



# UX RESEARCH PORTFOLIO

Eureka Foong, PhD

Research Lead in  
Human-Computer Interaction  
the University of Tokyo

August 2021



01

**ABOUT ME**

A short work history

**RESEARCH METHODS**

An overview of my  
mixed-methods research

02

03

**CASE STUDY 1**

Gender, pay and  
freelancing

**CASE STUDY 2**

Portfolio feedback tool

04

05

**CASE STUDY 3**

UX culture at Piktochart

**CONTACT DETAILS**

How to stay in touch

06





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**

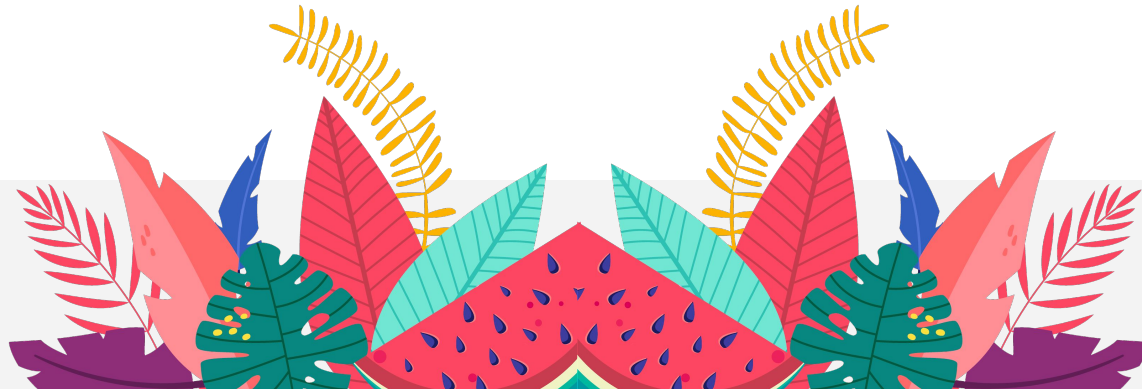
**BIG DATA  
ANALYSIS**

**SURVEYS**

**CARD-SORTING**

**DESIGN  
SPRINTS**

**USER  
PERSONAS**



A background image of four young people (three women and one man) laughing and holding a horizontal bar, overlaid with a semi-transparent orange filter.

# 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

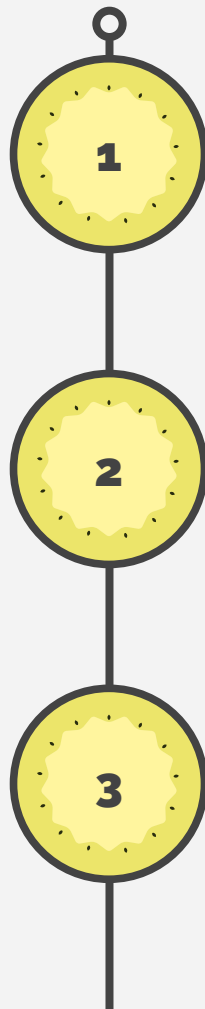
- Led 7 researchers to design and run **remote participatory design workshops** with 19 part-time and full-time female freelancers across the globe in less than 10 weeks to **understand challenges with negotiation and rate-setting**
- Analyzed social media posts related to negotiation and conducted a 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

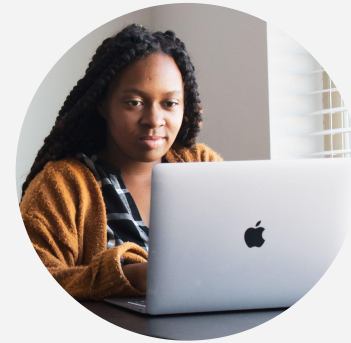


# KEY INSIGHTS AND DESIGN OPPORTUNITIES

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	Asking the right questions to get to your right brand	Fine arts skills, hand drawn to digital skills
1 3	3 4	2 5

What 3 words describe how you want to come across in your portfolio that would make you unique from another designer?

Thoughtful	Driven	Passionate
1 2 3 4 5	1 2 4	1 2 3 4 5

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 Worst

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

Worst

**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. Shout of love for Save the date, is handsome."

"Because I want to know how big of a role this 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.

**a**

TECH ARTWORK PEOPLE LATIN ILLUSTRATION ART GROUP TECHNOLOGY MISC

URBAN ILLUSTRATION OTHER TRIBAL GROUP MEDIA FUN GROUP TECHNOLOGY GROUP

**b**

**c**

Average Rating: 6 out of 7

**d**

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

- "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

### BUILDING A BRAND

"Attracting attention and empowering others"

Age: 48  
Occupation: Founder or co-founder  
e.g. Founder of business strategy consultancy, SaaS, health service  
Education: MBA  
Status: Married with 2 children  
Location: Suburbs in the USA

Marissa is married and has two beautiful children. She has over 20 years of experience in business consulting and has her own company. She is a new business owner with two kids. She has the drive, experience, but they are willing to take on the challenge because they know the importance of their work. They are willing to take on the challenge because they know the importance of their work. They are willing to take on the challenge because they know the importance of their work.

Startup

**NEEDS TO SO THAT** Increase brand awareness  
Online engagement  
Sales and new customers

**PROBLEMS** Finding content people will read  
Staying on budget  
Not professionally trained in design

**CREATES** Infographics for website  
Website pages  
Graphics for social media posts

**ASKS** Can we afford this?  
Will I be able to pick this up easily?  
Will I be able to use a variety of graphics and designs?  
Are there graphics for my industry?

**USES** For social media - Buffer, Twitter, Facebook, LinkedIn  
For graphics - paint.net, Adobe Fireworks, Adobe Photoshop, Keynote, PowerPoint

**READS** Econsultancy, Copyblogger

**LOVES** Learning more about how to improve my business  
Be outdoors  
See my ideas become a reality

### TRAINING UNDERSTANDING

"How can we get people to understand a topic better?"

Age: 35  
Occupation: Program coordinator  
Others: Communication specialist, teacher  
Status: Married  
Location: Suburbs in the USA

Sam is a teacher. He has a program of work and that he is able to teach his students and his own staff on topics related to that program. The topics he works with are complex, they require a lot of knowledge and he has to be able to teach them. He has to be able to teach them. He has to be able to teach them. He has to be able to teach them.

Mentor Matt

**NEEDS TO SO THAT** Bring important information to groups of people  
Online and in-person engagement  
Information creates change in jobs and lives

**PROBLEMS** Creating something concise and coherent  
Portraying accurate information  
Keep people engaged (not bored)  
Keeping some projects private

**CREATES** Presentations for crowds/classes  
Infographics for newsletters  
Brochures for workshops  
Physical and digital banners to attract people

**ASKS** Is this easy and enjoyable to use?  
Can I keep people engaged during the presentation?  
Can I present information concisely and coherently?  
Will this increase understanding?

**USES** PowerPoint, Keynote

**READS** Industry-specific publications (possibly research articles)  
Tech blogs

**LOVES** Catching up with the latest news

### RECOMMENDING CHANGE

"How do we present a persuasive point of view?"

Age: 42  
Occupation: Marketing Manager  
e.g. at a multinational company, at a PR agency  
Status: Married  
Location: Big city in the USA

Marissa has about 15 years of experience in marketing communications and sales. She also has a background in public relations. She has done a lot of work for a multinational company. She has done a lot of work for a multinational company. She has done a lot of work for a multinational company. She has done a lot of work for a multinational company.

Marketing Marissa

**NEEDS TO SO THAT** Convince people to adopt a new product/strategy  
Increase sales  
Help client increase sales

**PROBLEMS** Staying on budget  
Following company guidelines  
Needs the whole team to be able to use it

**CREATES** Sales materials  
Report templates for clients and stakeholders

**ASKS** Is this very expensive?  
Have other people found success with it?  
Is the site reputable and professional?  
Can I use it to make a template I can reuse?

**USES** In-house software, like integrated publishing systems and data warehouses

**READS** Hubspot; publications about advertising/sales

**LOVES** Being with her family  
Improving herself, while being able to help others  
Connecting others with volunteer opportunities

# 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)



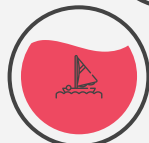
## IDEATE

Generate sketches based on insights



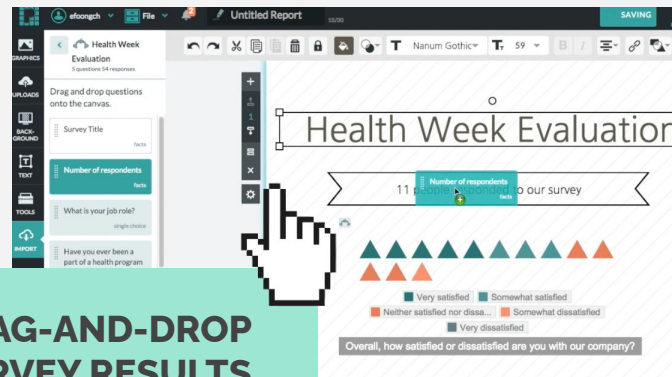
## DECIDE

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?

[eurekafoong@gmail.com](mailto:eurekafoong@gmail.com)

[eurekafoong.com](http://eurekafoong.com)



CREDITS: This presentation template was created  
by **Slidesgo**, including icons by **Flaticon**,  
infographics & images by **Freepik**