

# Gig economy and freelancing work in Algeria: A descriptive survey study

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## Abstract

In Algeria, gig economy emergence was fueled by local telecommunications infrastructure' and internet connectivity improvement, and labor market deteriorating conditions. This study aims to describe Algerian freelancers' experience in the gig economy, the precarities, and inequalities freelancers experience with platforms.

This research is an exploratory descriptive study. It uses an online questionnaire to conduct a descriptive survey on 60 Algerian freelancer active on freelancing platforms. Respondents were reached via LinkedIn. The collected data were analyzed using Excel.

The study finds that freelancing in Algeria is driven by the growing availability of digital platforms like Upwork and Fiverr. Local demand for freelancers remains limited. The gig economy in Algeria is youth-driven; gig workers are young people aged between 20-29 years old (65%), majoring in IT and Communication, active in the field of creative design, and mainly male (80%), indicating a gender gap similar to the existing one in the traditional labor market. Most freelancers are part-time workers, and in general, freelancing is a second choice in most cases.

Algerian freelancers are highly educated, they use their professional network, work experience and client ratings and feedback to get new projects without needing for university degrees as signals in the online gig labor. They usually rely on ongoing self-study to develop and preserve pertinent skills.

We contribute to the discourse into the gig economy by concentrating on the Algerian context as a growing labor market contrasting with countries in the global north. We provide insights into the relationships' dynamics and the asymmetries the gig economy market reproduces.

**Keywords:** Online Labour Markets, Gig Work, Gig economy, Freelancers, Platform Economy

**JEL Classification Codes :** J2, J24, J28, J7

## 1. Introduction

The gig economy is an economic model that depends on freelancers doing short-term, project-based work through online platforms such as Fiverr, Upwork, and Freelancer.com. These platforms have a lot of opportunities, including many high-skill jobs where professionals from all over the world compete for projects (Herrmann et al., 2023).

Since 2008, the gig economy has grown in the global economy when digital platforms for online gig work have proliferated and became more common (ILO, 2021, p. 47). According to the Online Labor Index (OLI) (2020), with an average growth rate of 10 % each year before the pandemic in 2020 and roughly 40 % since the commencement of the epidemic in March 2020. From 2016 to 2022, just six years, in the UK, the number of adults undertaking gig labor has more than tripled from 2.3 to 7.25 million (Fennell, 2022). In 2022, 60 million people, or 39% of the US workforce, turned to freelancing as broad swaths of workers rethink what employment means beyond established career routes (Upwork Study, 2022). The gig economy's expansion is fundamentally driven by technological advancements. The internet, telecommunication networks, and mobile devices became widely used. The combination of big data and artificial intelligence (AI) in the last few years has changed the global economy, society, and politics in big ways. It has made gig work more efficient and complicated, automated tasks, and given platforms new ways to manage and grow their operations (Albornoz & Chávez, 2024).

In the Algerian context, the Algerian economy relies heavily on hydrocarbon; its export revenues remain central to the country's economy. Given the country's young demographic profile, this has engendered an inadequate economic infrastructure and widespread unemployment and informal labor arrangements. In 2021, the national unemployment rate was 12.7%, while the unemployment rate for young people between the ages of 15 and 24 was significantly higher, at 31.9% (World Bank, 2023). The advent of the gig economy is comparatively recent in Algeria; it is a response to the described circumstances. Indeed, a significant proportion of Algerian freelancers started working on international platforms which have surfaced as a very accessible and efficient avenue for many workers to earn daily income between 2015 and 2020, while local platforms started emerging between 2016 (e.g., freehali.com) and 2022 (e.g., freeworkdz.com). Determining the precise number of freelancers involved in digital platforms is difficult to estimate; drawing upon a 2023 report from OLI (2023), it is estimated that Algeria's share of the platform economy was approximately 0.298% of the total online freelance workforce in 2023, a notable increase from 0.165% in 2017.

This gig economy new trend is fueled by two major structural factors: improved local telecommunications infrastructure and internet connectivity, and the deteriorating traditional labor market conditions. Regarding the former, 71% of the population had Internet access in 2022, a rate above the MENA average. With over 54 million internet connections and 49 million mobile phones in 2022, Algeria is considered one of Africa's most digitally connected countries. This indicates an average of 1.1 mobile phones per person, demonstrating a high degree of mobile penetration (World data, 2022).

Despite this progress, the expansion of the gig economy has been hindered by several underlying systemic challenges, including issues related to digital rights such as inconsistent access in rural areas and a lack of digital literacy among some populations' segments, cultural barriers, such as a general skepticism toward online shopping and the use of credit cards, have also impeded the widespread adoption of digital platforms (Amrane & Damene, 2023). Algeria also still struggles with constrained banking services and limited account ownership at a financial institution or a mobile money service provider. In 2021, only 3.8% of the population ages 15+ had borrowed money from formal institutions or used a mobile money account, 2.8% had credit cards and 3.6% used online payment and used a mobile phone or the internet to pay bills (world bank, 2021) highlighting a financial system that is not adequately equipped to support the needs of this new economic model (Meherhera, 2021; Rekiba, 2021).

Recently, the Algerian government established the regulatory framework for the gig economy by introducing and creating 1) The National Agency of Auto-entrepreneur, 2) The list of activities eligible for the status of the self-employed entrepreneur and the registration methods in the national self-employed register, and 3) The card of the Auto-entrepreneur. These projects were part of implementing of the provisions of law n° 22-23 of December 18, 2022, of the self-employed entrepreneur. "The National Agency of Auto-Entrepreneur (anae)", placed under the supervision of the Minister responsible for start-ups, aimed to contribute to the regulation of new economic activities, especially in digital and to develop the entrepreneurial spirit by facilitating young people to self-employment and promoting their integration into the formal economy. The National Agency of the Auto-entrepreneur (anae) created a list of activities eligible for the self-employed status. When writing this manuscript, 274 activities were censored and put on the list of digital services and related activities covering different jobs mediated by online platforms (anae.dz, June 2025). The registration in the national auto-entrepreneur register takes place through an interoperable digital platform allowing the issuance of an auto-entrepreneur card bearing a single national registration number. Finally, the Map of the Auto-entrepreneur card is electronically made.

Thus, the "gig economy" in Algeria is presented in this study as a case study of a growing labor market, contrasting with countries in the global north. This research is an exploratory, descriptive study, drawing on data from 60 online Algerian freelancers. It aims to discuss four common issues that underpin gig work: 1) analyzing work options the gig economy creates for Algerian freelancers, 2) highlighting negative biases and inequalities workers' experiences with platforms, 3) exploring the numerous sorts of added labor needed to complete required tasks in gig work, 4) highlighting the high-skilled online freelance workers (knowledge workers) category as the dominant category of Algerian freelancers. We contribute to the discourse on the gig economy and freelancing by concentrating on the Algerian context as a growing labor market contrasting with countries in the global north. We provide insights on the dynamic relationships among gig economy actors, their working conditions, and the asymmetries the gig economy market reproduces. We also broaden the analysis to high-educated online freelance workers as the dominant category of Algerian freelancers, a category of gig workers understudied in the past (Howcroft & Bergvall-Kåreborn, 2019).

## 2. Background and Literature Review

The gig economy attracts many workers by the promise of flexible and independent work, as well as a wide range of challenging tasks (Wood et al., 2019). Previous research has emphasized numerous opportunities that freelancing platforms provide to workers. For instance, these platforms can help people explore their career options and give them a way to switch fields by giving them access to a wide range of project opportunities. Freelancers can also use them to build an online professional brand and make extra incomes (Sutherland et al., 2020).

The “gig economy” is a novel form of production and employment (Woodcock & Graham, 2019). It refers to a labor market where independent workers face uncertain tasks. The supply and demand for labor in this market are structured through “digital and algorithmic infrastructure” (Graham & Woodcock, 2018). Digital platforms function as an “intermediary” or “ghost employer” (Gandini, 2019); they facilitate the exchange of labor and professional services and form a capital-labor connection with the worker. Thus, the gig economy is an economic model that depends on digital platforms that use algorithms and rating systems to organize labor. This structure is different from how the labor market is usually organized, like through online job search forums or employment agencies. Digital platforms use information from transactions and communications to make their operations more efficient (Koutsimpogiorgos et al., 2020). This model breaks work down into small tasks and spreads them out using information systems that work like a free market. This structure allows faster production, provides more options for workers, and lowers costs by moving capital and personnel costs to independent contractors (Albornoz & Chávez, 2024).

## 3. Gig Work Precarities

### 3.1 Impacts of freelancing platforms and algorithmic management

Even though digital platforms offer a potential solution to specific aspects of job insecurity by facilitating consistent and secure employment opportunities, they also impose their own requirements and limitations (Sutherland et al., 2020). While gig platforms are supposed to improve work procedures, ambiguous and ever-shifting algorithms badly impact workers' livelihoods, earnings, and time. Employment in the gig economy is supposed to be independent, but in reality, platforms regulate worker's autonomy through evaluations, algorithms, and monitoring (Arriagada et al., 2023). This technique various individual contractors, generally with weak bargaining strength (Albornoz & Chávez, 2024). Gig economy companies exert control over workers through an asymmetries of information. They frequently only disclose a portion of the information gathered from employees on the platform and how work is assessed (Lord et al., 2023). This lack of transparency prevents workers comprehending the critical performance indicators that impact on their future employment prospects (Wood & Lehdonvirta, 2021). In a variety of settings, gig workers frequently overwork, become exhausted, put in long hours, and feel socially isolated due to the uncertain nature of their jobs and low pay (Wood et al., 2019). Additionally, the features of freelance platforms like rigorous review processes, uniform practices, and fierce competition may also take away from employees' sense of fulfillment (Nemkova et al., 2019).

According to Alborno and Chávez (2024), after a decade of expansion, the gig economy is generating issues in working conditions for those so-called “independent workers” making its limitations becoming clear. In certain nations, litigation has been initiated to reclassify certain duties as those performed by an employee due to this particular reason (Arriagada et al., 2023). Christiaens (2025) suggested worker-owned cooperative platforms as a solution to put workers in control of “platform design and governance”, and generate new autonomous opportunities for freelancers, even though it faces serious obstacles as a practical alternative to the gig economy in its traditional form.

### **3.2 Gender inequalities**

One perspective on gender inequality in the gig economy is that it offers a solution to many of the challenges women face in traditional employment. This view, often held by "idealists" (Munoz et al., 2024). The gig economy offers a solution for numerous obstacles encountered by traditionally marginalized groups in the traditional labor market, including women and international migrants (Graham, 2020). This perspective posits that the gig economy can mitigate exclusion based on class, gender, race, and disability (Graham & Woodcock, 2018; Shruti & Cosley, 2022), thereby promoting more equitable opportunities for a diverse array of workers (Munoz et al., 2024). Nonetheless, an opposing, more critical viewpoint contends that online freelancing platforms not only perpetuate existing biases from conventional labor markets but also generate new ones. This viewpoint suggests that these platforms reinforce and intensify gendered and racial attitudes by "platformizing" social identification factors, which can lead to persistent job inequalities (Munoz et al., 2024).

From a gender gap perspective, several issues become apparent. These include the persistent gender wage gap, the uneven amount of unpaid care and domestic work that women undertake (whether by choice or not), and gender-based occupational segregation (Churchill & Craig, 2019; Munoz et al., 2024). For instance, there is a notable wage gap between male and female freelancers (Foong et al., 2018). There are a number of reasons for this discrepancy, including differences in skills, job application behavior, asking wages and flexibility (Churchill & Craig, 2019; Herrmann et al., 2023; Foong & Gerber, 2021; Teutloff et al., 2023). The fact that men and women frequently use freelance platforms in different ways is a major contributing factor to this disparity. Men are more likely to seek out higher-paying but less frequent opportunities, whereas women are more likely to seek steady, consistent income (Teutloff et al., 2023).

### **3.3 Highly skilled knowledge workers with no need for educational certification**

The gig economy can mainly be classified into two segments: “low-skill” and “high-skill” gig work. Low-skilled gig workers primarily engage in mundane jobs like providing delivery services or performing cleaning services. These tasks are not demanding in terms of knowledge or training. In contrast, highly skilled gig workers carry out tasks that demand specialized expertise and abilities. They typically possess high levels of education, training, or certification (Dunn, 2020).

What is noticed is that highly skilled gig workers can provide their services on platforms with no need to submit any certifications. They only register a profile account on a given platform



and can then start providing their skills to gig clients without uploading any educational degree Herrmann et al. (2023). However, considering the intense global competitiveness in the online, high-skilled gig economy (ILO, 2021), it is perplexing that there are no requirements regarding the educational qualifications of gig workers. Given this, Herrmann et al. (2023) investigated into whether the gig economy is affected by the known relationship between education and income in traditional labor markets. Their research challenged a basic tenet of labor economics and sociology by discovering no discernible relationship between gig workers' pay and educational attainment. Rather, a worker's pay is more directly related to their gender, positive review scores, and previous work experience. They came to the conclusion that higher education degrees are not regarded by gig requesters as a trustworthy indicator of quality. Rather, in line with signaling theory, the key to landing high-paying gig work is having relevant work experience and positive reviews. According to Herrmann et al. (2023), these results challenge the literature on the relationship between education and income and are essential for comprehending platform work. They contend that this established paradigm could be drastically altered by the gig economy.

### **3.4 Online social capital, identity, and signals**

Establishing and maintaining a good reputation is a struggle for gig workers, it necessitates a comprehensive grasp of many digital platforms and channels. Several online freelancing work markets tackle this difficulty by integrating signals. Skill signal (which represents the talent and potential of suppliers) and achievement signals (which represent the historical accomplishments of suppliers) are more successful in determining the quality of suppliers in jobs that have a longer duration and in jobs where there is a greater cultural difference between buyers and suppliers (Kathuria et al., 2021). A freelancer's professional identity on a digital labor platform is a standardized representation of their skills, ratings, and performance metrics. This identity is largely shaped by platform algorithms rather than by a personal or subjective narrative. When combined with usage regulations and changing platform designs, this platform control appears to produce indentured slavery (Munoz et al., 2022).

Workers on Upwork depend on unpredictable grading systems, such as the “Job Success Score” and the “Top-rated Badge” and formed routines to monitor and protect their ratings. These ratings are observable signs of skill and criteria used by ranking algorithms, making them crucial elements of a gig worker's overall reputation (Sutherland et al., 2020). Getting good ratings is a challenging undertaking. It necessitates constant observation of one's own performance metrics and a thorough comprehension of the platform's automated evaluation algorithms. Employees frequently acquire this knowledge through a process of trial and error. Learning to proactively manage client relationships is a crucial tactic used by employees to safeguard their ratings. To avoid negative reviews, this frequently entails deftly negotiating with clients or allaying their worries regarding a particular evaluation (Sutherland et al., 2020).

### **3.5 Human resource capital and skill building**

Platform workers encounter the dilemma of skill development; they are alone responsible for meeting the growing and complex needs for skills, which are sometimes unpredictable and devalued. At the same time, they struggle with limited chances for structured and directed skill-

building (Kim & Sawyer, 2023). Drawing on human capital theory, Herrmann et al. (2023) found that gig workers acquire the skills they need through a combination of methods. These include self-directed learning such as experience gained in previous traditional jobs and earlier gig assignments, trial-and-error, learning-by-doing, and self-study.

### **3.6 Gig literacies in the gig economy**

Sutherland et al. (2020) recognize essential skills developing in online freelancing are referred to as “gig literacies”. Gig workers enhance their abilities, behaviors, and work practices to utilize platforms effectively and develop strategies to comply with platforms’ algorithmic management. This entails not just efficiently utilizing the platform-provided resources but also navigating or circumventing its established structures and control mechanisms or avoiding algorithmic disciplining features (Sutherland et al., 2020).

### **3.7 Shouldering added work**

On average, online gig workers spend 8.5 hours per week on unpaid activities that fall outside their assigned tasks, such as managing payments, bidding for new projects, and searching for profitable opportunities (Fairwork, 2022). This additional workload is especially high for new workers (Sannon et al., 2022).

### **3.8 Self-organizing to overcome platforms’ shortcomings**

Scholars determined that precarity has adverse effects beyond financial issues, such as lack of “unionization rights” and “artificial competitiveness” among workers (Hassard & Morris, 2018). Freelancers work in an atmosphere devoid of organizational support, this absence of a long-term relationship with a company creates a state of uncertainty, often described as a “liminal space” (Sutherland et al., 2020). Independent gig workers create their private holding environments rather than relying on organizational support to get through conflicts and stay competitive (Petriglieri et al., 2018). Additionally, freelancers have built online communities where they share strategies for maintaining privacy and safety, effectively compensating for the lack of transparency and security features on many platforms (Sannon et al., 2022).

## **4. Study Design**

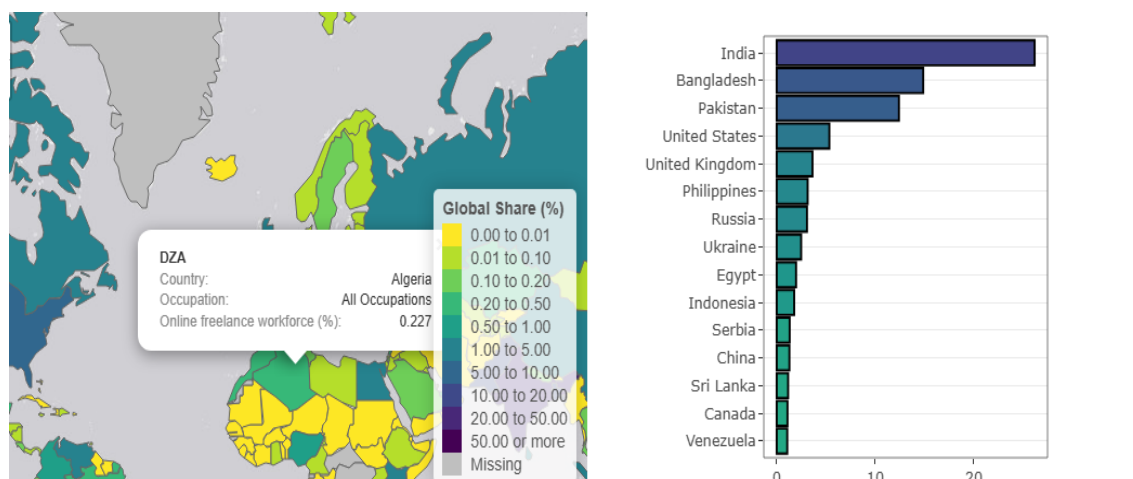
A descriptive survey design is used in this study to obtain accurate data on sizable populations. Survey research is frequently divided into exploratory, confirmatory, and descriptive approaches, according to Malhotra and Grover (1998). This study's descriptive approach is especially well-suited to comprehending the frequency and significance of a phenomenon within a particular population (Malhotra & Grover, 1998; Wacker, 1998). When the main goal is to quantify the existence of a particular relationship and there is enough prior knowledge of the subject to allow for a thorough description of the variables and their context, this methodology is appropriate.

### **4.1 Area of the study**

This study focuses on the online gig economy in Algeria; it emphasizes on labor supply from 2020 to 2025. Data was drawn from the Online Labour Index 2020 (OLI 2020), an economic

indicator that serves as a digital counterpart to traditional labor market statistics. The OLI quantifies the supply and demand of online freelance labor by monitoring the volume of projects and tasks on prominent English, Spanish, and Russian-language platforms in real-time ([www.onlinelabourobservatory.org](http://www.onlinelabourobservatory.org), 2025). It also provides insights into temporal changes in labor supply geography and female participation in the gig economy. According to the OLI 2020, Algeria's overall share of the online freelance workforce is 0.227% of all occupations from 2017 to 2025. This contribution is relatively small when compared to leading countries like India (26.2%) and Bangladesh (14.9%) ([www.onlinelabourobservatory.org](http://www.onlinelabourobservatory.org), 2025).

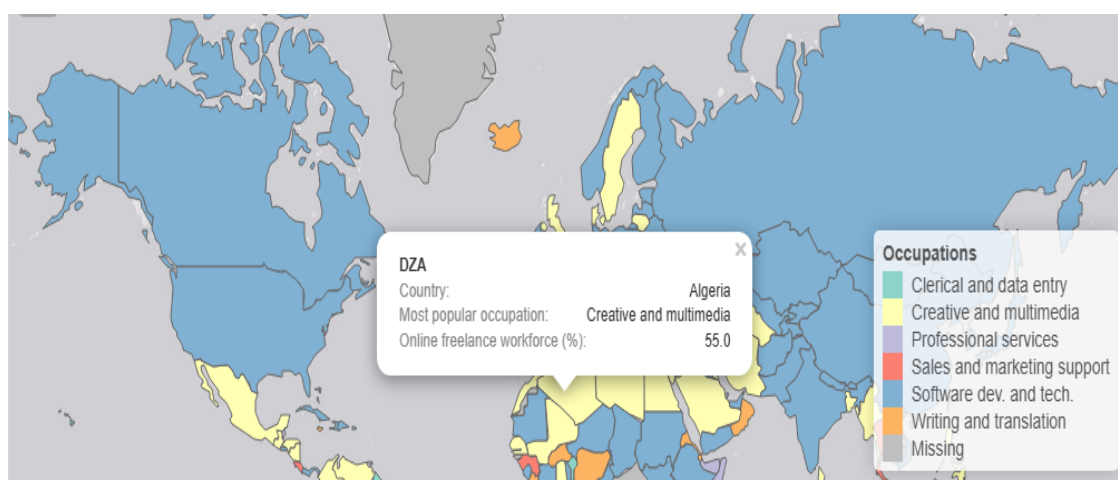
**Figure 1. Algeria's supply share of the online freelance workforce (all occupations 2017-2025)**



Source: OLI 2020 | [onlinelabourobservatory.org](http://onlinelabourobservatory.org) <http://onlinelabourobservatory.org/>

The Online Labour Index (OLI) 2020 highlights notable activity in the creative and multimedia sector (top occupation), which represents 55% of the online freelance workforce and stands out as one of the most popular occupational categories. This aligns with broader global trends, where software development and technology dominate, closely followed by creative work.

**Figure 2. Most popular online freelance workforce occupations in Algeria**



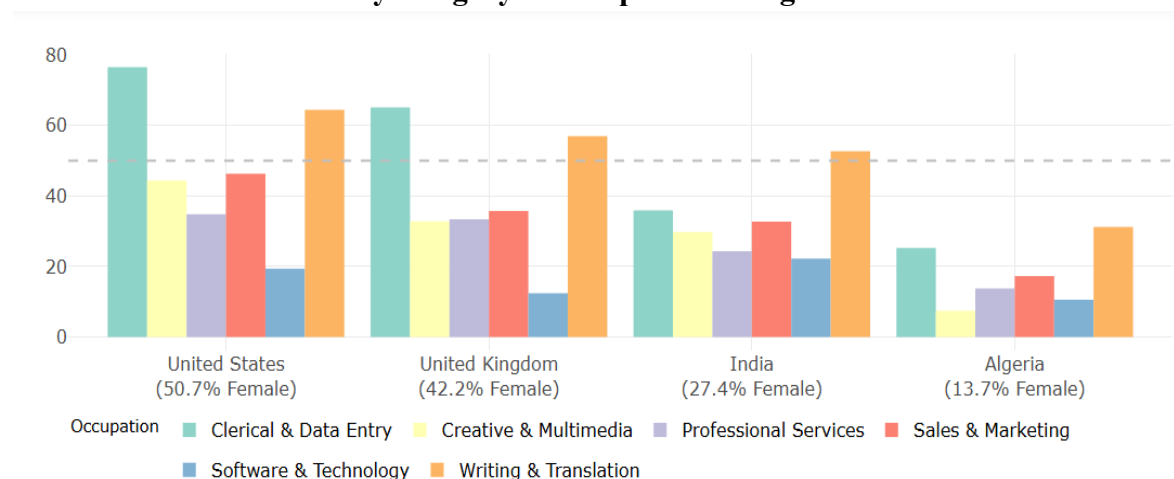
Source: OLI 2020 | [onlinelabourobservatory.org](http://onlinelabourobservatory.org) <http://onlinelabourobservatory.org/>

The Online Labour Index (OLI) 2020 highlights that female participation in Algeria's gig economy remains limited; it represents 13.7% of the online freelance workforce in Algeria,



mirroring global patterns suggesting that female gig workers often face gendered occupational divides and access barriers. In Algeria's online freelance workforce, women tend to engage more in domains like writing and translation (31.2%), desk work and data input (25.3%), and sales and marketing (17.3%) ([www.onlinelabourobservatory.org](http://www.onlinelabourobservatory.org), 2025).

**Figure 3. Female workers share in the online freelance workforce by category of occupation in Algeria**



Source: OLI 2020 | [onlinelabourobservatory.org](http://onlinelabourobservatory.org) <http://onlinelabourobservatory.org/>

## 4.2 Survey design and sampling

The focus of this study is Algerian freelancers. From September to November 2024, an online questionnaire was conducted on LinkedIn, a business and employment-focused social media platform on which Algerian freelancers are most active. Algerian freelancers use LinkedIn primarily for professional networking and career development, where they post their CVs and connect in an online social network. We used the word ‘freelancer’ as a research query plus a filter by country (Algeria) to identify Algerian freelancers’ profiles on LinkedIn. The number of results obtained is 25 LinkedIn pages with 10 results (profiles) per page, a total of 250 Algerian freelancer profiles.

The survey instrument is designed with both open and closed-ended questions, was developed based on key themes identified in the existing literature on freelancing. The questions were informed by several foundational studies and reports, including the “Survey of Self-Employment and Alternative Work Arrangements” (Machin & Giupponi, 2018), the “World Employment and Social Outlook report” (ILO, 2021), and the “National Survey of Gig Workers” (Zipperer et al., 2022). The questionnaire consists of four parts demographic data (5 questions), freelancers' experience of gig work (7 items), gig work precarities that may have influenced the freelancers' experience (7 items), and an open-ended question for the freelancers to give more insights about their experience in the gig economy (1 item).

A pilot study was conducted with 10 freelancers who did not participate in the final survey. Feedback from the pilot helped refine the questionnaire's timing, language, and question flow.

The final version was then converted to an online format and distributed via private messages on LinkedIn. Of the 250 questionnaires sent, 60 were completed, resulting in a response rate of 24%. All participant identities and personal information were protected in accordance with Law 18-07 on the protection of personal data, which has been in effect since August 10, 2023. This study focuses on the collective responses of participants and does not include individual opinions or identifying information.

## 5. Results and Discussion

### 5.1 Respondents' characteristics

In Algeria, freelancers are mainly male (80%), indicating a gender gap similar to the existing one in the traditional labor market, aged between 20-29 years old (65%), and highly educated individuals (>80% have a 3-year higher-education degree). Over 28% of respondents are majoring in IT and Communication (Computer Science, IT, telecommunication...), followed by freelancers with professional education and Secondary education level (18.33%) and those majoring in Humanities (Translation, Languages, Law, ...) (15%).

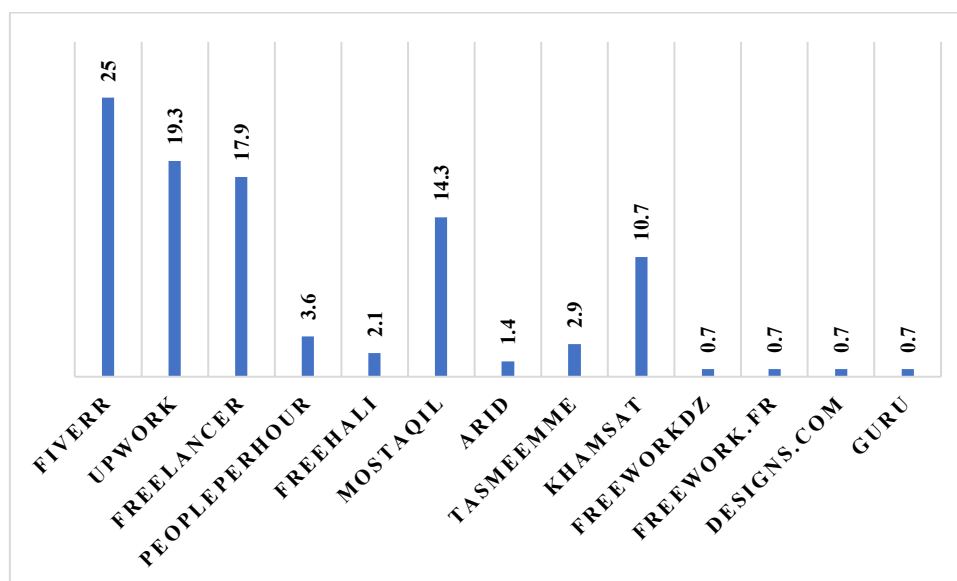
**Table 1. Sociodemographic characteristics of the sample (n = 60)**

		N	Percent (%)
Age (years)	Less than 18	1	1.7
	20-29	39	65
	30—39	17	28.3
	40-49	3	5
Gender	Females	12	20
	Males	48	80
Level of education	Secondary education	7	11.7
	Professional Education	4	6.7
	Graduate	15	25
	Master	33	55
	PhD	1	1.7
Field of study	Science and Technology (Material science, Chemistry, Physics, Earth sciences, Mathematics ...).	8	13.3
	Nature Sciences, Life and Medical Sciences (Medicine, Pharmacy, Dentistry, Nutrition Science, Nursing, ...)	3	5
	Engineering (civil, architectural, mechanical, electrical ...).	8	13.3
	IT and Communication (Computer Science, IT, ...).	17	28.33
	Economics and Business Management	4	6.7
	Humanities (Translation, Languages, Law, ...).	9	15
	Non (Professional and Secondary education).	11	18.33

### 5.2 Algerian freelancers' experience of gig work

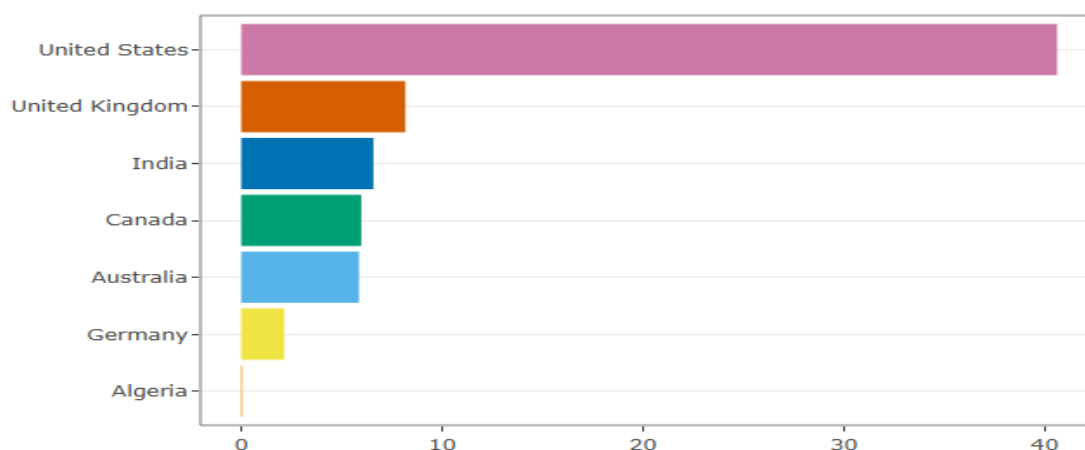
Over 62.2% of respondents work on three major platforms: Fiverr (25%), Upwork (19.3%), Freelancer (17.9%), followed by Arab platforms: Mostaqil (14.3%) and Khamsat (10.7%). Most of the freelancers work on three platforms at the same time with a percent of cases of (145%). This indicates that freelancing in Algeria is driven by the growing availability of digital platforms like Upwork and Fiverr.

**Figure 4. Platforms where Algerian freelancers work (%)**



What is remarked is that only 2.1% of respondents reported working on the Algerian platform Freehali. Although Algerian workers are active on various platforms, local demand for freelancers remains limited, contributing only a small percentage to global online labor demand. According to the Online Labor Index (OLI) 2020, Algeria has a modest share of the global online gig economy regarding labor demand. The online freelance market is heavily concentrated in a few countries—primarily the US., the UK., and India—making it difficult for smaller economies like Algeria to impact global labor demand significantly.

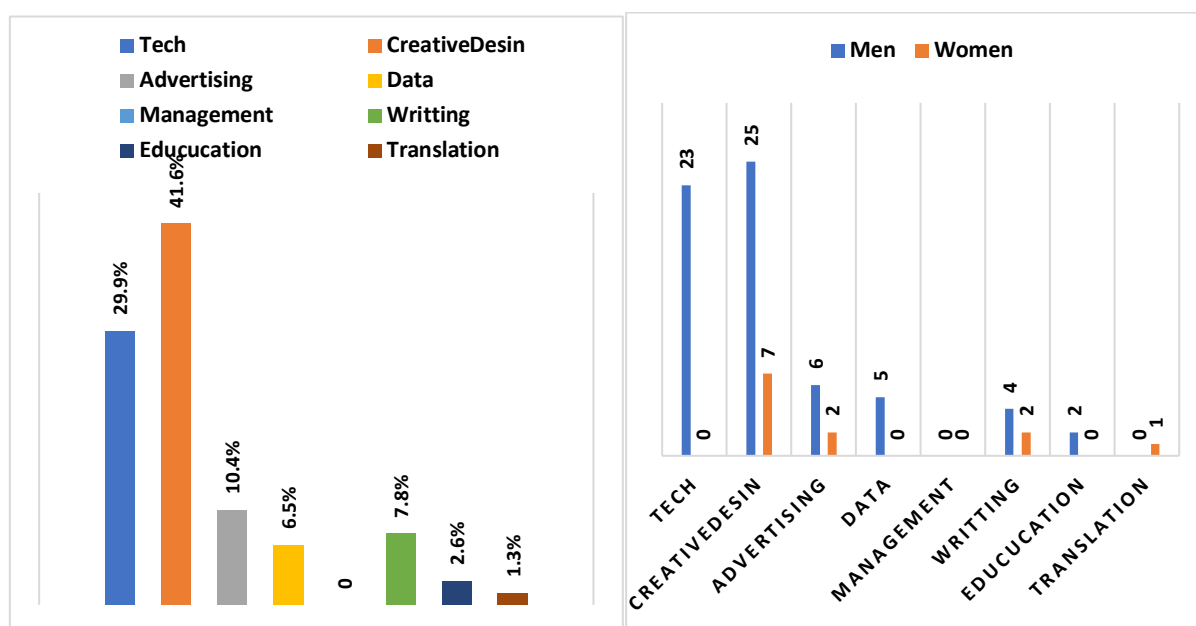
**Figure 5. Algeria's demand shares in the gig economy**



Source: OLI 2020 | [onlinelabourobservatory.org](http://onlinelabourobservatory.org/) <http://onlinelabourobservatory.org/>

Over 41% of respondents work in creative design, followed by Tech (29.9%) and advertising (10.4%). Most freelancers work in these three fields at the same time, with a percentage of cases of (104.9%). 7 of 12 women work in creative design (58.33%). The rest are in advertising (16.67%), writing (16.67%), and translation (8.33%).

**Figure 6. Fields where Algerian freelancers work by gender**



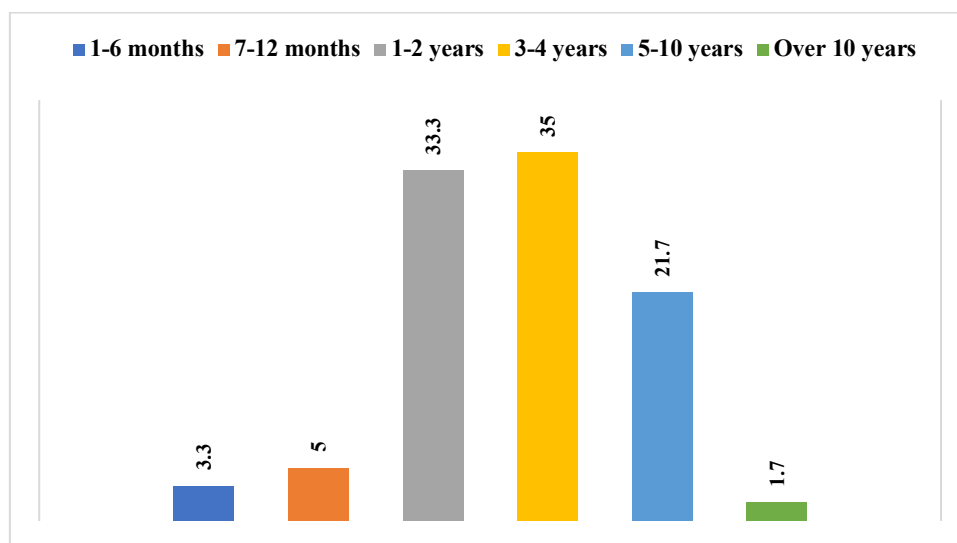
36.7% of freelancers are part-time freelancers who have a full-time job and they plan to continue both. 18.3% are full-time freelancers by choice, compared to 16.7% who are full-time freelancers now, but they are looking for a full-time job. The remaining 28.3% are part-time freelancers and college students at the same time, making freelancing a second choice in most of cases.

**Table 2. Algerian Freelancers' best description of their career as a freelancer**

	Frequency	Percent (%)
I am a full-time freelancer by choice.	11	18.3
I am a full-time freelancer now, but I am looking for a full-time job.	10	16.7
I am a part-time freelancer and have a full-time job and I plan to continue both.	22	36.7
I am a part-time freelancer and a college student.	17	28.3
	<b>60</b>	<b>100.0</b>

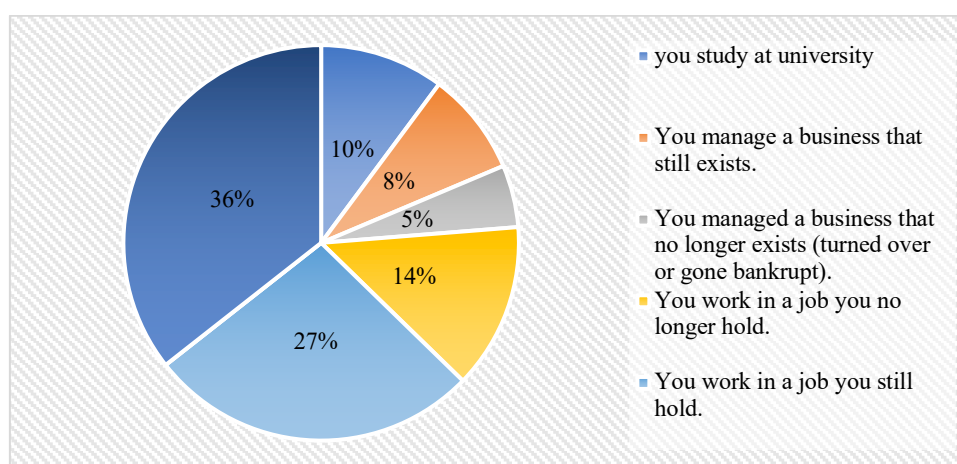
With 35% of freelancers having worked for three to four years and 33.3% for one to two years, the data demonstrates a recent upsurge in freelancing activity in Algeria. Since the government did not officially acknowledge freelancing as a valid form of employment until 2022, this growth was initially sluggish. Because of this, a large number of gig workers worked without formal registration, putting them at serious financial risk and removing their legal protection from potential frauds or disagreements over contracts with international clients.

**Figure 7. How long have you been freelancing (%)?**



Before starting as freelancers, 35% of Algerian freelancers were unemployed, while 26.7% were working in a job they still hold, and 13.3% were working in a job they no longer hold. 10% were university students when they started as freelancers. This gig economy's new trend is fueled by the deteriorating conditions of traditional labor market.

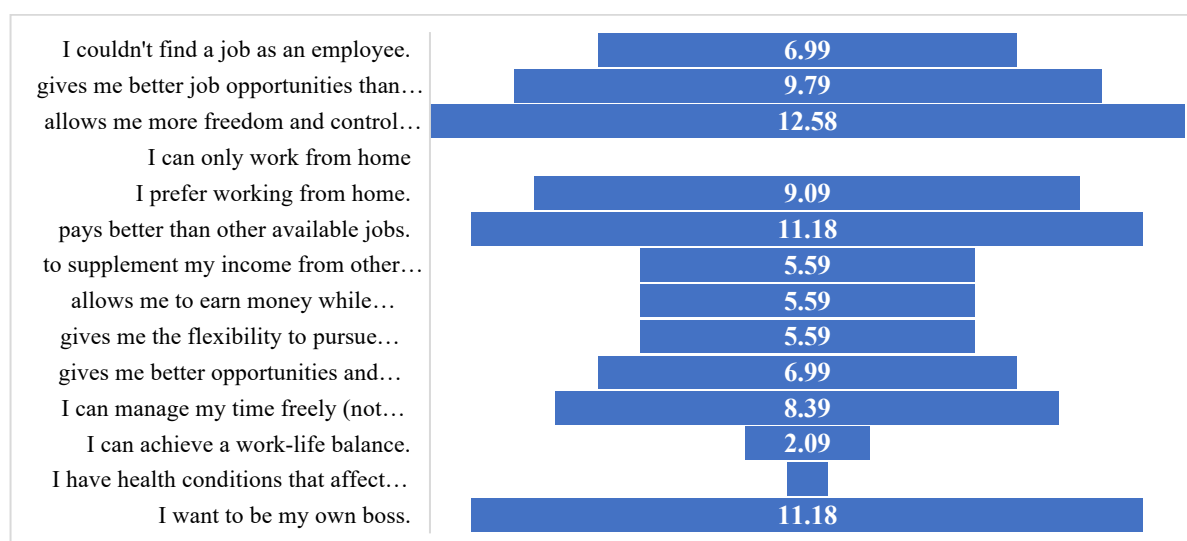
**Figure 8. Before you started freelancing, were you?**



Algerian freelancers work as freelancers because it allows them more freedom and control over the work they do (12.58%), and because working as a freelancer pays better than other available jobs (18.11%) and provides more freedom "I want to be my own boss" (18.11%). Algerian freelancers also found that gig work gives them better job opportunities than anywhere else (9.79%) and from home (9.09%).

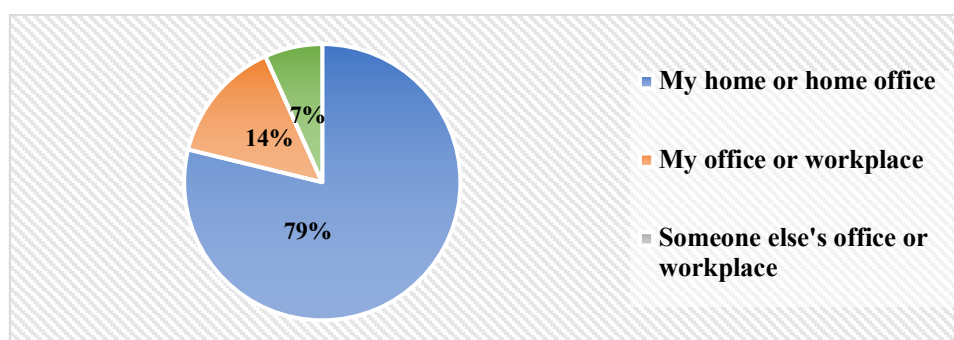


**Figure 9. Reasons that led Algerian freelancers to work as freelancers (%)**



Most respondents claimed they would be doing their work as freelancers from home or home offices (78.94%) and sometimes from the workplace (14%). Freelancers who work from coworking spaces or private offices for freelancers are mainly males and live in Algiers, the capital (7%).

**Figure 10. Where do Algerian freelancers usually work?**



### 5.3 Gig work precarities influencing Algerian freelancers' experience

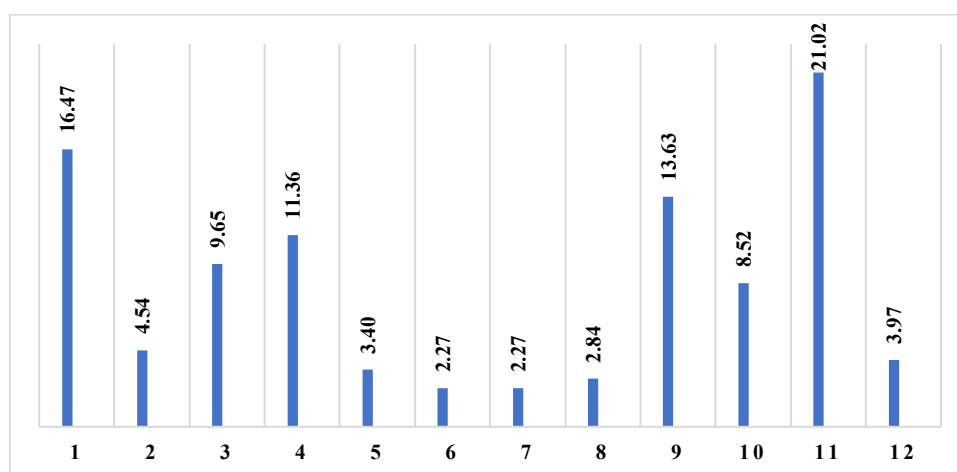
When it comes to extra tasks that consume Algerian freelancers' time, gaining new clients is the most time-consuming task (30.20%), personal training (22.81%), looking for new tasks (18.12%), and checking clients' backgrounds (12.75%). These four categories make a total percentage of cases of 203.32%.

**Table (3): Extra tasks that consume Algerian freelancers' time**

	Percent of Cases (%)	Percent (%)	Frequency
Invoicing	18.33	7.38	11
Gaining new clients	75.00	30.20	45
Personal training	56.66	22.81	34
Looking for new tasks	45.00	18.12	27
Taking tests	10.00	4.16	6
Looking for soft wares	11.66	4.69	7
Check clients' backgrounds	26.66	12.75	16
	<b>243.31</b>	<b>100.0</b>	<b>149</b>

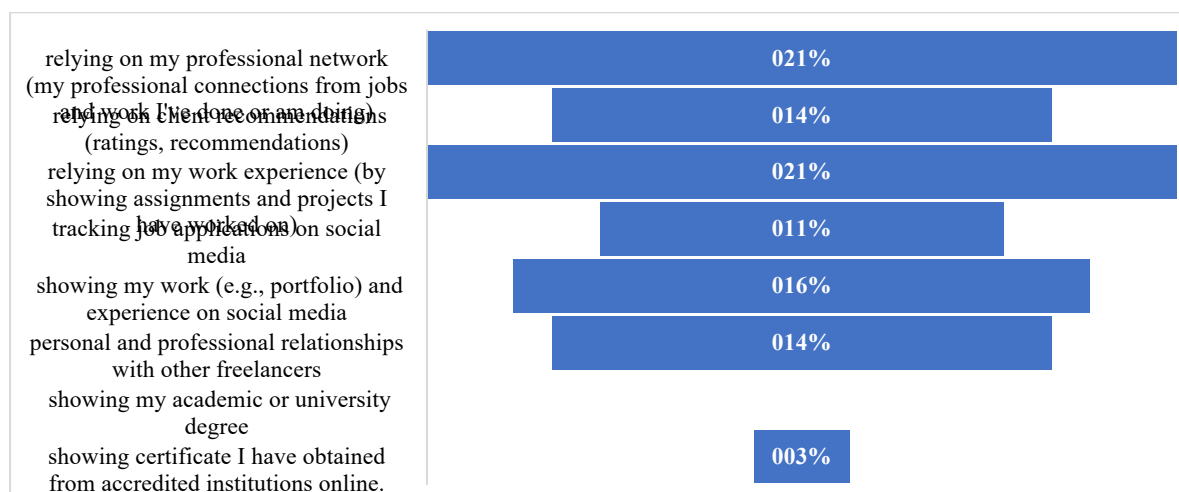
For the most critical challenges Algerian freelancers face, Algerian freelancers consider transferring money to Algeria as the most critical challenge they face (21.02%), negotiating with clients (16.47%), time management (13.63%), invoicing (11.36%), finding the right tasks (9.65%), managing payments and getting paid quickly (8.52%), client management (customer service, communication, and improving relationships) (4.54%), obtaining social security (3.97%), taxes and accounting (3.40%), tracking projects and tasks (2.84%), acquiring the equipment and software needed for the work (Hardware, Software, Cameras, etc.) (2.27%) and drafting contracts (2.27%).

**Figure 11. The most critical challenges Algerian freelancers face (%)**

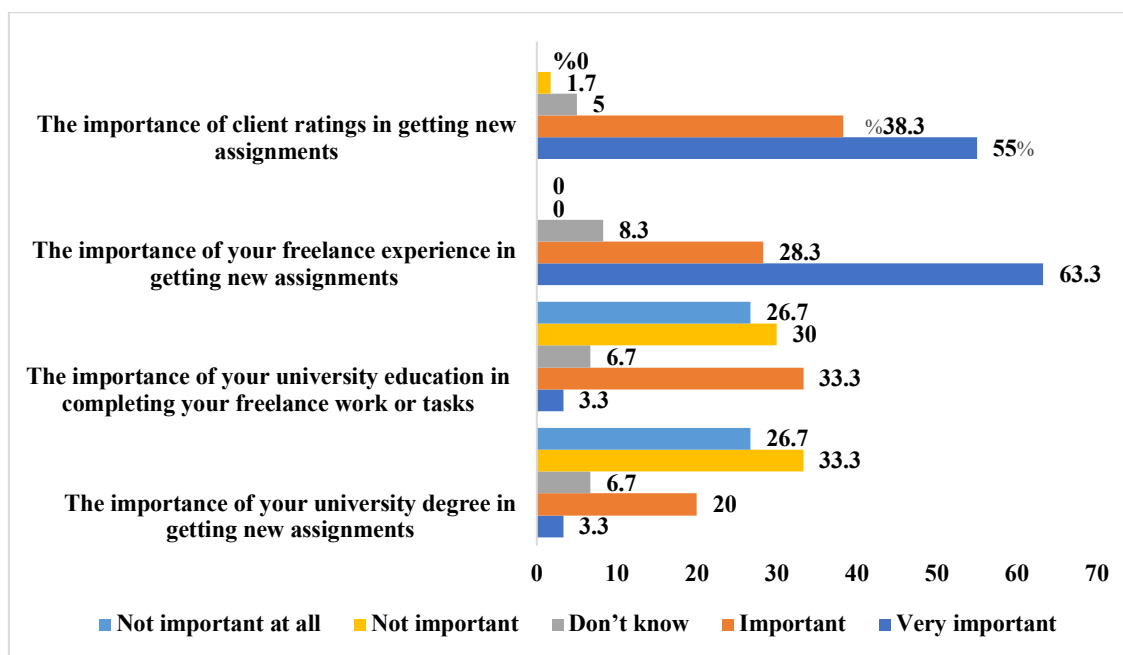


Algerian freelancers get new projects and assignments by relying on their professional network (professional connections from jobs and work they have done or are doing) (20.96%) and by relying on their work experience (by showing assignments and projects they have worked on) (20.96%). Showing their work (e.g., portfolio) and experience on social media comes in third place side by side with relying on client recommendations (ratings, recommendations) (13.97%). None of the respondents mentioned that showing academic or university degrees is a source of getting new projects and assignments, while 2.68% mentioned showing certificates obtained from accredited institutions online.

**Figure 12. How Algerian freelancers get new projects and assignments**

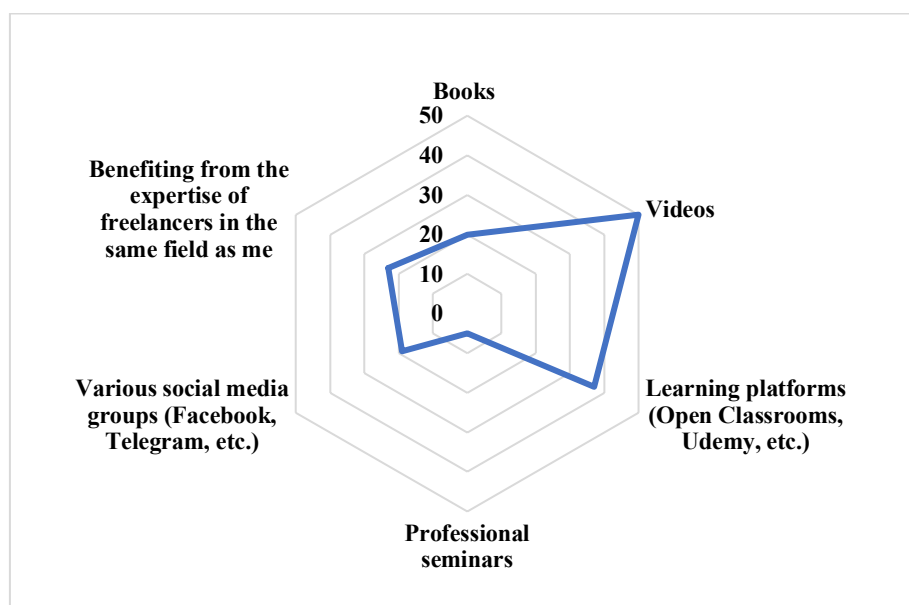


We added four statements on a five-point Likert scale to detail the previous question. 63.3% of respondents claim that the freelancers' experience in getting new assignments is very important and 55% of them find that the client's rating in getting new assignments is very important. Only 20% of respondents find that a university degree is important in getting new assignments compared with 33.3% that find that university education (knowledge and skills gained at university) is important in completing their work or tasks.



32.46% of Algerian freelancers use videos to learn new skills needed to complete their tasks, and 24.02% use learning platforms (Open Classrooms, Udemy, etc.), while 14.93% benefit from the expertise of other freelancers in the same field, followed by books (13.88%), various social media groups (Facebook, Telegram, etc.) (12.33%) and lastly professional seminars (3.24%).

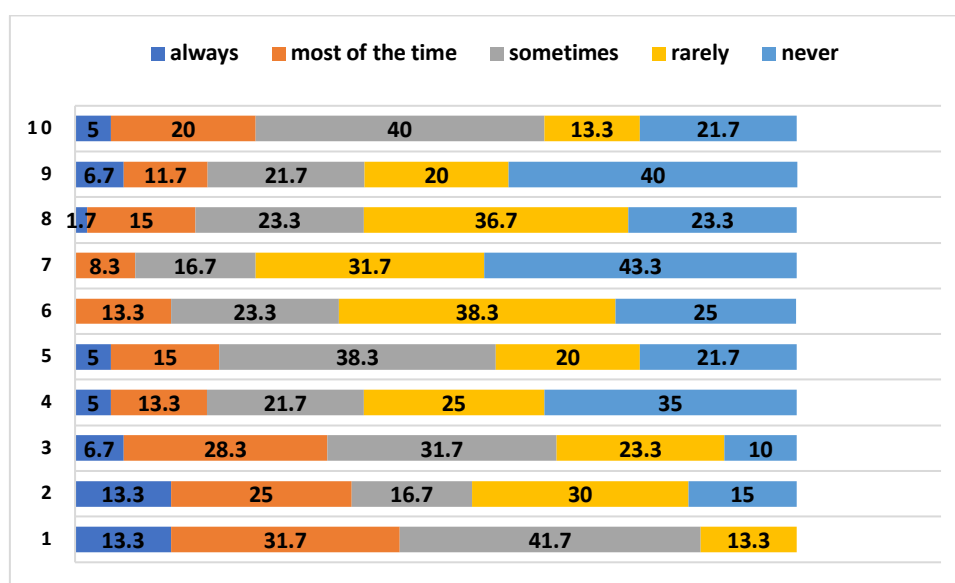
**Figure 13. What Algerian freelancers use to learn new skills to complete their tasks**



We used 10 items for working conditions ranked on a Likert scale from never to always. Results showed that 41% of freelancers feel they receive a fair wage and find their income from freelance work sometimes consistent (31.7%). 30% claimed they rarely sign a contract, 35% claimed they never lost payment for work they have done due to platform difficulties, 38.3% rarely had work rejected and 43.3% never had a client refuse to pay. 38.3% of freelancers sometimes face financial problems, and 40% of them are concerned about their future financial security. In all these statements there is no difference between male and female freelancers, only in items 5 and 10, where female freelancers are facing more financial difficulties and are more concerned about their future financial security than men.

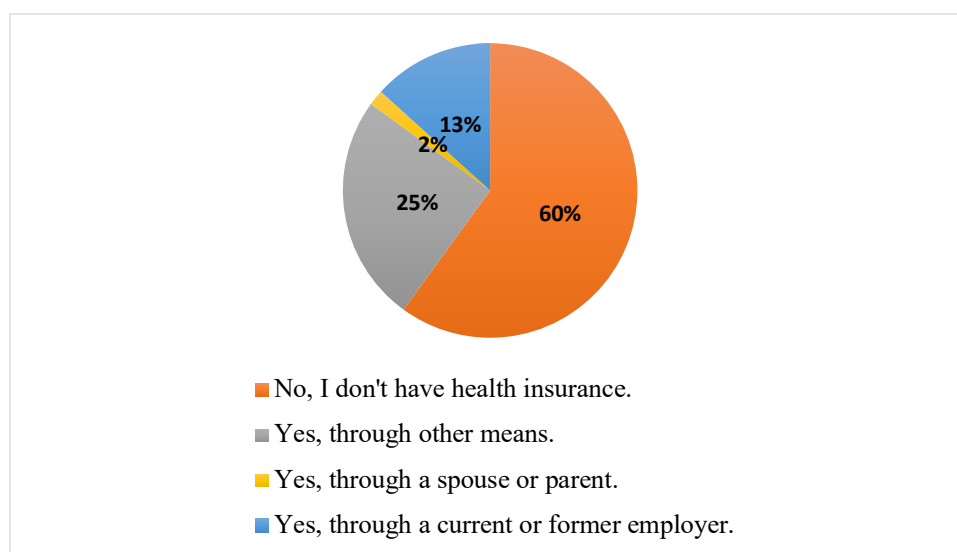
**Table 4. Evaluate your working conditions as a freelancer**

1. Do you feel you receive a fair wage as a freelancer?
2. Do you sign a contract before starting a project?
3. Do you find your income from your freelance work consistent?
4. Have you ever lost payment for work due to platform difficulties?
5. Are you facing financial difficulties (your freelance wages don't cover your expenses)?
6. Have you ever had work rejected?
7. Have you ever had a client refuse to pay you?
8. Have you felt frustrated by the inability to appeal unfair payment denials?
9. Have you turned to online forums and social media sites for advice or to follow discussions about issues facing freelancers?
10. Are you concerned about your future financial security?



For health insurance, 60% of respondents have no health insurance, while the rest manage to have it through other means (25%), through a spouse or a parent (2%), or a current or former employer (13%).

**Figure 14. Do you have health insurance?**



#### **5.4 Algerian freelancers' insights about the gig economy**

At the end of the questionnaire, we added an open-ended question for the freelancers to give more insights about their experience in the gig economy. Algerian freelancers' insights about the gig economy can be summarized in four major categories:

First, there is a constant need to deal with clients from other countries, given the difficulty of dealing with Algerian clients since local clients don't accept hiring freelancers through local platforms and the very low returns compared to platforms like Fiver and Upwork.

“The problem with working as a freelancer in Algeria is that 90% of freelancers work with international clients. This is because Algerian clients have no prior experience working with freelancers.”

Second, there is a problem of receiving payments and transferring money to Algeria from freelance platforms or via bank transfer.

“Working as a freelancer is difficult and tiring in a country that lacks technological capabilities, such as a sophisticated financial and banking system”.

“The problem in transferring money is the most difficult obstacle facing freelancers”.

“The most common problems facing freelancers in Algeria is Payment methods”.

“I hope to highlight the payment issues for freelancers. I love my work as a freelancer, but I stopped when I tried everything and never received my money. PayPal currently doesn't support Algeria, and Algerian banks are incompatible with all online payment cards”.

“The prospects of working as an Algerian freelancer on Algerian platforms in local currency are virtually nonexistent because there isn't yet a culture of e-commerce, unlike the Gulf



countries, which have the most popular freelance recruitment platforms in the Arab world, such as Khamsat, Mostaqil, and others”.

“Even PaySera has blocked all bank cards for Algerians because the cards are now only issued to residents of the European Economic Area. Furthermore, there's the problem of converting money into dinars, we are forced to sell hard currency to someone on social media or other platforms, which can lead to fraud and other scams”.

Third, what many Algerian freelancers name as social difficulties refers to societal opinions about working as a freelancer. Algerian clients under evaluate freelancers’ efforts because they have no knowledge or experience in the fields where freelancers generally work. Hence, they don't know how much work, intricacy, and years of expertise go into creating and refining a business strategy. This mainly results in low pay.

“There is a disdain for freelancers and the evaluation of their work and time (Do you think this worth that much money? Oh no, it is too expensive... etc.)”.

“Online freelancing in Algeria still needs a lot of time to be recognized. We’re still considered jobless in the eyes of the people around us”.

Fourth, internet problems: freelancers must deal with frequent internet outages, which impact their work and their commitment to appointments and tasks deadlines.

## **6. Conclusions and Recommendations**

The emergence of the gig economy, particularly the platform economy, has resulted in the formation of new labor marketplaces. Understanding the potential influence of these advances in different contexts from the global north is vital. The aim of this study was to contribute to the discourse on the gig economy and freelancing by concentrating on the Algerian context as a growing labor market contrasting with countries in the global north. The study describes the Algerian freelancers' experience, the precarities and inequalities of online freelancing, and how freelancers build key literacies to achieve their tasks. It provided insights into the relationships’ dynamics and the asymmetries the gig economy market reproduces. The study broadened the analysis to highly educated online freelance workers as the dominant category of Algerian freelancers.

The study finds that gig economy and freelancing in Algeria are youth-driven, where the most significant portion of gig workers are between 20 and 29 years old, majoring primarily in IT and Communication (Computer Science, IT, telecommunication...) and primarily active in creative design. Freelancers are mainly male (80%), indicating a gender gap similar to the existing one in the traditional labor market and in line with ILO (2019, p. 3) findings that there is a significant gender imbalance in the gig economy of developing countries, where only one in five gig workers is female. This contrasts with developed countries, where the ratio is closer to one in three. This gender gap is particularly noteworthy given that the digital nature of gig work minimizes or eliminates in-person interaction between clients and gig workers. This result bolsters the explanations of Munoz et al. (2024) that platforms might not offer a level playing

field, instead serving as impartial arbiters of business dealings. Digital labor platforms seem to mirror and intensify the gendered social dynamics prevalent in traditional employment, rather than reducing bias and discriminatory practices. It may also align with Churchill and Craig (2019) explanation that a significant number of women are working in the gig economy due to scheduling conflicts and other time constraints, even though they are looking to earn money through the options offered by the gig economy.

The majority of freelancers have been freelancers for 3-4 years (35%) or for 1-2 years (33.3%), indicating that gig economy and freelance work is a growing phenomenon in Algeria. It is driven by the growing availability of digital platforms like Upwork and Fiverr, allowing Algerians to access freelance. Although Algerian workers are active on various platforms, local demand for freelancers remains limited, it contributes only a small percentage to the overall global online labor demand since local clients don't accept the idea of hiring freelancers through local platforms and have no prior experience working with freelancers, resulting in a very low return compared to foreign clients and platforms. Most freelancers are part-time and have a full-time job, and they plan to continue both (36.7%), and in general, freelancing is a second choice in most of cases.

Freelancers in Algeria are considered highly educated (>80% have a 3-year higher-education degree), they use their professional network and work experience to get new projects without needing for university degrees as signals in the online gig labor market, this result aligns with Herrmann et al. (2023) suggesting that the gig economy upends long-standing labor market conventions by giving freelancers a way to find work and make money without the conventional need for a college degree. This is especially important for skilled, unemployed people without formal degrees since it allows them to use their skills for financial advantage without having to make a sizable upfront investment in further education.

Our findings also support the idea that signaling mechanisms in the gig economy diverge from those in traditional markets. A worker's value is mainly conveyed by their prior work experience, the strategic structuring of their professional profile, and—most importantly—client ratings and feedback. Educational credentials are not as important in the gig economy. To stand out from the competition, employees must proactively manage their digital identities.

This can be best exemplified by the case of Algerian gig workers, who usually rely on ongoing self-study to develop and preserve pertinent skills. Consequently, higher educational attainment does not necessarily translate to increased income within the gig economy. This finding has significant implications for the design and purpose of contemporary education systems. Younger generations may be empowered to investigate alternative career paths and training models if gig work provides a viable substitute for degree-based employment. This would challenge the traditional belief that formal higher education is the most important requirement for both professional and financial security.

The issues highlighted in this work have their limitations that create opportunities for future inquiry. This research has several limitations that present opportunities for future inquiry. Our study focuses exclusively on the high-skilled digital gig economy, examining professions such as programming, design, and writing. Consequently, the findings may not be generalizable to

low-skilled, on-site gig work. Future research should consider a broader scope to include on-site freelance jobs and explore the distinct challenges they present. Additionally, further investigation is needed to determine if our conclusions regarding signaling mechanisms and the gender gap are applicable to other types of gig employment, specific platforms, or gig workers in different countries. Such studies would significantly expand the existing literature on the gig economy.

Our study is a survey descriptive study; researchers and practitioners can expand upon this work by investigating design opportunities that would assist online freelancers; research would be enhanced by prioritizing the experiences of gig workers in design-focused studies. This would offer a means to re-envision platforms to confront, rather than merely mirror, the obstacles and disadvantages previously encountered by gig workers in professional environments. Enhancing the experiences of freelancers on digital labor platforms would undoubtedly attract more workers to the gig economy.

A comprehensive review of online freelancers' experiences throughout the years would be advantageous. Future research may investigate how freelancers navigate diverse challenges, including the consequences of market fluctuations, and compare these impacts on workers from various nations or traditionally marginalized groups to enhance understanding of their experiences. This would offer further understanding of how issues may be intensified by external circumstances beyond the control of the platform and its workforce.

Finally, because artificial intelligence (AI) is becoming increasingly prevalent in the gig economy, it is necessary to critically examine concerns about algorithmic justice, labor rights, and the changing nature of human-AI cooperation. AI-powered platforms are changing the way work is assigned, managed, and completed, using intricate algorithms to assign tasks to employees, adjust service prices on the flight, and track performance. But it also brings with it the possibility of exploitation and an additional layer of control. Non-human systems are increasingly mediating the experiences of workers, which can result in a lack of transparency about decision-making processes, such as how a worker's pay is decided or why they are selected for a job. It is expected that the integration of AI may worsen already-existing inequalities and result in discriminatory outcomes in task distribution and earnings.

## References

- Albornoz, M. B., & Chávez, H. (2024). The challenges of gig economy and Fairwork in Ecuador. *Digital Geography and Society*, 6, 100073. <https://doi.org/10.1016/j.diggeo.2023.100073>
- Amrane, S., & Damene, O. (2023). FinTech adoption in the Algerian banking sector: Reality and challenges. *Journal of Economic Integration*, 11(5), 213-227. Retrieved from <https://asjp.cerist.dz/en/downArticle/180/11/5/234339>
- Arriagada, A., Bonhomme, M., Ibáñez, F., & Leyton, J. (2023). The gig economy in Chile: Examining labor conditions and the nature of gig work in a Global South country. *Digital Geography and Society*, 5, 100063. <https://doi.org/10.1016/j.diggeo.2023.100063>
- Christiaens, T. (2025). Platform cooperativism and freedom as non-domination in the gig economy. *European Journal of Political Theory*, 24(2), 176-199. <https://doi.org/10.1177/14748851241227121>
- Churchill, B., & Craig, L. (2019). Gender in the gig economy: Men and women using digital platforms to secure work in Australia. *Journal of Sociology*, 55(4), 741-761. <https://doi.org/10.1177/1440783319894060>
- Dunn, M. (2020). Making gigs work: Digital platforms, job quality and worker motivations. *New Technology, Work and Employment*, 35(2), 232-249. <https://doi.org/10.1111/ntwe.12167>
- Eureka, F., & Gerber, E. (2021). Understanding gender differences in pricing strategies in online labor marketplaces. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (CHI '21, Article 135; pp. 1-16). Association for Computing Machinery. <https://doi.org/10.1145/3411764.3445636>
- Fairwork. (2022). *Fairwork annual report 2022*. Retrieved August 22, 2025, from [https://fair.work/wp-content/uploads/sites/17/2023/01/Fairwork-Annual-Report-2022\\_v6\\_WEB.pdf](https://fair.work/wp-content/uploads/sites/17/2023/01/Fairwork-Annual-Report-2022_v6_WEB.pdf)
- Fennell, A. (2022). Gig economy statistics UK. Retrieved January 18, 2025, from <https://standout-cv.com/stats/gig-economy-statistics-uk>
- Foong, E., & Gerber, E. (2021). 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). <https://doi.org/10.1145/3411764.3445636>
- 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), 53. <https://doi.org/10.1145/3274322>
- Gandini, A. (2019). Labour process theory and the gig economy. *Human Relations*, 72(6), 1039-1056. <https://doi.org/10.1177/0018726718790002>
- Graham, M. (2020). Regulate, replicate, and resist – the conjunctural geographies of platform urbanism. *Urban Geography*, 41(3), 453-457. <https://doi.org/10.1080/02723638.2020.1717028>
- Graham, M., & Woodcock, J. (2018). Towards a fairer platform economy: Introducing the Fairwork Foundation. *Alternate Routes*, 29, 242-253.
- Hassard, J., & Morris, J. (2018). Contrived competition and manufactured uncertainty: Understanding managerial job insecurity narratives in large corporations. *Work, Employment & Society*, 32(3), 564-580. <https://doi.org/10.1177/0950017017751806>

Herrmann, A. M., Zaal, P. M., Chappin, M. M., Schemmann, B., & Lühmann, A. (2023). “We don't need no (higher) education” — How the gig economy challenges the education-income paradigm. *Technological Forecasting & Social Change*, 186, 122136.

<https://doi.org/10.1016/j.techfore.2022.122136>

Howcroft, D., & Bergvall-Kåreborn, B. (2019). A typology of crowdwork platforms. *Work, Employment & Society*, 33(1), 21-38. <https://doi.org/10.1177/0950017018760136>

International Labour Organization. (2019). *Digital labour platforms and the future of work: Towards decent work in the online world* (Executive summary). ILO.

International Labour Organization. (2021). *World Employment and Social Outlook: The role of digital labour platforms in transforming the world of work*. Geneva: ILO. Retrieved January 14, 2025, from

[https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms\\_771749.pdf](https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_771749.pdf)

Ira, A. A., Joyojeet, P., & Hui, J. (2021). Watched, but moving: Platformization of beauty work and its gendered mechanisms of control. In *Proceedings of the ACM on Human-Computer Interaction* (pp. 1-20), 4(CSCW3). <https://doi.org/10.1145/3432949>

Kathuria, A., Saldanha, T., Khuntia, J., Andrade Rojas, M., Mithas, S., & Hah, H. (2021). Inferring supplier quality in the gig economy: The effectiveness of signals in freelance job markets. In *Proceedings of the 54th Hawaii International Conference on System Sciences* (pp.6583-6592). <https://doi.org/10.24251/HICSS.2021.791>

Kim, P., & Sawyer, S. (2023). Many futures of work and skill: Heterogeneity in skill building experiences on digital labor platforms. In *Proceedings of the 2nd Annual Meeting of the Symposium on Human-Computer Interaction for Work* (pp. 1-9).

<https://doi.org/10.1145/3596671.3597655>

Koutsimpogiorgos, N., Van Slageren, J., Herrmann, A. M., & Frenken, K. (2020). Conceptualizing the gig economy and its regulatory problems. *Policy & Internet*, 12(4), 525-545. <https://doi.org/10.1002/poi3.237>

Lord, C., Bates, O., Friday, A., McLeod, F., Cherrett, T., Martinez-Sykora, A., & Oakey, A. (2023). The sustainability of the gig economy food delivery system (Deliveroo, UberEATS and Just-Eat): Histories and futures of rebound, lock-in and path dependency. *International Journal of Sustainable Transportation*, 17(5), 490-502.

<https://doi.org/10.1080/15568318.2022.2066583>

Machin, S., & Giupponi, G. (2018). *Survey of self-employment and alternative work arrangements 2018*. [Data Collection]. Colchester, Essex: UK Data Service. <https://dx.doi.org/10.5255/UKDA-SN-853979>

Malhotra, M. K., & Grover, V. (1998). An assessment of survey research in POM: From constructs to theory. *Journal of Operations Management*, 16(4), 407-425.

[https://doi.org/10.1016/S0272-6963\(98\)00021-7](https://doi.org/10.1016/S0272-6963(98)00021-7)

Meherhera, M. (2021). Evolution of the financial depth in the Algerian banking system and mechanisms to improve it: An analytical study for the period 2008-2018. *Journal of Economics and Human Development*, 12(2), 163-177.

Munoz, I., Dunn, M., Sawyer, S., & Michaels, E. (2022). Platform-mediated Markets, Online Freelance Workers and Deconstructed Identities. *Proceedings of the ACM on Human-Computer Interaction*, 6(CSCW2), 1-24.



Munoz, I., Kim, P., O'Neil, C., Dunn, M., & Sawyer, S. (2024). Platformization of Inequality: Gender and Race in Digital Labor Platforms. *Proceedings of the ACM on Human-Computer Interaction*, 8(CSCW1), 1-22.

Muñoz, I., Dunn, M., Sawyer, S., & Michaels, E. (2022). Platform-mediated markets, online freelance workers and deconstructed identities. In *Proceedings of the ACM on Human-Computer Interaction* (pp. 1-24), 6(CSCW2), 367. <https://doi.org/10.1145/3555092>.

Muñoz, I., Kim, P., O'Neil, C., Dunn, M., & Sawyer, S. (2024). Platformization of inequality: Gender and race in digital labor platforms. In *Proceedings of the ACM on Human-Computer Interaction* (pp. 1-24), 8(CSCW1), 108. <https://doi.org/10.1145/3637385>

Nemkova, E., Demirel, P., & Baines, L. (2019). In search of meaningful work on digital freelancing platforms: The case of design professionals. *New Technology, Work and Employment*, 34(3), 226-243. <https://doi.org/10.1111/ntwe.12148>

Online Labour Index (OLI). (2020). Kässi, O., & Lehdonvirta, V. (Developers). *Online Labour Index*. Retrieved June 10, 2025, from [Petriglieri, G., Ashford, S. J., & Wrzesniewski, A. \(2018\). Agony and ecstasy in the gig economy: Cultivating holding environments for precarious and personalized work identities. \*Administrative Science Quarterly\*, 64\(1\), 124-170. <https://doi.org/10.1177/0001839218759646>](https://ilabour.oii.ox.ac.uk/online-labour-index>OUCI</a></p></div><div data-bbox=)

Rani, U., Kumar Dhir, R., Furrer, M., Göbel, N., Moraiti, A., & Cooney, S. (2021). *World employment and social outlook: The role of digital labour platforms in transforming the world of work*. Geneva: International Labour Organization.

Rekiba, S. (2021). The Algerian banking system: Reality, reforms and WTO accession. *Revue Administration et Développement Pour les Recherches et les Études*, 10(2), 428-445.

Robert, A. P. (2022). Heterogeneity in the US gig economy with a focus on gender. *International Journal of Applied Decision Sciences*, 15(3), 365-384. <https://doi.org/10.1504/IJADS.2022.122641>

Sannon, S., Sun, B., & Cosley, D. (2022). Privacy, surveillance, and power in the gig economy. In *Proceedings of the CHI Conference on Human Factors in Computing Systems* (pp. 1-15), 619. <https://doi.org/10.1145/3491102.3502083>

Shruti, S., & Cosley, D. (2022). Toward a more inclusive gig economy: Risks and opportunities for workers with disabilities. *Proceedings of the ACM Human-Computer Interaction* (pp. 1-31), 6(CSCW2), 335. <https://doi.org/10.1145/3555755>

Sutherland, W., Jarrahi, M. H., Dunn, M., & Nelson, S. B. (2020). Work precarity and gig literacies in online freelancing. *Work, Employment & Society*, 34(3), 457-475. <https://doi.org/10.1177/0950017019886511>

Teutloff, O., Stenzhorn, E., & Kässi, O. (2023). Skills, job application behavior and the gender wage gap: Evidence from online freelancing. *Available at SSRN 4631160*. <https://dx.doi.org/10.2139/ssrn.4631160>

The National Agency for Self-Employed Entrepreneur (ANAE). (n.d.). Retrieved June 10, 2025, from <https://activities.anae.dz/activities/20000/>

Upwork. (2022). *Freelance Forward: Upwork study finds 60 million Americans freelancing in 2022*. Retrieved January 14, 2025, from <https://www.upwork.com/press/releases/freelance-forward-upwork-study-finds-60-million-americans-freelancingin-2022>

Wacker, J. G. (1998). A definition of theory: Research guidelines for different theory-building research methods in operations management. *Journal of Operations Management*, 16(4), 361-385. [https://doi.org/10.1016/S0272-6963\(98\)00019-9](https://doi.org/10.1016/S0272-6963(98)00019-9)

Wood, A. J., & Lehdonvirta, V. (2021). Antagonism beyond employment: How the ‘subordinated agency’ of labour platforms generate conflict in the remote gig economy. *Socio-Economic Review*, 19(4), 1369-1396. <https://doi.org/10.1093/ser/mwab016>

Wood, A. J., Graham, M., Lehdonvirta, V., & Hjorth, I. (2019). Good gig, bad gig: Autonomy and algorithmic control in the global gig economy. *Work, Employment & Society*, 33(1), 56-75. <https://doi.org/10.1177/0950017018785616>

Woodcock, J., & Graham, M. (2019). *The gig economy: A critical introduction*. Cambridge: Polity Press.

World Bank. (2021). Youth (ages 15-24) indicator. Retrieved May 26, 2024, from [https://liveprod.worldbank.org/en/indicators#id\\_youth\\_15\\_24](https://liveprod.worldbank.org/en/indicators#id_youth_15_24)

World Bank. (2023). Algeria overview. Retrieved May 26, 2024, from <https://www.worldbank.org/en/country/algeria/overview>

World Data. (2022). Telecommunication data for Algeria. Retrieved May 28, 2024, from <https://www.worlddata.info/africa/algeria/telecommunication.php>

Zipperer, B., McNicholas, C., Poydock, M., Schneider, D., & Harknett, K. (2022). National survey of gig workers paints a picture of poor working conditions, low pay. *El Trimestre Económico*, 89(356), 1199-1214. <https://doi.org/10.20430/ete.v89i356.1668>