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Working Paper Balancing act: The role of digital platforms in shaping the conditions of creative work

ILO Working Paper, No. 123

Provided in Cooperation with: International Labour Organization (ILO), Geneva

Suggested Citation: Gardiner, Drew (2024) : Balancing act: The role of digital platforms in shaping the conditions of creative work, ILO Working Paper, No. 123, ISBN 978-92-2-041102-5, International Labour Organization (ILO), Geneva, https://doi.org/10.54394/JDUJ2404

This Version is available at: https://hdl.handle.net/10419/302864

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▶ ILO Working Paper 123 August / 2024

Balancing Act The Role of Digital Platforms in Shaping the Conditions of **Creative Work**

Author / Drew Gardiner



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ISBN 9789220411018 (print), ISBN 9789220411025 (web PDF), ISBN 9789220411032 (epub), ISBN 9789220411049 (mobi), ISBN 9789220411056 (html). ISSN 2708-3438 (print), ISSN 2708-3446 (digital)

https://doi.org/10.54394/JDUJ2404

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Suggested citation:

Gardiner, D. 2024. *Balancing Act: The Role of Digital Platforms in Shaping the Conditions of Creative Work*, ILO Working Paper 123 (Geneva, ILO). https://doi.org/10.54394/JDUJ2404

Abstract

The platformization of the creative industry has fundamentally transformed the landscape of creative work. This working paper examines the impact of digital platforms on creative workers, focusing on the dichotomy between platform control and worker autonomy. It focuses on both conventional artistic occupations like musicians and photographers as well as "new" professions like bloggers and podcasters. Although social media and streaming platforms have democratized access to global audiences and fostered unprecedented creativity, they also pose significant challenges. The precarious nature of platform-based work, characterized by irregular income, lack of job security, and the concentration of power in a few dominant platforms, or gatekeepers, raises concerns about exploitative practices and the stifling of creativity. This paper calls into question the performative nature of platform algorithms and governance structures to actively shape and influence the behaviour of creative workers, social norms and market dynamics through their design and operational logic. The paper advocates for comprehensive policies and strategies to harness the benefits of creative platforms while mitigating their downsides, ensuring fair compensation, protecting intellectual property rights, and promoting a sustainable and inclusive digital creative economy. Future research should explore definitions and measurements of creative workers on platforms, the long-term impact of platformization, and the transformative potential of artificial intelligence.

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▶ 1 Introduction

The term "platformization" describes the rise of the platform as the dominant infrastructural and economic model of the web and its expansion and integration into other websites, apps, and industries (Helmond 2015). Indeed, today we interact on the web mainly through digital platforms, and they have become part of our everyday lives, defining and shaping how we communicate with each other, how we work and how we buy and sell goods and services.

Platform operators, many of which started as digital "disrupters", are now vast multinationals and publicly traded companies, such as Facebook, YouTube, Uber, Spotify and Amazon. Recently we have witnessed a large consolidation of platform companies, followed by attempts to reduce platform power through a spate of monopoly litigation in parts of the world.

Platformization is reshaping entire industries and markets. One sector that has faced a heavy restructuring is the creative industry. Platforms have penetrated nearly every aspect of the economic, infrastructural and governmental foundations of the cultural industry, forcing a remaking of cultural practices of labour, creativity and democratic structures (Nieborg and Poell 2018). Platforms have achieved these transformations not only as social, political and economic entities but also as discursive constructs that shape and are shaped by the narratives they promote (Gillespie 2010; Banks 2007).

In past years, there has been a significant trend towards the consumption of creative products like music, film, photography and literature through digital platforms, a trend that has forced the artists, authors and filmmakers behind these industries to adapt to the new ways consumers view their creations. These "creative workers" are experiencing positive effects stemming from the potential access to new audiences that platforms offer and their ability to break down traditional market structures, but also adverse effects stemming from copyright restrictions, steep competition, an absence of relevant regulation and challenging working conditions.

Concerns have emerged centring on the idea that the rapid growth in digital platforms has come at the expense of the workers behind the platforms. Platform workers face precarious work arrangements including low pay, zero-hour contracts, discrimination and weak or no social benefits (De Stefano 2015). However, previous research and policy has mainly focused on the employment situations of so-called "app-based" workers such as ride hailing drivers and delivery workers. Relatively little in-depth analysis has been done on another type of labour, which can be described as "content creation", "playbour" (a merging of the words "play" and "labour") or, using Casilli's (2019) term, the work of "produsers" (a merging of "producer" and "user").

This working paper focuses on creative workers and how their employment has been affected by the platformization of the cultural industries. The research methodology applied involves a multifaceted approach to understanding the complex interactions between platforms and creative labour. The paper employs a combination of literature review, conceptual framework development and empirical analysis to explore how platformization affects the working conditions of creative workers. The paper's methodology also incorporates a detailed review of existing theories and literature on the subject. This review includes contrasting perspectives on the democratizing potential of digital platforms versus their exploitative nature. The literature review synthesizes various academic viewpoints, ranging from optimistic views about increased accessibility and opportunities for creative work to critical perspectives highlighting issues of precariousness, overwork and the casualization of labour. By situating the discussion within broader academic traditions of political economy and cultural studies, the paper aims to offer a nuanced analysis of the impact of digital platforms on creative workers' autonomy, income stability and overall working conditions. In doing so, the paper will identify research gaps while pointing to new and exciting areas of inquiry.

2 Defining and contextualizing digital platforms, the creative sector and creative workers

Recent scholarship strives to bring to light how working conditions in the creative sector are being redefined due to the influences of digitalization, focusing mainly on digital platforms. Given the novelty and rapidly evolving nature of the topic and the potential for misinterpretation, it is important to define key terms such as "digital platform," "creative sector," "content industry" and "creative" or "content" worker.

The creative sector and the content industry

This paper considers both the creative sector and the content industry. A sector describes a large segment of the economy, whereas an industry refers to a specific group of similar types of companies. The main relevant international classifications to consider are those in the International Standard Industrial Classification (ISIC) and the International Standard Classification of Occupations (ISCO). Countries and regions use different categorizations for the creative sector with many alternatively terming it the "cultural" sector. ISIC classifies the sector as "creative, arts and entertainment" activities, whereas the European Union (EU), and increasingly the Organisation for Economic Co-operation and Development (OECD), use "creative and cultural sector", which includes seven sub-sectors including performing arts, music and visual arts, crafts, cultural heritage, film, book publishing and press, and radio, television, games and animation.

However, the activities included in the creative or cultural sector designation have come under increasing criticism, and there is a lack of conformity amongst countries on their definitions in survey work (Qmetrics 2022). Many occupations and activities are considered only "partially" cultural, leading to underestimation in official statistics. Surveys that report on respondents' jobs sometimes capture only primary employment even though many individuals' creative pursuits represent secondary sources of income.

On the other hand, in a narrow application, only activities that are "artistic in nature" (Hesmondhalgh and Pratt 2005) and non-utilitarian functions should be categorized as creative. The approach of this paper is not to include all activities in the creative sector, but rather only those economic activities, and their associated workers or occupations, that have high levels of interactions with digital platforms and are particularly impacted by them.

A more useful path to distinguishing the creative sector would be to identify the most popular creative outputs or products, given that digitalization is strongly associated with the commercialization of creative products. In the creative sector, music, film, images, books, and video games are examples of cultural products whose distribution and consumption are increasingly dominated by digital platforms. The dominant platforms include Amazon, Netflix, Spotify, YouTube and Apple Music but also mainstream social media platforms like Facebook, Twitter and TikTok. Together, these platforms make up the "content industry" (Aguiar, Reimers and Waldfogel 2022), an umbrella term that encompasses the companies that distribute, and in some cases own and create, media and creative products through digital platforms.

Creative digital platforms

There exist many different definitions of digital platforms, and the understanding of a digital platform depends on the context in which it is being used. A generally accepted, broad definition comes from the OECD (2019): "Digital platforms are online entities providing digital services and products that facilitate interactions between two or more distinct but interdependent sets of users, such as firms or individuals, who interact through the service via the internet". There are three common traits amongst all types of platforms: the existence of the internet to connect users and services; the strategic use of data; and a network effect, meaning the more users connect through the platform, the more valuable the service becomes. Traditionally, platforms have been viewed as inherently disruptive, aiming to shape large-scale transformations of markets across existing industries (Graz 2019), although today they are a mainstream feature of many industries, including the creative industry.

Similarly, different typologies of platforms exist, with no "one-size-fits-all". Platforms can be organized by function (what they do or the type of service they offer), the type of user (such as advertiser, seller, worker), the type of data they collect, or how they collect revenue (through ads or subscriptions). For this paper, we are interested in both the function and the type of user. In terms of the user, we use the term "creative worker" or "content creator" to refer to someone who produces creative material and is interested in monetizing that material through distribution on an online platform. This type of user is related to but distinct from a user of a digital labour platform where workers offer their services (their labour) on platforms and receive payment for these services (ILO 2018). Digital labour platforms have a structured work organization to enable matches between supply (the worker) and demand (the requester or employer). An agreement is established between the client and the worker, with terms of payment, to fulfil that request. This contrasts with a creative platform where workers post content they deem likely to be popular and are compensated (or not) based on the level of advertisement or viewership that the content attracts. The two defining features of a digital labour platform — the existence of a request for services and an organization of work — are included in several proposed legislations defining what a digital labour platform is. This includes article 2(1)(1) of the EU's proposed platform work directive (European Parliament and Council 2019). Researchers have nonetheless questioned the legitimacy and legal justification to exclude creative workers from regulation related to digital labour platforms (see Silberman et al. 2023).

Content creators

The term "content creator" designates the activities of contributors to social media and other types of media platforms. These workers contribute, either paid or unpaid, creative content such as blogs and vlogs, music, videos, photographs, stories and podcasts to platforms. Content creators include newly minted occupations that emerged in the wake of the advent of digital platforms. These content-creating occupations comprise, among others, influencers, live-streamers, video creators and bloggers (Casilli 2021) but also traditional creators such as musicians, authors and photographers.

Occupation	Type of content creator	Creative product	Platform
Conventional occupation	Musician	Music	Spotify, Apple Music, Tidal, Bandcamp
	Photographer	Images	Instagram, Shutterstock, Istock photo
	Author	Books	Amazon
New occupation	Videographer, YouTuber	Videos	YouTube, TikTok, Facebook
	Podcaster	Podcast	Apple Music, Spotify

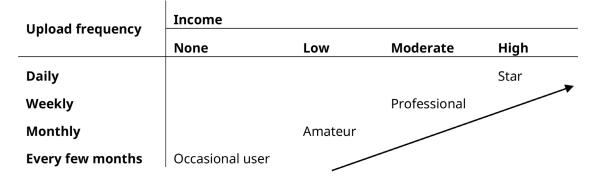
• Table 1. Content creators according to type, product and platform

As illustrated in Table 1, content creators are a heterogeneous group. More research is needed to understand their characteristics, working habits and sources of income. They are difficult to define and describe because, in theory, anyone who has an internet connection and uses platforms can be a content creator. Similarly, there is no precise definition of what constitutes "on-line content", whether it be professional or amateur creation or as simple as clicking the "like" button on Facebook.

Platforms like YouTube, Facebook and TikTok are considered "passive platforms" (Aguiar, Reimers and Waldfogel 2022), meaning that anyone can upload content and qualify for compensation, as long as they follow a set of guidelines. This format provides opportunities for independent creatives to promote their material. Passive platforms contrast with "curated platforms" where the platforms select (and usually create) the content for consumers. Curated platforms are common in the film industry, with providers such as Netflix and Disney+.

Content creators can be divided into four groups, based on the amount of content produced and expected earnings. Shown in Table 2, the four groups are "occasional users", "amateurs", "professionals" and "stars". This depiction is theoretic and, in reality, content creators can alternate amongst the different categories and their income can be highly unpredictable. Although "occasional users" receive no compensation for their contributions, they are central to viewing and sharing creative content and may contribute a large portion of shared content. They are also central to the extraction of user-generated data that can be commodified and sold for advertising interests. The structure of the aggregate of different content creators resembles a pyramid, with a few high-earning "stars" at the top receiving the most views and subscribers and millions of unremunerated "occasional users" at the bottom.

▶ Table 2. Content creators by income and upload frequency



This table also depicts two groups that are in constant juxtaposition: amateur, routine users who post content in a spirit of participatory culture, and careerists and professionals who post content as part of the cultural industries. Routine users are characterised by networking, online collaboration and sharing, whereas professionals represent corporate concentration, profit-making and the "glamour" of online exposure. Establés et al. (2019, 215) depict well this relationship: "Between these two areas there is a grey area (Scolari 2014) where some people, many of them fans of certain cultural products, transition from the amateur field of the participatory cultures to the professional field of the cultural industries, which characterises the phenomenon of cultural convergence" (Jenkins 2006).

"Participation" has become a key concept in various fields, including user-generated content, crowdsourcing, peer production, fan fiction and citizen science. Despite its widespread use, the term often lacks precision, leading to confusion and inconsistent application. Kelty et al. (2015) provide a framework to analyse and understand the multifaceted nature of participation, identifying seven dimensions: educative dividend, access to decision-making, control of resources, voluntary character, effectiveness of voice, use of metrics and collective, affective experience. "Effectiveness of voice" and the "use of metrics" are critical for creative workers, emphasizing the value-transparent metrics and genuinely incorporating artist feedback into platform policies. For instance, changes in algorithms on YouTube can significantly impact creators' visibility and income, highlighting the need for clear communication and responsive adjustments.

3 Opposing theories about the impact of platforms on creative work

As a start, it is important to review some predominant theories on the working conditions of creatives on digital platforms. One position, which emerged alongside the initial acceleration of platform growth in the early 2000s, was the notion that platforms would democratize creatives' access and ability to distribute their work to a global audience (Jenkins 2006; Bruns 2008; Poell, Nieborg and Dijck 2019). Platforms had the potential to expand opportunities for creative employment to anyone with a computer, microphone, camera or smartphone. Bruns (2008, 21) described this as a "participatory mode, which breaks down the boundaries between producers and consumers and instead enables all participants to be users as much as producers of information and knowledge", what Casilli (2019) calls "produsers". This position is still relevant today and serves as a rallying cry from the industry for creatives to join platforms. Nowhere is this more telltale than in YouTube's infamous marketing slogan, "Broadcast Yourself".

It is broadly recognized that creative and cultural workers have always faced decent work deficits when compared to other sectors, even before the internet. This has to do with the concept of aspirational labour, whereby creatives are willing to accept below-average working conditions in return for the potential of a supposed dream job, which might lead to fame and fortune and allow them to seamlessly combine personal and professional interests. Banks (2007) discusses how creative work is often perceived and treated differently from conventional labour due to its unique characteristics and perceptions of societal value. Creative work is frequently romanticized as inherently fulfilling and self-actualizing, leading to the perception that it is not "real work." This perception is partly due to the cultural value placed on creativity and the arts, which are often seen as passion-driven rather than economically motivated endeavours. This impression, infused with the ideal that creative work is characterized by autonomy and flexibility, puts creative workers in a vulnerable position. The platformization of cultural workers may have exacerbated this situation, with social media holding out the potential of endless opportunity and instant success in achieving career goals and visibility in the absence of regular and sufficient income.

The media scholar David Hesmondhalgh (2010, 270) describes succinctly the paradox that digital workers in the creative industries face, "forms of labour that are characterised by high degrees of autonomy, creativity and 'play', but also by overwork, casualisation and precariousness". In a paper about freelance creative workers in Europe, Gill (2002) claimed that many features of creative work that seem attractive, such as autonomy and aesthetic engagement, were superficial, masked restrictions on career mobility and promoted aspirational disillusion (Gill 2002; McRobbie 2016).

Terranova (2000) even went so far as to describe the "shamelessly exploitative nature" of "net slaves" and described it as "24–7 electronic workshops" coupled with "ruthless casualization". Under these autonomist theories, free labour is a distinct feature of the cultural economy and a vital yet unacknowledged source of value for capitalist societies (Terranova 2000; Andrejevic 2013; Scholz 2013). Casilli (2017, 3934), speaking in the tradition of the European social contract, describes how the "exclusive focus on free labour has progressively given way to new analyses showing that digital labour is a continuum of unpaid, micro paid, and poorly paid human tasks". Defying these viewpoints, other scholars posit that it is a matter of priority and political economy and that we cannot reasonably label digital media workers as exploited when we compare them to, for example, artisanal gold miners in Africa or sweatshop workers in Indonesia (Hesmondhalgh 2010). Creative work is seen as a choice and a means to earn extra income, whereas other occupations

are for survival and pay only subsistence wages. Contributing content to the web is done with full knowledge and responsibility and should be considered a voluntary act. In terms of the benefits so-called "free digital labour" brings, researchers have documented the personal satisfaction and self-worth brought about by contributing to a cultural project, and the opportunity to build new, specialized skills that can lead to higher wages and more career mobility in the long run, essentially a deferred wage (Hesmondhalgh 2010).

These different analyses illustrate the tension between two ways of considering content creators, one that emphasizes the potential positive capitalistic force of industry and employment growth versus one that underlines the potential precarious and exploitative nature of digital platforms. This contrast shows the complex and often paradoxical nature of this area of study and a reason for the current lack of conclusive evidence or theories on whether digital platforms have weak-ened or improved the employment situations of creative workers.

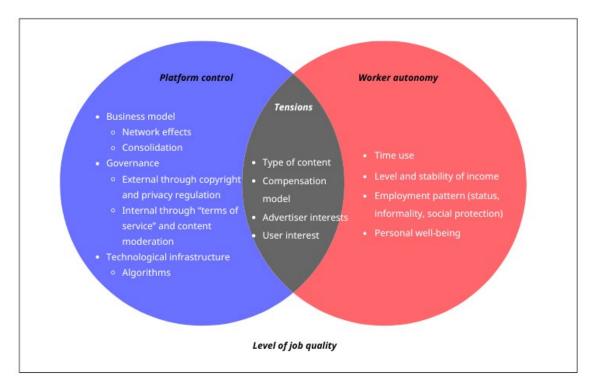
A model for understanding how platforms impact working conditions in the cultural industry: Control versus autonomy

This section reviews the conceptual issues that set the basis for understanding how platforms impact working conditions in the cultural industry, building on the definitions and contextual factors described in the previous sections.

Digital platforms and their modalities of interactions with creative workers play an increasingly important role in shaping working conditions. These interactions contain some features that resemble an employment relationship, and some creative workers wholly depend on platforms for their income. However, there is no contractual basis for this relationship, and regulation related to the platform economy does not in general include content creators (see Silberman et al. 2023). Still, more research is needed to understand how and to what extent platforms affect creatives' working lives positively or negatively and what policy measures can be proposed to enhance working conditions as creative industries inevitably face increasing platformization.

Building on studies related to political economy, culture, employment and labour relations, we need to explore the tensions between platforms' push for control of content and creative workers' desire for independence. Platforms' quest for control is driven by the mission to attract advertisers and subscribers, with governance structures set up to moderate content and consolidate creative industries. The classic effect of consolidation is pressure on labour. From the perspective of creative workers, autonomy has always been a fundamental dimension of the creative process, and platforms have introduced new opportunities for autonomy and flexibility in terms of when, where and how often creatives work. They also strive for autonomy and independence in creative production as well as the freedom to produce and disseminate the content that they want. The friction between control by platforms and autonomy for workers can, in large part, define the working conditions of creatives. Nieborg and Poell (2018, 4277) describe this dichotomy thus: "(A)s cultural production is becoming increasingly platform dependent, the autonomy and economic sustainability of particular forms of cultural production is increasingly compromised".

The struggle between platform control and worker autonomy serves as the theoretical underpinning of this study (see Figure 1). This research explores these tensions independently, first through the lens of platform operators, showing how they have leveraged systems of markets, governance and technological innovation to become one of the dominant features of the creative sector; and then through the lens of creative workers, to show how industry platformization increasingly affects income, worker status and other employment dimensions. This framework aims to make sense of the tense relationship between platform and worker and the mechanisms and dependencies that ultimately define the livelihoods of creative workers.



▶ Figure 1. Conceptual framework: Dichotomy of autonomy and control of creative work on digital platforms

The level to which platforms impact the working conditions of creatives is contingent on the level of dependency each worker has on the platform. By exploring these relations, we can make basic distinctions between platform-dependent and platform-independent cultural workers. Platform-dependent workers rely on platforms for the creation, distribution, marketing and monetization of content and services, whereas platform-independent workers can create content independent of the platform. Several factors determine the degree of worker dependency, including if a worker relies on one or more platforms, the extent to which the worker derives income from the platform, the opportunity for alternative employment and how much the platform dominates its market.

5 Digital creative platforms

Building on the conceptual model in Figure 1, this section focuses on how the platform industry managed to capture large market shares and the associated labour before turning to describe how this is impacting the working conditions of content creators. The section is limited in the sense that it is not a comprehensive review of platforms' capitalistic and business practices, such as investment and financing structures, business strategies or corporate management, and instead focuses on topics that directly affect workers, especially their income and other working conditions.

Platform consolidation

The study of creative workers and platforms is of special interest to the political economy not only because of its perceived impact on labour markets but also because of how global and national systems of institutions and governance set the foundations for the establishment and unparalleled growth of what we might term the digital content industry.

Today, the content industry is increasingly vertical, dominated by the Big Five firms, also known as "GAFAM": Google, Apple, Facebook, Amazon and Microsoft. Together, they make up over a quarter of the value of the S&P 500 companies and are worth an estimated \$7.1 trillion ('Big Tech' 2023). These companies develop and operate specific apps, their "infrastructure", which serve as a foundation for market interaction: the Google (now called Alphabet) app store including YouTube, the global video sharing platform; Apple's Apple Music; the social networking sites led by Facebook (now called Meta), which also owns Instagram and WhatsApp; and cloud hosting services by Amazon, Microsoft and Google (Alphabet).

Early innovators such as Facebook's Mark Zuckerberg and Google's Sergey Brin and Larry Page understood the internet's potential as both a consumer platform and a communication enabler. The concept "network effects" describes the phenomenon whereby an increase in users or participants improves the value of a good or service (Katz and Shapiro 1985, 424). The concept is especially relevant for the internet economy, which allows for unlimited access, and the value users place on the internet's usefulness is directly related to the potential to make connections with other users. The expansion of Facebook provides an extreme example of network growth — from 1 million end-users in 2004, to 10 million in 2006, to 100 million in 2008, more than 2 billion in 2017 and 2.91 billion in 2022.

Similar to platform network effects, consumption of cultural and creative products is also subject to strong network effects whereby the new hit song or the new hit movie gains popularity by word of mouth and positive reviews. This means that digital platforms in the cultural industry, more so than in other industries, are subject to exponential growth because of the confluence of these two types of network effects.

Network effects can be both direct and indirect, with direct effects explained above. In contrast, indirect effects act as catalysts whereby, in addition to the growth of direct participants, in our instance creative workers, developers, buyers and other types of consumers and producers are also drawn to the platform. In the case of creative platforms dedicated to music, as more end users (listeners) join the platform, talent agencies or production companies are pulled into the industry.

Network effects generate "a cycle whereby more users beget more users, which leads to platforms having a natural tendency towards monopolization" (Srnicek 2017, 45). In the case of platform competition, if a winner emerges, it tends to become dominant (Barwise and Watkins 2018). This situation has brought creative platforms under the scrutiny of regulators; however, network effects are not the same thing as a natural monopoly. A natural monopoly is supply-sided, meaning the cost of producing a product or service declines with volume to such an extent that a new entrant cannot afford to price goods at the established dominant supplier prices. Digital platforms also do not limit participants' choices, and they are free to leave the platform at their will or to join multiple platforms at the same time.

The creative digital industry has seen consolidation due to several high-profile mergers and acquisitions, a "crowding in" of creative companies, and some now consider it an oligopoly. In the ten years leading up to 2020, the GAFAM companies alone acquired more than 400 firms, predominantly in the tech sector (Affeldt and Kesler 2021). Prominent examples include the acquisition of YouTube by Google, and that of Instagram and WhatsApp by Facebook. More recently, Spotify acquired several major podcasting companies in a move to capture a portion of the rapidly expanding podcasting market.

"Coring" and "enveloping" are two strategies platforms used to build market sharing, leading to the consolidation of the industry. Coring involves building a platform by strengthening and enhancing its basic capabilities and functions. Strong cores have helped platforms gain market share. The iOS operating system and Google search platform are examples of this technique. These basic capabilities attract suppliers and customers who appreciate distinctive goods and services. Envelopment, on the other hand, is a platform's plan for growth by exploiting its core strengths and the skills and functions of other organisations with which it might build strategic alliances. The acquisitions of YouTube by Google and of WhatsApp by Facebook are instances of platform envelopment. YouTube enriches Google searchers to YouTube content, which YouTube uses for advertising. Facebook recognized WhatsApp's messaging strengths and decided to acquire the company rather than expand its messaging resources through Facebook Messenger (Basu and Muylle 2023).

Similar to the United States antitrust lawsuit against Microsoft in the late 1990s and early 2000s, whereby Microsoft was found to operate an illegal monopoly (a decision later overturned upon appeal), tech giants again face antitrust litigation in the United States and Europe. It is claimed that big tech firms are operating monopolies and oligopolies and practice anticompetitive behaviour such as restricting third-party applications (for example, an Apple iPhone can run only the Apple operating system, iOS); misuse of data (for example, collecting detailed user data, making it difficult for new firms to enter); and adjacency (for example, forcing customers to buy additional services linked to their main product, creating price asymmetries). To regulate some of these practices, Europe recently passed the Digital Markets Act¹, which sets criteria to identify gate-keepers. Gatekeepers are large digital platforms providing core platform services, such as online search engines, app stores and messenger services. YouTube and TikTok are two of 22 digital services classed as gatekeepers in that, among the other criteria they meet, they have at least 45 million active monthly users. Under the Act, Google must share YouTube data with competitors and ensure that the platform is interoperable with other smaller platforms (Espinoza 2023).

Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (Text with EEA relevance), 2022.

Corporate and market concentration can have substantial effects on labour markets, including downward pressure on wages and lower overall employment. For creative workers on digital platforms, this translates into corporations applying business strategies to capture the most value from content creation, leading to unremunerated and poorly remunerated content. Clearly, "the integration of the GAFAM quintet in the everyday life of billions of global citizens is a continuation and an intensification of corporate concentration, up to the point where 'platform imperialism' is becoming a legitimate concern" (Jin 2015; Nieborg and Poell 2018, 4279; Lehdonvirta 2022).

Governance structures

The term platform governance can be defined as "the layers of governance relationships structuring interactions between key parties in today's platform society, including platform companies, users, advertisers, governments, and other political actors" (Gorwa 2019, 854). Content policies, terms of service, algorithms, interfaces and other socio-technical regimes form the governance mechanisms of today's online infrastructures (Plantin et al. 2018). Following a series of scandals such as Russia's interference in the 2016 US election and the emergence of "fake news", substantial research and policy action has been undertaken to understand and define responsibility for material disseminated online and how content should be regulated.

The concept of platform governance has two dimensions. The first pertains to public policy and regulation to provide a legal framework for how platforms operate, with a particular focus on the creation, sharing and distribution of content. Recent regulation has mainly been at the national level, but increasingly regional and transnational level supervision is being discussed to help deal with the offshoring of digital content creation. International standards have become a prominent tool of global governance and, while much of the focus is on technical specifications to protect goods and property, nonphysical fields such as labour have become increasingly important (Graz 2019). The second relates to how platforms govern themselves and the content on their platform to be profitable and sustainable. The governance that online platforms implement significantly affects content creation, distribution, marketing and monetization in the digital realm.

External governance

Issues of public governance are strongly associated with copyright and liability. The most significant piece of jurisprudence that set the basis for the era of content sharing is Section 230 of the US Communications Decency Act from 1996², which provides for what is called "safe harbour protection". The Act absolves "digital service providers" from responsibility for any content posted on their websites by third parties. Proponents of the Act label it as a core pillar of internet freedom and the protection of free speech, both of which have led to the proliferation of the platform business model. Platforms focus on user-generated content (and, increasingly, professionally generated content) and the data it produces to sell advertising. In the realm of the Act, if platforms moderate the content posted on their websites, they then risk being classified as publishers and would lose their safe harbour protection.

The second public regulation with a significant impact on the governance of platforms has been copyright legislation. Copyright is an exception to the immunity that platforms enjoy in content sharing. In essence, copyrighted content can be shared only by the entity that holds the rights

⁴⁷ US Code § 230 - Protection for private blocking and screening of offensive material, 1996.

to the material, and platforms can be held responsible for the breach if content is uploaded to their platforms by anyone that does not hold the rights.

The focus on the increased onus on responsibility on the platforms for copyright violations represents a counter-cycle from the market liberalization given to platforms stemming from legislation like Section 230. The most detailed and recent example comes from Europe, which adopted Article 17 of the Copyright in the Digital Single Market Directive (European Parliament and Council 2019). The provision sets a new legal regime for the platforms' content moderation as well as for their contractual relationship with users. The Directive aims not only to hold platforms legally responsible for copyright by modernizing digital copyright laws but also to provide public policy for how platforms moderate and set rules for content, a task that had been left up to the private governance of the platforms.

That there is a major power imbalance between content creators and big online platforms (like Facebook, YouTube, and Instagram) raises the issue of whether the law can and should do more to safeguard users' rights to their online content. This becomes more apparent when the platform and the creator are not located in the same country. These regulations may damage users who depend on these platforms, especially those who rely on them for a substantial source of income, in addition to hurting freedom of speech and democratic principles. But this private administration of crucial channels for expression to (and via) creative output is scarcely egalitarian. It demonstrates how platforms have power over what content creators produce online and how they can monetize that content (Quintais, De Gregorio, and Magalhães 2023). The reality is these systems of governance tend to protect the intellectual property rights of companies over those of individuals (Poell, Nieborg, and Duffy 2021).

Internal governance

Whereas national laws and practices determine the extent to which platforms are required to govern, platforms themselves ultimately decide how they govern (Poell, Nieborg, and Duffy 2021). Much of how platforms regulate, moderate and interact with content and creative workers is determined by internal governance that is specific to individual platforms. Platforms often use the phrase "terms of service" or "community guidelines" to describe this internal governance, although several studies have referred to it as "platform law" (Belli and Venturini 2016; Kaye 2019).

Terms of service are contractual agreements that are uniformly specified and unconditionally supplied to all users. Given that customers cannot negotiate and have the option only to accept or decline these agreements, it can be said that these conditions of service fall within the legal classification of adhesion agreements. These agreements effectively create a "take it or leave it" dynamic, eliminating the conventional practice of negotiated terms between parties involved in a contract (Lemley 2006; Venturini et al. 2016). Due to their lengthy and complex nature, coupled with the use of legal jargon that is difficult for non-lawyers to comprehend, individuals seldom read these contracts (Bygrave 2015).

One area of terms of service agreements important to content creators concerns the rules on sharing and publishing content and the collecting and processing of personal data. Terms of service of the major digital platforms prohibit images of or references to violence, graphic content, and obscenity; however, there is significant latitude for subjectivity amongst platforms as to types of permissible content. For example, music platforms including Spotify, Apple Music, Tidal and Deezer allow graphic language, including references to violence and sexuality which are criticized for perpetuating negative stereotypes and attitudes towards women.

All platforms have rules for content moderation. Caplan and Gillepsie (2020, 2) define content moderation as "the removal of individual videos or the suspension of entire accounts for violating guidelines around sexual content, violence, harassment, hate speech, or misinformation ... ; the removal of videos deemed to be a copyright infringement, privacy violations, or spam". Today, content moderation plays an increasingly important role in setting cultural norms and cultural consumption habits. What is allowed and not allowed to be posted on cultural platforms has direct repercussions on creative workers, because when content is rejected, so is the possibility of compensation. This fact intersects with the increasing outcry for platforms to do more to remove fake news, hate speech or sexual misogyny from the internet, making platforms the de facto arbitrators of cultural distribution (Gillespie 2018). The more platforms like YouTube intervene to regulate content, the more precarious the creators' employment becomes.

Algorithms are the predominant tool used not only to moderate content but also to sort and rank content. In 2022, 500 hours of new videos were uploaded to YouTube every minute and 60,000 new tracks to Spotify every day (Statista 2022). Algorithms and other forms of machine learning such as music and speech recognition allow platforms not only to process massive amounts of information at sufficient speeds but also to adhere to content moderation policies. These policies spell out how the platforms deal with "sensitive content" as well as how they sort and promote content to maximize their profit and appease advertisers (Poell, Nieborg and Duffy 2021).

Platforms also use human editors to moderate and sort content. In general, the more tightly controlled the regulatory space, the more human editors will intervene to choose content. An example of this is the Apple App Store, where tight moderation strongly aligns with Apple's business model, especially the interest in providing "family-friendly" apps. A second example is Spotify's curation of playlists. Human-edited playlists such as "Rap Caviar" and "Mood Booster" receive more subscribers than algorithm-created playlists. Again, the motivation for human intervention in music platforms is predominantly economic. Evidence suggests that both Spotify and Apple Music are exploring models where they hold the rights to songs either through acquisition or production. For example, Spotify has been creating its own music, particularly instrumental tracks for playlists like "Chill" and "Peaceful Piano," which have millions of followers. These tracks are produced in-house and added to popular playlists, potentially replacing tracks from independent rights holders. This strategy allows Spotify to have greater control over content and reduces the royalties it must pay to third-party rights holders.

Content moderation and sorting, either by algorithms or humans, have obvious effects on creative workers. Inclusion in a popular playlist can lead to increased wages, whereas removal or rejection can lead to lost wages and "demonetization". In a study measuring the success of songs included in Spotify's most popular playlists, Aguiar and Waldfogel (2021, 657) found that "Spotify has substantial power to influence song success as well as consumption decisions". This affects not only well-known songs but also new artists and songs, given that "Being ranked #1 on the U.S. New Music Friday list raises a song's streams by about 14 million" (Aguiar and Waldfogel 2021). These examples show the inconspicuous link between penalties (such as removal or rejection) and promotions (such as inclusion in popular playlists) from content moderation and the effects on creative workers' remuneration (Caplan and Gillespie 2020).

Going one step further, platforms' algorithms and governance structures tend to be performative in the sense that these systems do more than just manage and regulate content — they actively shape and influence user behaviour, social norms and market dynamics through their design and operational logic (Callon 2010). They do so by embedding certain values, priorities and incentives into their design and operations, to which users then adapt, thereby reinforcing and perpetuating these structures. An example is how platform users may adapt their behaviour based on the feedback they receive from algorithms. For example, content creators on YouTube might produce more clickbait or longer videos if the algorithm favours these formats for higher engagement and monetization. This aspect — whereby creators adjust their creations not to fulfil their own artistic ambitions, but rather to meet the demands of the algorithm — means that the creative workers are constantly conforming to the algorithms criteria to succeed on the platform. Not only does it curtail creativity and innovation of the creator, but it may also limit a user's listening or viewing experience as cultural products match what is already available. One example is the phenomenon of YouTube "reaction videos" or "meme reviews" where creators react to popular videos, memes, trailers, and other online content. The popularity of reaction videos and similar formats can contribute to a cultural homogenization where viral videos and memes receive disproportionate attention and influence. This may limit the exploration and appreciation of more nuanced or lesser-known cultural products.

Business model

The scale and scope of market competition have exploded for platforms over the past decade (Rietveld and Schilling 2021). Platformization has not only affected creative industries but also required many traditional sectors across agriculture, manufacturing and services to reorganize their distribution through platform ecosystems.

Content sharing had humble beginnings, from Mark Zuckerberg's initial launch of Face Mash in October 2003 as a networking platform amongst Harvard students to the original concept of YouTube as an online dating service in 2005. The major tech companies and platforms followed similar growth paths, benefiting from "first mover" status and network effects to attract substantial amounts of private venture capital. This rapid early growth was sustained through public offerings in capital markets, allowing the platforms to capture large portions of technology markets.

Platforms are intermediaries, taking advantage of the power of technology and the internet to reduce friction between supply and demand. Multisided market strategies are a key feature of platform business models. "Multisided" means that there are at least two classes of the platform's main users. Examples of double-sided platforms include eBay and Amazon, which connect buyers and sellers, while examples of triple-sided platforms include YouTube (users, content creators and advertisers) and Uber Eats (drivers, restaurants, and customers).

Platforms have become a dominant business model for the creative industry. However, as described by Hesmondhalgh et al. (2021), platforms still operate and in many cases are bequeathed to the media and entertainment industry's legacy actors such as Warner and Sony. These legacy actors, as the rights holders for much popular content in music, film, books and images, still have a stranglehold on profit generation in the industry. And despite the "democratization" of the creative industry brought about by any individual ability to distribute content through digital platforms, much of the value of the industry is held by the rights holder and the stars and fan favourites they represent (Poell, Nieborg, and Duffy 2021). This control by record labels, industry professionals and distributors represents a gatekeeping function where relatively few of people and processes determine which content is disseminated and consumed and, consequently, remunerated. In the digital age, new gatekeepers have emerged, including digital platforms, streaming services and algorithms (Siciliano 2022; Siciliano 2023).

Revenue source models

The main element of any business model is the source of revenue. For content platforms there has always been a trade-off among network effects, ensuring more and more users join, and pricing strategy. To induce network effects, most platforms offer free access (the basic or free plan), especially during phases of expansion, and then offer various levels of pricing depending on the customer's perceived utility of the platform. In the logic of the economic theory of supply and demand, the platforms strive to lower prices as much as possible to boost demand and build a consumer base, hence the free base model that most platforms offer (Basu and Muylle 2023).

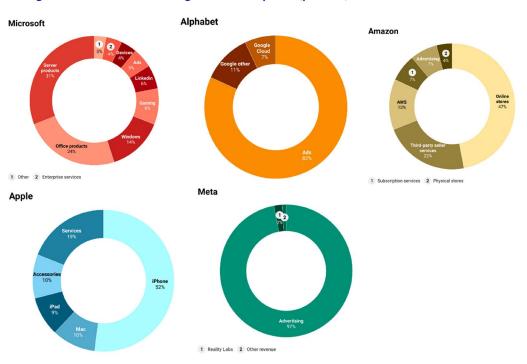


Figure 2: Revenue sources of big five tech companies (per cent), 2022

Source: Ang 2022

However, for creative platforms to remain competitive, they need to devise a revenue model through one of three main sources: advertising, subscriptions or a product. In the advertisement model, ad space within videos, music or other content is sold to companies to promote their products, whereas in a subscription model, users pay to have ad-free and usually better access to content. Purely streaming platforms (such as YouTube, Spotify and Apple Music) operate on a hybrid revenue model that combines subscriptions and advertising, whereas social media platforms mainly rely on advertising. Today, the model for content creation has shifted towards short video platforms such as TikTok and Instagram (Li, Jiang, and Zhan 2022). In China, short video app users account for 88 per cent of internet users (China Internet Network Information Center 2021). Advertisers have come to prefer short video platforms, because they offer more flexibility on when, where and how often ads can be placed (Li, Jiang, and Zhan 2022).

In the multisided platform structure, revenue can also be extracted from third parties, also known as complementors, who are drawn to the platforms through indirect network effects. The larger the consumer base, the more likely complementors join the platforms. These may include game developers, e-commerce, and advertisers. Revenue can be generated for example through commission from e-commerce merchants or fees from advertisers. A fundamental chicken-andegg problem affects the evolution of a platform, given that the value proposition for each side (buyers, sellers, possibly others) of a multisided platform depends on the presence and participation of the other (Basu and Muylle 2023).

Access to data, or datafication, is a fundamental part of the platform revenue model. Datafication transforms user activities into valuable data points that can be analysed, packaged and used in various ways (Crain 2019). One primary method through which these platforms commodify user data is by leveraging it to tailor advertising content. Targeted advertising allows platforms to offer advertisers highly specific audience segments, improving the effectiveness of ads and, consequently, the platforms' attractiveness to advertisers. This targeted approach increases ad revenues significantly, as advertisers are willing to pay a premium for the ability to reach precisely defined demographics with their marketing messages.

Beyond advertising, social media and streaming platforms also capitalize on datafication through by developing sophisticated algorithms that personalize user experiences. By analysing user data, these platforms can recommend content that individuals are likely to enjoy or find engaging, thereby increasing user engagement and time spent on the platform. This extended time not only enhances user satisfaction but also creates more opportunities for exposure to ads, further boosting revenue. Additionally, the data gathered can inform content acquisition strategies, original content production and feature development, ensuring that platforms remain competitive and continue to grow their user base. The value generated from this personalized approach contributes to capital accumulation by retaining current users and attracting new ones, creating a cycle of growth and revenue generation.

Moreover, the commodification of data extends into the broader economy through the sale or sharing of aggregated data and analytics services to third parties. Social media and streaming platforms may offer insights derived from their vast data reserves to businesses seeking to understand market trends, consumer behaviour, and other insights that can inform decision-making. This aspect of datafication opens additional revenue streams beyond direct advertising and subscription fees, contributing to the platforms' overall capital accumulation. As data becomes an increasingly critical asset in the digital economy, the ability of these platforms to monetize their data through various channels underscores the centrality of datafication in contemporary business models.

However, data applications not only benefit the platforms but also help content creators increase their exposure and remuneration. The Google Analytics service or the Meta Business Suite allows creators to understand their audiences' viewing habits and design promotional campaigns to increase their fanbases. Conversely, as Poell et al. (2021) observed, the availability of data services may only make creative workers more dependent on platforms to give their work the possibility of standing out in an infinite sea of digital content.

It is possible to extend the network-effect-generating power of user-generated content even further, by paying consumers to contribute content, in the form of reviews, opinions, ideas and solutions. This setup not only can motivate greater participation but also can motivate higher-quality participation, which drives greater sharing and therefore positive network effects. In social network platforms, for instance, the proportion of "lurkers," or participants who consume without contributing, can be quite high. Paying for content creation can be a way to convert consumers into contributors. Google has done this very effectively, for instance, in its YouTube video platform. People who post popular content are rewarded with money and other resources to develop content.

Remuneration models

Platforms distribute the revenue they earn from advertising and subscriptions to content producers depending on a series of metrics which determine the commercial "success" of a particular piece of content. These metrics include the number of views, number of viewing hours and the number of subscribers as well as other factors determined by an algorithm. Platforms normally do not reveal their exact compensation formulas, and payment terms vary depending on dips and expansion of supply and demand. Platforms can unilaterally change compensation terms, forcing creative workers to constantly adapt their interactions with the platforms as well as their creative material.

One of the most widely known compensation programmes is YouTube's Partner Programme (YPP). For creators to be able to join YPP, their videos must be watched by the public for 4,000 hours over 12 months and have a minimum of 1,000 subscribers. Once they have reached these metrics, they can activate AdSense, which monetizes the video, enabling creators to receive a share of the advertising revenue. However, there is no fixed revenue share that creators receive, and, as the YouTube partner agreement makes explicit, "There are no guarantees under the YouTube partner agreement 2023).

Compensation by platforms in the music industry is widely debated, and YouTube's policies have recently come under government scrutiny in both the United States³ and the United Kingdom⁴ over concerns of equitable remuneration. The industry's standardized policy, used by all the major platforms, is a pro rata system whereby the revenue generated from subscriptions, after subtracting a percentage retained by the platform operator, is pooled, then paid out based on the share of listens that a stream generates (Giblin and Doctorow 2022). Thus, the monthly payout per stream is based on its market share across all users, not on the total number of streams (Meyn et al. 2023, 115).

User-centric allocation is an alternative remuneration model whereby the revenue an individual consumer contributes is distributed only according to the listening behaviour of that customer. In this case, a customer's payments are distributed only to the artists to whom this customer listened (Meyn et al. 2023). Artists whose fans have little diversity in their listening behaviour and low usage will prefer the user-centric remuneration model, since the artists can gather a larger share of the subscription fees from their respective users. In a pro rata remuneration model, a customer with low usage would only marginally affect the royalties of these artists. By contrast, artists whose fans have little diversity but high usage will prefer the pro rata remuneration model, el, which can increase the artists' share of total streams on the platform.

The selection of a platform's remuneration model direct reflects a broader institutional framework that typifies the music industry. The dominant players remain major production companies and music distributors who, in the United Kingdom, on average retain up to 80 per cent of revenues distributed by the platform, of which up to 20 per cent goes to musicians (UK Parliament: Digital, Culture, Media and Sport Committee – House of Commons 2021). Individual artists are prohibited from uploading their music directly onto major platforms like Spotify and Apple Music and are required first to license their music to professional distributors who propose various shares of royalty payments to the artists.

³ US The Subcommittee on Courts, Intellectual Property, and the Internet. House Judiciary Committee Republicans, July 2020.
⁴ UK Parliament: Digital, Culture, Media and Sports Committee inquiry into the impact of streaming on the future of the music industry, March 2020. Economics of music streaming - Committees - UK Parliament.

6 Creative workers and digital platforms in the labour market

The first part of this paper outlines concepts of governance and market forces that embody the digital content industry and increasingly dictate the employment conditions of creative workers. This section turns to the second part of the research framework, which looks at the main employment dimensions to be considered in an analysis of creative workers and digital platforms. Key variables to consider include employment and job creation, working time, wages, employment status, skills acquisition, gender, social protection, mental health and social dialogue.

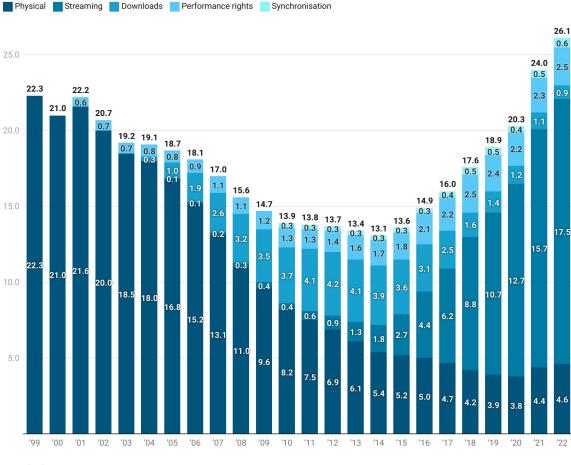
The aim is to describe the importance of each dimension as it relates to creatives' working conditions and show how platforms potentially change and influence each area. The context for the descriptions will be provided by introducing specific examples from well-known platforms while documenting key literature and evidence to identify any patterns in the improvement or decline in working conditions.

Contribution to the economy and job creation

Despite a significant setback caused by the COVID-19 epidemic, the creative sector is growing and represents 3.1 per cent of global gross domestic product (GDP) (UNESCO 2022). In the United States in 2019, arts and cultural economic activities accounted for 4.3 per cent of GDP, an increase of 3.7 per cent from the previous year (US Bureau of Economic Analysis 2023). In Australia, the broader cultural and creative sector contributed US\$111.7 billion to Australia's economy (6 per cent of GDP, end 2016–17) (ILO 2023). The Republic of Korea has a fast-growing cultural and creative sector, with a 2.6 per cent global market share and US\$114 billion in revenues (OECD 2021); it was expected to grow 4.4 per cent through 2022 (ILO 2023).

Technology has been important to cultural production since the second half of the twentieth century thanks to continual innovation. The best example might come from the viewing of film, which saw the progression from cinema to TV sets and later VCRs, DVDs and, today, personal computers and streaming. In music, the onset of streaming and digital platforms has revitalized the industry. Figure 3, published by the International Federation of Phonographic Industry (IFPI 2022), visualizes the vital role streaming has played in returning the global recording industry to growth (Hesmondhalgh et al. 2021). Similar patterns can be observed in film and other forms of content production.

▶ Figure 3: Global recorded music industry revenues 1999–2022 (US\$ billions)



Created with Datawrapper

Source: International Federation of Phonographic Industry, 2022

Yet despite the growth in cultural industries over the past years, creative labour markets are oversupplied, with too many people trying to fill too few positions, leading to higher-than-average levels of unemployment and underemployment. In both the global financial crisis of 2008/09 and the COVID-19 pandemic, creative workers were disproportionately affected compared to workers in other sectors (Liemt 2014; IDEA Consult et al. 2021; ILO 2022a). And with the current speed of technological development, especially in artificial intelligence and creative digital platforms, working conditions could decline further.

The ILO (2022) estimates that the media and culture sector (MCS) accounts for 1.4 per cent of global employment or 46.2 million jobs. The sector accounted for 0.9 per cent of employment in low-income countries, 1.1 per cent in middle-income countries and 3.1 per cent in high-income countries. As a percentage of global media and culture employment, middle-income countries accounted for 56 per cent, followed by high-income countries (39 per cent) and low-income countries (5 per cent). In 2019, the United States accounted for approximately 23 per cent of global employment in the media and culture sector, followed by India (over 21 per cent) and the United Kingdom (10 per cent).

Little empirical research has investigated creative digital platforms' contribution to overall employment. One could consider that the participatory and democratizing dimensions brought on

by platforms mean that increasing numbers consider themselves content creators and are employed in the cultural sector, but this rise may be dominated by an increase only in amateur artists on platforms. As discussed below, income from streaming remains low, and barriers to fair compensation are getting higher.

One indicative source estimating the scope of creative employment through digital platforms is Oxford's Online Labour Index (OLI 2020), which tracks the number of projects and tasks posted on the major online labour platforms across countries and occupations. Data is sourced from posted vacancies on freelancer platforms such as upwork.com and mturk.com, and data is analysed according to "demand for jobs" and "supply of workers". Figure 4 shows the high demand for creative and multimedia work representing 20.8 per cent in that occupational category⁵, second only after "software development and technology". Although OLI does not include data from creative platforms such as social media or streaming, content creation is sourced through freelancer platforms and therefore OLI could be a relevant proxy measure for the strong demand for creative content.

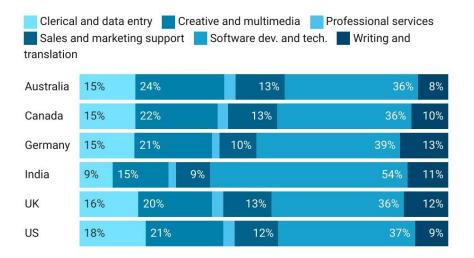


Figure 4: Online labour demand, by country and occupation, 2020

Created with Datawrapper

Source: OLI 2020

The industry for its part is keen to support the growth of employment opportunities through platforms. A 2019 study published by Oxford Economics and YouTube (Oxford Economics and YouTube 2019) claims that YouTube contributed \$16 billion to GDP in the United States (0.075 per cent of total GDP) and created the equivalent of 345,000 full-time jobs.

Income and remuneration

The question of how and how much creative workers are compensated is a key dilemma and a major source of debate amongst decision-makers in the industry, the creators, policymakers, and academics. Many different terms are used, often for the same concept, depending on who

In OLI's classification system, the creative and multimedia occupation includes individuals who produce the following types of projects: animation, architecture, audio, logo design, photography, presentations, video production and voice acting.

is the focus of the discussion: income (labour income), remuneration, wage, compensation and earnings. The most appropriate term here when considering a worker's perspective is income, which the ILO defines as "the amount that an employed person earns from working" (ILO 2019).

While creators do have to agree to terms of service agreements which may contain elements defining the relationship between the creator and the platform, most platforms do not commit to providing any form of remuneration or benefits. The creative platforms view creators as having "independent contractor" or "self-employed" status where the platform is not required to fulfil obligations considered in employment protection legislation, such as minimum wages or contributions to social security.

As described above, a key part of a creative platform's business model is how content creators should be remunerated, either through the sharing of advertising revenue or through a pro rata or user-centric sharing of subscription fees. These compensation models are based on a modified "piecework" pay approach, whereby, upon reaching a certain threshold, creators are paid either directly or proportionately based on the number of views, subscribers, streams, and so on. However, the conditions and probabilities that affect how many times a piece of content is viewed vary among platforms and depend on factors including the search history and preferences of users, comments and interactions with the content and inclusion of content in popular playlists, for example. This practice is also known as content "curating", mainly controlled by algorithms, whereby content receives a rank or a score that determines how prominently it will appear in an end user's feed. This rank directly influences how much particular content will be streamed, which then influences a creator's income.

It is widely recognized, even among the platform companies, that only a small segment of content creators receive compensation. As mentioned earlier, the structure of earnings resembles a pyramid, with a small group of high-income 'stars' at the peak, a moderate number of professional and semi-professional creators in the middle tier, and a large base of amateur and non-earning users at the bottom.". According to Spotify, "Of the nine million people who have distributed any songs to Spotify, 5.6 million of them have released fewer than ten tracks all-time. Many of these artists are likely hobbyists or early in their careers or may not be leveraging streaming as part of their career paths" (Spotify 2024b).

A similar pattern can be observed in YouTube YPP, where the threshold for compensation is high, meaning creators start being compensated only when they achieve 1,000 subscribers with 4,000 valid public watch hours in a 12-month period (YouTube 2024). Accurate and reliable statistics on YouTube are difficult to attain, and YouTube does not regularly share its data. In one estimate from 2023, the number of YouTube channels was projected at 31 million, with the number of "active" channels meeting YPP requirements at 80,000 (Aslam 2023). That means that only 0.25 per cent of creators receive income, whereas tens of millions receive no income at all. The top YouTubers, with over 100,000 subscribers and earnings of at least \$50,000 per month, represent less than 1 per cent of channels.

It is just as difficult to discern the progression in creators' compensation from platforms over time, whether incomes, on average, are decreasing or increasing. YouTube has grown exponentially since its launch in 2005. It hit 1 billion users in 2013 and 2.3 billion users in 2022 and gained revenue of \$29.24 billion in 2022 (Aslam 2023). In 2021, YouTube reported that it had paid \$30 billion to creators over the previous three years (Wojcicki 2021), substantially outpacing any of the other major social platforms (Facebook, TikTok, and so on). A study of musicians in the United Kingdom (Hesmondhalgh et al. 2021) reported that the average per-stream rate paid to music creators from 2012 to 2019 has fallen, whereas revenues paid to the recording industry have

risen. At the same time, streaming in the United Kingdom has become the main source of revenue for both recording rights holders and music publishing companies.

It's also important to consider the different sources of income that creative workers receive and whether earnings from digital platforms represent primary or secondary sources of income. More generally, it has been documented that many artists, both professional and amateur, have additional income sources from outside the cultural industry and, in some cases, as a more important source of income (Musicians Union 2012; DiCola 2013). Income from digital platforms is one of many different sources of income for creative workers. For example, DiCola (2013) identified 40 different revenue streams of US-based musicians. Other sources include live performances, teaching, composing, and selling merchandise. The evidence on the share of total income that content creators receive from digital platforms is mixed. A Europe-wide survey (Bancroft et al. 2020) found that 90 per cent of workers classified as "performers" receive less than €1,000 per year from streaming, whereas research from the United States (Joplin and Mulligan 2019) found that streaming income, along with earnings from live performances, make up the majority of artist revenues today and that for independent artists, streaming is their primary source of income at 30 per cent. Presumably, artists in conventional artistic occupations such as musicians and photographers would have the opportunity to access more sources of income than a digital content creator who may rely solely on the platform.

As described, creative workers enter into unilateral user agreements that dictate, among other things, payment and compensation terms. However, these terms can be changed without notice, and in some cases can result in nonpayment or demonetization of the content, in other words, free labour. Demonetization has been associated with how a platform moderates content. The most well-known example is YouTube's Adpocalypse in 2017 over the surfacing of extremist, hate-ful, racist and sexist content, leading to, for example, the UK Government, Coca-Cola, Dr Pepper, Johnson & Johnson, and other major brands pulling or pausing their advertisements on YouTube (Wikitubia 2021). As a result, thousands of channels were shut down and income streams on the platform were suspended for the creators of offensive content. The controversy led YouTube to update its policy to restrict the YPP eligibility to channels with 1,000 subscribers and 4,000 view hours, cutting out many small content creators. For YouTubers who were demonetized, the company provided little to no justification for why certain videos were targeted.

The literature also highlights income disparities and unfair treatment based on gender, ethnicity, sexual orientation and political beliefs (O'Brien et al. 2016; Saha 2018). There has been some evidence that YouTube's automated filtering unfairly targets creators who produce "culturally progressive content"; in the case of LGBTQ creators, this means that "any representation of their identity could be deemed sexually suggestive and ad-unsafe" (Cunningham and Craig 2019, 113).

The preceding demonstrates that there are research gaps in how and how much creators are compensated through platforms and what should be considered as fair pay. Clearly, large income disparities exist amongst creators on digital platforms, given that most of the content is poorly compensated or not at all. These facts may highlight the business model that accounts for at least some of platforms' high profits: presenting the platform as a participatory model of labour while making profits on the free labour of creators that can then be sold to advertisers.

Employment patterns

While countries apply different interpretations and applications of employment status, the basic concept separates workers into three statuses: employers, employees and the self-employed

(also known as independent contractors or own-account workers). The designation is important because it is the basis for a country's employment law, and determines entitlements to rights and protections such as social security, sick pay, vacation and so on. With the emergence of the platform economy and changes in the way work is organized, countries have started to redefine the working relationship (ILO 2023) and adapt national regulations.

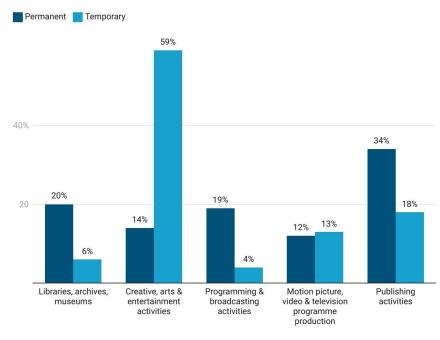
Scholars have documented the rise in temporary and part-time employment, wage inequalities, gaps in social protection and other forms of precariousness visible over the past four decades (Castells 1997; Braverman 1998; Standing 2011; Fuchs 2014). This is particularly apparent in the creative sectors where workers are more likely to be self-employed, work part-time or hold multiple jobs inside and outside of the sector (Liemt 2014). However, although there are signals, there is little research to determine if and to what extent this is associated with platformization.

As mentioned above, there is no employment relationship between a creative platform and creator, and all creators are assumed to be self-employed and income from platforms is rarely a sole source of income. It seems that platforms have inherited and benefited from the notion of creative producers as "entrepreneurs" and from broader industry and platform practices concerning the individualization of responsibility and risk (Nieborg and Poell 2018).

In general, levels of self-employment amongst workers in creative sectors are higher than in total employment. In Europe, 32 per cent of cultural workers are self-employed versus 14 per cent in the total economy (Eurostat 2023). In the United States, creative workers ("artists") are 3.6 times as likely as other workers to be self-employed (National Endowment for the Arts 2019). Atypical work patterns are more frequent in the cultural and creative sectors and bear "little resemblance to traditional notions of the 'career' with their expectations of linear development and progression of the hierarchy" (Gill 2010). Self-employment is associated with higher levels of insecurity and intermittent work. As income-generating opportunities and demand for content grow on digital platforms, levels of self-employment are also expected to increase.

Furthermore, for most creatives income from platforms would not be enough for them to subsist on, and many are forced to have multiple jobs. This may include a fixed source of income as an employee and irregular sources of income through "gigs", short-term contracts or freelance work. On creative platforms, a lot of this gig work is unpaid and aspirational, especially for new entrants who need to invest considerable time and energy to build up an online following and interact with their audience.

Globally, the creative and arts sub-sector had the largest share of workers on temporary contracts in the media and culture industry. In 2019, this sub-sector accounted for 59 per cent of all workers on temporary contracts in the media and culture industry, followed by the publishing sub-sector. The programming sub-sector had the fewest workers on temporary contracts (see Figure 5).



▶ Figure 5: Sectoral shares by type of job contract, global, 2022

Created with Datawrapper

Source: ILO 2022a

An oft-cited argument, especially coming from industry, is that creative workers prefer the flexibility and autonomy that come with self-employment. However, the reality is more complex and causes of self-employment also include the nature of cultural production work, for example, songs and video clips are often one-off endeavours with defined work periods. The causes also include a pervasive trend within the industry to transfer financial risk and obligation from wouldbe employers and platform operators to the creators themselves.

Informality

Atypical, unremunerated, unprotected or nonstandard employment are all dimensions of informal jobs. Informal jobs are unregistered and unregulated and therefore lack secure employment contracts, workers' benefits, social protection and workers' representation. Informal employment correlates with self-employment status, especially in low- and middle-income countries, where legal mechanisms to regulate and enforce independent work are weak. The existing data regarding the registration status of workers on digital labour platforms indicates that the proportion of self-employed workers who are not registered, and therefore operate in the informal sector, is larger than the proportion of informal workers in the conventional offline economy. Empirical evidence supporting this assertion has been documented in Eastern Europe (Aleksynska 2021) as well as in India (Berg et al. 2018).

While creative platforms are distinct from digital labour platforms, the causes of informality, such as the lack of an employment relationship and the unpredictable and precarious nature of the work, are similar. Given that much creative platform work is a secondary job or alternative source of income, we would expect some of it to be undeclared and therefore invisible. This means not

only that the prevalence of this form of employment could be underestimated but also that workers cannot benefit from social security benefits and that countries do not collect tax revenue.

That being said, informality is a feature mainly of employment in low- and middle-income countries, and its determinants and policy measures are specific to each country. The importance of issues related to the informality of creative work on platforms will however grow as platforms look for cheaper sources of creative content. For example, trends point to the growth of creators in India and China, where YouTube and TikTok are seeing their biggest growth among creators and where informality rates are relatively high.

Gender issues

Women, especially young women, have been particularly drawn to creative digital platforms, driven by the concept of aspirational labour, the idea of getting paid to do what you love (Duffy 2017). Research has revealed a gender divide in social media habits in that women are significantly more likely to use social media, have a social media profile or have an online blog (Park et al. 2023). Female creative workers may recognize the prospect of combining a career with leisure and the opportunity for self-actualization and visibility offered by social media. However, much of this labour is aspirational, meaning women invest time and energy in creating a social media following which will, in many cases, not result in future earnings. This form of immaterial labour has conceptual similarities to traditional forms of underpaid and undervalued work including reproductive, domestic and other forms of care work, as well as the socialization, planning and organization that goes into running a household and being a productive member of society. The feminist researcher Jarret (2014) likens this immaterial labour of socialization and organization to the types of labour on creative platforms such as managing a social media presence, moderating a group forum or posting and commenting on social media.

The presence of women in creative labour markets is country-specific and very much depends on the occupation. In Europe, women have a slightly higher share of employment in the creative and cultural sector (48 per cent) than in overall employment (46 per cent) (Directorate-General for Education and Menzel 2021). However, gender pay disparities persist, and women in general work in creative occupations with lower pay. In the United States, women creative workers earn \$0.77 for every dollar that men earn (National Endowment for the Arts 2019).

The cause of gender pay gaps in the cultural industry could be partly attributed to vertical segregation, where men are more represented in management and other senior-level positions, and occupational segregation, where women dominate certain types of jobs. Google and other Silicon Valley tech companies have been accused of these practices favouring men and, by Google's own account (Google 2023), women make up less than a third of the total workforce and hold less than a third of leadership positions. In terms of occupational segregation in creative industries, literature has identified several causes and impacts: the tendency of jobs performed by a large number of women to pay less; sex-based division that challenges ideals of autonomy and freedom; segregated cultures that make it more challenging for workers to match their education to their job; and gender clusters, which tend to perpetuate stereotypes (Hesmondhalgh and Baker 2015). This situation could lead to gender-biased views and imbalances for content creators, where men in leadership determine the type of content and messages that are favoured and circulated to the public. The question becomes whether creative platforms can contribute to disrupting the myths and stereotypes related to "women's work" or "men's work" and the related inequalities, and instead act as a new media vehicle to turn aspirational labour into decent and fairly compensated employment.

Mental health

Growing attention has focused on the impact of psychosocial risks and work-related stress on creative workers on online platforms. Work-related stress is now generally acknowledged as a global issue affecting all countries, all professions, and all workers in both developed and developing countries. In this complex context, the workplace is at the same time an important source of psychosocial risks and the ideal venue to address them to protect the health and well-being of workers (WHO & ILO 2022). The WHO and ILO (2022) estimate that 12 billion working days are lost every year due to depression and anxiety.

Studies have shown that there is a correlation between mental distress and the improper use of social media, such as low self-esteem and poor self-care strategies (Burnette, Kwitowski, and Mazzeo 2017), and that this association disproportionately affects women (Park et al. 2023). Some studies such as the longitudinal study by Boer et al. (2021) show a correlation between decreased mental health and problems using social media such as exposure to cyberbullying, addictive-like usage, fewer school achievements, and less face-to-face contact with friends and family. It appears that exposure to social media problems, rather than mere social media use, leads to decreased mental health.

Creative workers on platforms are confronted with risks to their psychological and social well-being. Creative workers face challenges that are generally more common amongst the self-employed such as job insecurity and inconsistent incomes, and they also face specific risks because of the unique online nature of their industry. These include high exposure, where anyone online can view the content and express their views, which in some cases leads to online harassment and trolling. Creative workers face constant pressure to produce weekly and daily content in a struggle to maintain and grow an audience. They also often experience blurring between their private and professional lives and pressure to share private information about their lives to impress viewers. This type of work can also elicit feelings of isolation and loneliness since creatives may spend long hours alone and behind screens with little exposure beyond their digital environment. This assessment extends to workers who moderate and curate online content and who are hired to identify graphic or violent content.

Such pressure can lead to burnout, where creators feel overwhelmed and exhausted and lose motivation. The negative comments and reviews and social pressure can increase anxiety and lead to depression. Ultimately, some creators quit social media due to mental health issues. In recent years a genre of online videos has emerged in which influencers and other content creators criticize "influencer culture" and announce their own withdrawals from platforms (ElleOfTheMills 2018; AlishaMarie 2018; Lilly Singh 2018). The creators blame their burnout on the incessant work schedule required to maintain their audience, as well as struggles with the platform's constantly changing and opaque algorithm — an unending cycle of struggle against an invisible counterpart (Thorne 2023).

Skills acquisition and career mobility

There is an apparent gap in the literature about how creative platforms impact the skills development and career mobility of content creators and artists. Most evidence points to how the use of social media affects psychological development and human capital accumulation, without studying how platforms themselves contribute to (or hinder development of) users' skills.

Overall, digital platforms provide no or very limited skills development or other types of human resource support that are common in traditional organizations and employers. The main reason

is a lack of formal and contractual responsibilities in the gig economy, which gives rise to a system that discourages organisations, particularly labour platforms, from providing support that could help gig workers build their career competencies and career mobility within and outside of the gig economy (Kost, Fieseler and Wong 2020, 101). Gig work appears to offer high mobility due to the ease of switching between platforms and tasks (Kost, Fieseler and Wong 2020), but it often limits career progression. The ILO has attributed this situation to a lack of investment in worker skills and the difficulty in transferring creative material and task history among platforms (ILO 2021).

What is clear however is that creative workers have especially high levels of skills. In a recent ILO analysis of 30 countries, at least 59 per cent of workers were highly skilled in all surveyed countries in the "Creative, arts and entertainment" sub-sectors and at least 42 per cent in the "Motion picture, video & television programme production" sub-sectors (ILO 2023). Despite this, the universal accessibility of digital platforms like YouTube has led to an influx of content from individuals with varying skill levels. Many contributors lack formal training in videomaking, as evidenced by the quality of content on these platforms (Snickars and Vonderau 2009, 126). A key theme is the tension between democratizing and maintaining professional standards in the media. Digital platforms have enabled untrained nonprofessional's to access and contribute to the media land-scape, challenging established norms and standards. However, this democratizing trend has also led to concerns about a disregard for professional craftsmanship, aesthetic quality and ethics.

Jenkins, in his white paper on media education for the twenty-first century (2009), argues against the assumption that users will automatically acquire necessary skills and competencies through interaction with popular culture. Jenkins attributes this belief to a breakdown in traditional forms of professional training and socialization, which historically prepared individuals for public roles in media creation and community participation.

The training that creative platforms do provide focuses more on commoditizing the creator's content (see Spotify Advertising Academy and YouTube Partner Program) rather than developing traditional, transferable skills, raising questions about career advancement and skills mobility, especially in the absence of structured human resource support.

There are differences in skill sets and resources available to members of various occupations within the creative sector. New occupations like making YouTube videos and content creation offer access to many informal resources but lack traditional educational structures. In contrast, professionals like musicians, authors, and photographers, who often have technical training in their core occupations, need to adapt by learning digitalization and promotion skills. Platforms like Spotify offer basic training in areas like digital audio advertising but do not provide formal training in core creative skills like music production (Spotify 2024a).

Creative freelancers often rely on online communities and networks for feedback and skill development, helping them navigate challenges associated with gig work. However, existing competition on some platforms can discourage skill-sharing among workers, as it may intensify that competition (Schwartz 2018).

The tensions of autonomy versus control are evident again where high-skill workers have the privilege of choosing alternative work arrangements whereas low-skilled workers struggle to make a living and are beholden to the needs of the organization.

Workers' rights and collective action

As digital platforms continue to proliferate, a debate is escalating about platforms' impact on worker rights and the efficacy of collective action. A vast body of literature underscores the urgency for adopting or enhancing labour-related legislation to better regulate digital platforms (Duffy and Wissinger 2017; Healy, Nicholson and Pekarek 2017; Woodcock and Graham 2020; Siciliano 2021; ILO 2021). This call for regulation is echoed in the context of enforcing existing national and international labour standards (ILO 2021).

The critical focus is the classification of the employment relationship. Digital platforms categorize workers as independent contractors or similar non-employees (Cherry and Aloisi 2016; De Stefano 2016; ILO 2021). Classifying workers as independent contractors or similar is fundamental to the platform industry's business model. True, some workers prefer independent status (West, 2019). However, classifying platform workers as employees would introduce a range of labour rights, protections and benefits that many workers might not be fully aware of (Cherry and Aloisi 2016).

Algorithm and data management is another area that directly affects workers' rights, since data use is a fundamental condition of work in the platform economy. Algorithms, often termed the "black box" for their seeming inscrutability (Wood et al. 2019; Siciliano 2021), play a crucial role in creative platforms, influencing what type of content is viewed based on user history, search queries, engagement, trends and popularity. These algorithms determine content visibility and monetization, often at the expense of educational or socially responsible content (ILO 2021). Enhancing worker governance rights within creative firms and industries is a matter of shifting focus from protecting worker privacy alone to addressing the broader implications of data use in defining work conditions.

The potential for industrial relations in the digital creative sectors has not been substantially explored. Scholars like Lehdonvirta (2019), referencing Castells (2010), question the feasibility of replicating traditional union movements in the current information economy. This scepticism is reflected in declining union memberships (from 30 per cent in 1985 to 15.8 per cent in 2020 in OECD countries (OECD 2024)) and the failure of initiatives like the American Influencers Coalition and the Internet Creators Guild due to their inability to attract new members (Lorenz 2021).

A related issue is that competition law may hinder the self-employed individual prevalent in creative industries from engaging in collective bargaining. In some countries, laws do not acknowledge the right of self-employed workers to form or join unions. In others, self-employed workers are prohibited from collectively negotiating their work terms through their representative bodies. This proscription is based on the premise that collective action by self-employed workers could lead to a concentration of power within one group, thereby impacting free market competition (Snijders et al. 2020).

YouTube has been a target of collective action, albeit with mixed success. Initiatives like Fair Tube (Niebler 2020) highlight the challenges in establishing formal co-determination with platforms. The demands of such movements, including transparency in decision-making criteria and the formation of a YouTuber Advisory Board (FairTube 2022), underscore the need for greater participation by and agency for workers in platform governance.

7 Limitations and issues for discussion

This section provides an overview of issues to consider in future research and policy formulation. Given the novel and exploratory nature of the topic, a focus should be placed on further development of conceptual, measurement and definitional issues, as contributions towards and as part of common research agendas or frameworks. The conceptual model presented in this paper, how the struggle between creative workers' desire for autonomy in their work processes versus the platforms' push for control of labour, stemming from its capitalistic modes of production, provides a foundation to understand how and why working conditions are impacted. This includes, for example, different approaches to how platforms remunerate creative workers, the type of content created and distributed and the interests of complementors, especially advertisers, the main source of platform revenue. That being said, the model may be insufficient in describing other forces influencing labour relations in content creator industries including the subjectivities and ideologies of individual creators as well as the practices of smaller "niche" platforms that are built on more collaborative or user-centric models. In this sense, the conceptual model presented builds more on academic traditions of political economy, dealing with the power and the unequal distribution of platform revenue and may neglect other academic strands, principally cultural studies, which focuses on the ethnography of worker experience or discriminations of race, gender or sexual identity.

This paper broadly analyses digital creative workers in both new and conventional occupations. As examples it uses musicians to represent conventional creative workers and content creators to represent new creative workers to describe how platformization affects all workers in the sector, whereas the causes, effects and levels of impact depend on the specific occupation and individual-level interactions and experiences with the platform. This paper is also broad in its consideration of the type of platform and includes both social media platforms and streaming platforms and to a lesser extent platform marketplaces such as Amazon or stock photography platforms. One could argue that the "core business" of these two types of platforms — social media platforms for social networking and sharing content with friends, and streaming platforms for consuming media products like music and video - inherently differ and therefore should be treated separately, including issues related to labour. This paper argues that the concept of content creators should include both creative workers (including influencers) on social media platforms and conventional artists such as musicians on streaming platforms, because their working conditions are being affected in similar ways. Researching the evolving landscape of creative and digital work presents significant challenges, particularly in defining key terms and categories. Two main issues stand out: First, there is a lack of consistency in defining who gualifies as a "creative worker." This category has traditionally included professionals such as artists, writers, musicians, and designers. However, the rise of the gig economy and the digital age has blurred these boundaries. Many individuals engage in creative activities that are not their primary source of income, making it challenging to classify them. For example, someone might work a traditional job while also producing music, writing blogs, or creating art in their spare time. Additionally, newer roles, such as "content creators" who produce videos, podcasts, or social media content, are not always recognized in traditional classifications of creative workers.

Second, defining who constitutes a "digital worker" adds another layer of complexity. This term generally refers to individuals who earn income through digital platforms, but the criteria for inclusion can vary. Factors such as the amount of time spent on platforms, the number of platforms used, and the income generated all play a role. For instance, a freelance graphic designer

might use multiple platforms like Upwork and Behance to find clients, while a YouTuber might focus solely on one platform. The question then arises: should both be classified under the same umbrella, given their different engagement levels and income sources?

These definitional challenges have practical implications, particularly when it comes to distinquishing between amateur and professional creators. This distinction is crucial for determining who qualifies as a "worker" with access to certain rights and benefits. For example, platforms like YouTube and Patreon offer revenue-sharing models, but these are often limited to creators who meet specific criteria, such as subscriber counts or watch hours. Furthermore, the classification impacts eligibility for social protection and training opportunities. Many platforms provide resources like analytics tools, workshops, and networking events, but access to these can be restricted based on the creator's perceived professionalism or income level. Definitional limitations, including different interpretations of what constitutes the cultural and creative sector, are one reason for the lack of information about the identity of digital creative workers, the prevalence of digital creative work, and working conditions. Another reason for the poor understanding is a lack of information and sharing by platform operators who tend not to release data about their own users (due mainly to laws around privacy and data sharing) but also because of the black box nature of algorithmic recommendation systems that control which content is promoted and remunerated, whose source code is protected by trade secrecy and what the intellectual property rules are (ILO 2022b). We are also faced with the rapidly evolving and complex nature of technologies and creative processes.

The increasing integration of artificial intelligence (AI) in digital platforms necessitates more research to understand its impact on creative workers. AI is profoundly transforming the creative industry, particularly in music and video streaming. In the music industry, AI is revolutionizing how music is composed, produced and recommended. AI-powered tools like Amper Music and AIVA (Artificial Intelligence Virtual Artist) enable musicians and producers to generate compositions and soundtracks with minimal human intervention, streamlining the production process and reducing costs. The automation of creative tasks through AI tools raises concerns about the devaluation of human creativity and the potential loss of jobs. Understanding these dynamics is crucial to developing policies and practices that ensure fair treatment and opportunities for creative workers in an AI-dominated landscape.

A necessary precondition to the development of appropriate and relevant policy responses would be estimates of the prevalence and incidence of platformized creative work, information that is not systematically available. Several national studies have used various interpretations of engagement in digital platforms, with differing results. For example, using a very broad definition, the United States reported 22 per cent of the working-age population offered some good or service using a digital platform, and about one-third of these digital workers also reported earning at least 40 per cent of their monthly income from platform work (The Future of Work Initiative 2016). However, this study did not include the share of this income from content production. Estimates on the share of the population receiving income from digital platforms in other regions and countries included 3.0 per cent in the EU (EU Labour Force Survey 2022) and 1.6 per cent in Switzerland.

A more systematic approach to research would be to include digital and platform-related questions not only in national labour force, economic, or demographic surveys (see Table 3) but also in ad hoc surveys targeting users of specific platforms, populations of one or more countries with high rates of content producers (for example, the United States, India, and Brazil) or a specific creative occupation (such as musicians). Useful information to collect about digital creative workers would include: (1) demographic profiles including gender, age, location and motivation for engaging with platforms; (2) employment information including working hours, amounts and sources of income, access to benefits and work-life balance and (3) worker experience including job satisfaction, career mobility, fulfilment of aspirations and perceptions of their own skills.

► Table 3. Platform work in national surveys

Country	Type of survey	Measure (question asked)
Canada	Canada Internet Use Survey	Provided platform-based peer-to-peer services or online freelancing
Denmark	Denmark's Labour Force Survey	Performed work through websites or apps (for example, Uber)
EU Member States	Eurostat Community Survey on ICT Usage and E-commerce in Households and by Individuals	Obtained paid work by using an intermediary website or apps
Finland	Finland's Labour Force Survey 2017	Earned income through capital or labour platforms
France	Ad hoc module of the European LFS (6th wave sample)	Self-employed in main job that contacts clients through a platform or a third-party business
Switzerland	Swiss Labour Force Survey	Provided taxi or other services via an internet platform or mobile application
United Kingdom	United Kingdom Labour Force Survey	Used an online platform to find work
United States	Bureau of Labor Statistics Contingent Worker Supplement	Use a platform for digitally or physically delivered tasks

Source: OECD 2023

One necessary step towards a better understanding including quantifying digital creative work will be an approach to identifying and contacting creative workers on platforms. In theory, the online nature of the work provides an obvious path towards this identification, and creators can be contacted and observed at a distance and virtually as well as via coordination with online content creators' communities and other snowballing techniques. However, reaching a sufficient understanding of online creative work through observation of their online content alone would not be complete, not least of all because there exists no database of digital creative workers that would allow for a fully representative sample. This could include observing digital workers in their "offline" lives given the intense preparation that content production entails as well as the effects that this occupation choice may have on areas of their personal lives. One potential approach is to combine methods of empirical survey approaches with digital ethnographic methods such as online participant observation.

Currently, there are few regulations or policy initiatives related to creative workers on platforms either internationally, nationally or within the platforms themselves. In fact, the growth of privacy

and copyright regulation may have the unintended effect of locking out workers' rights, unless labour provisions are intentionally included, as in the case of transnational trade regulation. The main stumbling block towards regulation is the standard notion of the employment relationship: online labour platforms such as ride-hailing and delivery apps require a contract whereby workers agree to deliver a specific service, whereas creative platforms do not. The central question then is less about the employment relationships and more about the "fair" treatment of creative workers, including transparent practices by platforms, particularly in terms of revenue sharing related to content monetization and of algorithmic transparency. This treatment should in principle be extended to all internet users, amateurs or professionals, who contribute content to platforms.

8 Conclusion

This paper thoroughly reviews the complex and evolving relationship between digital platforms and creative workers, highlighting both the opportunities and challenges this relationship presents. The analysis revealed that while digital platforms have democratized access to audiences and allowed for unprecedented creative expression and collaboration, they also pose significant risks and challenges to the workforce in the creative sector.

The platformization of the creative industry has introduced a new paradigm, fundamentally altering the landscape of creative work. On the one hand, platforms like Spotify, YouTube and Instagram have empowered artists and content creators, providing them with previously inaccessible tools and global reach. This democratization and upscaling of the market have led to a flourishing of creativity and has allowed many workers to pursue careers that would have been unthinkable a few decades ago. On the other hand, this shift has come with significant drawbacks. The precarious nature of platform-based work, characterized by irregular income, lack of job security and absence of traditional employment benefits, poses a considerable challenge to creative workers. Additionally, the concentration of power in a few dominant platforms raises concerns about monopolistic practices and the potential stifling of creativity and diversity.

Looking ahead, it is clear that the role of digital platforms in the creative industry will only grow. For that reason, there is an urgent need for comprehensive policies and strategies that can harness the benefits of these platforms while mitigating their downsides. This includes the development of regulatory frameworks that ensure fair compensation, protect intellectual property rights, and promote a sustainable and inclusive digital creative economy.

Future research should focus on understanding the long-term impact of platformization on the creative sector, exploring the evolving nature of creative work and assessing the effectiveness of various policy interventions and regulatory frameworks. By doing so, we can better understand how to support and empower creative workers in this new digital era.

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