as a freelancer is getting access to a stable support network for career development, like constantly improving your professional portfolio. Crowdsourcing tools could provide rapid feedback on portfolios, but it is unclear how they could do this for multiple projects.

I conducted **mixed-methods research** to understand: *How might we design crowdsourced feedback tools to provide helpful, rapid feedback on creators online portfolios?*

I focused on **graphic design portfolios** in this study because of their popularity in creative communities and the ease of sharing these portfolios online (e.g., on Behance.com).



RESEARCH SETUP

1: OBSERVATIONS AND INTERVIEWS

- I developed empathy for users by sitting in and observing three 80-minute engineering portfolio design courses, conducting interviews with the course instructor and faculty mentor, and reviewing course materials and popular resources on creating graphic design portfolios
- **Reflection and holistic feedback** on unique skills and aesthetic style are helpful in creating portfolios

2: PROTOTYPING AND THINK-ALOUDS

- I designed low-fi prototypes of portfolio reflection tools on paper and Google Slides and tested them with 8 freelancers (remote and local) to quickly understand specific needs with reflecting on and creating portfolios

Publication: Foong, E., Kim, J. O., Dontcheva, M., & Gerber, E. M. (2021). CrowdFolio: Understanding How Holistic and Decomposed Workflows Influence Feedback on Online Portfolios. Proceedings of the ACM on Human-Computer Interaction, 5(CSCW1), 1-31. [View online](#)

3: EXPERIMENT

- I conducted an online experiment with 30 visual design freelancers with online portfolios, where freelancers reviewed feedback collected from online crowdworkers who could either view 1) only one project at a time, or 2) all projects at once to understand the feasibility of different methods for crowdsourcing feedback on portfolios

LOW-FI PROTOTYPES EMPHASIZED NEED FOR SPECIFIC FEEDBACK

What 3 skills are necessary to demonstrate to attract the type of clients you want to work for?

Marketing strategy 1 3	Asking the right questions to get to your right brand 3 4	Fine arts skills, hand drawn to digital skills 2 5
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What 3 words describe how you want to come across in your portfolio that would make you unique from another designer?

Thoughtful 1 2 3 4 5	Driven 1 2 4	Passionate 1 2 3 4 5
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Project 1 Joume Branding Project
Project 2 Angers Illustration
Project 3 Sweet Iron Waffles Marketing Materials
Project 4 Aligned company widget
Project 5 Permanent Zine

Your top 3 projects
Project 1 **Project 2** **Project 3**

Prototype 1. Interactive reflection tool to organize projects for their portfolio based on best practices

Insights. Participants needed a way to understand which projects captured the most attention, beyond their self-reflections.

Hi there!
Here's what we learned about your portfolio.

SKILLS
These are the projects that demonstrate your skills for the types of jobs you want the best and the worst.

VERSATILITY AND STYLE
Most people would describe you as a designer with a **variety of styles**, one of the words that describes your style is "marketing". Here are the best examples of that style.

Best Worst
Here are other words that people used to describe your portfolio:
Print design, colorful, big fonts, analogous colors, angular

VISUAL ATTRACTIVENESS
These are the most visually attractive projects.

"Again, the spacing helps in that what I'm consuming is split up into pages. Got a nice color."
"Because the designs are eye catching and look professional. I want to know more about the person's role in this project as well."
"There is good spacing on the display. Magazines are cool. Stuff of best for Save the date, is burdensome."
"Because I want to know how big of a role the person played in this project. Seems like a big publication!"

Prototype 2. Dashboard with crowdsourced feedback on skills, versatility and style, and visual attractiveness of projects in a portfolio.

Insights. Users wanted feedback on the visual attractiveness of different projects, portrayed styles, and perceived target audience of a portfolio (e.g., skills, industry)

KEY INSIGHTS: CROWDFOLIO FEEDBACK TOOL



Home
Visual Attractiveness
Styles
Audience

Styles

We asked people online to group up to 20 projects in your portfolio based on style or aesthetic. Then, we asked another group of people to rate how much they agreed with the style groups and calculated an average rating.

These were some of the top style groups people saw in your portfolio.

TECH ARTWORK PEOPLE LATIN ILLUSTRATION ART GROUP TECHNOLOGY MISC
URBAN ILLUSTRATION OTHER TRIBAL GROUP MEDIA FUN GROUP TECHNOLOGY GROUP

Tech **b**

Average Rating: 6 out of 7 **c**

Why did you choose to categorize these projects the way you did? **d**

- "I named this tech because it included pictures that I would associate with something related to computers or phones such as the one being a website displayed."

Experiment. I manipulated whether the freelancers would get feedback from people who saw 1 project at a time ("decomposed") or all projects at once ("holistic"), as this could affect the backend of the tool

Design Insights. Both holistic and decomposed approaches can be helpful for collecting portfolio feedback, but holistic feedback can help users better find commonalities in project style themes.



CASE STUDY 3

How might we setup a supportive UX research culture at a software company that empowers non-designers?



PROJECT OVERVIEW

In 2014, I joined Piktochart, a global B2C/B2B software company based in Malaysia, as the **first Lead UX Researcher**. I was responsible for cultivating the software company's UX culture to focus on **delightful user experiences for non-designers** creating online infographics.

In less than 10 months, I:

- created a company tradition of weekly "User Update" presentations **to familiarize all teams with core user personas**
- shipped a feature to enable easy creation of data visualizations through a **collaborative, cross-functional design sprint**
- supported the design of 4 crucial features (template selector, color schemes, sharing, paper size) through **creative remote research methods**, like **fully remote** paper prototype testing and card-sorting using Evernote
- implemented a long-term **UX research intern program**

UX CULTURE = CONSISTENT COMMUNICATION

I developed Piktochart's first user personas based on more than 20 user interviews and communicated these personas through "User Update" infographics at weekly meetings, which helped unify communication about users across stakeholders

Below: 3 core paying users: Entrepreneurs, educators/program coordinators, and marketing professionals



UX BUY-IN = COLLABORATIVE DESIGN SPRINTS

To develop a new feature around generating easy data visualizations, I engaged developers, designers, marketing specialists, and business analysts in a 5-day design sprint

LEARN

Multiple stakeholders shared insights (e.g., survey about how users visualize survey data)



IDEATE

Generate sketches based on insights



DECIDE

Vote on top design concepts



PROTOTYPE AND TEST

Create rapid paper prototypes and test them with users at the end of the week



DRAG-AND-DROP SURVEY RESULTS

Based on this process and usability tests, we developed an easy “drag-and-drop” feature to instantly generate new data visualizations from survey questions





THANK YOU!

Do you have any questions?
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