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Fostering Entrepreneurship through Freelancing

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Methodology of Data Gathering and Analysis

WP2: The rich picture of the global freelancer market

Activity 1: Development of the methods of data gathering and analysis

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Introduction

The primary aim of the "*Methodology of data gathering and analysis*" document is to design and develop an appropriate methodology. This includes identifying key iterations for collecting data on the development of global digital labour markets, trends and determinants of labour demand and supply, and characteristics of freelancer workforce, their competencies and underlying factors that determine success on global digital labour market. It refers, additionally, to the development of a framework that will enable a better understanding of specific underlying forces, general and nationally specific, which will facilitate a better understanding of the skills, qualifications, experience, performance factors, and the challenges freelancer workforce face in competing successfully in the global digital labour market.

In relation to the activities and other working packages, the development of the methodology for data gathering and analysis description serves to the fulfilment of the following specific aims:

1. To the development of a detailed path for the successful completion of the next two activities within the WP2:
    a. WP2-A2 Data gathering and analysis.
    b. WP2-A3 Comparison of Europe and Asia.
2. To create the framework to facilitate project outputs in the subsequent phase: 3 (WP3) "*Research on freelancer competencies*".

Profound understanding of the global, regional and national freelancer market(s) and rich data on freelancer competencies, is a prerequisite to determining the gap between the data regarding the competencies gathered in this phase and the more detailed data insights required to develop MOOCs. Mapping competencies of the freelancers should be done in as much as possible broad range. It should additionally enable and facilitate the gathering of primary data through the survey (envisaged within the WP3), which will make this phase more efficient and concentrated on a

limited number of aspects not covered in research outputs within the WP2-A2 and WP2-A3, but still crucial for final deliverables of the project (Figure 1).

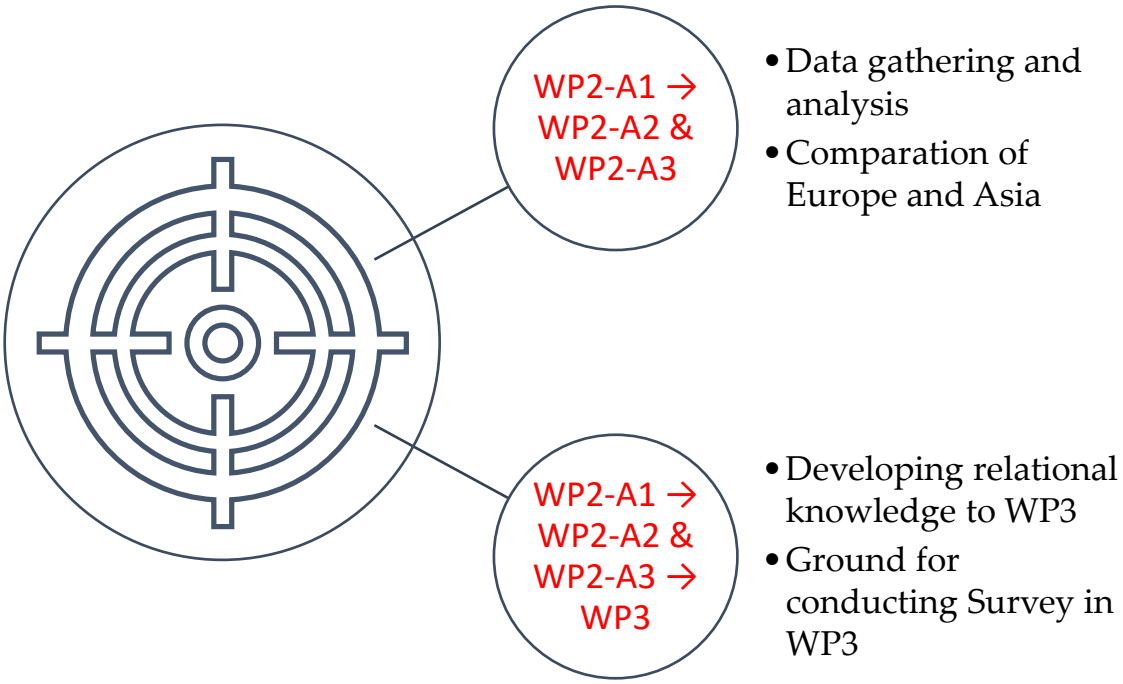

Figure 1. Time dynamics and activities in methodology development.

The scope of the "*Methodology of data gathering and analysis*" document refers to providing crucial insights into the dynamics of freelancing and the competencies required for success in the gig economy. Using a mixed-methods approach ensures both breadth and depth in understanding the freelancer market, characteristics of the freelancer workforce, essential influences shaping demand and supply of labour force and the competencies the freelancers need to attain success in a highly competitive and continuously evolving work environment.

In the first chapter, we present the main conceptual categories around which the rest of the research in the WP2 is organised. It encompasses concepts of the freelancer and digital labour platforms, as two concepts of central importance in later activities, data gathering and analysis.

The second chapter is dedicated to the detailed description of data gathering methodology. Secondary and primary data sources are explained, with a detailed

description of all the iterations leading to the creation of the databases that will be used in the analysis of the global, regional and national freelancer markets.

The third chapter outlines the rough structure and gives proposals for the analysis to be conducted within activity A3 within WP2, with a brief (and open) specification of methods to be used in preparing reports. Over that, rough sketching of reports and the main elements to be contained in them are proposed.

1 Notes on Conceptual Categories: Freelancer and Digital Labour Platform

1.1 Who the freelancers are?

The first step before gathering data and setting a framework for the analysis according to the objectives of the project and, in particular, activities and deliverables of WP2, is to define the basic categories toward which the research project is oriented. Defining basic categories, allows us to answer key research questions central to shaping the subsequent research activities and final deliverables of the project.

The two underlying concepts are of fundamental importance. One refers to the term freelancer, while the second refers to the term digital labour platform. The first one is important in determining the competencies and skills that are crucial for success in pursuing a freelancer career and exploiting opportunities that the rise of the global digital labour market and remote work enabled. The second one is crucial in locating the most relevant source of data needed and developing adequate methods for gathering the data in the subsequent phases of project realization.

Freelancers[1] could be defined as "*individuals who have engaged in supplemental, temporary, or project- or contract-based work to fully support them*", or alternatively as "*self-employed employees working on their own account, with a client base of organizational and personal clients, with contracts of any duration working freelance in either primary or secondary work roles*" (Shkoler & Tziner, 2022). These are very broad

[1] Beside the term freelancer, there are several other terms used as synonyms in the literature (Rabenu, 2021) (Donovan, Bradley, & Shimabukuru, 2016): independent contractors, independent professionals, portfolio workers, self-employed or sole traders, contingent workers, or gig workers.

definitions, potentially encompassing very heterogeneous groups of workers inclusive of on-site workers, such are Uber workers or workers of different delivery platforms/enterprises. Moreover, freelancers could be defined through lances of different categories referring to work status, primary/secondary work role, nature of client base, contract duration, number of clients and skill/occupation (Kitching & Smallbone, 2012) (Table 1).

CRITERION	DESCRIPTION
WORK STATUS	Self-employed proprietors and partners in unincorporated businesses, and directors of limited companies, without employees, genuinely in business on their account, plus some PAYE umbrella company employees.
PRIMARY/SECONDARY WORK ROLE	Those working freelance in main/secondary jobs and on a full-time/part-time basis
NATURE OF CLIENT BASE	Organizational and/or personal clients
CONTRACT DURATION	Any duration (short- and long-term contract)
NUMBER OF CLIENTS	Single/multiple clients
SKILLS/OCCUPATIONS	i. Broad – all occupations. ii. Narrow-skilled, non-manual occupations only (managerial, professional, and technical occupations).

Table 1. Defining dimensions of freelancers.

Source: Own elaboration based on (Kitching & Smallbone, 2012).

According to previously presented (standardized) definitions, it is obvious that too broad definition would considerably constrain research during the project realization, especially under WP2-A2 and, in consequence, WP2-A3 activities. For that reason, we propose a tailor-made definition for data gathering and analysis, which is, at the same

time, closely tied to the ultimate goal of the project: delivering MOOCs that should reach individuals who may act and develop their careers as freelancers, independently of their place, specific educational backgrounds, or cultural circles they are coming from. The detailed analysis of various approaches and definitions regarding to the freelancer and related conceptual considerations will be discussed within the report prepared during the WP2-A3 activities.

Referring to the previous statements, we may say that ***freelancer refers to those who are self-employed, whether they are newcomers or experienced professionals, working remotely in a part- or full-time regime as their main or supplementary job in the form of primary or supplementary work activity and directly with individual and/or organizational clients on short- and/or long-term projects, selling managerial, professional and/or technical services via general online digital labour platforms for monetary compensation***.

1.2 What the digital labour platform is?

Although all the constituencies of the definition are straightforward, the term "digital labour platform" requires additional clarification. Namely, under the term "general online digital labour platform" we start with the definition provided by (EUROFOUND, 2022) who states that a digital labour platform represents "*an employment form in which organizations or individuals use an online platform to access other organizations or individuals to solve specific problems or to provide specific services in exchange for payment*." This definition corresponds to the definition of digital labour platforms provided by the European Directive on improving working conditions in platform work (European Commision, 2024). However, since it is much broader than the scope of this research, we add two additional dimensions (***underlined words***) and exclude part of it (***strikethrough text***) by saying that it is ***an employment form in which ~~organizations or~~ individuals use a general purpose, English language, global online platform to access other organizations or individuals ~~to solve specific problems or~~ to provide specific services in exchange for payment***. By saying that, we exclude any platforms narrowly specialized in a specific type of service (i.e., translation

services) or restricted access platforms (i.e., national platforms, language-specific (outside English) platforms) or platforms providing the work on-site.

The proposed definitions sharpen the focus of targeted individuals and prospective sources for our study. At the same time, it undoubtedly excludes those individuals who are sometimes in research identified as freelancers and digital labour places inappropriate for the aim of this research. In other words, individuals and digital labour places should not be covered by activities on data gathering and analysis are those who:

1. In the case of workers:

- On-site workers. For example, those providing services in transportation, delivery, or accommodation (i.e., Uber, Wolt or Airbnb),
- Workers who work via agencies and/or other forms of intermediaries.

2. In the case of digital labour platforms:

- It excludes content marketplaces, such as YouTube or iStock;
- It excludes business networks containing the job postings, such as LinkedIn or Indeed;
- Digital platforms with exclusively national/regional coverage;
- Digital platforms or other marketplaces that do not provide global access to sell services. For example, it will not encompass different local, national, or regional labour platforms or marketplaces reserved only for some specific language (Spanish, Russian, French or Chinese);
- Digital labour platforms with a too-narrow focus, attracting only workers with specific (professional, usually technical, like programming) skills, such as Stack Overflow Jobs, powered by Indeed.

There is an important advantage of the concentration on freelancers and general global online platforms, in the way we have defined them. The freelancers we are observing and aiming to analyse are those who are active in the most competitive working and labour environments. It means that if they are going to succeed, they have to possess skills and competencies that are globally relevant and competitive, inclusive

of price, relevance, and quality of the services they offer. It means, as well, that these skills and competencies are relevant under other working conditions and relationships, i.e., in other online working marketplaces, such as professional networks (for example, LinkedIn), where freelancers can search for and apply to (remote) jobs, similarly as it is the case in general-purpose online digital labour platforms. An additional argument that reinforces our approach is that 71% of all freelancers find their job via online marketplaces like Upwork (Payoneer, 2022). This highlights the relevance of our focus, as more than two-thirds of freelancers look for jobs via global digital labour platforms.

2 Data Collection

2.1 Overwiew

Data gathering activity should follow two basic principles. One refers to the relevance of data sources, including their abundance, quality, and broad overage. The second one requires the highest diversity of data sources, relying on primary and secondary sources of data. A detailed preview of the data collection approach is presented in subsequent subchapters.

2.2 Collection of secondary data (Literature review)

The first step in data collection is a sistematic literature review in the area of freelancing and digital labour platforms. It should follow the well established methodology for this domain, such as PRISMA (Page, et al., 2021; Moher, Liberat, Tetzlaff, & Altman, 2009). This desk research should be based on various sources which may be grouped into four generic categories:

1. Academic literature, such as scientific articles, conference papers, books, and monographs.
2. Industry reports to gain insights into market trends, challenges, and opportunities, which should include:
    a. global reports, such as Payoneer's Freelancer report,
    b. local/regional reports, such as Gigmetar.
3. Government reports, policy, and regulatory documents.
4. Repositories of international organizations, like OECD, ILO, and Eurostat should be consulted for relevant statistics and analysis.

The diversity of sources, variety of data collected, and diverse aspects they cover, should create a solid ground for the development of a conceptual framework

for the analysis of the freelancer market and the analysis of dominant trends, characteristics, and challenges on a global, regional, and national scale.

2.3 Collection of primary data

2.3.1 Selection of the representative platform

The initial idea is to collect detailed freelancer data and profiles from one, representative platform since data collected from several platforms usually couldn't be compared because of differences in design and resulting differences in data that could be obtained. The additional problem consists of duplicate profiles, so there is a possibility that the same research units (freelancers) emerge several times, making further analysis biased. Eventually, the added value of this approach is questionable since it would require a lot of additional effort with little or no benefits for the quality of analysis.

The first step in (primary) data collection is to select the representative global digital labour platform, which will be later used for data gathering through web scraping of freelancer profiles. For this selection, the following criteria should be considered:

1. **Global Reach:** The platform should have a significant global market share, to ensure a diverse sample of freelancers. Also, the platform should be one with the highest share of the (global) market, in terms of the number of registered freelancers (supply side of the freelancer market) and job postings from the side of companies (demand side of the freelancer market). But, the platform should also be representative platform across all project partner countries, i.e. one of the most significant in each of these countries.
2. **General nature of platform:** The platform to be selected should be general in nature, i.e. it should be the one that attracts a wide range of freelancers in terms of skills and occupations and contains as much as possible diverse job postings. The platforms specialized in just one area should be excluded (such as

99Designs, narrowly oriented toward freelancers in graphic design occupations).

3. **Availability of data:** The platform i.e. freelancer profiles should provide a variety of data in each freelancer profile including demographics and work experience, i.e. the data such as title, description, hourly rate, skills, work experience and history, ratings, reviews, gender, age, education, etc.
4. **An option to filter freelancers by country:** Since one of the important topics in further analysis will be the comparison of the various characteristics of freelancers in each project country, it should be possible to filter freelancers by country and collect data country by country.
5. **Appropriateness for web scraping:** The platform's architecture must support web scraping since the data from freelancer profiles will be collected using this method. Every technological constraint, such as strong anti-scraping protection, which could hinder data extraction.

Besides the general principles shaping the selection process of the most suitable platform, the platform selection should be based on several iterations/steps which refer to:

1. **Initial screening:** Conduct an initial screening using relevante sources (such as reports, scientific papers, and web searches). As a result, the list of potential labour platforms should be identified, taking into mind the selection criteria previously defined. Some examples include Freelancer.com, Upwork, Guru, Fiverr, PeoplePerHour, etc. The list should include the most representative platforms, identified during literature review (Section 2.2.).
2. **Comparison of the platforms:** the initially selected platforms-proposals, should be compared, following the criteria enlisted above. Concerning size and dominance, the platform to be selected doesn't have to be the most significant (with the highest number of freelancers compared to other platforms), but it should be representative in each of the countries. For instance, the platform should hold at least a 20% market share relative to others on the shortlist (the

list should include the most representative platforms) or rank among the top three platforms by freelancer numbers in each country.

3. **Pilot Study:** A small-scale pilot study on one or two best-rated platforms should be conducted, to assess the feasibility of data collection and analysis and check for potential obstacles that may arise during the data gathering.
4. **Final Selection:** Based on the selection criteria, pilot study, and overall analysis, one global platform should be selected as the primary source for data collection and further research.

2.3.2 Selection of web scraping technology

The choice of web scraping technology/tool depends on many factors such as the technical expertise of researchers, the complexity of the website-labour platform, the existence of anti-scraping protection on the platform, the desired level of automation, richness and scale of data gathering, etc. This step, therefore, is strongly interconnected with the previous Section (Selection of the representative platform), and the Pilot Study described in step 3 in the Procedure above. In this regard, there are two major solutions:

1. **Commercially available software:** These tools are generally ready-to-use and easy-to use, user-friendly and no-code solutions. They could also include some sort of solution for existing anti-scraping protection on the website (platform). Although these software solutions generally require licensing and subscription, there are some freemium versions, which could be used for limited web scraping without paying for it. Some of the examples are Octoparse, ParseHub, Import.io, Diffbot, etc.
2. **Development of own web scraper:** Another solution is to develop own web scraper. It would require much more effort and time, but as a custom-made solution, it would provide more freedom and possibilities for data collection and further analysis. One of the suggestions in this option is to use Python as a programming language, and its already existing libraries for web scraping, such as Beautiful Soup or Scrapy, which would significantly reduce development time.

In either case, the web scraping tool should be able to collect all relevant data from freelancer profiles and store them in a format appropriate for further data analysis (for example, CSV, .xlsx or, if necessary, some database format), but also data sharing and wider use from other researchers.

2.3.3 Which and how much data should be collected?

For the reports that should be prepared within WP2, there are two databases created on collected data from the digital labour platform. They represent confronting forces on the freelancer market: the supply and demand side of the market.

The first database is one of the freelancers from selected digital labour platform, i.e., a database containing information on the supply side of the freelance workforce. The exact data to be collected depends on data availability on the selected platform, but the broad list of data that would be useful to be collected (if available) should encomapss following characteristics:

- Freelancer ID,
- Freelancer name,
- Location,
- Gender,
- Age,
- Education,
- Languages,
- Short description (e.g., Content writer and translator),
- Long description (the profile explained in textual form),
- Skills,
- Major occupation/profession,
- Total income on the platform,
- Hourly rate,

- Number of finished jobs/paid hours,
- Number of clients,
- Number of job in progress,
- Experience,
- Ratings,
- Average response time,
- Reviews, etc.

Based on the expected outputs of WP2 (as stated in the Project Application), this database should contain data of freelancers from at least 100 countries. Additionally, it should include data on freelancers from the countries that are partners in the project. There are several iterations envisaged to fulfill this task.

To fulfill the criteria of at least 100 countries (one of the project quantitative indicators in WP2), the first iteration is to filter and collect data both for freelancers with and without (some) experience/work history on the platform, i.e., the freelancers that have registered income or completed jobs on the platform, as well as the freelancers without any registred income/completed jobs. The main task is to collect enough freelancer profiles in order to fulfil the coverage of at least 100 countries. In this phase of collection, the following criteria should be applied: the freelancers should be only independent freelancers, i.e., those not working for an agency. It is expected that this step provide us with a freelancer database from more than 100 countries. The database will probably contain information on the best freelancers on the market, which is in diverse ways important for further analysis. The special advantage consists of the fact that we will obtain the most relevant information on skills and competencies required for success in the global digital labour market. However, the primary use of this database is to make an overview of the present state of freelancing worldwide based on high-quality and high-relevance primary data. In the next step, the data for freelancers from each of the partner countries (Indonesia, Poland, Romania, Serbia, Spain, and Ukraine), should be collected. To get more precise and more relevant results in the later phases related to the analysis of the global, regional, and national state of the freelancer market, it is recommended to get as much information and observations

as possible. The filters to be set are that we are looking for an independent freelancer, with a work history on the selected platform and located in the selected country. This data will be used for comparison of the freelancer market in project countries and between Europe and Asia.

The second database to be created refers to the database of jobs/tasks posted on the selected digital labour platform, i.e., the demand side of freelance work. Again, the exact data to be collected depends on availability on the selected platform, but a broad list of data that would be useful to be collected (if available, of course) includes:

1. Title,
2. Description,
3. Required skills,
4. Required experience level,
5. Type of work (paid by hour or paid by task/job),
6. If work is paid by the hour:
    - Hourly rate,
    - Estimated time for the job to be finished.
7. If work is paid by finished job:
    - Estimated budget for the task/job.
8. Any restrictions to who can apply,
9. Details on the employer:
    - Location,
    - Number of posted jobs,
    - Number and percentage of previous hires,
    - Total budget spent on the platform, etc.

Here, no filters should be applied, i.e. jobs currently posted on the platform should be collected with no restrictions. Ideally, the number of collected jobs should be high enough to provide postings from employers from more than 100 countries – according to the quantitive requirements in WP2. It should enable a better perspective of the demand side of the global freelance market.

2.4 Data cleaning, pre-processing and storage

Before the analyses, collected source data should be cleaned, to remove potential duplicates, incomplete, or irrelevant entries. Additionally, the problem of missing values and outliers should be resolved using best practices and standardized methods used in this area.

If some of the data useful for further analyses are not available on the profile page, it should be tested whether there is a possibility to estimate them using existing/collected data. For example, estimation of gender based on freelancer name or description, using services like Genderize.io or some AI-based solutions. We are aware of the fact that we are not covering the whole gender spectrum, since the gender is estimated binary only according to the data we collect. The challanges of gender issues will be addressed more precisely in WP3, where the survey will allow freelancers to express gender to which they indentify themselfs. The further step is to determine if a major/additional occupation is not available from the data, it should be tested if it is possible to categorize freelancers using some existing classification, i.e., categorization of occupations, such as one used by the Oxford Internet Institute for OLI index, or similar, based on existing/collected raw data, for example, freelancer's list of skills.

As previously stated, data should be stored in a standard format appropriate for further data analysis (for example, CSV, .xlsx, or, if necessary, some database format), in a protected and/or encrypted form.

2.5 Ethical considerations

The data collection and analysis should be conducted responsibly and ethically. In this regard, data gathering and analysis should be conducted in a way to fulfill following, the most significant, ethical guidelines:

1. **Anonymity:** The identity of single research units (individual freelancers) should be protected by data anonymization (e.g. by assigning codes or pseudonyms to individual profiles).

2. **Confidentiality:** Collected personal information should not be disclosed or shared. Only aggregated data, without any personal information, should be available and offered to interested third parties (for example, researchers, think-tanks, etc.).
3. **Data Security:** All collected data, particularly personal information, i.e. data from individual freelancer profiles, should be kept safe, preventing any unauthorized access, use, or disclosure. Only a limited number of project team members should have access to (un-anonymised) primary data collected from the platform. Files containing sensitive personal information should be protected by password (or possibly encrypted), to prevent any unauthorized access. Both, digital and physical security measures, should be implemented.
4. **Benefice:** This research has a scientific, non-commercial purpose, and it will bring benefits to all current and potential freelancers, researchers and other stakeholders interested in digital labour markets, by providing a deeper understanding of the current state of freelancing in the world and particularly in the project partners countries.
5. **Compliance with Legal and Ethical Standards:** Data collection and analysis should always be in line with relevant legal and ethical standards and guidelines, such as GDPR, FAIR data framework or local data protection laws and regulations.

3 Analysis Description

3.1 Overview

This chapter provides an overview of the analysis which will be performed in subsequent activities, i.e., A2 activity (Rich picture of the global freelancer market) and A3 activity (Comparison of Asia and Europe) within the WP2. The analysis will be based mostly on descriptive statistics, but could potentially involve more specific statistical analytical methods if they could contribute to obtaining valuable additional insights and significantly enhance the fulfilment of project tasks. Various visual elements, such as bar charts, pie charts, and histograms, will be used to present and compare data.

The analysis of the freelancer market, which seeks to explore both global and regional dimensions, will employ a data-driven approach that is primarily descriptive but remains open to more advanced statistical techniques. The overarching aim is to uncover patterns, trends, and insights that can reveal the characteristics and dynamics of freelancing across these domains. Descriptive statistics will form the main element of this analysis, offering a clear and structured view of the data. Metrics such as mean, median, variance, standard deviation and frequency distribution will help to summarize key attributes of the freelancer population, market growth rates, income distributions, and sectoral representation. These tools provide an accessible way to identify general trends and outliers, offering a solid basis for understanding both the scale and nature of the freelancer economy. Beyond basic descriptive methods, the study could incorporate correlation analysis, regression models and cluster analysis.

Since the study spans both global and regional domains, it is important to establish a framework for comparative analysis. This involves identifying both convergences and divergences between the global trends and the specific characteristics of the regional market. At the global level, the analysis might focus on large-scale trends such as the growing dominance of freelancing platforms, the rise of digital nomadism, or the impact of economic shocks (e.g., the COVID-19 pandemic) on freelancer demand. Insights from leading freelancing hubs—such as the United States, India, and Eastern

Europe—can serve as benchmarks for comparison. In the regional context, the focus could shift to local drivers of freelancing, such as cultural attitudes toward remote work, government policies supporting freelancers, or regional sectoral strengths (e.g., IT and creative industries). This allows for a nuanced understanding of how global forces interact with local realities.

Exploring the interplay between global and regional dynamics is pivotal to the analysis. For example:

- How do global platforms (e.g., Upwork, Fiverr) adapt to regional markets, and what role do regional competitors play in shaping the freelancer economy?
- Are regional freelancers competing primarily in global markets, or are they serving predominantly local clients?
- How do economic conditions or technological adoption rates in the region align with or deviate from global norms?

Finally, the analysis will consider broader social, economic, and technological contexts:

- Economic Factors: The influence of GDP growth, unemployment rates, and labour market flexibility on freelancing trends.
- Technological Infrastructure: How access to reliable internet, digital tools, and payment platforms supports or constrains freelancing opportunities.
- Policy Environment: The role of government initiatives or regulations in promoting or hindering the freelancer economy.

Since the analysis covers two specific domains – global and regional, the following subchapters describe the main elements the analysis should contain. It is, however, open for the inclusion and integration of any additional aspect or element to which the research process, analysis of data and insights obtained through it could lead.

3.2 The global picture of the freelancer market

Initially seen as a niche way of working, a decade ago it came to the unprecedented rise of global labour platforms with ever-growing significance for businesses as a source of talent and individuals as a new way of making for living. The rise of platforms was fueled by economic growth, enabled by technology development and the growing digitalisation of business models worldwide, and facilitated by some factors, especially the change of workers' preferences and the switch on a large scale to remote work during the pandemic.

An analysis of the global freelancer landscape should cover the following topics:

1. Introduction: research questions and objectives of the study, key findings and research insights.
2. Conceptual framework for understanding the digital labour economy: how it came to the freelancer revolution, who the freelancers are, why freelancing is becoming more and more important, or understanding underlying economic and technological, socio-cultural and political and legal factors shaping freelancer economy.
3. Current state of the freelancer market: size and structure of freelancer market, key development/growth trends in the freelancer economy, geography of freelancing, key drivers of freelancer economy, such are technological factors, changing patterns of worker's preferences, business needs, exogenous shocks.
4. Understanding the supply side of freelancing: who the freelancers are according to gender, education, age, geography, or whether they are full or part-time freelancers, what are pay differences (regarding the way they earn income (per hour or lump sum payments), regarding the gender, regarding the region, etc…), what kind of skills they are having, i.e., what is the distribution across professions, confronting challenges threatening freelancers against opportunities freelancer market offers, etc….
5. Understanding driving forces on the demand side for freelancer work: what the digital platforms are, why they experienced exorbitrary growth over the past

decade (such as cost, time, performance, strategic and/or risk advantage), typology of platforms, mapping the global platform landscape, characteristics and business models different platforms are pursuing, etc…

6. Future of the freelancer economy: opportunities and risks, both on the demand and supply side (for example, an influence of AI technology), projections regarding the key market trends, requirements for "staying fit" for the global digital labour market (for example, upskilling, reskilling), etc…
7. Conclusions: summary of the key findings and insights from the study, "dive into the future", i.e., giving the prospects regarding the future developments on the global freelancer market(s).
8. Appendices: tables, figures, glossary, references and resources.

3.3 Comparison of Asia and Europe freelancer markets

The second report under WP2-A3 should provide a more detailed analysis of the freelancer markets in the regions of Asia and Europe, with an in-depth analysis of the freelancer markets in the countries participating in the project. Many of the elements of the global report should be contained in the analysis of freelancer markets in Asia and Europe, but with a more localised focus regarding key dimensions of the freelancer economy and inter-regional and national differences in comparison to global trends. However, the analysis in this report should undoubtedly include, as a base, the following topics:

1. General prerequisites for performing the gig work in Asia and Europe: Conditions (economic, infrastructural, technological, educational, regulatory) and contextual factors shaping the freelancer market.
2. Detailed analysis of national digital labour markets including main platforms where the majority of the freelancer workforce is active, local geography and territorial distribution of the labour force, the professional structure of the digital labour market, gender structure and inequalities, and pay gap.

3. Comparison of the selected Asian and European countries: A deeper understanding of differences and similarities regarding various dimensions of the digital labour market on which we previously collected data with a focus on differences in skills and competencies between global demand for digital work and national (of observed national economies) supply of digital labour force.

Conclusions

The rise of digital labour platforms creates, as with every new phenomenon, a lot of ambiguities and inconsistencies which constrain and make difficult any research. For that reason, the first step in methodology development planned to be used for data gathering and analysis is to specify basic categories on which the whole further research is built. For that reason, we propose our definitions of both phenomena, freelancer and digital labour platform. To further strengthen the operability and usability of proposed definitions (in later activities in data gathering and analysis), we identify all digital workers and digital places too, that should not be covered by data gathering. It should considerably enable, simplify and make more efficient the efforts in data gathering and analysis.

In the data collection section, we developed an iterative and layered approach to data collection, based on secondary and primary data from various sources (reports, databases, scientific literature) which should warrant comprehensive insights and understanding of how the digital labour markets are functioning and their main characteristics. Besides the comprehensive approach, the developing methodology requires clear criteria regarding the selection of the most appropriate platform (global reach), data availability and affluence (large-scale data collection – on national, regional as well a global scale) and efficiency in data collection (selection of the most adequate (web-scrapping) technology), that we presented and explained in every detail. With the explanation and integration of considerations regarding data quality and data (pre)processing (for example, obtaining gender information from primary data collected), we emphasise and describe the way we plan to integrate ethical and legal considerations, to get a rich database ensuring cross-country and cross-regional comparison allowing us to generalize findings and apply them in subsequent phases of the project.

The third chapter proposes the ways the analysis should be conducted in activity A3 within the WP2. Bearing in mind the ultimate aims of subsequent work packages and final deliverables of the project (MOOCs), we propose that the analysis should be

primarily based on descriptive statistics, with the potential extension and use of more advanced statistical methods to enhance insights, if appropriate. Further, to understand global driving forces in the development of the digital labour market we propose the following elements to be part of the first report: the conceptual framework for the digital labour market, main drivers, structural trends, and demand-side factors, alongside the socio-economic, technological, and political conditions shaping and influencing digital labour market dynamics. Since the target markets are the selected economies from Asia and Europe, we propose a structure on which the comparison of freelancer markets in Asia and Europe should be based, exploring regional conditions, key platforms, labour structures, and a deeper examination of the differences and similarities between national labour markets, particularly in terms of skills and competencies.

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