



# INTRODUCTION

Widespread adoption of online marketplace platforms and artificial intelligence have created tremendous economic opportunities for freelance gig workers, enabling remote work and flexible work arrangements. However, an equivalent amount of skilled labor is being replaced by technological systems, creating an entirely new employment landscape to navigate for creative, cultural, and entrepreneurial sectors. Traditional artisanal economies and education systems have not fully evolved to meet such changes, creating inevitable challenges that threaten artisan and students' future economic wellness. An initial field research study that investigates the current socioeconomic dynamics of artisanal economies and education institutions revealed important insights into opportunities for technological adoption and increased government intervention to protect the. Building upon existing educational efforts, artisanal economies can embrace new brand identity strategies augmented by social media algorithms to expand awareness. Embracing existing interactive educational workshop approaches that incorporate technological literacy and entrepreneurial design thinking can potentially improve youth future fulfillment and economic outcomes.

Preventable economic disparities in Latin America are extremely widespread, even in wealthy developing nations such as Chile and Argentina. Associated problems stemming downstream are that 1) artificial intelligence and automation of work threatens to replace significant estimated 19-20% percent of workers 2) talent misallocation where skilled workers are not maximizing their output potential increases frustration during times of economic downturn 3) cultural artistic traditions will be forever lost if not preserved through artisanal craftsmanship, depriving communities a sense of cultural identity and pride. Without 1) job security from the oncoming tide of novel artificial intelligence and analytics technologies, 2) unavailable economic opportunities for skilled workers and 3) a deprived sense of individual identity and collective pride, it is not unreasonable that countries in Latin America have witnessed such drastic civil unrest and heightened distrust towards government institutions and foreign private corporations.

# PURPOSE

- 1. Economic opportunities is the largest factor affecting individual health outcomes, social wellness, interconnectedness and life fulfillment.
- 2. Online marketplaces and digitization of freelance and ecommerce services has greatly democratized economic opportunities for many.
- 3. The most vulnerable populations and individuals in countries with highest levels of economic disparity like Chile and Latin America can significantly benefit from such economic arrangements.

# **RESEARCH QUESTIONS**

1. How can we improve economic wellness through remote, online freelance gig work?

www.PosterPresentations.com

- 1. How can we design platforms that increase access to the existing Chilean workforce to online freelance gig work? What are factors that enable existing platforms to operate?
- 2. What are current barriers to artisans and creatives in economically sustaining themselves from their work?
- 2. How can we integrate novel technologies into improving long-term economic wellness of Chilean youth?
  - What are current initiatives aimed at improving education and economic outcomes of the most vulnerable youth?
  - 2. What are areas of improvement to increase the amount of impact enabled by such programs?

# The Effects of Digital Platform Connectedness on Chilean Artisanal **Economies and Youth Economic Wellness Outcomes**

# Jerry Cai (CAS '24), Michael Platt, PhD

#### MATERIALS AND METHODS

**1. Artisanal Economies:** I primarily employed methods from social ethnography and observational studies. I conducted first-person interviews with Chilean artisans in Santiago, Valparaiso and Puerto Natales (n=15). I also subsequently interviewed organizations such as the Chilean Ministry of Arts and Culture, director of Arts Councils and artistic patron organizations.

2. Chilean Education Institutions: Additional, 2 in-person field trips were taken to the CECREA of La Ligua. I personally observed teachers and students learn through the interactive workshop. Interviews were conducted about their experience and painpoints with the existing issues of economic opportunities and usage of novel technology in educational activities.

Question 1: We found that with remote work accommodations that women across different ethnic groups still worked well and certain affective communication interventions actually improved team dynamics and perceived cohesion.

1A: We examined current platforms such as Matriarca, Mercado Libre, Artesanias de Chile online website, Someone Somewhere and Patagonia, which provided ethical and sustainable methods of sourcing individuals. We found that platforms that connected with consumer perceptions and brand alignment were strong factors in building trust in product positioning.

**1B:** From interviews with artisans in Valparaiso, the greatest threat to authentic handicraft is imitations and forged goods made in China. There exists no regulation of street vendors in cultural sites, and ongoing tensions between traditional artisans and the ministry of Arts and Culture has created barriers to protecting traditional artisan craftsmanship. Additionally, younger Chileans are no longer learning such techniques and preserving these practices are becoming increasingly difficult.



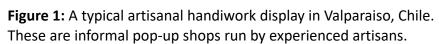




Figure 2: Sponsored events and marketplaces are approved by the Ministry of Culture and Arts.



Figure 3: The final date of the CECREA summer cohort in La Ligua. Several students were continuing next year at university.

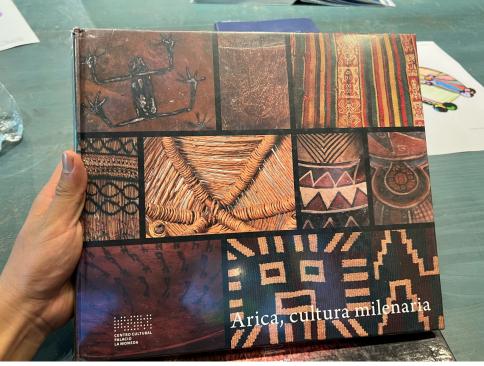


Figure 4: The current media and journalistic-storytelling for authentic handiwork conducted by artisans at the flagship Artesanos Chile in Santiago

Embracing competency with novel generative artificial intelligence and integrating such technology with project-based curriculums that combine creative humanities and STEM in early education has the greatest potential to maximize human brain capital allocation, thus ultimately improving individual and collective wellbeing that sustains into the future

I propose to implement a 3-week long workshop geared towards students with a community-impact challenge where CECREA students work to create jackets and insulated blankets for helping families stay warm during the winter. The goal is to cultivate students ages 12 - 18 important skills in leadership, creative arts, STEM (science, technology, engineering, math) and citizenship. I will work alongside existing facilitators at CECREA to integrate the CECREA education model. I hope to incorporate the use of mixed reality headsets to illustrate digital artistic concepts, which are tied into digital marketing and creator economy use cases for small businesses. Additionally, I hope to expose students to the various appropriate use cases of ChatGPT and LLMs through Khan Academy's Khanmigo to facilitate best-practices when learning independently.

[5] Desjardins, D., and A. Agopsowics. "Advantage Women: How an Automated Future Could Play to Women's Strengths." RBC Economics (2019).



#### **CONCLUSIONS**

Fostering a mindset in a skill set for confident, independent entrepreneurial, thinking, and execution allows for use to be more academically, motivated, and economically stable in creating their own employment opportunities, along with increased overall life fulfillment. The immediate results from such a potential project would be threefold:

1) The augmentation of existing successful programs that could potentially help secure additional funding from the Chilean Government.

2) Provide valuable research data for behavioral economics, education and human interaction of young students with novel AI technologies,

3) Open up new intellectual capital and talent pipeline to high growth technology, engineering and start up companies, serving as a new disruptive model for experiential education and talent allocation.

# **REFERENCES**

[1] Ludwig VU, Berry B, Cai JY, Chen NM, Crone DL and Platt ML (2022) The impact of disclosing emotions on ratings of interpersonal closeness, warmth, competence, and leadership ability. Front. Psychol. 13:989826. doi: 10.3389/fpsyg.2022.989826

[2] Egana-delSol, Pablo. "The Future of Work in Developing Economies: What can we learn from the Global South?." Available at SSRN 3497197 (2021).

[3] Hamid, Ghorbani, Ser. Math. Inform. Vol. 34, No 3 (2019), 583–595 https://doi.org/10.22190/FUMI1903583G

[4] Cai, Jerry Y. "Creating Authentic Connections in Virtual Teams." A Business Journal from the Wharton School of the University of Pennsylvania, Knowledge at Wharton, 18 July 2023, knowledge.wharton.upenn.edu/article/creating-authentic-connections-in-virtual-teams/.

[6] Muro, Mark, Robert Maxim, and Jacob Whiton. "Automation and artificial intelligence: How machines are affecting people and places." (2019).

# ACKNOWLEDGEMENTS

I want to thank my mentor Dr. Michael Platt, Platt Labs and Wharton Neuroscience Initiative for helping drive forward progress on this project. A special thanks to Dr. Pablo Egana de Sol at University of Adolfo Ibanez in Chile for guidance and generous support. I also would like to thank the College Alumni Society Undergraduate Fall 2023 Research Grant for making such work and experience possible.

# **CONTACT**

Email: jycai@sas.upenn.edu | LinkedIn: https://www.linkedin.com/in/jerry-cai/