UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Technical and statistical report

Creative Economy Outlook 2024

United Nations

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Creative Economy Outlook 2024

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Abbreviations and acronyms

AR/VR	augmented reality/virtual reality
AfDB	African Development Bank
CO2e	carbon dioxide emissions equivalent
COVID-19	Coronavirus disease of 2019
CPC	Central Product Classification
DMA	Digital Markets Act
EBOPS	Extended Balance of Payments Services Classification
FAO	Food and Agriculture Organization
G20	Group of Twenty
GATS	General Agreement on Trade in Services
GDP	gross domestic product
GHG	greenhouse gas
GVA	gross value added
HS	Harmonized System
IDB	Inter-American Development Bank
IEA	International Energy Agency
ILO	International Labour Organization
IPR	Intellectual Property Rights
ISIC	International Standard Industrial Classification
ITC	International Trade Centre
ITU	International Telecommunication Union
LDC	least developed country
LGBTQI	lesbian, gay, bisexual, transgender, queer, and intersex
MFN	most-favoured nation
MSMEs	micro-, small and medium-sized enterprises
NGO	non-governmental organization
NTM	non-tariff measure
OECD	Organisation for Economic Co-operation and Development
OTT	over-the-top
SAF	sustainable aviation fuel
SDGs	Sustainable Development Goals
SIDS	small island developing State
SMEs	small and medium-sized enterprises
STRI	Services Trade Restrictiveness Index
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
US$	United States dollar
VoD	video-on-demand
VANS	value-added network services
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

Introduction

The Creative Economy Outlook is a report by the United Nations Conference on Trade and Development that provides insights into the creative economy and international trade in creative goods and services. The report covers recent trends and developments in creative industries and international trade of creative products. This year's report focuses on the impact of digitalization and artificial intelligence on the creative economy, competition challenges, and sustainability efforts.

The creative economy is rapidly growing, especially in developing countries, and contributes significantly to economic development and job creation. UNCTAD's survey shows that the creative economy contributes between 0.5 to 7.3 per cent of the gross domestic product and employs between 0.5 to 12.5 per cent of the workforce in countries where data is available. Additionally, the total exports of creative services reached a record US$ 1.4 trillion in 2022, almost double the creative goods exports, which reached US$ 713 billion, highlighting the sector's substantial contribution to international trade.

Key trends in the sector include the rise of digital platforms and streaming services, increasing cross-industry collaborations, and the growing popularity of video games across various sectors.

Digitalization is a critical driver of the creative economy, with artificial intelligence playing a crucial role in transforming creative industries. While digitalization and artificial intelligence offer opportunities for growth and efficiency, they also raise concerns about quality, copyright, privacy, and content monopolization.

However, some creative industries are highly concentrated, leading to market concentration and hindering fair competition. Digitalization in the creative industries raises new concerns, particularly regarding market concentration and competition challenges.

The creative economy also offers opportunities for inclusion and environmental sustainability. The report highlights sustainable business practices that not only shape creative industries but also contribute to a more sustainable and prosperous society.

The outlook also responds to mandates by UNCTAD's Bridgetown Covenant[1] and the General Assembly resolution 78/133[2] on promoting the creative economy for sustainable development. These mandates tasked UNCTAD with providing analysis of the creative economy and international trade in creative goods and services.

The rest of the report is organized into five chapters:

Chapter I discusses global trends and new developments in creative activities, such as new business models driven by digitalization, gamification, and other cross-industry collaborations.

Chapter II presents and analyses updated UNCTAD data on international trade in creative services and goods and barriers to trade.

Chapter III explores how digitalization and artificial intelligence transform creative industries, considering the opportunities and challenges of technological developments.

Chapter IV examines the crucial role of competition policy for creative industries and explores market concentration and competition dynamics.

Chapter V highlights sustainable business practices in creative industries and underscores the creative industries' role in global sustainability efforts, particularly in decarbonization.

[1] See https://unctad.org/system/files/official-document/td541add2_en.pdf.
[2] Resolution adopted by the General Assembly on the creative economy for sustainable development, A/RES/78/133, 2023.

Chapter I

Global trends in the creative economy


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Global trends in the creative economy

The creative economy encompasses creating, producing, and distributing goods and services that use creativity and intellectual capital as primary inputs. It includes diverse activities such as advertising, architecture, arts, design, music and movie production, publishing, and video games (for more on the definition and measurement of the creative economy, see Annex I). The creative economy is rapidly growing, offering opportunities for economic development and diversification. It generates cultural and societal values and supports economic objectives like economic growth and job creation. This sector is vital for some developing countries, though a recent UNCTAD survey highlights significant differences across countries. Digital creative content increasingly replaces physical goods like books, films, music, and video games. Digitalization also supports emerging business models such as streaming and digital platforms and fosters cross-industry collaborations (e.g., between video game companies, musicians, publishers, and film studios) and gamification across sectors. Additionally, demographic shifts in developing economies, with younger generations consuming more digital content, drive growth in creative industries.

Creative industries exhibit wide variability in operations, value chains and revenue models globally and regionally. This diversity presents challenges in accurately estimating market size. Studies utilise varied metrics like industry revenues and sales, leading to inconsistencies in methodology and data sources and complicating analysis. Given these disparities, this chapter offers a synopsis of recent research and data on market trends across different creative industries. In the absence of detailed global industry data from international organisations for some creative sectors, the section uses recent reports from consulting and market research firms and associations. Data about creative industries in developing countries is scarce. However, the report presents such data whenever possible.

A. Contribution of the creative economy to the global economy and employment

The creative economy is a significant driver of global and regional economic growth despite being amongst the most negatively impacted by the COVID-19 pandemic and susceptible to the challenges of a quickly evolving environment. Cultural and creative industries generate annual revenues of almost US$ 2.3 trillion globally, contributing 3.1 per cent of the global gross domestic product (GDP) (UNESCO, 2022a, 2023). Among major G20 economies with recent data, the share of the cultural and creative industries from total value added spreads from 0.7 per cent in Mexico to 3 per cent in the United States of America (OECD, 2021).

In addition, UNESCO estimates that the cultural and creative industries account for 6.2 per cent of global employment (UNESCO, 2022a). However, there are significant differences across countries. The share of cultural and creative jobs in G20 economies is between 1 per cent in Türkiye and 2.1 per cent in Australia (OECD, 2021). According to modelled estimates by the International Labour Organization (ILO), the arts and entertainment sector accounts for 1.4 per cent of global employment (International Labour Organization, 2023a).

UNCTAD's 2024 survey on the creative economy, covering 36 mainly developing economies, confirms significant differences across countries. In economies where data is available from the past ten years, the creative economy contributes between 0.5 to 7.3 per cent of the gross domestic product and employs between 0.5 to 12.5 per cent of the workforce (see Figure 1). However, the data are not comparable because of differences in definitions (i.e., culture, cultural and creative industries, creative economy), what is being measured (i.e., contribution to GDP or value added) and reference years.

Many nations acknowledge the creative economy's beneficial economic and societal effects, implementing specialized policies to bolster the sector. The recent UNCTAD survey showed that each participating nation possesses at least one, frequently multiple, ministries or agencies tasked with supervising and supporting the creative economy. Furthermore, over 70 per cent of countries have implemented a national plan, strategy, or policy explicitly dedicated to fostering the creative economy. Annex II provides detailed information about the survey and the relevant national agencies and strategies for the creative economy.

B. Trends in creative industries

Global data and studies about creative industries are rare, due to lack of information, especially in developing countries. PwC's 2023-2027 Global Entertainment and Media Outlook (PwC, 2023) is among the more comprehensive studies, covering 60 economies across all continents, including 33 developing economies. According to this report, although the annual growth of the global entertainment and media industry, a vital component of the creative economy, has slowed since 2021, it maintains an overall steady global revenue growth, mainly from digital services (PwC, 2023).

Apart from industry revenues, data from collective management organizations (or CMOs, organizations managing copyrights and related rights on behalf of right holders) can also provide useful information on how creators worldwide earn a living from their work (i.e., music, audiovisual, visual arts, literature and drama). According to a recent report by the International Confederation of Societies of Authors and Composers (CISAC), bringing together 225 CMOs in 116 economies, global royalty collections reached a record US$ 13.4 billion in 2022, with a year-on year growth of 26.7 per cent. For the first time ever, digital was the biggest source of royalty collection for creators, accounting for 35 per cent of total collections, driven by continued growth of subscription streaming. Europe has the highest share of collections according to CISAC, accounting for 54.8 per cent of total, followed by North America (24.5 per cent), Asia Pacific (15 per cent), Latin America and the Caribbean (5.1 per cent) and Africa (0.6 per cent) (CISAC, 2023).

Trends in royalty collections show great potential in some developing economies, provided there are favourable conditions for collecting royalties in a digital environment. Although developed economies dominate royalty collections, it is some of the developing regions that are the fastest growing. For example, in 2022, Latin America was the fastest growing region with a year-on-year growth of 66.1 per cent. In addition, in a growing number of developing economies (Indonesia, Mexico, Philippines, Thailand, Vietnam, etc.), digital dominates the source of collection and continues to grow exponentially (CISAC, 2023).

Figure 1

Recent facts and figures about the creative economy

China

In 2022, China's cultural industry reached an operating income of 16.5 trillion yuan (US$ 2.3 trillion). China's **cultural industry** reached 1.3 trillion yuan (US$ 180 billion) in total profit.

Costa Rica

In 2019, Costa Rica's **cultural sector** accounted for 2.1% of GDP and 2.1% of **total employment**.

Dominican Republic

In 2014, cultural and **creative industries employed** 468,324 people, about **12.5%** of the total formal and informal workforce.

Egypt

In 2020, the **cultural** and **creative sectors** in Egypt accounted for 3% of GDP. In 2008, the sector was estimated to **employ** 2 million people.

Indonesia

In 2021, Indonesia's **creative economy contributed** about US$ 82 billion of to the GDP. In 2022, the **creative industry** employed 24 million people.

Jamaica

In 2019, the **film, animation,** and **music industries** made up 6.2% of the country's GDP.

Japan

In 2019, culture accounted for 1.9% of Japan's GDP and **employed** 1.3 million people (1.9% of the workforce).

Mauritius

In 2022, creative industries made up 2.4% of the GDP.

Montenegro

In 2022, the **cultural** and **creative industries** accounted for 3.4% of GDP, **10.2%** of registered **business entities**, and **4.5%** of the **workforce.**

Nigeria

In 2019, Nigeria's **creative industries** employed roughly 3.2 million people or 6% of total employment.

Peru

In 2018, Peru's partially **copyright-based industries** accounted for 3.8% of the national value added, and 703,654 **jobs** (4.1% of total employment).

Philippines

In 2022, the **creative economy** made up 7.3% of the country's GDP and **employed** 7 million people.

Republic of Korea

In 2020, the real added value by **copyright industries** was around US$ 160 billion, and the sector employed 2.4 million people.

Slovenia

In 2017, cultural and **creative industries** made up 3.5% of gross value added (GVA) and **employed** around 7% of the workforce (51,934 people). The sector accounts for **10.5%** (24,062) of all registered organizational units and **8.4%** of all active companies.

South Africa

In 2020, the contribution of the **cultural** and **creative industries** to GVA was 3% and in 2019, the sector **employed 4.1%** of the workforce (equivalent of 679,900 jobs).

United Kingdom

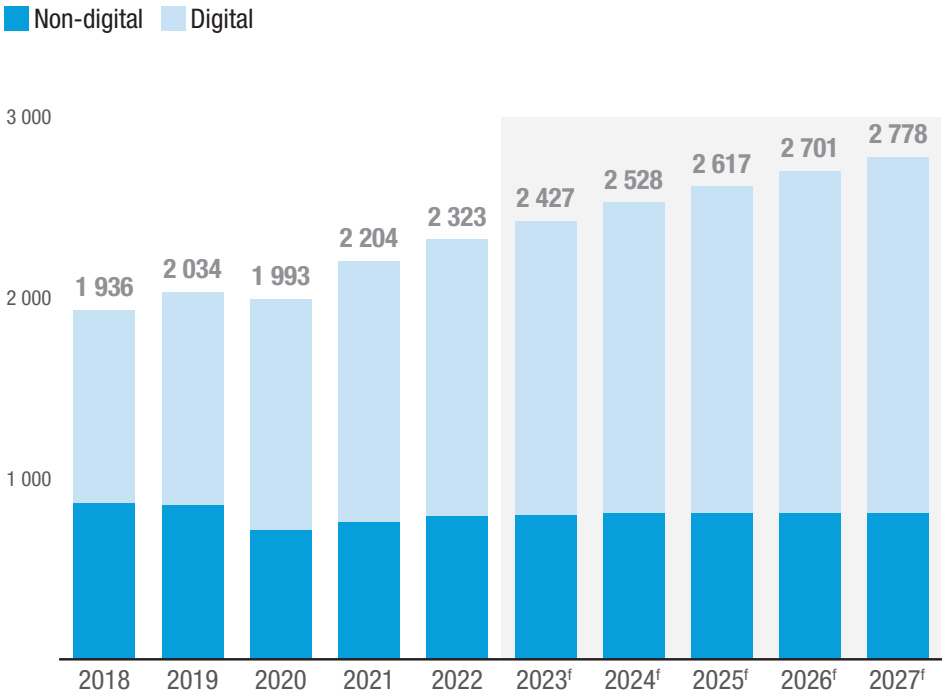
In June 2023, 2.5 million people were employed in the **creative industries**.

Uzbekistan

In 2014, cultural industries accounted for 0.5% of the GDP. In 2020, creative industries employed **0.6%** of the workforce

Source: 2024 UNCTAD survey on the creative economy.

Figure 2
Global entertainment and media revenues
(US$ billion)



Source: UNCTAD, based on PwC's Global Entertainment & Media Outlook 2023–2027.
Note: f: forecast.

1. Advertising

Global advertising revenues were estimated to reach US$ 806 billion in 2023, according to the consulting firm PwC. Due to the expansion of e-commerce and time spent on digital platforms, companies took steps to increase their advertising efforts and the avenues through which they do so to reach a broader consumer base. For instance, digital advertising contributed a 57.7 per cent share of global advertising spend in 2023 and will continue the upwards trend into 2026, when it is expected to reach more than a 60 per cent share for the first time (Dentsu, 2023). This is partially supported by the dynamic increase of advertising conducted through video games in recent years. Video game advertising is expected to grow from a global revenue of US$ 70 billion in 2022 to US$ 137 billion in 2027 (PwC, 2023), representing a greater growth rate than that of more traditional TV advertising, which is expected to increase from US$ 157 billion in 2022 to US$ 160 billion in 2027.

According to a recent report by Dentsu, North America is the largest market in terms of forecasted advertisement spend in 2024 (with US$ 327.5 billion), followed by Asia-Pacific (US$ 240.9 billion) and Europe, Middle East and Africa combined (US$ 158.7 billion) (Dentsu, 2023). The report, covering 58 economies, including several developing countries, also highlights that the share of digital advertising spend is the highest in the Asia-Pacific region, reaching 64 per cent of total spending.

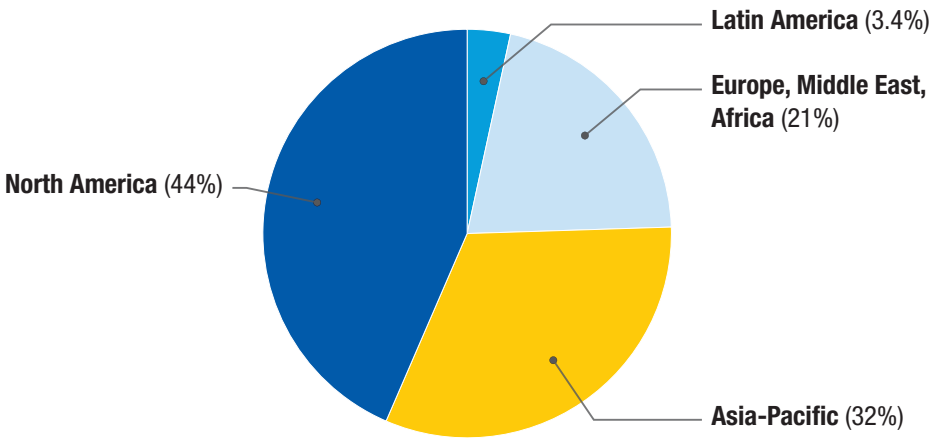
2. Architecture

The architecture and interior design markets have experienced shifts in both positive and negative directions in recent years. For instance, while fees from architectural projects related to healthcare have made record growth, fees from architectural projects related to corporate office work have decreased, with 2022 fees decreasing from 2021 and below its forecast (*Interior Design*, 2023). According to business trends data on the industry's top global interior design firms, the total 2022 design fees of these 100 firms came in at US$ 4.97 billion, an increase from US$ 4.55 billion in 2021 and US$ 4.5 billion in 2020 (*Interior Design*, 2023).

Figure 3

Share from forecasted advertising spending by regions in 2024

(Percentage)



Source: UNCTAD, based on Dentsu (2023)

Table 1
Global top architecture firms by number of employed architects in 2023

Rank	Company	Location	Architects employed	Fee income (US$ million)
1	Gensler	United States	3,065	> 1,500
2	Arcadis	Netherlands	1,956	370-379
3	HDR	United States	1,544	700-799
4	Sweco	Sweden	1,504	170-179
5	Nikken Sekkei	Japan	1,347	500-599
6	Heerim Architects & Planners	Republic of Korea	908	180-189
7	Perkins Eastman	United States	824	270-279
8	Haeahn Architecture	Republic of Korea	768	140-149
9	HKS	United States	761	330-339
10	DLR Group	United States	734	380-389

Source: UNCTAD, based on Building Design (2024).

The world's top ten largest architecture firms are based in developed economies, but in the top 100, there are an increasing number of companies from developing countries like China (with 12 architecture firms in the top 100), Philippines (6 firms), India (5 firms), United Arab Emirates (4 firms), South Africa (2 firms), and Bahrain, Kuwait, Singapore, Thailand and Vietnam (1 firm each among the top 100 largest architecture firms world-wide) (Building Design, 2024).

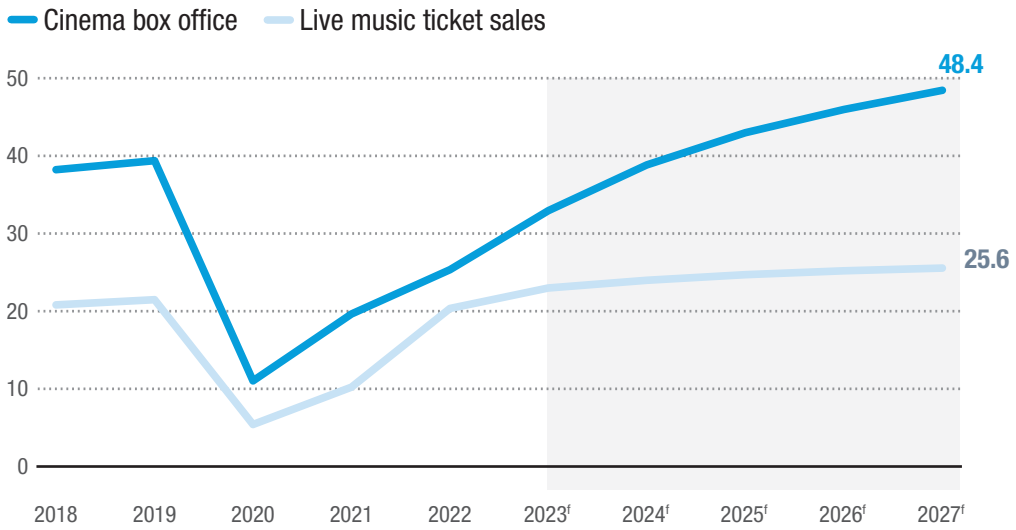
While broad-scale industry developments are significant, looking at the architecture industry at the medium-size enterprise level is important, as it includes many creative fields and operations. Architectural design can be distinguished by building or interior design; hospitality, corporate, retail, government, healthcare, education, residential, cultural, or transportation sectors; and domestic versus international trade speciality. These different sectors and modes of design signal a wide variety of developments. For instance, on the one hand, challenges of high costs and skilled labour shortages within architectural services such as construction, project management, and urban planning are likely to lean the market towards implementing more emerging technologies such as virtual reality and artificial intelligence (Grand View Research, 2023a).

3. Audiovisual: film and television

After the theatrical and home entertainment industry plunged 18 per cent in consumer spending in 2020, the box office has recovered since 2021. However, through offering more convenient, tailored, and diverse viewing experiences, subscription video on demand (SVoD) and other streaming services ultimately had the most significant growth, increasing 2021 global streaming service subscriptions by 14 per cent (Motion Picture Association, 2022). Despite this, traditional viewing methods have not been wholly neglected and have actively bounced back from the COVID-19 pandemic dip. For example, cinema box office sales have had a year-on-year increase in revenue since 2020, with the box office revenues estimated to reach pre-pandemic levels by 2025 and eventually an estimated US$ 48.4 billion by 2027. Figure 4 shows cinema box office sales compared to live music ticket sales.

In 2023, the global box office reached an estimated US$33.9 billion, a 30.5 per cent increase since 2022 (*Gower Street Analytics*, 2024). Asia-Pacific is the largest market, accounting for 39 per cent of global sales, fuelled mainly by China's individual contribution of 23 per cent point. North

Figure 4
Global live events revenue
(US$ billion)



Source: UNCTAD, based on PwC's Global Entertainment and Media Outlook 2023-2027
Note: f: forecast.

America is the second global market, contributing an estimated US$ 9.07 billion or 27 per cent of global sales. Europe, Middle East, and Africa had a 25 per cent growth in sales, accounting for 27 per cent of the global box office. Finally, Latin America saw a 32 per cent sales increase, accounting for 8 per cent of global sales of which Mexico and Brazil contributed 3 per cent and 1 per cent point respectively.

Overall, developing economies including Argentina, Brazil, China, Mexico, Russian Federation, and Saudi Arabia were among the top 15 global markets by box office revenues (*Gower Street Analytics*, 2024). Not included in these studies, however, was India's film industry, with record box office revenues reaching around US$ 1.4 billion in 2023 (FICCI, 2024).

According to a recent World Intellectual Property Organization (WIPO) report, 2022 saw the second-highest number of feature films produced, reaching a total of 8,748 films and representing a 15 per cent increase. The 2022 growth in film production was driven by both developing and developed countries. Overall, India held the top film producer position, contributing 29 per cent of the global volume while other developing economies such as Argentina, Brazil, China, the Islamic Republic of Iran, Mexico, Philippines, Russian Federation, and Türkiye were also among the top 20 film producing economies in the world (World Intellectual Property Organization, 2024). However, the WIPO report does not cover some large movie producer nations, like Nigeria. According to Nigerian national authorities, the country produced almost 2,600 movies in 2020 (National Bureau of Statistics of Nigeria, 2021).

As video-on-demand (VoD) and over-the-top (OTT) platforms and media services have gained considerable ground in the past couple of years, traditional television has fallen behind in terms of subscription numbers and revenue, with global revenues projected to decline from US$ 231 to US$ 222.1 billion from 2021 to 2026 (PwC, 2022). Over-the-top video, on the other hand, grew 35.4 per cent and 22.8 per cent in 2020 and 2021, respectively (PwC, 2022). There is a stark contrast between the growth projections of traditional television and streaming methods, one reason being a shift in focus towards advertising.

Advertising revenue from video-on-demand, such as free, ad-supported streaming TV (FAST) services, is expected to nearly double over the next five years (PwC, 2023). However, while video-on-demand advertising revenue is experiencing a steady rise, TV advertising is stagnating (PwC, 2023), making the shift towards streaming services even more palpable.

4. Books and publishing

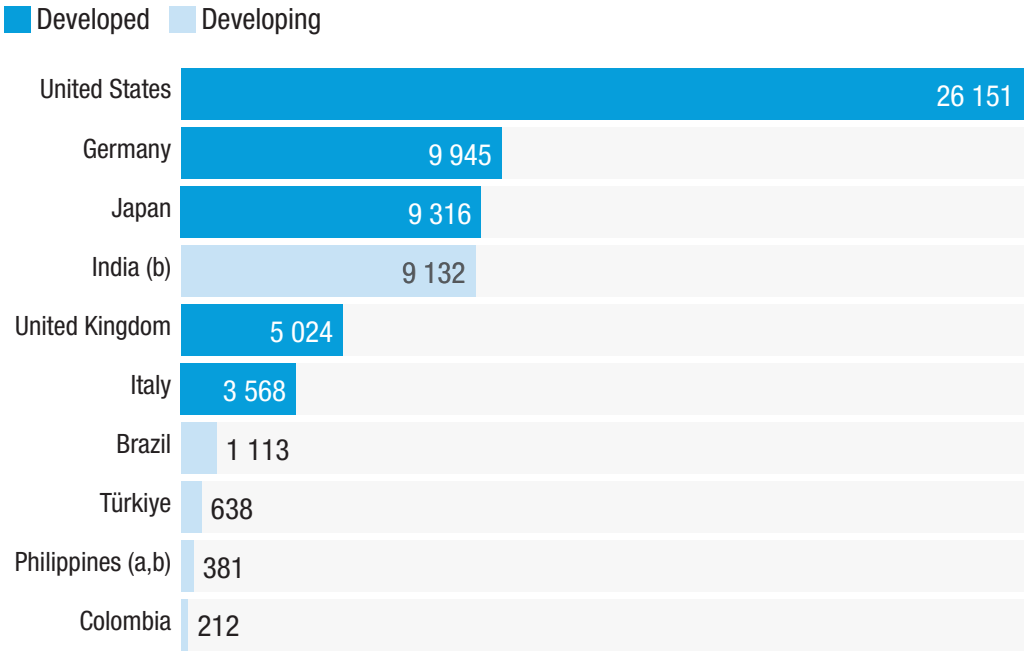
Through a publishing industry survey, the WIPO identified several issues involving the measurement of the global publishing industry, including fragmented response rates, a lack of standardised definitions and methodologies, and discrepancies in reported digital publication data. Despite these limitations, a slight yet recognisable increase in the global publishing industry's data availability collected from 2020 and 2021 still indicates the industry's likely trajectory. Based on several figures, such as total copies sold, sales revenue, and total ISBN registrations, the books and publishing industry has grown for the most studied countries (World Intellectual Property Organization, 2023).

The growth of the books and publishing industries has been influenced by online social networks and the interconnected successes of digital streaming services and story adaptations. TikTok, for example, has affected part of the industry's consumer awareness and behavior. BookTok, TikTok's community of users who share views on books, has allowed individuals to leverage emotion and visuals to influence physical book virality and sales (*The Economist*, 2023). Digitalization has additionally shown its positive effect on the industries through TV series and film adaptations.

Figure 5

Top five developed and developing countries with the most significant total publishing industry revenue in 2022

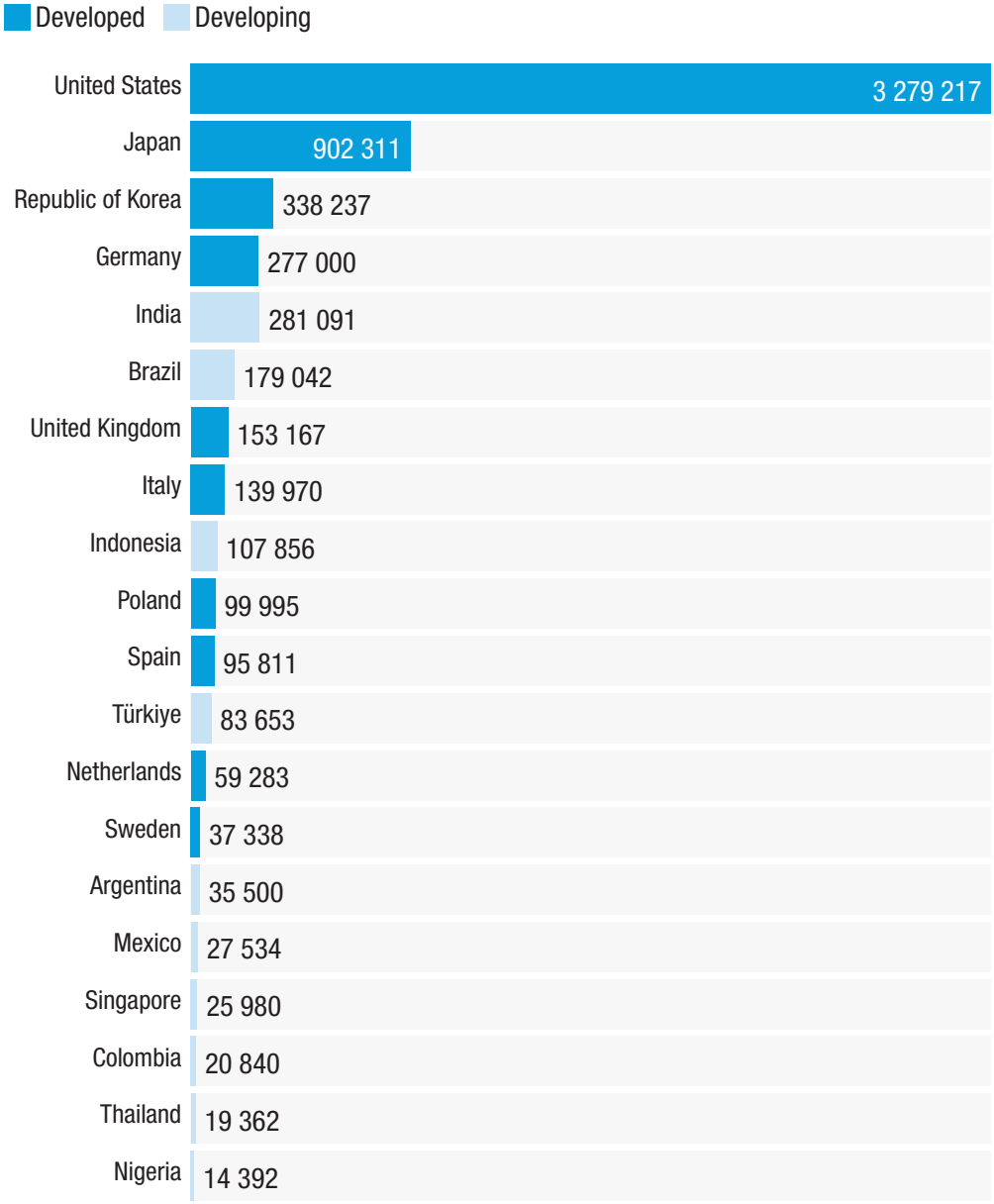
(US$ million)



Source: UNCTAD, based on World Intellectual Property Organization (2023).
Note: a) trade sector only b) print format only.

Figure 6

Top ten developed and developing countries with the highest number of ISBN registrations in 2022



Source: UNCTAD, based on World Intellectual Property Organization (2023).

The reliability of literature as a source of content has spurred the steady increase of these literary adaptation deals that have subsequently driven book sales and the reviving of old titles. For example, according to data collected by The Atlantic, novels that become TV shows receive greater prestige and acknowledgement, garnering about four times as many ratings and twice the number of citations in academic articles as novels that are not adapted (*The Atlantic*, 2021).

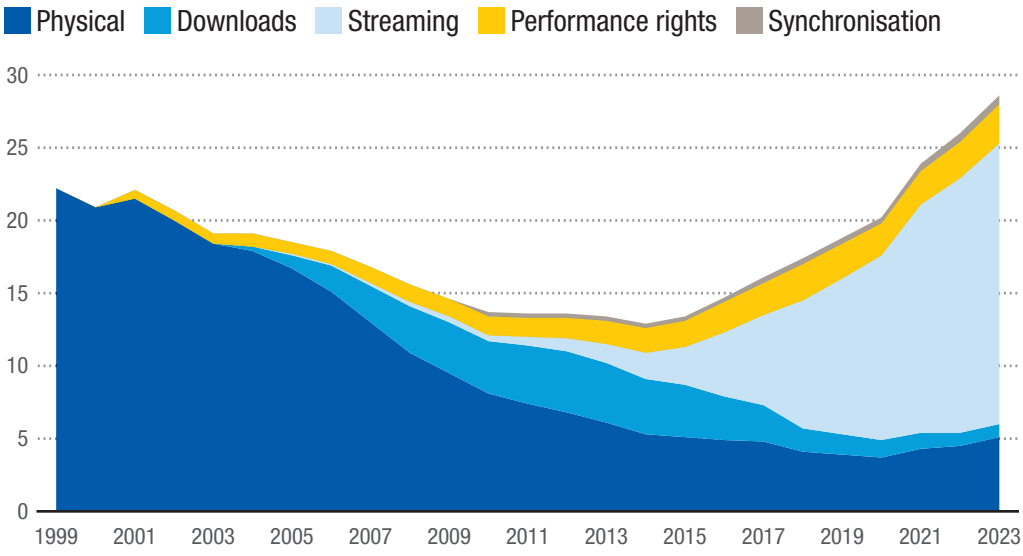
Another interesting case of the interplay between physical and digital markets, is the manga market, which in 2022 reached 2.5 times its previous sales peak in 2007 (*Publishers Weekly*, 2022). This growth is attributed in part to the availability of anime on digital platforms, which acts as a

gateway to the original printed work behind many of the titles. For instance, Attack on Titan, Vol. 1 became the bestselling manga of 2021 despite being 10 years old. The rising demand to which paper and print industries are facing challenges in keeping up with, has subsequently expanded the market's sales channels by platform, genre, and geographical location. Digital manga publishing services, such as in the form of e-books, subscriptions, and mobile apps have also facilitated books and publishing industries' proliferation into other creative industries. Like the cross-industry trend of superhero comic book film and TV adaptations, the success of manga has led to collaborations between the books, publishing, and music industries. Ize Press, a new imprint dedicated to webtoons from the Republic of Korea, announced in 2022 a series of graphic novel titles from Hybe, a K-pop and webtoons collaboration featuring major Korean music industry artists such as BTS. The titles have since been released in 10 different languages and jointly accrued over 70 million views, revealing the potential mutual benefits of creative cross-industry collaborations.

5. Music

The recorded music market, including five revenue streams such as physical, streaming, downloads and other digital, performance rights, and synchronisation (the use of recorded music in advertising, film, games, television, etc.) experienced strong revenue growth in 2023. The value of global recorded music revenue hit a record US$ 28.6 billion, an overall 10.2 per cent increase in its 9th consecutive year of overall growth. The composition of revenue sources has dramatically changed in the past decade. The physical sales segment that, for many years, had an overwhelming share of global recorded music industry revenues only accounted for 17.8 per cent in 2023. In the meantime, the share of streaming revenues increased by 10.4 per cent in 2023, accounting for more than two-thirds (67.3 per cent) of the total global market. Advances in technology offer higher-quality streaming experiences through AI-supported recommendation systems and faster data transmissions, propelling the streaming segment (International Federation of the Phonographic Industry, 2024).

Figure 7
Global recorded music revenues
(US$ billion)



Source: UNCTAD, based on International Federation of the Phonographic Industry (2024).

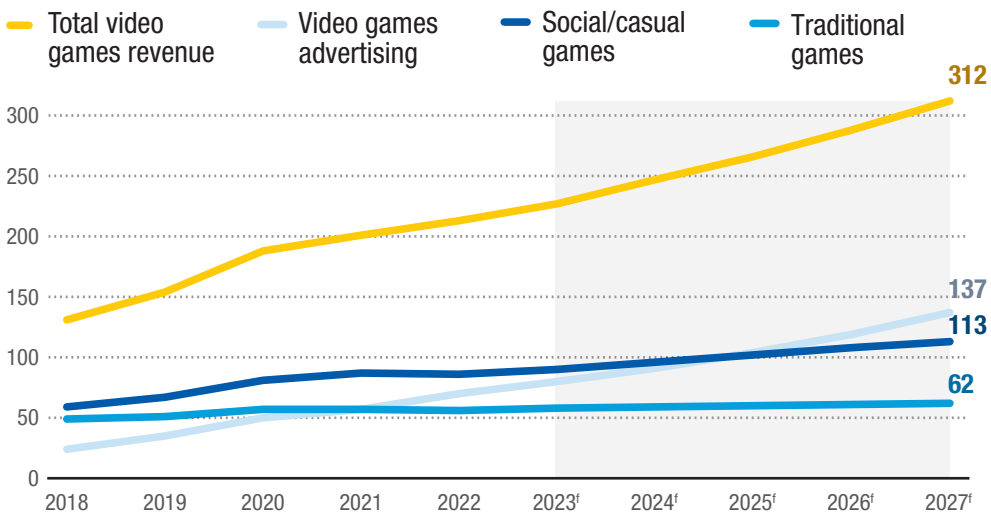
According to the International Federation of the Phonographic Industry, music industry revenues are rising in every region. Developing regions have significant economic opportunities in the music industry, as all developing regions had double-digit revenue growth in 2023. Sub-Saharan Africa grew the fastest, with revenues rising by 24.7 per cent, fuelled by increasing streaming revenues. Revenues grew by 19.4 per cent in Latin America, 14.9 per cent in Asia, 14.4 per cent in the Middle East and North Africa, 10.8 per cent in Australasia, 8.9 per cent in Europe, and 7.4 per cent in North America. Streaming is a critical driver of revenues in developing regions. Latin America has the highest share of music streaming in the world, making up 86.3 per cent of the region's revenues from music. In addition, the ten largest music markets in 2023 included two developing countries, China (5th largest market) and Brazil (9th largest market). Other countries on the list by decreasing market revenues are the United States of America, Japan, United Kingdom of Great Britain and Northern Ireland, France, Republic of Korea, Canada and Australia (International Federation of the Phonographic Industry, 2024).

Live music and cultural events are also making a noticeable comeback, with 2023 revenues surpassing the 2019 pre-pandemic peak (PwC, 2023). However, this sector is not simply returning to its original operations. Virtual events and cross-industry experiences are further transforming the music industry. These include Taylor Swift's film, *Taylor Swift: The Eras Tour* and "Block by Blockwest", a virtual music festival hosted on the game Minecraft. Such performances and content represent innovative strategies to expand this market into different fields and revenue forms.

6. Videogames

The video game industry has reached noticeable highs in recent years, making more revenue than the film and music industries combined (Figure 8). According to PwC, the global revenues of the video game industry were estimated to reach US$ 227 billion in 2023, growing from what had already been considered a new high of US$ 213 billion in 2022 (PwC, 2023). E-sports (competitions involving video games) have also experienced a sharp increase in their event ticket sales,

Figure 8
Global video games revenues
(US$ billion)



Source: UNCTAD, based on PwC's Global Entertainment and Media Outlook 2023-2027.
Note: f: forecast.

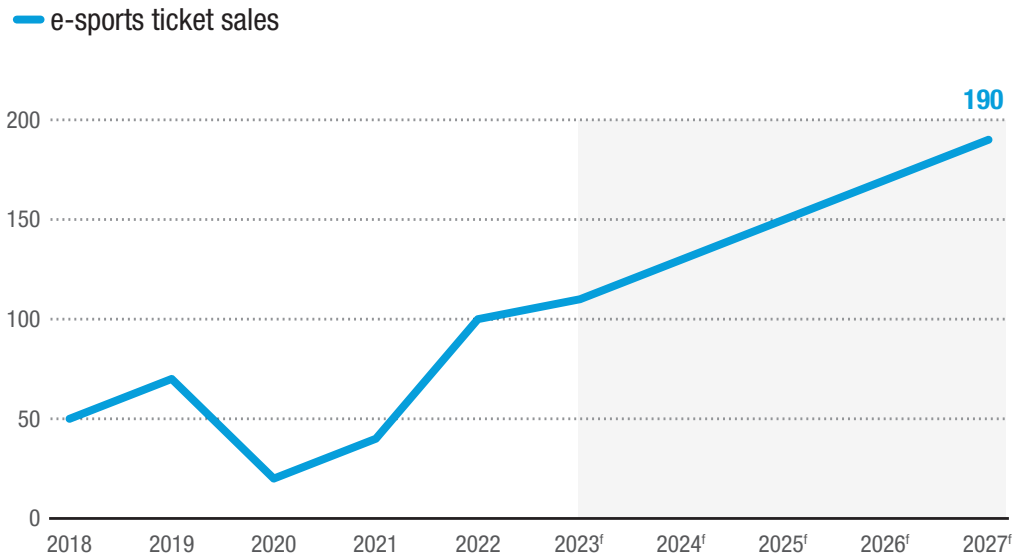
jumping 100 per cent and 150 per cent in 2021 and 2022, respectively (Figure 9).

Fuelled by technological advances and social demand, the industry has seen a rise in game releases, games sold, and flexible gaming options. It has further become a key cross-border and cross-disciplinary industry. More and more video games are finding themselves at the intersection between multiple creative sectors, influencing content creation and dissemination. For instance, Nintendo's classic Super Mario Bros. franchise inspired the first film based on game intellectual property to make the list of the top 20 highest-grossing films (PwC, 2023). Additionally, video games have become a popular platform through which other creative and cultural content is marketed and experienced. The industry has, for example, been recently highlighted through virtual music concerts and brand-name collaborations. A DJ's performance in the game Fortnite amassed an audience of 10 million people (Billboard, 2023b). Thus, through its broad reach and dynamic impacts, the video games industry has positioned itself as a leading component of the entertainment and media industry, consistently increasing its global market figures, including its total global revenue.

Video games contributed 6.1 per cent of entertainment and media sectors' global spending in 2017 but are projected to rise to a 10.9 per cent share in 2026. In terms of regional distributions, China and the United States of America were the major players in the global market in 2021, accounting for roughly half of gaming and e-sports revenues. However, developing economies such as Türkiye were predicted to expand the fastest in this domain with an average annual growth of 24.1 per cent between 2021 and 2026, followed by Pakistan's 21.9 per cent growth and India's 18.3 per cent (PwC, 2022). Other developing countries, like Saudi Arabia, actively invest in the games industry by attracting gaming companies and organising global e-sport events (Financial Times, 2023b).

Video game subscription services such as cloud gaming, which are accessible through multiple gaming devices and locations with

Figure 9
E-sports events revenue
(US$ million)



Source: UNCTAD, based on PwC's Global Entertainment and Media Outlook 2023-2027.
Note: f: forecast.

Internet access, are expected to largely contribute to industry growth (*Taiwan News*, 2022). Cloud gaming is expected to grow at a compound annual growth rate of 45.5 per cent between 2023 and 2030, where it will account for roughly US$ 20.93 billion of the industry's revenue (Grand View Research, 2023b). In terms of regional trends, S&P Global Market Intelligence estimated 2021 global cloud gaming revenues based on a combination of market research, public reporting, and survey data. In these estimates, North America accounted for 32 per cent of the market, Western Europe 26 per cent, and Asia Pacific 23 per cent, where Asia Pacific is expected to continue growing its share through cloud services expansion (*S&P Global*, 2022a). For example, earlier in 2024, China's Tencent Cloud became the official provider of multiplayer game servers in Palworld, a game that attracted 25 million players in just its first month of release, furthering its global cloud service reach (*PR Newswire*, 2024).

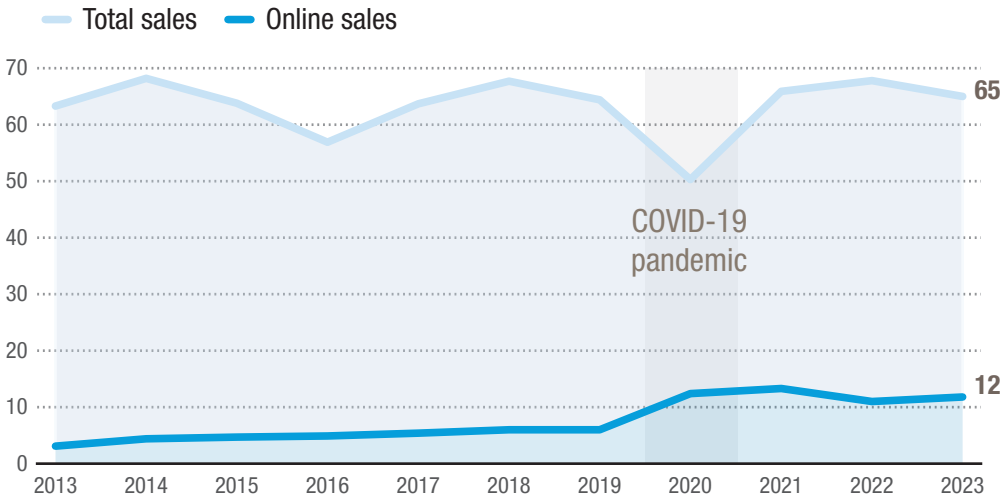
7. Visual arts

Individuals worldwide collect visual arts such as paintings, sculptures, installations, photography or digital artworks for various motivations, including aesthetic or personal pleasure, social motivation, as a passion, to continue family traditions, to support artists and culture, or as a financial investment. Information about low-value transactions in flea markets, small and informal art fairs, local galleries, or online art galleries is limited. However, some valuable data is available through databases and surveys of major auction houses, art dealers, galleries, and high-net-worth individual collectors.

A 2023 Art Basel and UBS survey including over 2,800 high-net-worth individuals shows that an increasing number of art collectors are now based in a few developing economies, especially in the Asia-Pacific region. Italy, France, Germany, Japan, the United Kingdom of Great Britain and Northern Ireland and the United States of America are home to many of the world's art collectors, but developing economies like Brazil, China, Hong Kong (China), Singapore, and Taiwan Province of China also show an increasing demand for collecting art (Art Basel and UBS, 2023).

The art market has faced constant fluctuations in sales value over recent years. Following two years of post-pandemic growth, sales in the global art market slowed

Figure 10
Sales in the global art market by value
(US$ billion)

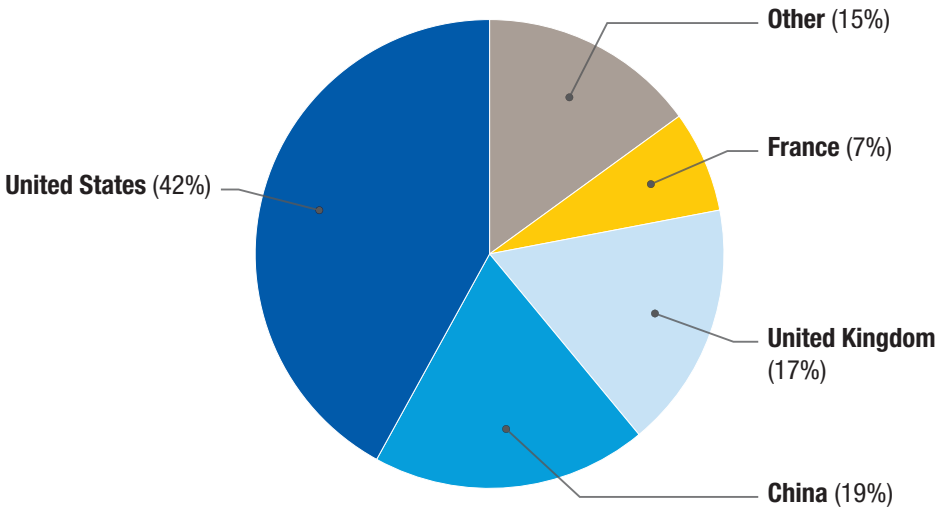


Source: UNCTAD, based on Art Basel and UBS (2024)

in 2023 due to high interest rates, inflation, and geopolitical instability. Sales fell by 4 per cent year-on-year to around US$ 65 billion. The United States of America kept its position as the world's largest art market, accounting for 42 per cent of sales by value. At the same time, China (together with Hong Kong, China) became the second largest market for the first time, accounting for 19 per cent of global art market sales. In 2023, the most significant art markets were in the United States of America, China, the United Kingdom of Great Britain and Northern Ireland, and France, making up 85 per cent of total sales (Art Basel and UBS, 2024).

Despite being a volatile market, art has an enduring appeal as an investment and a social and cultural asset. Driven by more accessible digital trading platforms, the potential for profitable investment, and the engagement of media and entertainment industry stars, the art market has outperformed the traditional stock market in recent years. The global advisory and art finance firm, The Fine Art Group, estimates an annual 14 per cent return on investments (*The Fine Art Group*, 2023) versus the Standard and Poor's 500's (S&P 500) 11.9 per cent annualized rate of return (*Fortune*, 2023).

Figure 11
Countries with the most significant art markets by value of sales in 2023



Source: UNCTAD, based on Art Basel and UBS (2024).

Chapter II

International trade in creative goods and services

International trade in creative goods and services

Exports of creative goods increased by more than 3.5-fold over the past two decades (compared to a 3.8-fold increase for all exported goods during the same period), while those of creative services increased by 2.8-fold over the last decade (as opposed to a 1.5-fold increase for all services exports). UNCTAD estimates that the total exports of creative services reached a record US$ 1.4 trillion in 2022, almost double of creative goods exports, which reached US$ 713 billion (see Figure 12). Creative goods and services exports have decoupled in the past few years, driven by a robust increase in software and research and development services exports and the digitization of some creative products. International trade in creative goods and services is concentrated. A few product groups and key countries account for a significant portion of trade. The following sections highlight latest trends in creative trade based on UNCTAD's updated statistics on international trade in creative goods and services. They also discuss trade policies and barriers relevant for creative products.

After the COVID-19 pandemic, creative goods and services trade has experienced growth since 2021. Exports of creative goods grew by 3.1 per cent in 2022, while the exports of creative services increased by 2.9 per cent (see Figure 13). The increasing demand for crafts, design goods, including jewellery and fashion accessories, as well as software, video games, and recorded media products are the primary drivers of growth in the trade of creative goods. Meanwhile, software services are the main drivers of trade in creative services (software can be traded both as a physical good, such as a storage device, and as a service).

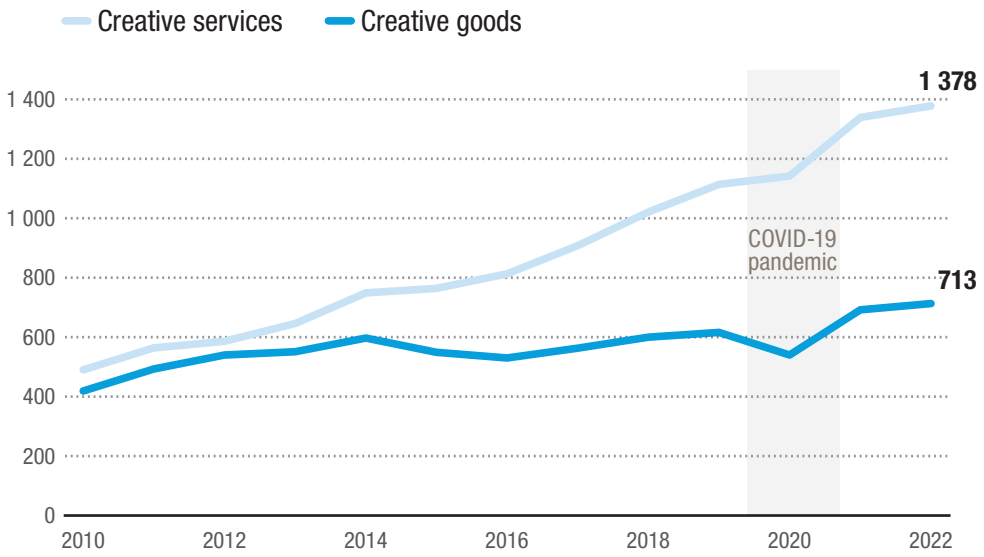
While the share of creative goods from total exports slightly decreased over the years (from 3.1 per cent in 2002 to 2.9 per cent in 2022), the percentage of creative services from all services exports has shown a spectacular growth from 12 per cent in 2010 to 19 per cent in 2022 (see Figure 14).[3]

International trade in creative goods and services continues to be regionally unbalanced, and the bulk of trade is concentrated in a handful of economies. The top ten exporters capture 70 per cent of the creative goods exports and 69 per cent of creative services exports. Developing countries account for most creative goods exports, while developed countries account for most imports. Developed countries dominate creative services exports. The chapter provides further details by region, development levels and product groups.

This chapter uses UNCTAD data as of January 2024. However, there are essential data availability challenges. Data on trade in creative goods have relatively good availability and country

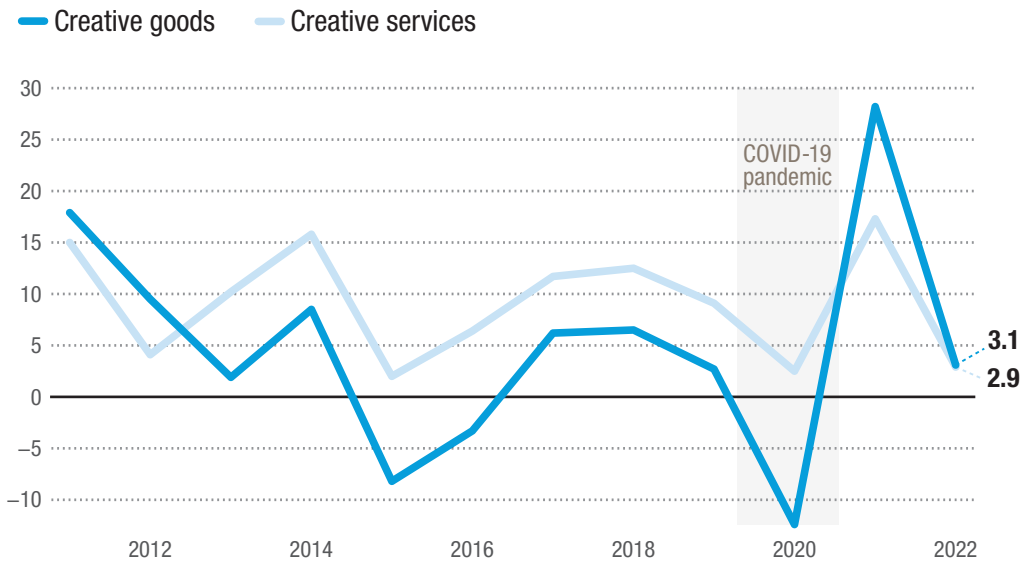
[3] Total services here may differ from total services published in UNCTADstat. Here, they cover only those countries for which creative services could be estimated.

Figure 12
Global exports of creative goods and services
(US$ billion)



Source: UNCTAD.

Figure 13
Annual growth rate of creative goods and services exports
(Percentage)

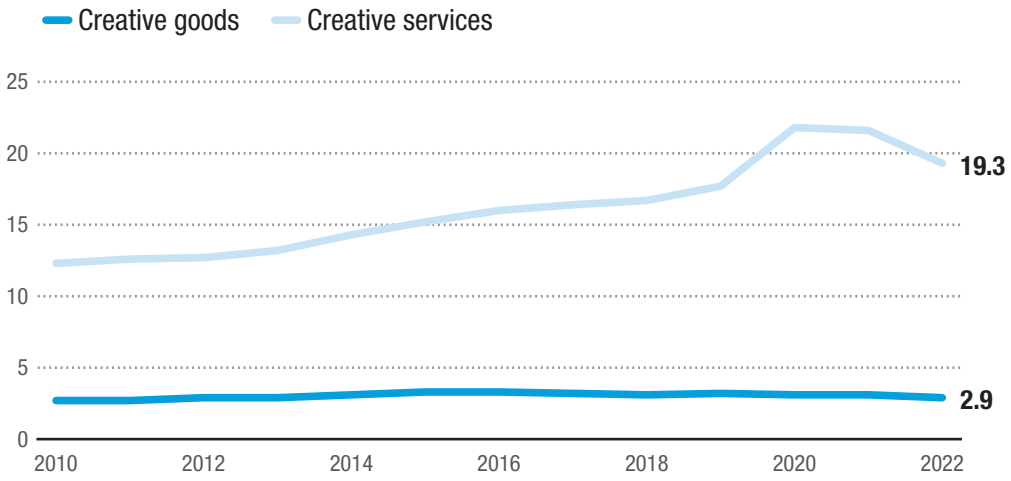


Source: UNCTAD.

Figure 14

Share of creative goods and services exports from total merchandise and services exports

(Percentage)



Source: UNCTAD.

coverage. Still, many developing countries have no data or do not report data at the necessary granularity, especially regarding trade in creative services.[4]

A. Creative services

Measuring the creative services trade is more complex than the trade in creative goods. This report uses an experimental data set on international trade in creative services developed by UNCTAD. The data set uses UNCTAD-World Trade Organization (WTO) annual data on trade in services based on all available official trade-in-services statistics. They are complemented with adjustments and estimates representing over 70 per cent of records, making the dataset experimental. Because of these limitations, the report only looks at creative services exports for countries and regions where data is available.

Trade in creative services is measured using the Extended Balance of Payments Services Classification (EBOPS). UNCTAD considers ten EBOPS categories as creative services or services with a significant creative component. However, it is not always simple for data compilers to distinguish between some service categories, like research and development (SJ1) and licenses to use the outcomes of research and development (SH2), software sales (SI21) and the sales of the rights to use software (SH3). The same principle applies to audiovisual services. Therefore, UNCTAD regrouped these services categories to achieve more comparability among countries (see Table 2). The six services groups include:

- advertising, market research, and architecture
- audiovisual
- cultural, recreational, and heritage services
- information
- research and development
- software.

As discussed in the UNCTAD Creative Economy Outlook 2022 (UNCTAD, 2022a),

[4] As of January 2024, 162 economies reported creative goods trade data for 2020, 161 for 2021, and 144 for 2022. Regarding trade in creative services, 126 economies have data for 2020, 117 for 2021, and 99 for 2022.

Table 2
Creative services categories for the measurement of international trade

EBOPS item	Name	UNCTAD services category
SH2	Licences for the use of outcomes of research and development	Research and development
SH3	Licences to reproduce and/or distribute computer software	Software
SH4	Licences to reproduce and/or distribute audio-visual and related products	Audio-visual
SI21	Computer services, software	Software
SI3	Information services	Information
SJ1	Research and development	Research and development
SJ22	Advertising, market research, and public opinion polling services	Advertising, market research, and architecture
SJ311	Architectural services	Advertising, market research, and architecture
SK1	Audio-visual and related services	Audio-visual
SK23	Other personal, cultural, and recreational services, heritage and recreational services	Cultural, recreational, and heritage services

Source: UNCTAD.

"the main issue with creative services trade data is data availability, especially in developing countries, and the lack of necessary detail in the reported data. In addition, many creative services in international trade, such as performing arts, often by small and informal entities, go unreported in developing countries. When countries do not report at the required sub-category levels, estimating what proportion of the higher-level service was creative becomes difficult." Developed economies tend to have better reporting on creative services, although not all of them. Developing economies tend to have less detailed information. The lack of data does not necessarily mean that certain developing economies do not have thriving creative services trade, but rather that they lack statistical capacities or do not officially report data in the necessary detail. India and South Africa, for example, have national data about creative services to some extent (Export-Import Bank of India, 2022; South African Cultural Observatory, 2022).

Growth

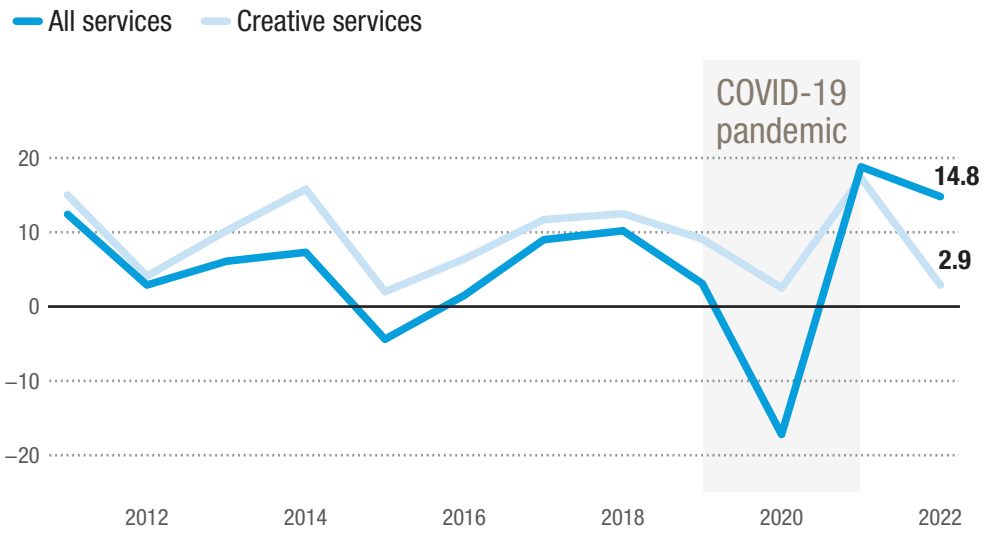
Creative services exports have grown faster than total services over the last decade, except in 2022, when growth slowed significantly, especially in the exports of research and development and software services. The subdued growth in 2022 is not because of decreased demand, rather due to exchange rate volatility (WTO, 2023a). As shown in Figure 15, the export growth rate of creative services follows the patterns of total services export growth. Since 2019, developing countries have experienced higher growth rates in creative services

exports than developed countries (see Figure 16). In 2022, among the thirty largest creative services exporters, the countries registering the highest growth rates included Israel (18 per cent annual growth rate in creative services exports), Romania (15 per cent), Spain (13 per cent), Portugal (10 per cent) and Denmark (7 per cent).

Figure 15

Annual growth rate of total services exports vs exports of creative services

(Percentage)

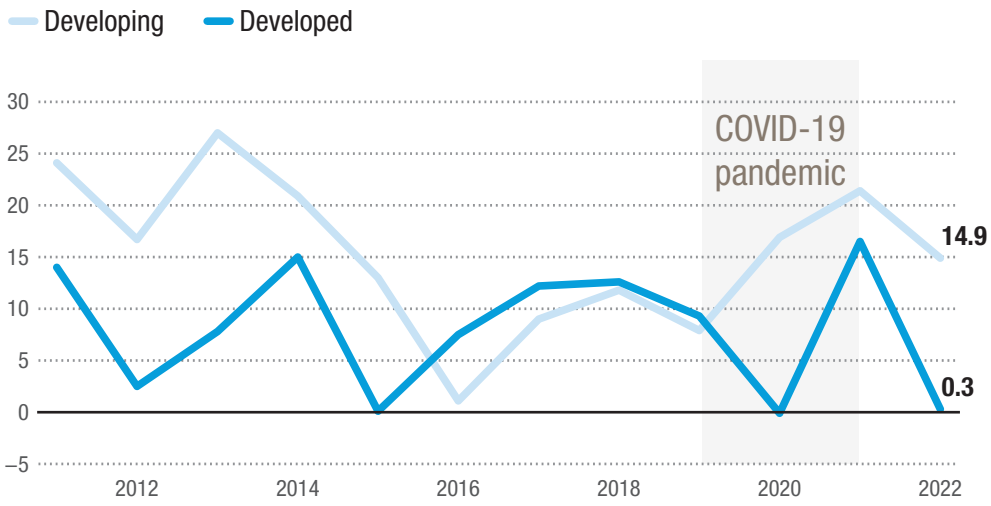


Source: UNCTAD.

Figure 16

Annual growth rate of creative services exports in developed and developing economies

(Percentage)



Source: UNCTAD.

Regional trends

The global exports of creative services increased from US$ 490 billion in 2010 to almost US$ 1.4 trillion in 2022. As shown in Figure 17, Europe is the largest exporter of creative services (with the exports of creative services reaching US$ 720 billion in 2022), followed by Asia (US$ 359 billion) and Northern America (US$ 274 billion). Other regions' estimated creative services exports are significantly lower (US$ 14 billion in Latin America and the Caribbean, US$ 8 billion in Oceania, and US$ 4 billion in Africa). However, data availability and lack of reporting may also be at play.

Developed countries have been exporting significantly more creative services than developing economies (see Figure 18), accounting for around 80 per cent of all creative services exports in 2022. The gap between developed and developing countries has slowly decreased over the past decade. In 2010, developing countries accounted for 10 per cent of global creative services exports, a share that reached 20 per cent in 2022.

Major exporters

The majority of creative services trade is between developed economies.

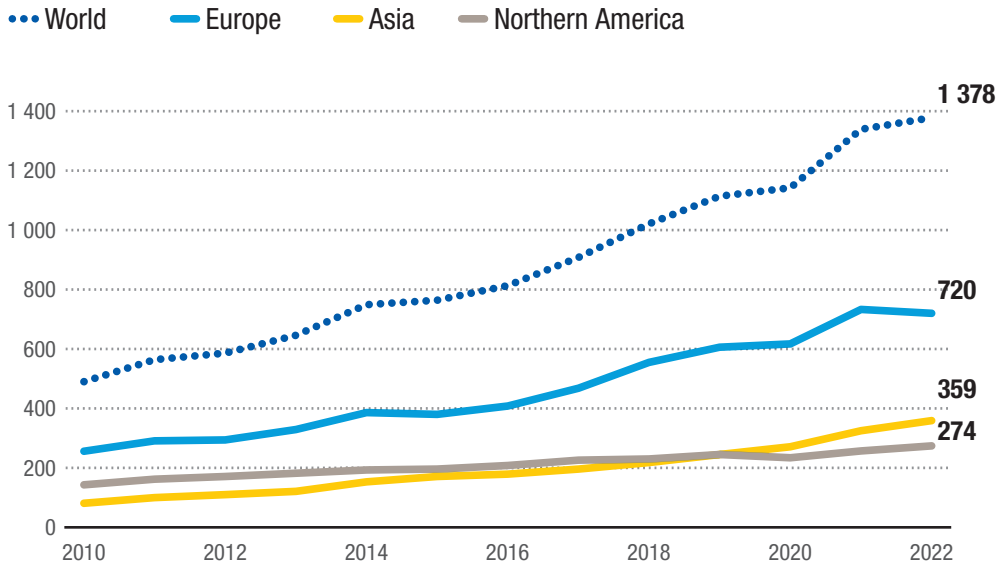
Based on available data, most creative services are exported by a few and mainly developed economies. The ten major creative services exporters account for 69 per cent of global exports. In 2022, the United States of America and Ireland were by far the largest exporters of creative services, with US$ 244 billion and US$231 billion, respectively. In Ireland, multinational companies strongly contribute to creative services exports, especially in computer services, as they report their global copyright and license income from here. The following largest creative services exporters are the United Kingdom (US$ 87 billion), Germany (US$ 79 billion), and China (US$ 67 billion). The list of the world's ten leading exporters of creative services in 2022 includes eight European countries, one from Asia, and one from Northern America (see Figure 19).

Table 3 and Table 4 present the most significant developed and developing economy exporters of creative services in

Figure 17

Exports of all creative services by region

(US$ billion)

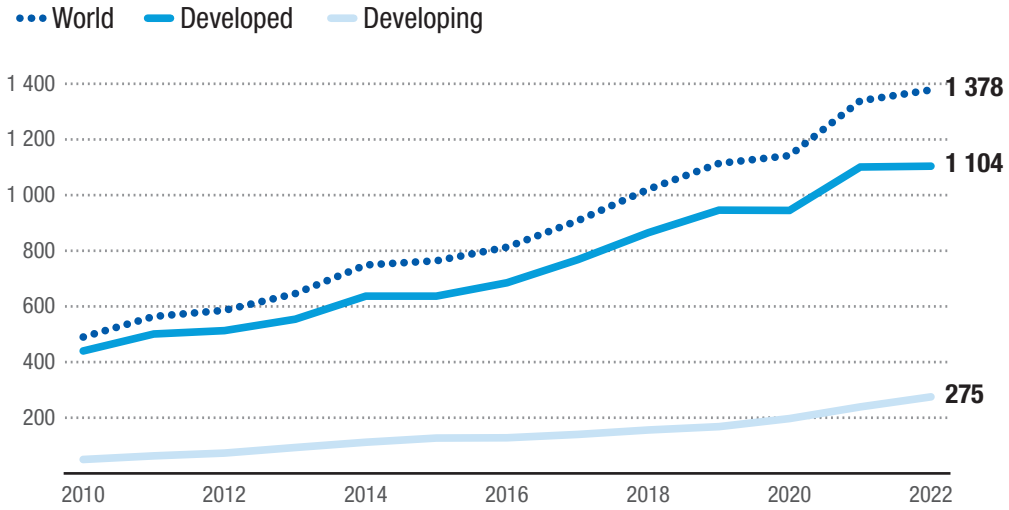


Source: UNCTAD.

Figure 18

Exports of all creative services by developing and developed economies

(US$ billion)

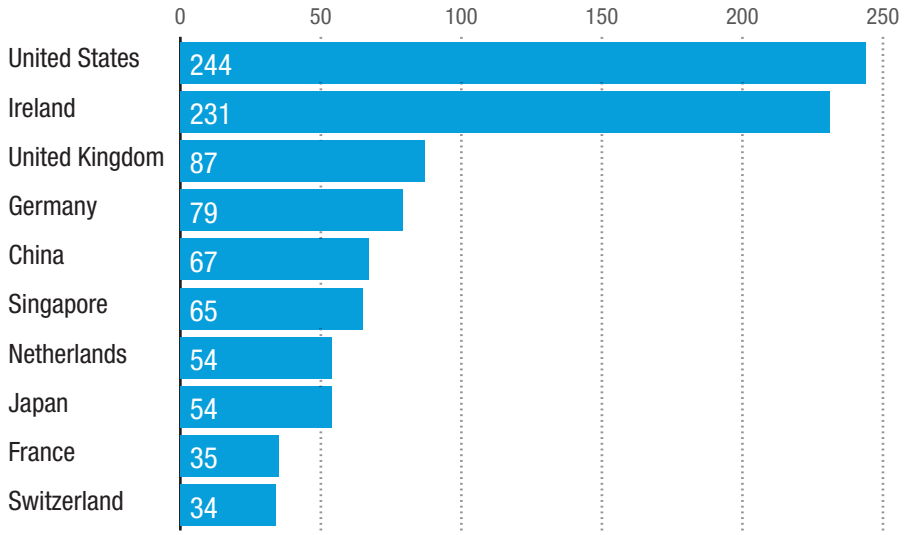


Source: UNCTAD.

Figure 19

Top ten exporters of creative services in 2022

(US$ billion)



Source: UNCTAD.

2022, where data were available. It should be noted that several economies, especially developing economies (i.e., Argentina, Brazil, Chile, Egypt, India, Indonesia, Malaysia, Nigeria, South Africa, Thailand, and Viet Nam), do not have adequate services trade data to calculate creative services exports. However, this does not mean they do not export creative services.

Main exported services

Figure 20 shows global creative services exports by product group. Software

Table 3
Developed economies: top ten creative services exporters in 2022

	Developed economies	Exports of creative services (US$ billion)	Share from world exports of creative services (percentage)	Share of creative services from country's total exports (percentage)
1	United States	244.3	17.7	26.3
2	Ireland	231.3	16.8	65.1
3	United Kingdom	87.0	6.3	17.6
4	Germany	78.6	5.7	19.1
5	Netherlands	53.7	3.9	19.7
6	Japan	53.6	3.9	32.1
7	France	35.4	2.6	10.5
8	Switzerland	33.8	2.5	22.9
9	Israel	33.2	2.4	36.5
10	Sweden	31.9	2.3	33.7
	Total	**882.8**	**64.1**	

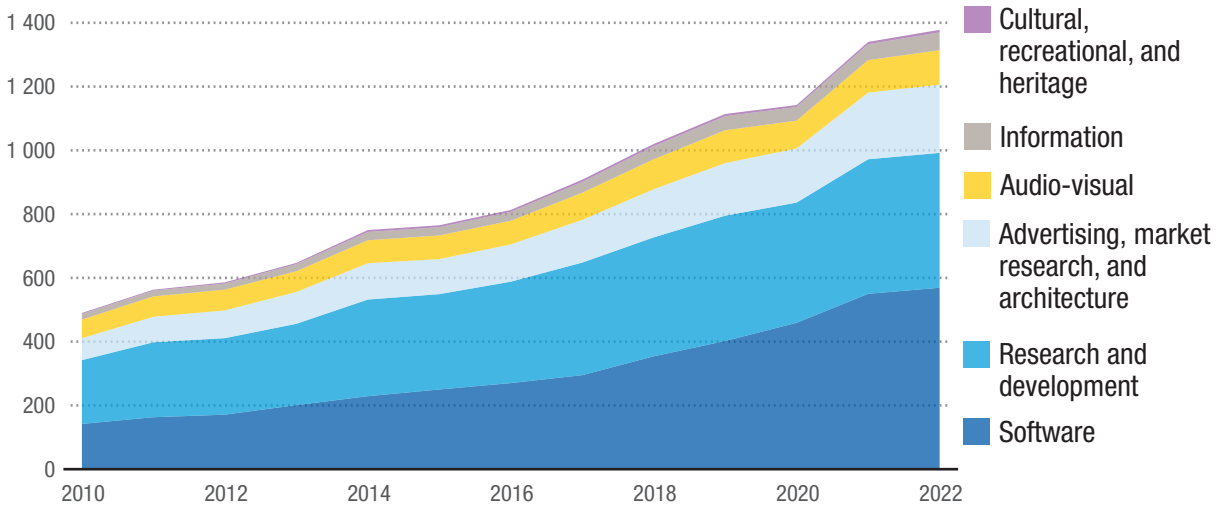
Source: UNCTAD.

Table 4
Developing economies: top five creative services exporters in 2022

	Developing economies	Exports of creative services (US$ billion)	Share from world exports of creative services (percentage)	Share of creative services from country's total exports (percentage)
1	China	67.5	4.9	15.9
2	Singapore	65.5	4.8	22.5
3	Taiwan Province of China	5.9	0.4	10.2
4	Philippines	3.3	0.2	7.9
5	Türkiye	2.1	0.2	2.3
	Total	**144.2**	**10.5**	

Source: UNCTAD.

Figure 20
World creative services exports by services categories
(US$ billion)



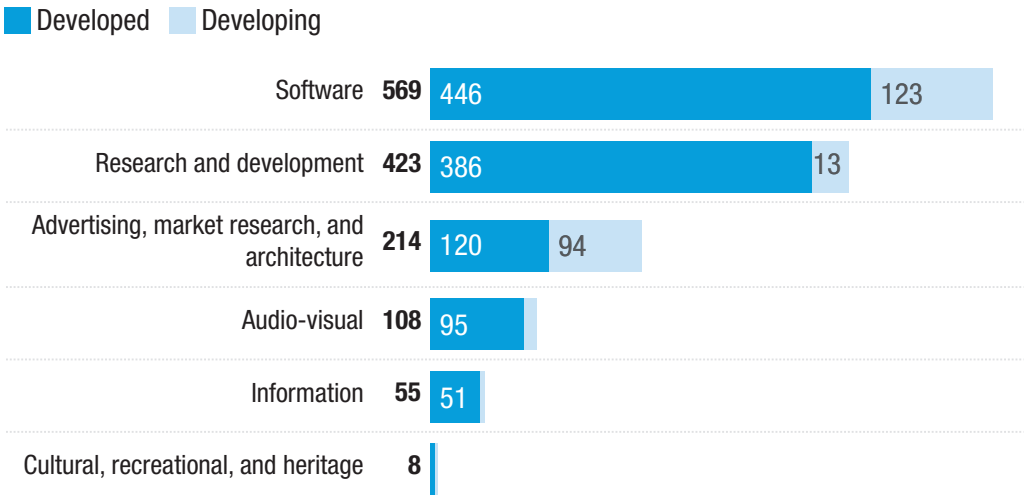
Source: UNCTAD.

services (accounting for 41.3 per cent of total creative services exports in 2022) and research and development (30.7 per cent) are the most extensively exorted creative services. They are followed by advertising, market research, and architecture (15.5 per cent), audiovisual (7.9 per cent), information (4 per cent), and cultural, recreational, and heritage services (0.6 per cent).

All creative services categories experienced a downturn in exports in 2020 during the COVID-19 pandemic, except software services (which registered an annual growth of 14.2 per cent in 2020) and advertising, market research, and architecture (annual growth of 2.7 per cent in the same year). However, the exports of all creative services categories have increased since the pandemic. In 2022, the fastest growing services export markets were those of cultural, recreational, and heritage services (13.2 per cent annual growth), information (11.9 per cent), and audiovisual services (6.7 per cent), followed by software services (3.4 per cent), advertising, market research, and architecture (2.5 per cent), and research and development (0.2 per cent).

Developed countries dominate exports in all services categories and export different services categories compared to developing economies (see Figure 21). For example, developed countries account for 93 per cent of global information services exports, 91 per cent of research and development (involving significant exports of licenses), and 88 per cent of audiovisual services.

Figure 21
Developed and developing economies' creative services exports by product groups
(2022, US$ billion)



Source: UNCTAD.

B. Creative goods

UNCTAD measures international trade in creative goods based on the Harmonized System (HS) using official data reported to the United Nations COMTRADE Database. As explained in Annex I, UNCTAD has recently reviewed and updated the coverage of its list of creative goods and updated the structure of presenting the data. According to the 2022 version of the HS, there are 230 creative goods identified at the HS 6-digit level that fall under the following sub-categories:

- Audiovisual, multimedia and photography
- Crafts and design goods are further divided into the following sub-categories:
  - Carpets
  - Fashion accessories
  - Interior
  - Jewellery
  - Toys
  - Wickerware
  - Yarn
- Books and publishing
- Music, performing and visual arts
- Architecture
- Software, video games and recorded media
- Cultural and natural heritage

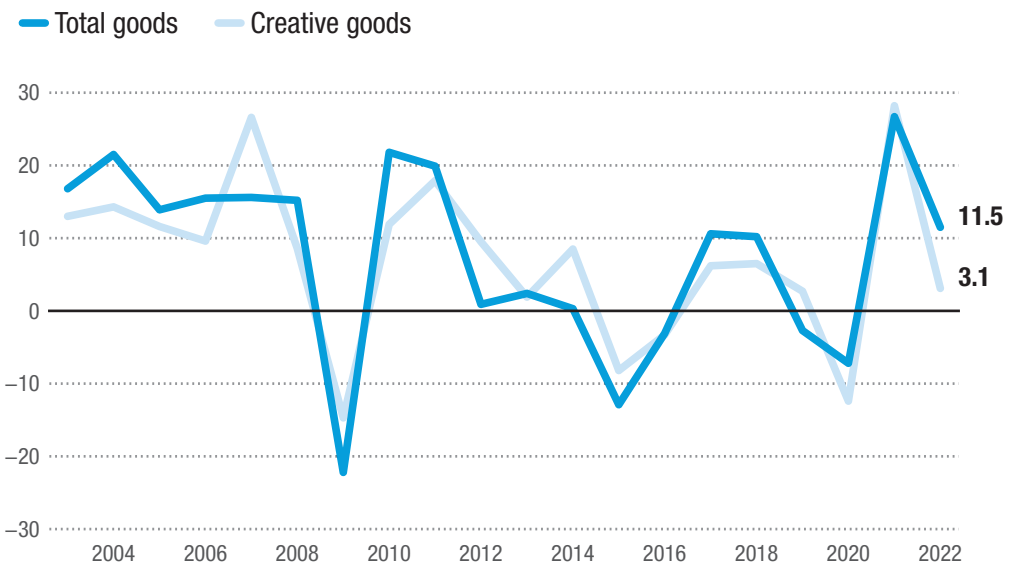
1. Creative goods exports

Growth

Creative goods exports were hit much harder by the COVID-19 pandemic than other merchandise, due to lockdowns and lack of physical exchanges. In 2020, they were down by 12.5 per cent, while exports of all goods fell by 7.2 per cent. However, creative goods had a strong recovery in 2021. In 2022, creative goods exports' growth slowed to 3.1 per cent, much below the 11.5 per cent growth rate of total goods exports in the same year (see Figure 22).

In 2022, among the significant creative goods exporters, the countries registering the highest growth rates included the United Arab Emirates (24.8 per cent),

Figure 22
Annual growth rate of total goods versus creative goods exports
(Percentage)



Source: UNCTAD.

Indonesia (22.5 per cent), Viet Nam (20.7 per cent), Switzerland (16.1 per cent), and the United States of America (15.6 per cent). The growth of creative goods exports in China dropped to 4 per cent in 2022 after a substantial increase of 38.3 per cent in 2021.

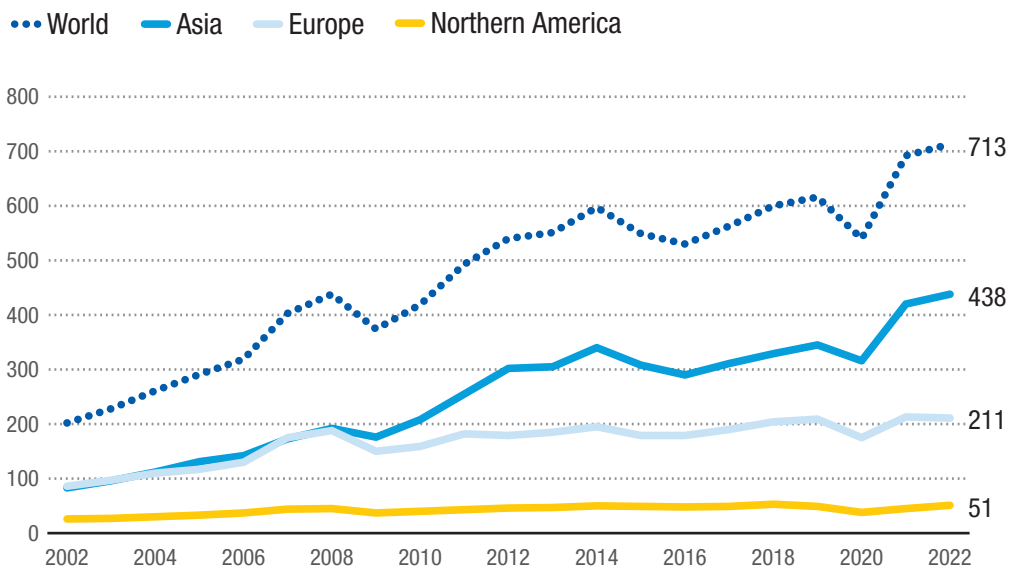
Regional trends

Creative industries make a significant contribution to international trade in goods. World creative goods exports increased from US$ 208 billion in 2002 to US$ 713 billion in 2022. Asia is the largest exporter of creative goods (with the exports of creative goods amounting to US$ 438 billion in 2022), followed by Europe (US$ 211 billion) and Northern America (US$ 51 billion). China continues to drive Asia's creative goods exports, as the country alone accounted for 35 per cent of global creative goods exports in 2022. Latin America and the Caribbean (with creative goods exports amounting to US$ 8 billion in 2022), Africa (US$ 2.4 billion) and Oceania (US$ 1.6 billion) export much less compared to other regions.

Developing economies export more creative goods than developed economies (see Figure 24). In 2022, the five largest developing economy exporters of creative goods were China, Hong Kong (China), India, the United Arab Emirates, and Türkiye. The five largest developed economy exporters were the United States of America, Italy, France, Germany, and the Republic of Korea.

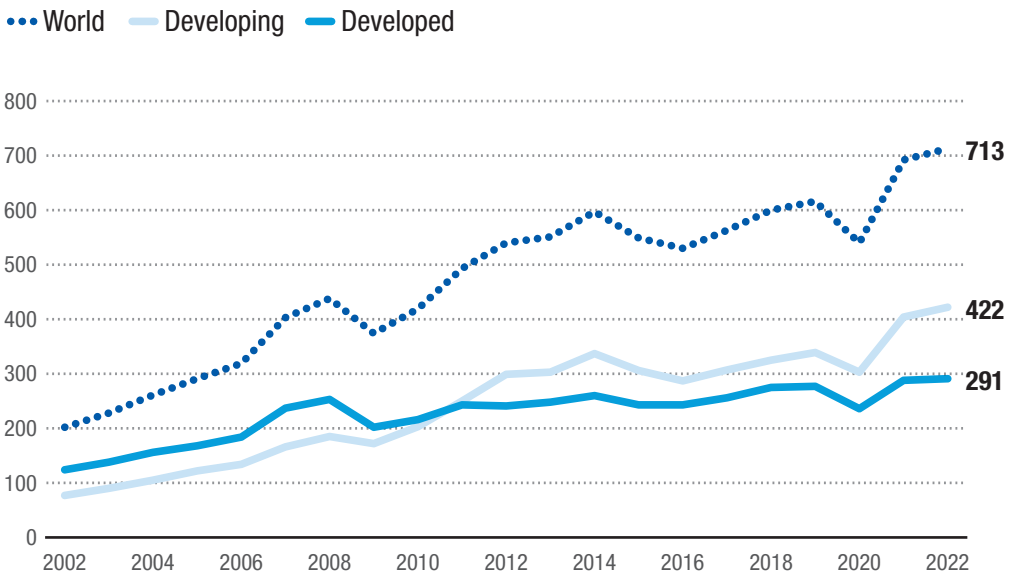
The creative economy could provide a feasible option for sustainable development and structural transformation for least developed countries (LDCs). There are only a few Asian and African LDCs registering significant trade in creative goods, although they have increased their exports of creative goods in the past decades. In 2022, creative goods exports by LDCs reached US$ 2.9 billion (see Figure 25). LDCs in Asia, particularly Cambodia and Myanmar, stand out in the trade of creative goods, accounting for almost 90 per cent of LDCs' total creative goods export. They mainly export fashion accessories to developed economies.

Figure 23
Exports of all creative goods by region
(US$ billion)



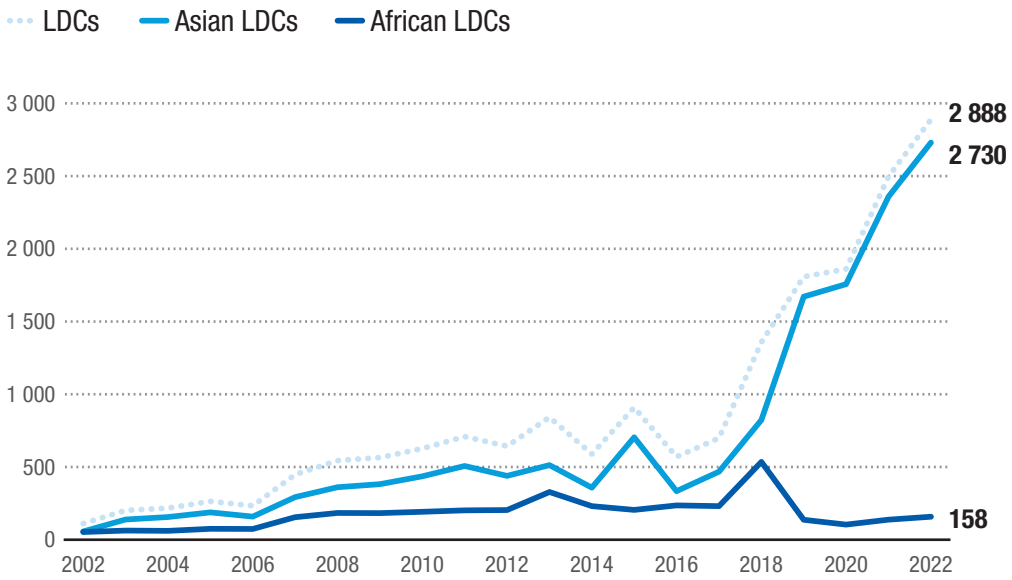
Source: UNCTAD.

Figure 24
Exports of all creative goods by developing and developed economies
(US$ billion)



Source: UNCTAD.

Figure 25
Exports of all creative goods by least developed countries
(US$ million)



Source: UNCTAD.

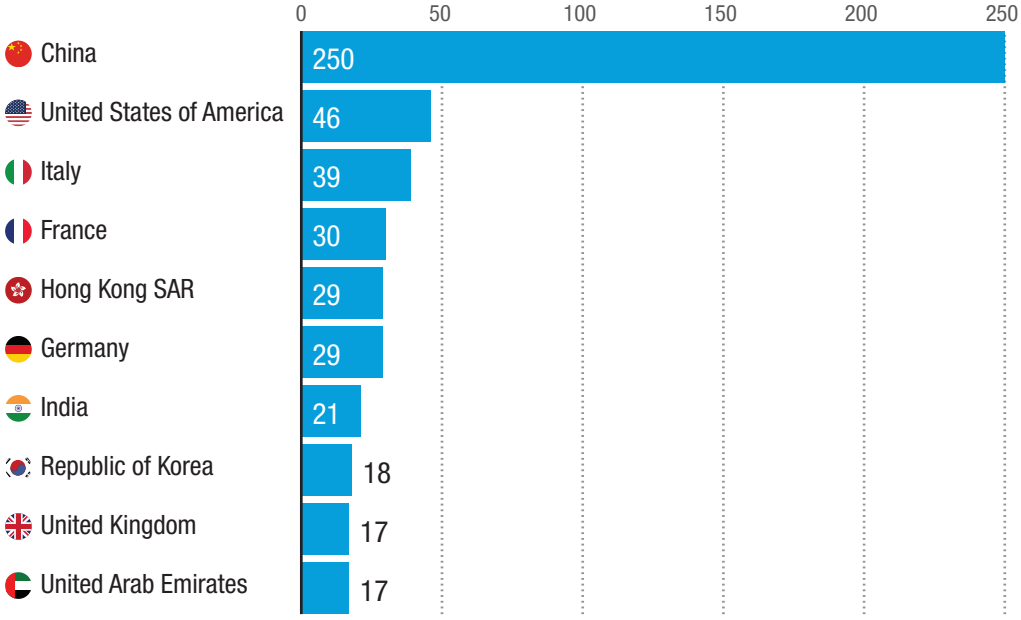
Major exporters

A small group of countries accounts for over two-thirds of global creative goods exports. As in previous years, in 2022, China was by far the largest exporter of creative goods (US$ 250 billion), followed by the United States of America (US$ 46 billion) and Italy (US$ 39 billion). The list of the world's ten leading exporters of creative goods in 2020 includes five economies from Asia, four from Europe, and one from Northern America (see Figure 26). The list of top ten exporters did not change significantly compared to previous years. In 2022, Vietnam left the top ten list, while the United Arab Emirates joined.

Table 5 and Table 6 list the top ten exporters of creative goods from developed and developing economies in 2022 with the main exported product groups. The table also shows the relative importance of creative goods exports for these countries. Among most developed countries, the relative importance of creative goods exports is more significant than the global average. Moreover, among developing countries, creative goods exports in China, Hong Kong (China), India, and Türkiye represent more than 5 per cent of total merchandise exports. Among developing countries, Asian economies dominate creative goods exports, highlighting the challenges of African countries and LDCs in increasing their participation in global trade and diversifying their exports, as many heavily rely on commodity exports (UNCTAD, 2023a).

South-South trade in creative goods has been increasing in the past decades. However, it represented only 25 per cent of total creative goods exports in 2022. This is almost the same as the share of South-South trade in all products, which was 24.6 per cent in 2022. South-North and North-North exports accounted for 34 per cent and 31 per cent, respectively.

Figure 26
Top ten exporters of creative goods in 2022
(US$ billion)



Source: UNCTAD.

Main exported products

Figure 27 shows global creative goods exports by product groups according to the new UNCTAD product structure. Crafts and design goods largely dominate creative goods exports. In 2022, crafts and design goods accounted for 75.6 per cent of total creative goods exports, followed by software, video games and recorded media goods (14.1 per cent), music, performing and visual arts-related goods (4.7 per cent), and books and publishing products (3.7 per cent). Figure 28 breaks down the crafts and design goods exports into further sub-categories. Interior design products account for 30.3 per cent of total exports in this category, jewellery for 25 per cent, fashion accessories for an additional 21.9 per cent, and toys for 15.1 per cent.

While crafts and design goods and software, video games and recorded media products are the most exported creative goods in developed and developing economies, they export slightly different product groups. Developed economies dominate the exports of books and publishing products (with 75 per cent of global exports), music, performing and visual arts-related goods (70 per cent), and cultural and natural heritage products (77 per cent). Meanwhile, developing economies dominate the exports of all crafts and design goods (i.e., interior, jewellery, fashion accessories, toys, yarn), software, video games and recorded media products (see Figure 29).

Table 5
Developed economies: top ten creative goods exporters in 2022

	Developed economies	Main exported product groups (percentage share from total)	Exports of creative goods (US$ billion)	Share from world exports of creative goods (percentage)	Share of creative goods from country's total exports (percentage)
1	United States	Jewellery (22.5) Music, performing and visual arts (20.9) Software, video games and recorded media (20.1)	45.6	6.4	2.2
2	Italy	Fashion accessories (45) Jewellery (26.6)	38.7	5.4	5.9
3	France	Fashion accessories (45) Jewellery (22.7)	30.2	4.2	4.9
4	Germany	Interior (32.1) Software, video games, recorded media (12.8) Fashion accessories (11.8)	29.2	4.1	1.8
5	Republic of Korea	Software, video games, recorded media (78.5)	18.2	2.6	2.7
6	United Kingdom	Music, performing and visual arts (20.4) Jewellery (19.9) Books and publishing (15.1)	17.4	2.4	3.3
7	Switzerland	Jewellery (74.5)	17.0	2.4	4.2
8	Netherlands	Interior (25.2) Fashion accessories (19) Toys (14.9)	13.7	1.9	1.4
9	Poland	Interior (47.4) Books and publishing (15.8) Software, video games, recorded media (13.7)	13.5	1.9	3.7
10	Japan	Software, video games, recorded media (44) Jewellery (14.1) Music, performing and visual arts (11.4)	8.3	1.2	1.1
	Total		**231.8**	**32.5**	

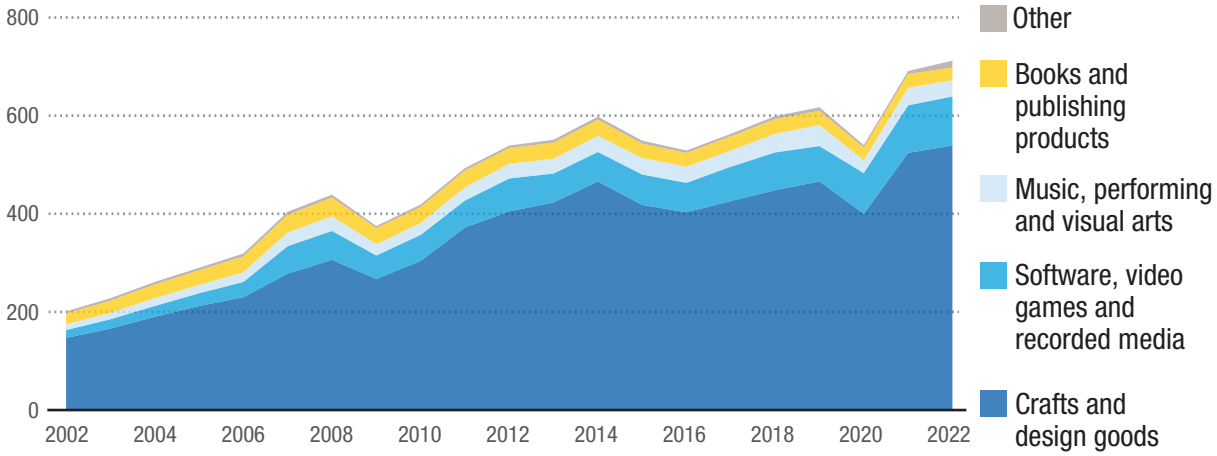
Source: UNCTAD.

Table 6
Developing economies: top ten creative goods exporters in 2022

	Developing economies	Main exported product groups (percentage share from total)	Exports of creative goods (US$ billion)	Share from world exports of creative goods (percentage)	Share of creative goods from country's total exports (percentage)
1	China	Interior (32.7) Toys (20.6) Fashion accessories (19.2)	249.9	35.0	7.0
2	Hong Kong SAR	Jewellery (34.1) Software, video games and recorded media (22.2) Fashion accessories (13)	29.3	4.1	4.8
3	India	Jewellery (59.6) Fashion accessories (12.8)	21.0	2.9	4.6
4	United Arab Emirates	Jewellery (76.6)	17.4	2.4	3.3
5	Türkiye	Jewellery (51.9) Carpets (17.7)	15.9	2.2	6.3
6	Viet Nam	Interior (43.2) Fashion accessories (22.6) Toys (11.3)	15.9	2.2	4.3
7	Taiwan Province of China	Software, video games, recorded media (66.4) Yarn (10.7)	13.3	1.9	2.8
8	Malaysia	Software, video games and recorded media (62) Interior (19.4) Jewellery (11.8)	12.5	1.7	3.5
9	Singapore	Software, video games and recorded media (43.5) Jewellery (31.3) Fashion accessories (14.7)	11.8	1.7	2.3
10	Indonesia	Jewellery (44.9) Interior (21.7) Fashion accessories (13.7)	8.5	1.2	2.9
	Total		**395.4**	**55.5**	

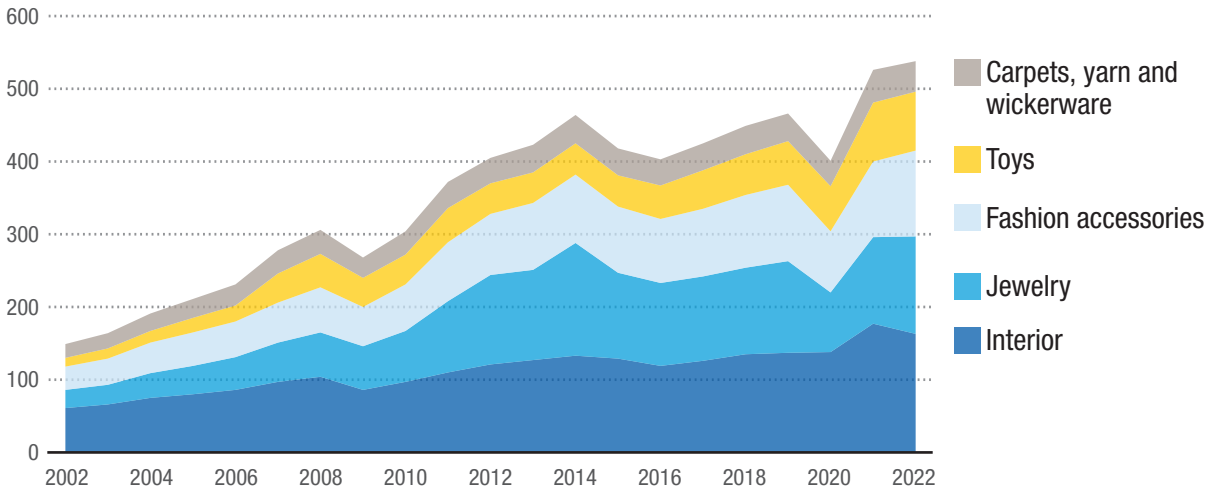
Source: UNCTAD.

Figure 27
World creative goods exports by product groups
(US$ billion)



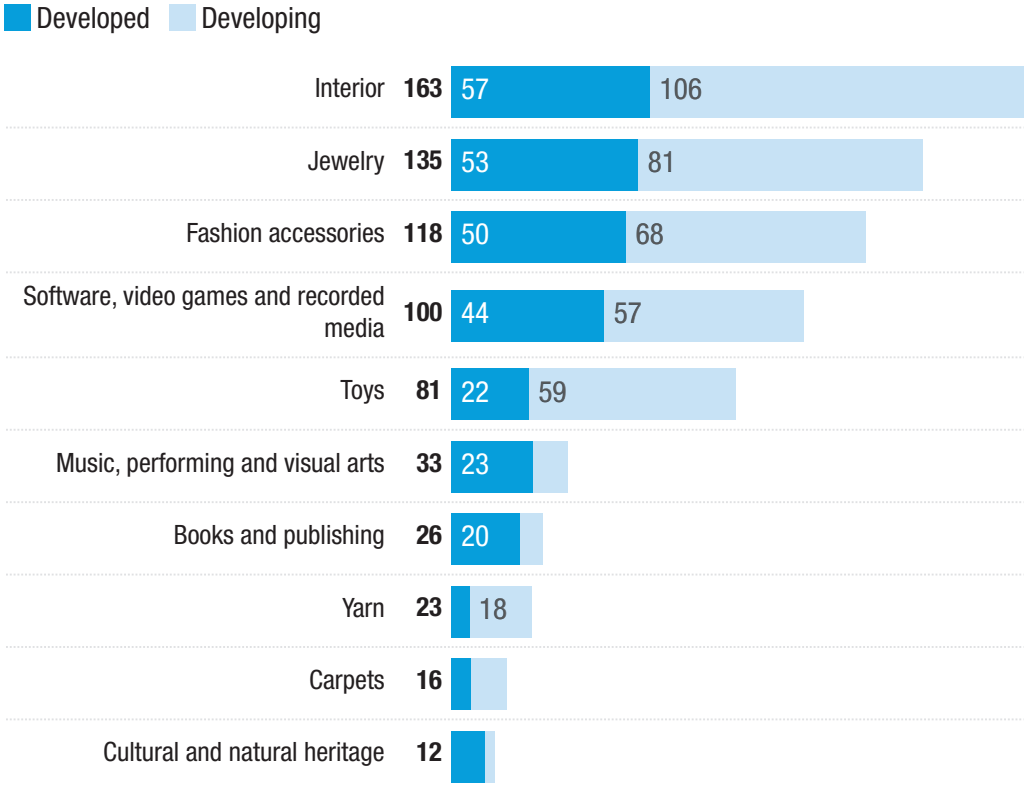
Source: UNCTAD.

Figure 28
World exports of crafts and design goods by product groups
(US$ billion)



Source: UNCTAD.

Figure 29
Developed and developing economies' creative goods exports by product groups
(2022, US$ billion)



Source: UNCTAD.

2. Creative goods imports[5]

Regional trends

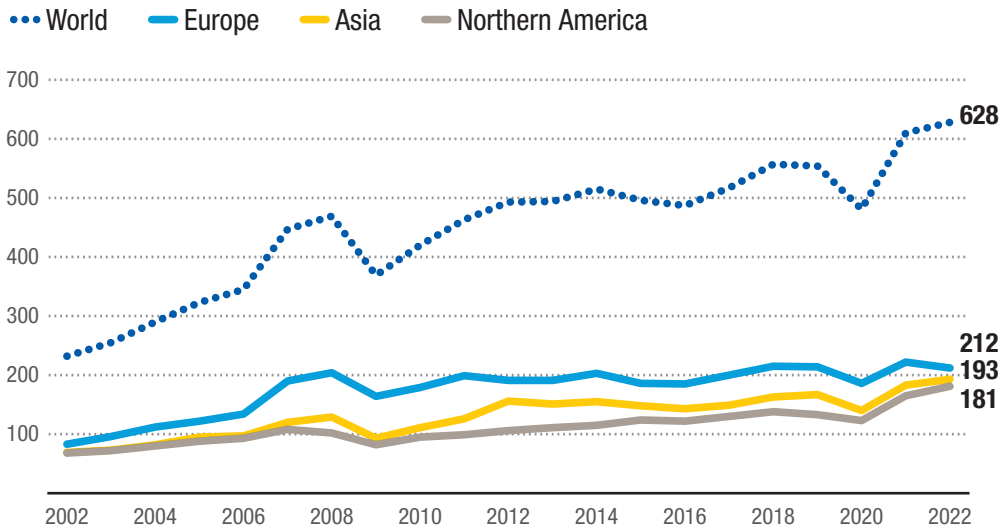
Europe is the largest importer of creative goods (with the imports of creative goods amounting to US$ 212 billion in 2022), followed by Asia (US$ 193 billion), Northern America (US$ 181 billion), Latin America and the Caribbean (US$ 23 billion), Oceania (US$ 14 billion), and Africa (US$ 6 billion) (see Figure 30). Developed economies import more creative goods than developing ones (see Figure 31).

Major importers

The world's ten largest importers of creative goods account for almost two-thirds (63 per cent) of global imports of creative goods. In 2022, the United States of America was by far the largest importer of creative goods (US$ 164 billion), followed by Hong Kong (China) (US$ 40 billion) and Germany (US$ 33 billion). The list of the world's ten leading importers of creative goods in 2022 includes four economies from Europe, four from Asia, and two from Northern America (see Figure 32).

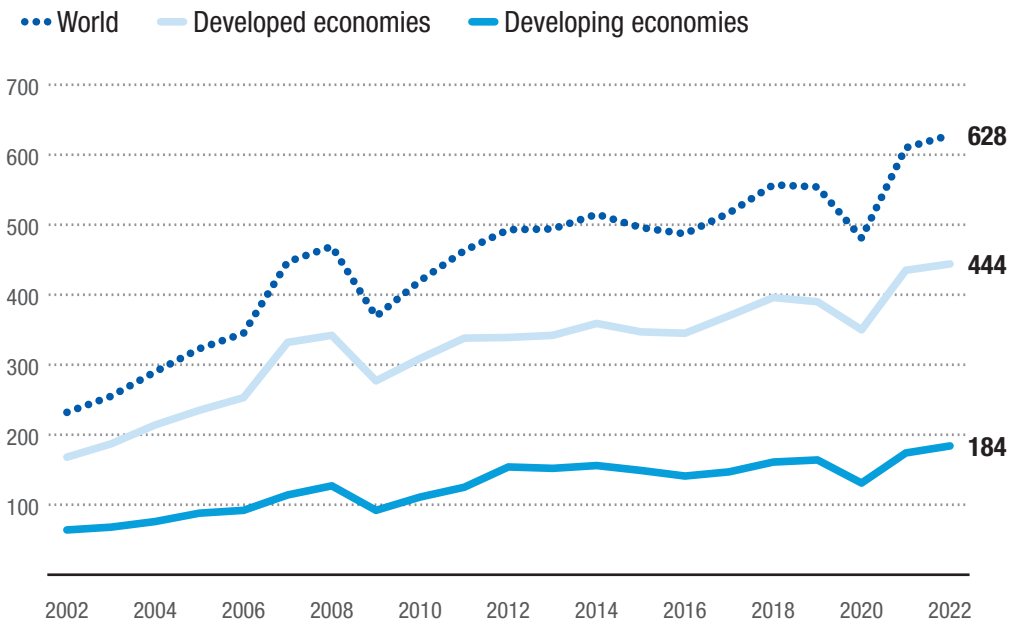
[5] Note that global creative goods exports (US$ 713 billion in 2022) and imports (US$ 628 billion) are not equal due to bilateral trade asymmetries. Trade asymmetries are caused by countries applying different criteria of partner attribution in export and import statistics, using different trade systems in data compilation, and the use of different valuation methods for exports and imports. For more information see https://unstats.un.org/wiki/display/comtrade/Bilateral+asymmetries.

Figure 30
Imports of all creative goods by region
(US$ billion)



Source: UNCTAD.

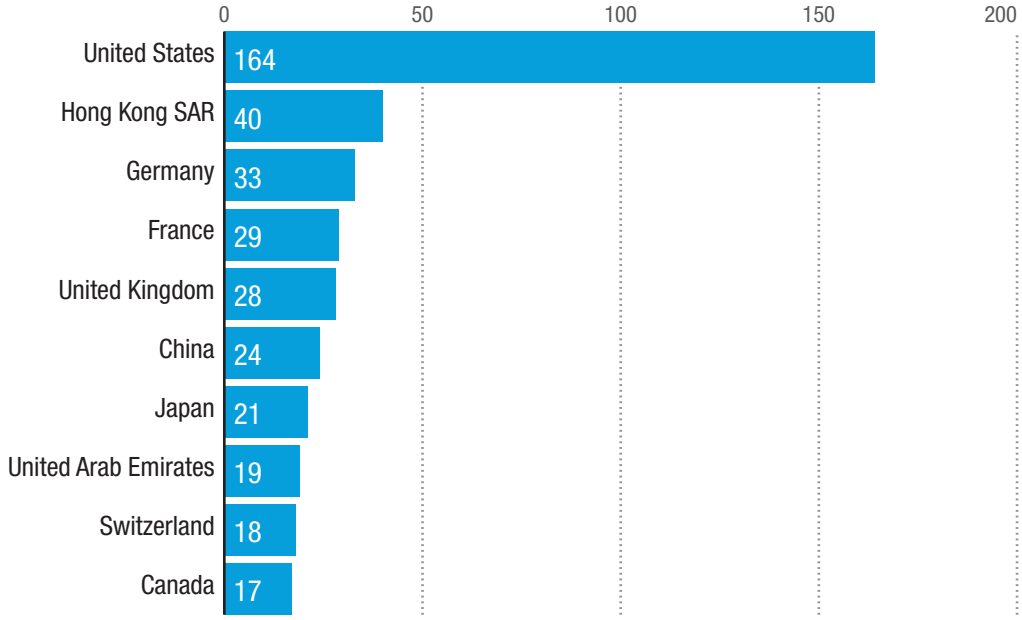
Figure 31
Imports of all creative goods by developing and developed economies
(US$ billion)



Source: UNCTAD.

In addition, Table 7 and Table 8 list the top ten importers of creative goods from developed and developing economies in 2022. It is worth noting that in Kuwait, creative imports represented an outstanding 24 per cent of the country's total imports in 2022. The country imported jewellery worth US$ 4.3 billion that year, accounting for 55 per cent of imported creative goods.

Figure 32
Top ten importers of creative goods in 2022
(US$ billion)



Source: UNCTAD.

Table 7
Developed economies: top ten creative goods importers in 2022

	Developed economies	Imports of creative goods (US$ billion)	Share from world imports of creative goods (percentage)	Share of creative goods from country's total imports (percentage)
1	United States	163.8	26.1	4.9
2	Germany	33.5	5.3	2.1
3	France	28.8	4.6	3.5
4	United Kingdom	28.2	4.5	3.4
5	Japan	21.1	3.4	2.4
6	Switzerland	18.1	2.9	5.1
7	Canada	16.7	2.7	2.9
8	Netherlands	15.5	2.5	1.7
9	Italy	15.0	2.4	2.2
10	Republic of Korea	13.9	2.2	1.9
	Total	**354.5**	**56.4**	

Source: UNCTAD.

Table 8
Developing economies: top ten creative goods importers in 2022

	Developing economies	Imports of creative goods (US$ billion)	Share from world imports of creative goods (percentage)	Share of creative goods from country's total imports (percentage)
1	Hong Kong SAR	40.5	6.4	6.1
2	China	24.2	3.9	0.9
3	United Arab Emirates	19.5	3.1	4.6
4	Singapore	12.9	2.0	2.7
5	Mexico	10.0	1.6	1.6
6	Kuwait	7.8	1.2	24.0
7	Taiwan Province of China	7.0	1.1	1.6
8	Thailand	6.8	1.1	2.2
9	India	5.6	0.9	0.8
10	Malaysia	5.0	0.8	1.7
	Total	**139.0**	**22.1**	

Source: UNCTAD.

C. Export promotion strategies

Each country's approach to promoting creative exports reflects its unique cultural assets, competitive advantages, and economic development goals. 25 out of the 36 countries that participated in the UNCTAD survey on the creative economy indicated the existence of export promotion priorities and initiatives for creative goods and services.

Box 1
Examples of export promotion priorities and initiatives for creative goods and services

Antigua and Barbuda, prioritizes the music industry alongside increasing the external promotion of visual arts, festivals, events, handicrafts, and food through collaborations between the Ministry of Education, Sports, and the Creative Industries and the Ministry of Tourism. An initiative with the National Authorizing Office focuses on export-ready small businesses within the creative industries.

Cambodia identifies its culture-based creative economy as a significant contributor to economic development, mainly cultural tourism. The government aims to leverage its rich cultural heritage and traditional knowledge for export.

China promotes international cultural trade by issuing the so-called "Opinions" by ministries and commissions. The "Opinions on Promoting High-quality Development

of Foreign Cultural Trade" is a recent policy document focusing on developing digital cultural trade; expanding the export of publications and copyrights; exporting radio, film and television programs; export expansion of fine arts and arts; and promoting export of cultural creativity and design services. It also proposes to encourage the export of Chinese cuisine, traditional Chinese medicine, Chinese gardens, traditional clothing, and traditional sports represented by Chinese martial arts and Go. China attaches great importance to developing "national cultural export bases" which have the advantages of industrial agglomeration, platform and scale.

Costa Rica focuses on the audiovisual services industry (especially foreign filming services in Costa Rica and the development of animation and video games), the intellectual property industry, and the promotion of advertising and digital marketing under the export promotion agency PROCOMER and the Costa Rican Film Commission.

The music industry and cultural tourism are the key focus of cultural export and tourism promotion in **Cuba**.

The National Strategy for the Export of Modern Services of the **Dominican Republic** prioritizes promoting services such as music, film, design, and video games. The country benefits from technical assistance from WIPO to promote intellectual property in creative industries as a source of funding for small and medium enterprises (SMEs). In addition, a Creative Directory, a digital platform where professionals and companies dedicated to cultural and creative activities can circulate and promote their services, has also been established.

Guatemala has an Orange Economy Commission within its exporters' association (AGEXPORT), collaborating with government entities to promote exports in the creative sector.

Indonesia aims to promote its cuisine globally through the Indonesia Spice Up the World program, focusing on culinary export promotion and investment in local spices and herbs.

Jamaica focuses on the film and animation industries with initiatives like Propella, Film Lab, ExportMax, and the Caribbean Animation Business Model for export promotion.

Japan supports exporting its creative products overseas by helping to overcome language and cultural barriers through the Ministry of Economy, Trade and Industry.

Malaysia and **Mauritius** both prioritize the film industry, with Mauritius implementing the Film Rebate Scheme to attract foreign film production and promote local artists through the Mauritius Expo Virtual Platform.

Mozambique focuses on the export promotion of handicrafts by SMEs.

Nigeria prioritizes the media and entertainment industry, which is considered to have a great export potential.

Oman has been empowering Omani frankincense producers through a geographical indication project in collaboration with WIPO, aiming to enhance its marketability globally.

Peru focuses on the video game sector as the most potential creative service for exports.

The priority of the Philippines is creative tourism, leveraging local culture, arts, and heritage to attract tourists.

The **Republic of Korea** conducts multiple export promotion initiatives across various content creating industries through the Korea Creative Content Agency (KOCCA).

Seychelles aims to promote visual arts and crafts alongside ICT ventures for export markets as part of its industrial policy.

Slovenia focuses on supporting internationalization in creative and innovative products and services like design, architecture, and audiovisual services with the Ministry of Culture guiding the development of the creative economy.

South Africa identified the audiovisual media industry as a significant beneficiary of state incentives and investment, focusing on content development and services export.

Sri Lanka supports exporters through the Export Development Board which conducts market research and maintains close rapport with potential exporters. Through its educational programs, the Academy of Design promotes specific creative industries, providing study programs in fashion and textile design, motion graphics, animation, interior design and more.

Trinidad and Tobago identified music, film, and fashion as critical industries for export promotion, implementing various initiatives (i.e., Steelpan Manufacturing Grant Fund Facility, Fashion Value Chain Investment Programme, or the Ultra Bespoke Tailoring Programme) to support these sectors through the Trade and Investment Promotion Agency.

The Creative Industries Sector Vision of the **United Kingdom of Great Britain and Northern Ireland** sets a goal for creative businesses to grow their exports, with initiatives from the Department for Trade and Business (DBT) and the Department for Culture, Media and Sport (DMCS), including the Music Export Growth Scheme, creative industries trade missions, and the Creative Industries Faculty of DBT's Export Academy.

The government of **Uzbekistan** pays particular attention to the export of the following creative goods and services: software, cultural-historical heritage and crafts, jewellery, textiles, and cinematography. Its National Legislation Database lists various resolutions that detail national measures to strengthen support for and stimulate the export of the related creative industries. For example, in 2018, Uzbekistan implemented a program that promoted domestic creative products abroad under the national brand "Made in Uzbekistan" through both national and international exhibitions.

Source: 2024 UNCTAD survey on the creative economy.

D. Barriers to trade in creative goods and services

1. Barriers to trade in creative services

Creative services are increasingly significant contributors to global services exports, primarily dominated by developed economies due to their advanced human capital, skills, and digital infrastructure. The world's largest exporters of creative services, including both developed and developing economies, have abundant human capital and skills and possess sufficient digital infrastructure (see Table 9).

Despite the increasing importance of services, services trade, including creative services, continues to face important trade costs and restrictions. The WTO estimates that trade costs in services (comparing costs of supplying services domestically versus internationally) are significantly higher than trading manufactured goods (WTO, 2023b). Significant variations within the services sector exist, with digitally delivered services costing more than transportation or distribution services. The cross-border trade of digitally delivered services still implies costs such as regulatory barriers or costs to overcome geographical, cultural, and institutional differences.

However, according to the WTO, the trade costs of digitally delivered services, including creative services such as entertainment, declined by 14 per cent between 1996 and 2018, much more than other services (WTO, 2023).

The analysis of services trade restrictiveness highlights that barriers to services trade have significant variations across sectors, modes of supply, regions, and levels of development. This is because some countries may apply restrictions to key strategic services to develop domestic industries or preserve cultural heritage, especially in the case of some creative services. The Services Trade Restrictiveness Index (STRI) of the Organisation for Economic Co-operation and Development

Table 9
Skills and digital infrastructure in major creative service exporter economies

Economy	Share of creative services from country's total services exports (percentage, 2022)	World Bank Human Capital Index (value, 2020)	Mean years of schooling (years, 2021)	Share of individuals using the Internet (percentage, 2021 or 2022)	Share of individuals with an account (percentage, 2021)
Ireland	65.1	0.8	11.6	95	100
Israel	36.5	0.7	13.3	90	93
Sweden	33.7	0.8	12.6	95	100
Japan	32.1	0.8	13.4	83	98
Romania	28.4	0.6	11.3	86	69
United States	26.3	0.7	13.7	92	95
Finland	26.0	0.8	12.9	93	100
Canada	23.6	0.8	13.8	93	100
Switzerland	22.9	0.8	13.9	96	99
Singapore	22.5	0.9	11.9	96	98
Ukraine	22.5	0.6	11.1	79	84
Bulgaria	22.0	0.6	11.4	79	84
Netherlands	19.7	0.8	12.6	93	100
New Zealand	19.5	0.8	12.9	96	99
Germany	19.1	0.8	14.1	92	100

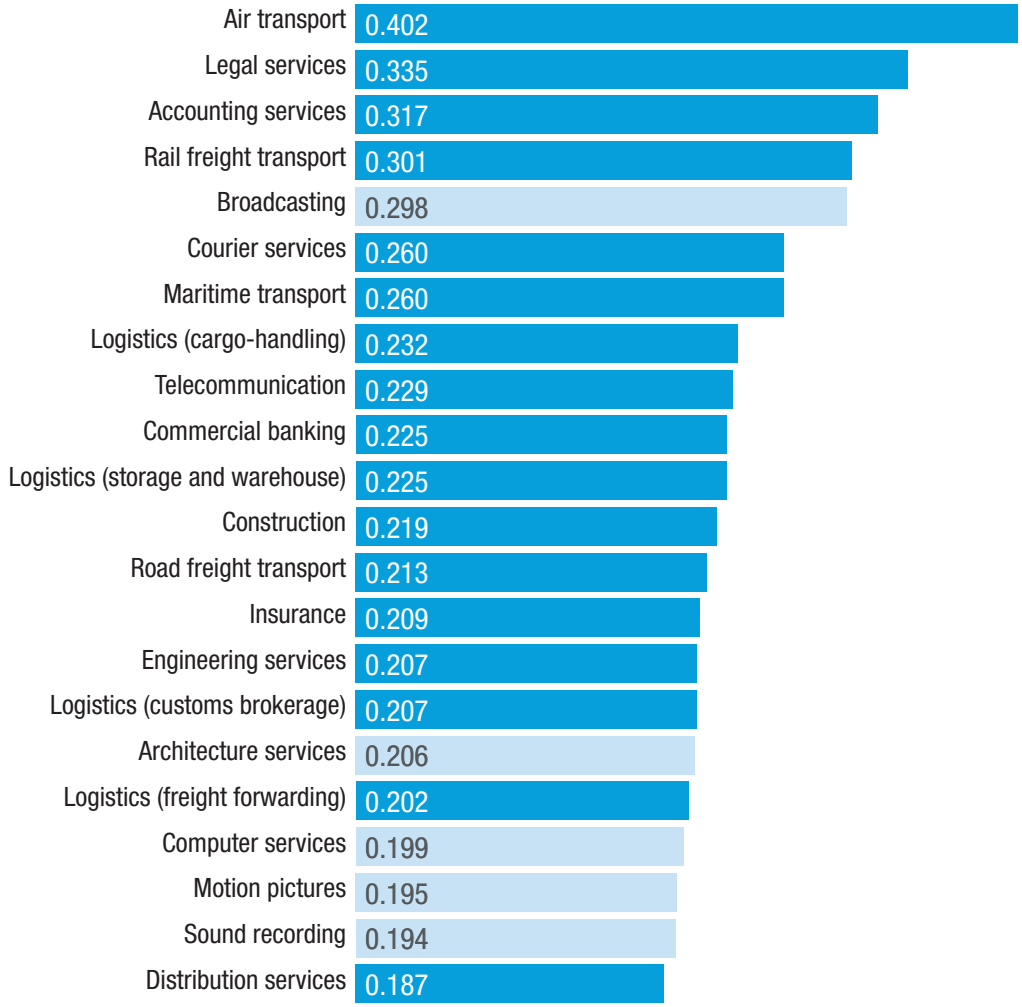
Source: UNCTAD, based on UNDP (2023) and World Bank (2020).
Note: The Human Capital Index brings together measures of different dimensions of human capital: health and the quantity and quality of schooling. It captures the expected productivity of a child born today as a future worker relative to a benchmark of complete education and full health (which gives the maximum value of 1). Individuals with an account refers to account ownership at a financial institution or a mobile money service provider (percentage of population ages 15+).

(OECD) covers 50 countries (34 developed and 16 developing) and 22 services sectors, including a few creative services.

As shown in Figure 33, the OECD's Services Trade Restrictiveness Index for 2023 indicates that services sectors like broadcasting (0.298) are more restricted than the average of all industries (0.241), while architecture (0.206), computer services (0.199), motion picture (0.195) and sound recording (0.194) are among the least restricted services (OECD, 2023). There was a slight increase in restrictions for creative services trade in 2020, and the average STRI score for creative services has still not returned to pre-COVID-19 levels as of 2023.

Developing economies tend to have more restrictive services trade policies, including for creative services, than developed economies, suggesting that they are more cautious about opening their markets for services considered strategic or key to preserving cultural heritage. Regarding broadcasting services, for example, China, Colombia, Mexico and Peru have much higher scores (STRI scores over 0.6) than other countries. China also stands out in stricter restrictions for motion picture services and sound recording (with an STRI score over 0.5). India and Thailand have more stringent policies (scoring over 0.4) for the architecture services trade than other countries (OECD, 2023).

Figure 33
Services trade restrictiveness by service category in 2023
(Average score)



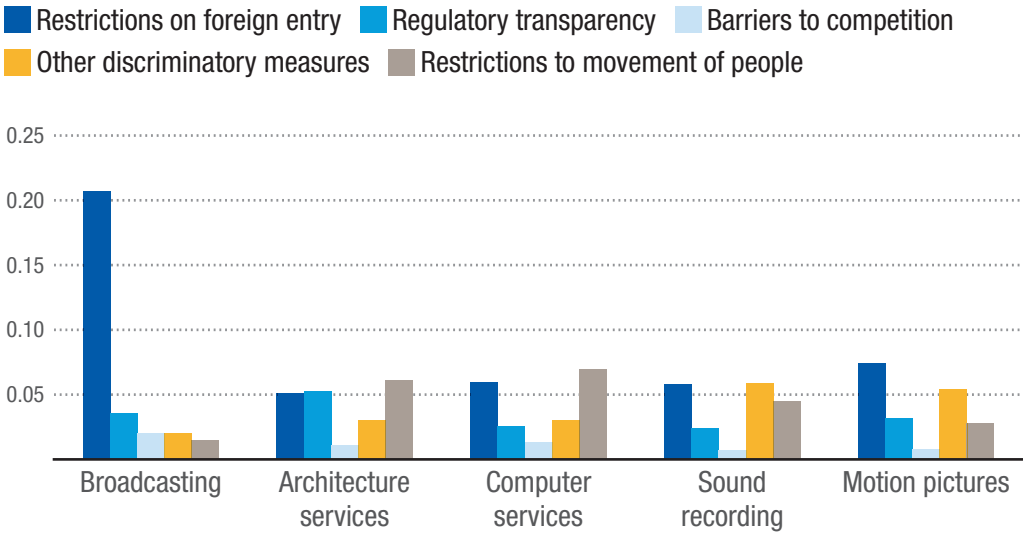
Source: OECD STRI (2023)
Note: The value 0 indicates complete openness to trade and investment, while 1 indicates completely closed markets to foreign service providers.

Figure 34 further shows that restrictions on foreign entry are the most important barrier to trade in broadcasting and motion picture services, while restrictions on the movement of people are the most significant obstacle to trade in computer and architecture services.

The WTO's General Agreement on Trade in Services (GATS) promotes progressive liberalization of trade in services, including creative services, by establishing general obligations and specific commitments by members for market access and national treatment across various service sectors.

However, the extent of multilateral market opening in services, including creative services, has been limited, with few significant improvements in commitments since the Uruguay Round despite some progress in addressing domestic regulations affecting services recently. Sectoral commitments among WTO members vary, with developed countries typically making more commitments than developing ones. Creative services have seen sparse commitments (see Figure 35 and Figure 36), indicating a cautious approach

Figure 34
Policy component of STRI scores in creative services in 2023
(Average score)



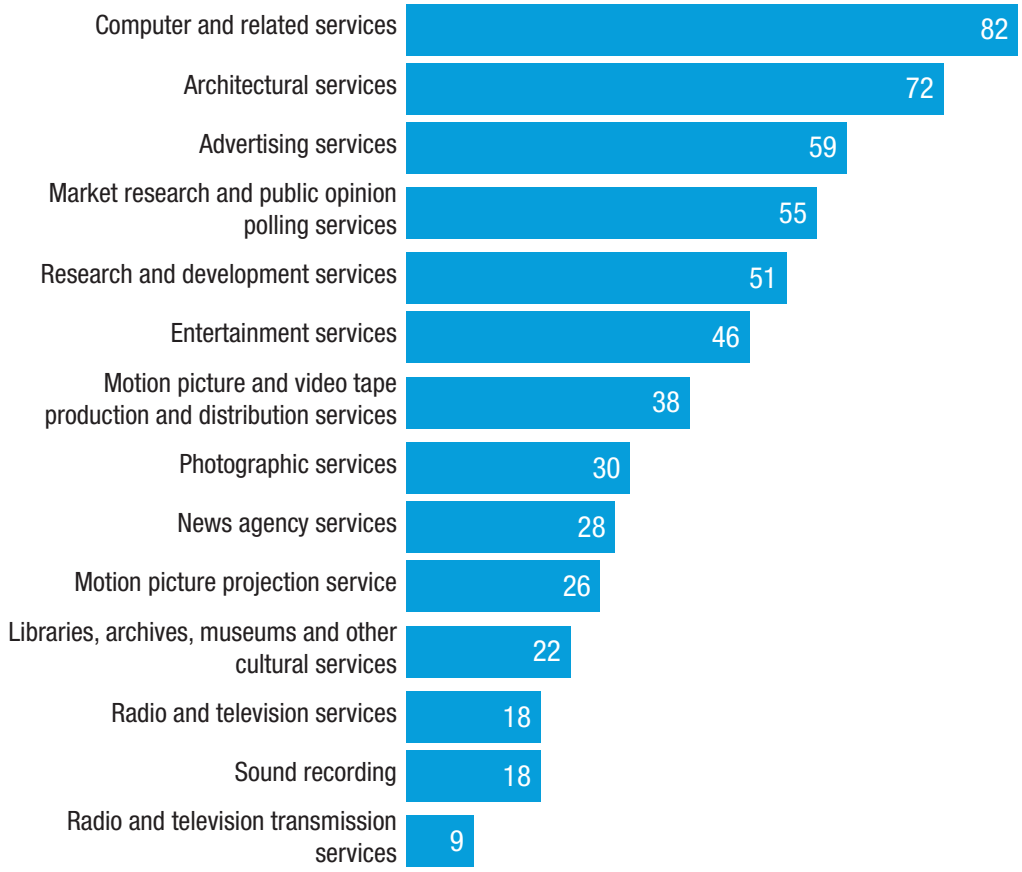
Source: OECD STRI (2023)
Note: The value 0 indicates complete openness to trade and investment, while 1 indicates completely closed markets to foreign service providers.

adopted by countries towards liberalizing trade in this sector that lie at the interface of trade, culture and public services.

Addressing trade restrictions in the services sector requires adequately designing the content, pace, and sequence of measures and considering the risks, costs, and trade-offs that the trade liberalization efforts may entail for broader national regulatory objectives. For example, the benefits of liberalization may differ across the service sectors, and some creative services, like broadcasting and audiovisual services, can have a strong bearing on societal and cultural values (UNCTAD, 2017, 2019a). Countries can have different strategies when it comes to trade in movies, for example, as some countries may wish to preserve their own cultural heritage (Fazio, 2021). With the surge of digitally delivered creative services, especially in audiovisual services and music, it is essential that developing countries and their artists and creative entrepreneurs have the capacity and the institutional support to monetize trade in creative services and intellectual property rights (Nurse, 2020). Therefore, it is important that developing economies put in place adequate regulatory and institutional frameworks.

Ongoing multilateral discussions on e-commerce will have implications for the future trajectory of trade in creative services. For instance, although there is ambiguity around the scope and coverage of "electronic transmissions" in the ongoing debate on the moratorium on customs duties on electronic transmissions (the "moratorium") (WTO et al., 2023), some views suggest that "electronic transmissions" cover the transmission of software, e-books, digital music, movies, and video games (WTO, 2023c), among other digital economy products. Over 80 countries are engaged in discussions at the Joint Statement Initiative on Electronic Commerce. At the same time, regional trade agreements and digital partnership agreements increasingly address e-commerce and digitally delivered services, which might have a bearing on the future course of multilateral discussions (UNCTAD, 2021a). Whatever the outcome, the discussions at the WTO may have

Figure 35
Number of country commitments in services linked to the creative economy



Source: WTO
Note: The European Union is counted as one developed economy, representing twenty-five economies.

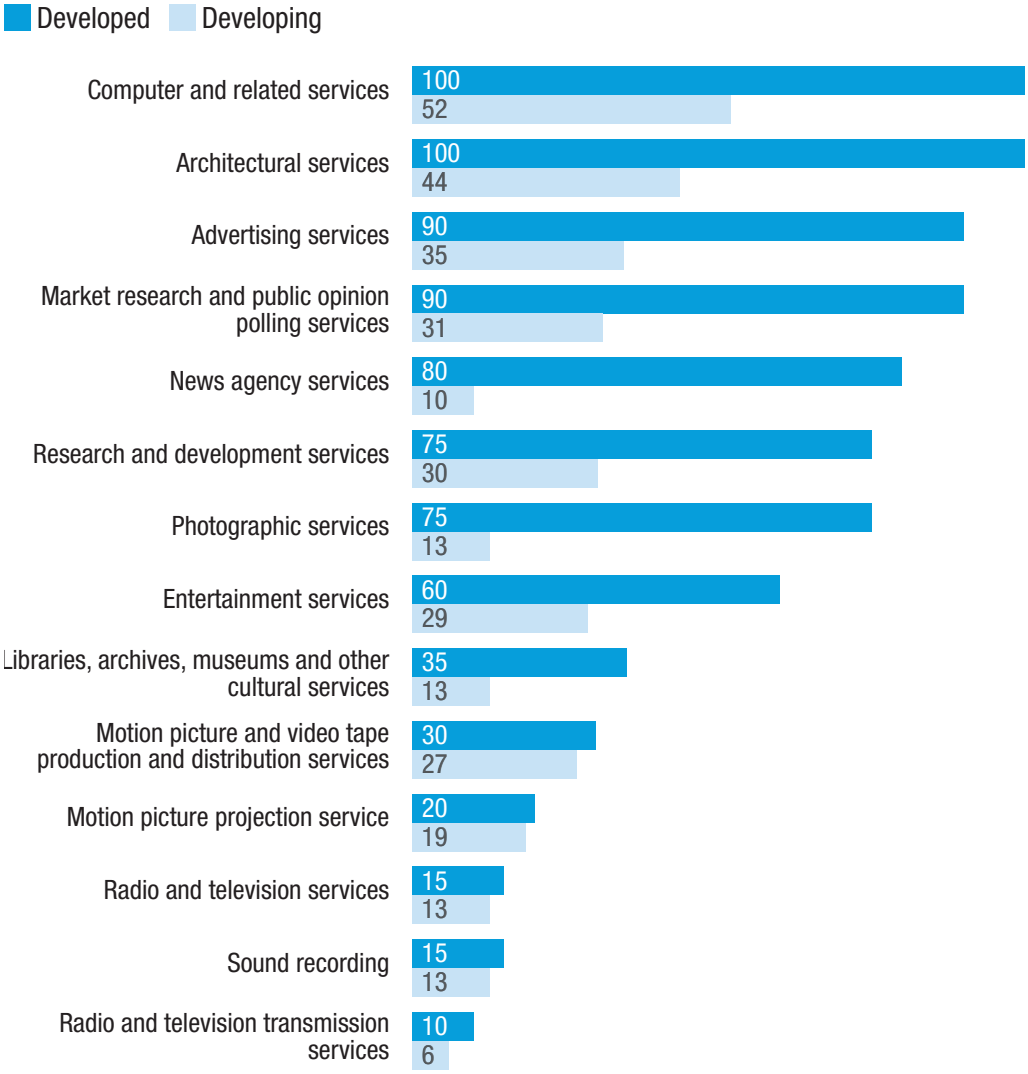
regulatory and trade policy implications for the digital economy and e-commerce, including digital creative services.

2. Barriers to trade in creative goods

Trade policies, encompassing tariff and non-tariff barriers (such as sanitary and phytosanitary measures and technical barriers), significantly influence global trade. Global average tariff rates were stable in the last decade. Nonetheless, the recent shift towards industrial strategies and climate change commitments reshapes trade policies, leading to a rise in tariffs and non-tariff measures in 2023 (UNCTAD, 2023g). Border measures affect trade costs, approximately 2 per cent for developed economies and 4 per cent for developing economies as of 2021 (UNCTAD, 2023b). Moreover, the costs to comply with non-tariff measures often surpass those associated with tariffs, highlighting the complex landscape of international trade regulation.

Global average tariff rates for creative goods slowly decreased since 2011. Average applied tariffs decreased by 2 percentage points between 2011 and 2021, while most-favoured nation (MFN) tariffs decreased by 1 percentage point over the same period (UNCTAD, 2024a). However, recent WTO data shows a slight increase in MFN tariffs for creative goods in 2023 (WTO, 2024).

Figure 36
Share of developed and developing economies with GATS commitments for creative services
(Percentage)



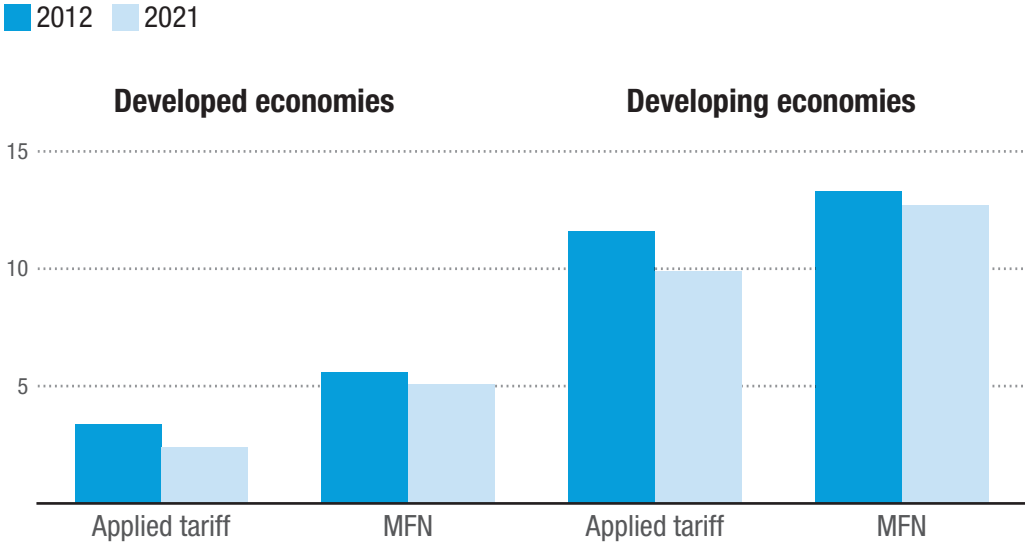
Source: WTO

In 2021, the average tariff imposed on international trade of creative goods (i.e., applied tariff) was 2.4 per cent in developed countries and a relatively high 9.9 per cent in developing countries. MFN tariffs are much higher than applied tariffs. The average MFN tariffs are 5.1 per cent for developed countries and 12.7 per cent for developing countries (see Figure 37). Average tariffs on creative goods tend to be higher than on all manufactured goods.

In 2021, average MFN tariffs were 10.8 per cent for creative goods compared to 6.3 per cent for the manufacturing sector (UNCTAD, 2024a, 2023c). This is because creative goods include several apparel and textile goods (i.e., carpets and fashion accessories) with particularly high tariffs.

Both applied and MFN tariffs on creative goods exhibit significant variances across countries and products, with developing countries applying much higher tariffs for

Figure 37
Tariffs on creative goods
(Simple average tariff, percentage)



Source: UNCTAD secretariat calculations based on UNCTAD TRAINS database.

all creative goods categories, especially for crafts and design (with average applied tariff rates of 11.3 per cent). In developed economies, crafts and design goods have the highest applied tariff rates (3 per cent), followed by audiovisual goods and goods related to music, performing and visual arts (see Figure 38).

In 2021, thirteen goods or less than 6 per cent of creative goods faced tariff peaks (i.e., applied tariff lines above 15 per cent). Most tariff peaks are concentrated in crafts and design goods (such as carpets, interior design goods and wickerware), on products of interest for developing countries. In addition, substantial tariffs also apply to a few recorded media products.

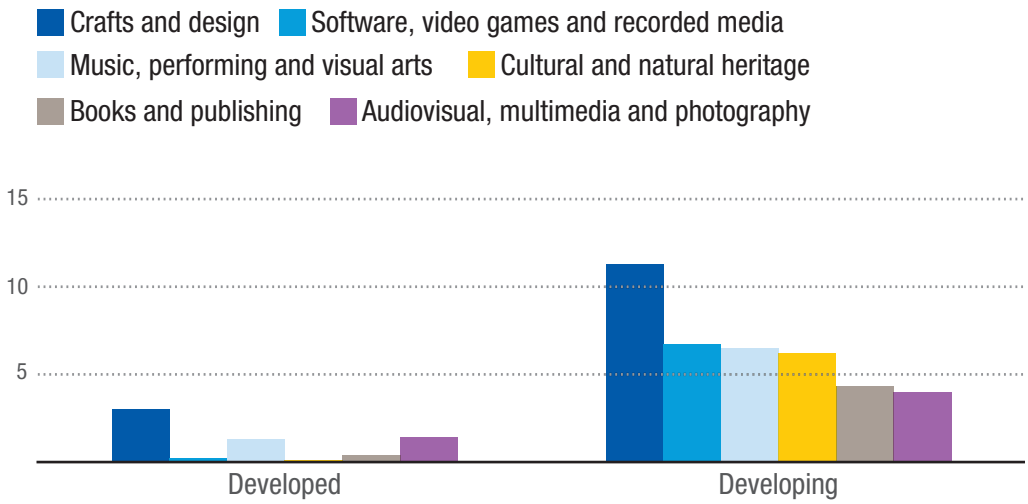
Non-tariff measures (NTM) encompass various policy measures aimed at multiple objectives. However, data about NTMs remain incomplete, preventing detailed comparative statistics between countries.

According to the UNCTAD TRAINS database, NTMs for creative goods were sparse before 2000. Countries started introducing NTMs in the early 2000s, with a significant increase in measures in 2012-13. The number of new measures has been stable since. As of 2020 (latest available data), only ten countries (Argentina, Brazil, Chile, Colombia, Ecuador, Fiji, Mexico, Peru, United States of America, and Vanuatu) have introduced NTMs for creative goods. Most countries introducing NTMs are in Latin America, with Mexico imposing the most measures. Around 90 per cent of the measures affect all partner countries. The rest of the measures mainly affect China and Brazil.

Crafts and design goods are the most affected by NTMs, followed by cultural and natural heritage products (Figure 39).

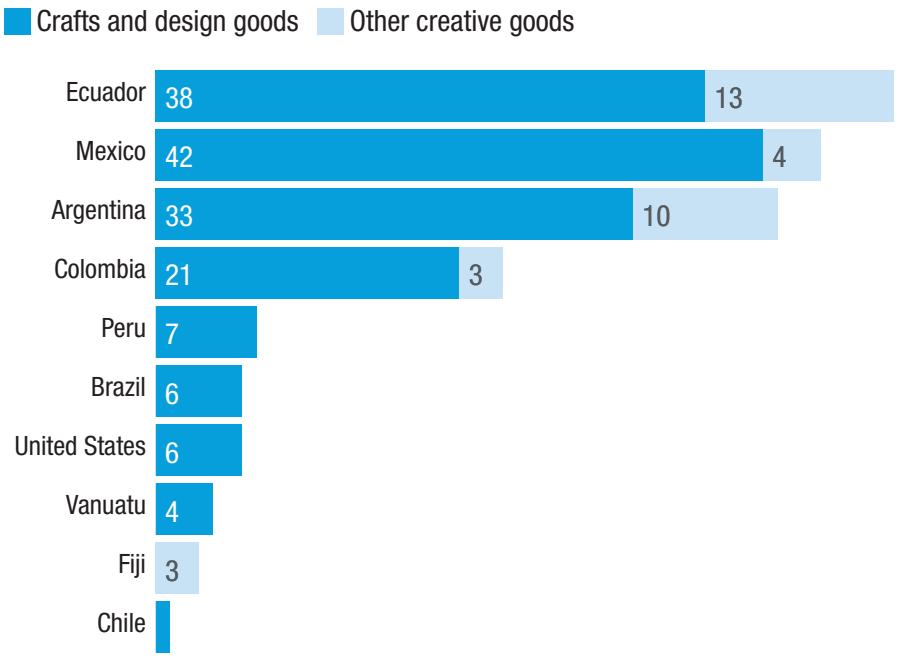
Among the various types of non-tariff measures, contingent trade protective measures (accounting for 29 per cent of all NTMs), quantity control measures (20 per cent), and pre-shipment inspections (19 per cent) are the most relevant NTMs for creative goods. For world trade of all goods, technical barriers to trade, price control measures, and export measures are the most frequently applied (UNCTAD, 2023b).

Figure 38
Applied tariffs by creative goods categories in 2021
(Simple average tariff, percentage)



Source: UNCTAD secretariat calculations based on UNCTAD TRAINS database.

Figure 39
NTMs in creative trade as of 2020
(Number of HS 6-digit lines covered)



Source: UNCTAD secretariat calculations based on UNCTAD TRAINS database.

Chapter III

Digitalization and artificial intelligence in the creative economy

Digitalization and artificial intelligence in the creative economy

The chapter examines how creative industries adopted digitalization and artificial intelligence and how this is transforming the creative economy. Creative products are produced, distributed and consumed differently in a digital world powered by artificial intelligence. In this context, creative work can be more cost-efficient and reach a wider audience. This new reality entails essential policy challenges and responses in the creative economy. For example, these technologies raise concerns about quality, appropriation, copyright protection and compensation, homogenisation, privacy, consumer and data protection, and monopolisation of content. These challenges are a development issue, including the fact that several developing countries are lagging due to gaps in infrastructure, digital environment, skills, research and development capabilities, and regulations.

Policymakers must continuously adapt policy and regulatory frameworks to seize opportunities and mitigate risks associated with the digitalization and use of artificial intelligence in the creative economy. Key areas of focus include enhancing quality and consumer welfare through human oversight of artificial intelligence and ensuring algorithmic transparency to maintain, among other things, cultural diversity. Priorities also include updating intellectual property rights, especially copyright frameworks, to address digital challenges, including raising digital literacy and tackling digital piracy, which significantly impacts revenues. Additionally, digital transformation requires adequate skills, highlighting the need for comprehensive education and training with an interdisciplinary approach and preparing for continuous change, contract protection and social support policies. These should come alongside efforts to bridge development asymmetries and digital divides, ensuring equitable access to and use of technology. International cooperation can play a crucial role in all these policy strategies. Market concentration and competition policy are important topics for digital creative services and are discussed in detail in Chapter IV of this report.

A. "We are not in Kansas anymore"

The phrase "We are not in Kansas anymore", famously uttered by Dorothy in the movie "The Wizard of Oz" upon her arrival in the magical Land of Oz, symbolises a transition into an unfamiliar, transformative world. This sentiment aptly captures how digitalization and artificial intelligence have ushered the world, including creative industries, into a revolutionary era far removed from conventional experiences.

Industries in the creative economy use digital tools and artificial intelligence to improve cost efficiency and reach more clients. The digitalization of creative industries transformed how content such as books, films, music, video games, and others are created, distributed, and

consumed. Players in creative industries have been among the fastest to adopt digital technologies, impacting their business models (UNESCO Institute for Statistics, 2016). The opportunities provided by digitalization include:

- In producing content, having affordable digital tools lowers entry barriers and allows individual creators to innovate collaboratively (UNCTAD, 2022b).
- In distributing content, some websites and platforms allow artists to reach global audiences.[6]
- Streaming technology has shifted the way users behave when consuming content. Users have moved from ownership to access. In the music industry, users move from purchasing albums or songs to monthly subscribing to access music (International Trade Centre, 2019).

Digitalization reduces costs in creative industries through efficiency and can improve their revenues through product and process innovation, wider reach to audiences and new business models. Developing countries can use these opportunities to enhance the competitiveness of their creative industries and further integrate them into regional and global value chains.

Furthermore, creative industries apply artificial intelligence in various forms throughout the entire value chain of producing, distributing and consuming creative content (European Commission, 2022). Anantrasirichai and Bull (Anantrasirichai and Bull, 2022) grouped examples of using artificial intelligence in creative industries into five broad categories: creating content, enhancing content and post-production workflows, extracting and improving information, compressing data and analysing information (see Box 2). There are additional opportunities in distribution and consumption as well.

Box 2
Using artificial intelligence in the creative economy

Creating content includes generating scripts and movies, journalistic texts, music, images, captions, animations, and virtual reality content. An artificial intelligence machine created the script for a short science fiction movie, in 2016. In collaboration with humans, the same artificial intelligence was used to create selected areas of the sequel, in 2017.[7] The first movie had some unnatural storylines, while the sequel was more fluid, confirming that current technology works better in conjunction with people. Automated journalism uses computational techniques to generate news articles by scanning large amounts of data, ordering key points and inserting details such as names, places, statistics and figures. BBC already reported on the general election in the United Kingdom of Great Britain and Northern Ireland in 2019 using automated journalism. In music, artificial intelligence algorithms analyse data to find musical patterns to suggest composed melodies that may inspire artists. A software launched a song in the style of The Beatles in 2016 and the first artificial intelligence album in 2018.

Some applications can produce images based on input images, learning the mapping of the input and applying convolution layers. For example, algorithms can transform images of faces to add age or change attributes such as hair colour. These applications can also interpret images and videos and automatically generate captions through object recognition. Artificial intelligence is also used for animation, where static images are modelled to create moving images. Learning models of artificial intelligence can capture actual motion sequences, even based on several static scenes, and apply motion prediction abilities to animate characters. Artificial intelligence already made a video of the Mona Lisa speaking. Augmented and virtual reality are computer technologies that create a different

[6] This is the case of YouTube in the case of audio-visual products (International Trade Centre, 2019).
[7] The first movie is “Sunspring”, and the sequel is “It’s no Game”.

environment. Augmented reality adds digital layers to the physical world, and virtual reality creates an immersive experience through a fully simulated environment. Augmented reality can expand experiences in movies and theatres, and virtual reality is used in health services for surgical simulations and physical therapy.

Extracting and enhancing information includes segmenting and recognising content, detecting and tracking salient objects, combining images, and producing three-dimensional content by reconstructing and rendering. Artificial intelligence methods based on deep learning apply convolutional layers, efficiently performing statistical analysis and extracting information from the signal. This enhances and transforms the signal, making images more readily interpretable or transforming real actions into animations.

Enhancing content and post-production workflows includes improving contrast, colouring, upscaling imagery, restoring content or adding visual special effects. Some methods increase the differences in luminance or colour, i.e. the contrast. These differences make objects distinguishable, avoid flat or dull appearance and trigger reactions in people's visual systems. The colouring adds or restores colour by adding convolutional layers of colours to the grayscale and applying filters to obtain natural colours. This can transform black-and-white content or restore colour to aged films.

Artificial intelligence methods increase the resolution of images and videos. For example, successive video frames can generate a single high-resolution frame. Upscaling imagery became popular, for example, to convert legacy content to be compatible with modern formats. Deep learning techniques, such as deblurring, denoising or dehazing, have been used to restore content. Improving the signal quality is essential for creative activities, addressing distortion or damages caused by environmental conditions, sensor characteristics or medium ageing. The creative economy uses techniques that enhance content to add visual special effects, a type of enhanced animation. Movies can combine physics models with algorithms to create three-dimensional animations. Head-mounted cameras and facial tracking markers can transform actors' faces into characters.[8]

Compressing data, including audio and video, improves quality and user experience. Furthermore, several creative activities demand increasing the quality and quantity of visual content, more immersive experiences, and greater interactivity, all for increased user numbers. Compressing data, notably video, is necessary to reconcile this demand with available network capacity. Artificial intelligence can achieve consistently better compressing results than conventional approaches.

Analysing information comprises categorising texts, retrieving and analysing content, and providing recommendations and intelligent assistant services. Categorising texts builds on generating summarised texts from full texts. The summaries can index documents for subsequent content retrieval and analysis to detect spam, classify topics and give predictions. Content retrieval is important to facilitate the research often needed in creative activities. Artificial intelligence can recognise audio and objects to analyse the media and build on automatic annotations that categorise and retrieve content. Images are retrieved based on several features such as points, lines, shapes and colours. Music is also retrieved based on features extracted from sound.

Learning systems can assess what people look online, how long they spend browsing ads, and overall online behaviour and preferences. This allows to target ads and to inform how and when to show ads. Analysing content also allows one to match content to audiences, for example, recommending music or movies. Recommendation engines suggest products based on data analysis. These include curator tools that search large databases to create shortlists, such as song playlists, to save time and connect to audiences. Intelligent assistants are software tools that build on the ability to analyse information to answer queries related to news or weather, recommend songs, movies or directions, or manage schedules and emails.

Source: Anantrasirichai and Bull, 2022.

[8] See for example the "Avengers Endgame".

B. Use of artificial intelligence by different creative industries

Advertising uses artificial intelligence widely, mainly to increase the efficiency of gathering, analysing, and sorting vast amounts of data. Some marketers use data to spot trends and make advertising decisions. For example, an artificial intelligence platform generates multiple advertisements automatically based on the marketeer's specific goals. The algorithms conduct tests on potential ads and choose those deemed most effective. This called for extensive investment in expanding computing power to train more intricate artificial intelligence models on larger datasets. This allowed to generate numerous ad variations, evaluate their resonance with audiences, and saturate the market with the variants demonstrating the best performance. Reports from advertisers note that this platform enhances the performance of advertising campaigns (*Financial Times*, 2023a).

Architecture increasingly uses artificial intelligence to address many concerns related to aesthetics, building regulations, structural efficiency, socioeconomic context, and cultural environment. This support can be given at several stages, from planning and design to construction and maintenance.

Artificial intelligence can feed architecture research and planning by processing data to support topology optimisation and urban planning while considering regulatory compliance, solar radiation predictions, and other criteria (As and Basu, 2021).

The design processes build on artificial intelligence at all stages, including design analysis, ideation and iteration with user feedback. Data processing abilities are important for design analysis, for example, by reviewing prior architectural design knowledge and other information that helps design choices promote well-being in people. This information should cover neuroscience data on the behaviour of users, historical and aesthetic solutions for a given socio-economic and cultural context, notions of heritage, and information on relationships with the territory. Data analytics is of particular interest to enable smart building technologies for sustainability.

Artificial intelligence can assist the ideation stage of architectural design by providing out-of-the-box scenarios that stimulate architects' creativity. Those algorithms can also automatically generate multiple design solutions to an architecture problem (As and Basu, 2021). At the design iteration stage, artificial intelligence can improve accuracy, increase efficiency, and tailor solutions to a client.

Artificial intelligence can also facilitate the production process by optimising aspects of fabrication, structure, and so on, relying on robot fabrication. Artificial intelligence tools support maintenance by analysing video feeds and detecting weaknesses and errors that require preventive or corrective maintenance.

Artificial intelligence has a role to play in several aspects of **arts and crafts**. In the crafts industry, algorithms can assist production in design. People transition to design, maintenance, and programming roles as machines gradually take over routine tasks. This collaborative approach enhances efficiency in the sector, allowing machines to handle repetitive and challenging tasks (Eskak and Salma, 2021). People can also do digital crafting using generative artificial intelligence. Many people use these technologies to share pictures, ideas, and tips to get certain prompts.

Artificial intelligence can facilitate the development of virtual art galleries and exhibitions in the arts. Artists leverage artificial intelligence to craft immersive digital showcases that are accessible globally, making art more widely available. Notably, some of the most innovative artificial intelligence -based art projects are in Africa. For instance, a Nigerian artist employs artificial intelligence algorithms in a multimedia installation that

generates images and sounds based on visitor movements. Similarly, a Kenyan artist combines similar algorithms with traditional painting techniques to create unique digital portraits exploring identity and representation in contemporary African art (Faster Capital, 2023).

Artificial intelligence creates opportunities for women creative entrepreneurs to grow their businesses, for example, in the arts, crafts, fashion, and gaming industries (see Box 3).

Box 3
The role of e-commerce and artificial intelligence in empowering female creative entrepreneurs

UNCTAD eTrade for Women initiative empowers women entrepreneurs in e-commerce and the digital economy. This initiative was designed to bridge the digital gender gap. It has facilitated the growth of women-owned businesses by providing training, knowledge-sharing and networking opportunities, including for several women in the creative industries. The following profiles showcase experiences of women entrepreneurs navigating challenges and opportunities in the digitalization of creative industries and the use of artificial intelligence.

Female creative entrepreneurs

Co-founder and chief technology officer (CTO) of Mawua Africa in Kenya, Pauline Kariuki, has a technology background and connects over 800 East African artisans in creative industries with international markets. The marketplace is for artisanal crafts, bags, jewellery, and decoration goods. The company aims to address the disparity between high-level creative skills and the lack of business and digital skills among artisans. The company processes international shipping for the artisans from an order fulfilment centre. Still, the marketplace faces important challenges with international shipping, particularly in forecasting tariff rates and navigating diverse customs procedures. Another challenge is the lack of adequate physical and digital infrastructure essential to run e-commerce. The company sees an opportunity in the use of artificial intelligence, especially in developing detailed product descriptions and personalising the shopping experience on its website.

Founder of Epica Jewellery in Kenya, Sharon Wendo embarked on her e-commerce journey in 2020, leveraging the power of online sales during the COVID-19 era. The company's exclusive online sales model, heavily reliant on social media platforms has proven successful in enhancing the company's visibility and sales. However, challenges persist, notably with high customs duties in certain foreign markets. Sharon uses both creative and business skills in her work, relying on platforms and online classes to acquire these skills. She also has to address challenges such as limited access to finance, gap between talent and formal education, high taxes, and dependence on local suppliers. The company uses artificial intelligence apps that aid in design precision and waste reduction.

As the managing director of Idozi Collective, a clothing company based in Lagos, Nigeria, Blessing Ebere Achu emphasises the importance of an online presence through social media and e-commerce platforms. The company uses different technologies to manage inventory and engage with customers efficiently. The main challenges for the company include water scarcity, lack of electricity, limited access to finance, lack of trust in international online payments, challenges in human resources, and copyright issues. This managing director underscores the significance of leadership skills and participation in entrepreneurship and mentoring programmes. The company successfully integrates artificial intelligence into its services, using artificial intelligent apps for design inspiration, mood boards and storytelling.

Founder of Warrd, a company specialising in developing educational apps, games, and animations, Ayah Elarief shares insights into the challenges and achievements of her tech-focused venture in Egypt. This firm's game-based educational platform impacted 120 schools and over 30,000 students, improving learning experiences in various subjects such as Arabic, French, and mathematics. The platform has received appreciation from ministries of education and has exported games to Côte

d'Ivoire, France, Nigeria, Saudi Arabia, and Senegal. Ayah emphasises the importance of effective communication, personal branding, networking and soft skills for success. Challenges include a lack of support for start-ups in Egypt, an unfavourable legal environment (to register patterns, for example), fluctuations in currency rate and societal biases for women in business, especially when pregnant or with small children. The firm actively incorporates artificial intelligence into game development to enhance educational outcomes by adjusting the games to the student's level.

Founder of Annada, a company selling high-end scarves, clothes and bags in Bahrain, Nada Alawi highlights the challenges faced in e-commerce. Restricted access to a social media platform shop option in Bahrain poses difficulties, impacting the company's ability to leverage its significant social media audience for online sales. The company contacts sales primarily in its physical store, with returning customers driving most orders, but it also has a complementary e-commerce website and uses an app to communicate with customers. In a constantly changing business environment, the founder stresses the importance of continuous self-education and adaptability in her industry. Challenges include expensive shipping, limited access to finance, and the disparity between online and physical sales. Annada is actively promoting the use of artificial intelligence to enhance efficiency.

Indonesia-based Iota Kreatif Media is a creative digital company specialising in games and entertainment. Although the company does not rely on e-commerce platforms, it focuses on business-to-business (B2B) transactions and has a solid online presence through its website. Co-founder and creative director Ratna Yoes highlights the government's supportive policies for the gaming industry as a positive development in Indonesia. Artificial intelligence plays a pivotal role in streamlining creative workflows, showcasing the potential for artificial intelligence to contribute significantly to the creative process.

Source: UNCTAD.

In the **film industry**, artificial intelligence can help create and analyse screenplays, streamline pre-production processes, analyse data and audience preferences, and create more realistic special effects (Anantrasirichai and Bull, 2022). Artificial intelligence improves workflow efficiency and accuracy. Machine learning tools can arrange video clips, making it more straightforward for editors to find specific camera angles and dialogue scenes. Additionally, artificial intelligence algorithms assist in restoring old prints by eliminating dirt and scratches and correcting warp and flicker issues (*Wired*, 2023).

The role of artificial Intelligence In the pre-production stage has been especially notable. Hollywood companies are gradually adopting artificial intelligence tools to analyse financial, script, audience data and ultimately influence studios' commissioning decisions. These tools combine machine learning techniques, natural language processing, data mining and big data, and principles from risk analysis within the context of the filmed entertainment business. For example, an artificial intelligence platform processes film screenplays as inputs and generates analytics about features of the screenplay, commercial viability and a final recommendation to greenlight or reject. These analytics can include character's likeability, emotions by scene, measurements of gender equality, potential audience, predictions of gender and age breakdown of target audience, predictions of audience satisfaction ratings, financial forecasts, return on investment and information on which territories the screenplay is likely to find a receptive audience (NECSUS, 2020).

While artificial intelligence represents opportunities for film studios to gain productivity and cut costs, it can threaten movie industry workers who see their jobs at risk of disappearing. Hollywood writers initiated a strike in May 2023, expressing concerns about artificial intelligence-generated scripts that potentially displaced many writers. These professionals were concerned that studios might begin creating

scripts using artificial intelligence, reducing the need for most writers. Furthermore, writers wanted to guarantee that their previous works, such as screenplays and scripts, would not be used to train artificial intelligence systems. Actors represented by the Screen Actors Guild (SAG) joined the strike, citing pay and artificial intelligence issues. Both groups advocated for contracts protecting their roles from being taken over by artificial intelligence, whether in scriptwriting or as background actors (*Reuters*, 2023b). The actors' union negotiated a tentative agreement after a 118-day strike. According to that contract, actors would be getting higher wages. However, analysts worry that this may add 10 per cent to the cost of making movies and that shows, and studios will have to cut back on production to finance the higher costs. For example, an animation studio has recently cut jobs for 4 per cent of its employees. A premium cable network and streaming service, is undergoing a 10 per cent reduction in its workforce (The New York Times, 2023).

Artificial intelligence has been used in creation, production, and distribution in the **music industry**. It is used to generate music using vast databases of already existing tracks, blend them, develop new original compositions (*Arts Computing Office Newsletter*, 2021), and provide platform users with personalised recommendations. In many ways, this emerging technology opens up new opportunities for artists to produce music that goes beyond known genres, more novel methods of collaboration, and more options for consumers to personalise their content.

In 2016, a computer science laboratory music team released the first full song generated by artificial intelligence.[9] The composition was purposefully made to sound like a Beatles song by having access to a database of thousands of songs (*Arts Computing Office Newsletter*, 2021). More recently, the effects of artificial intelligence on the music industry have deepened and become more apparent. For example, the technology allows the dissembling of songs into malleable components, also known as stems. This function sometimes mixes and matches voice and music elements to form new compositions. This feature allowed Paul McCartney to recover an old recording from the Beatles and make the final Beatles song without synthetically creating new material.

While using artificial intelligence brings opportunities, on the other hand, it brings more challenges, especially concerning the legal implications of copyright laws. There are a growing number of cases where artificial intelligence is actively used to synthesise the voices of existing singers. In some cases, this is leveraged by songwriters who want to demonstrate to potential partners what a specific artist would sound like on a track before it is recorded. While this may benefit the songwriter or publisher, this may be poorly interpreted by the singers whose voices are manipulated and by demo singers who may lose work opportunities (*Billboard*, 2023a). In other cases, the public creates artificial intelligence-generated music, raising concerns about the ownership and credits over sourced musical elements. A track generated by artificial intelligence to mimic the voices of two singers, Drake and The Weeknd, was subsequently taken down by online platforms due to copyright claims (Variety, 2023).[10] Similarly, in the Republic of Korea, an artificial intelligence-generated rendition of an original song of a girl group, included mimicking a rock singer's voice.[11] However, amidst the trend of using artificial intelligence music generation services, clear policies regarding the unauthorised use of original artists' aural work have yet to be established (The Korea Herald, 2023).

Several factors in the **news and media industry** contribute to more use of artificial intelligence. Process efficiency is one of these factors. This efficiency builds on

[9] See "Daddy's Car".
[10] The track is called "Heart on My Sleeve".
[11] The song is "Hype Boy", the girl group is NewJeans, and the rock singer is Yim Jae-Beom.

contributions from artificial intelligence to automated summaries, conversion between text and speech, image recognition, automated tagging, subtitles, and transcriptions (Newman, 2023). The immediate potential gains from this efficiency must be balanced with the important investments required to adopt artificial intelligence tools (*Columbia Journalism Review*, 2024). Major media organisations[12] have already incorporated artificial algorithms into their operations to increase their newsrooms' productivity (FADEL, 2023).

Artificial intelligence contributes to efficiency and engagement by providing content recommendations, automating web pages, optimising news headlines and finding the best time to post (Newman, 2023). For example, some media organisations[13] use artificial intelligence-driven software to generate quarterly financial reports for many publicly traded firms (FADEL, 2023). Other firms use similar tools to efficiently create stories on traffic or property sales that attract and retain readers (Media Voices, 2023).

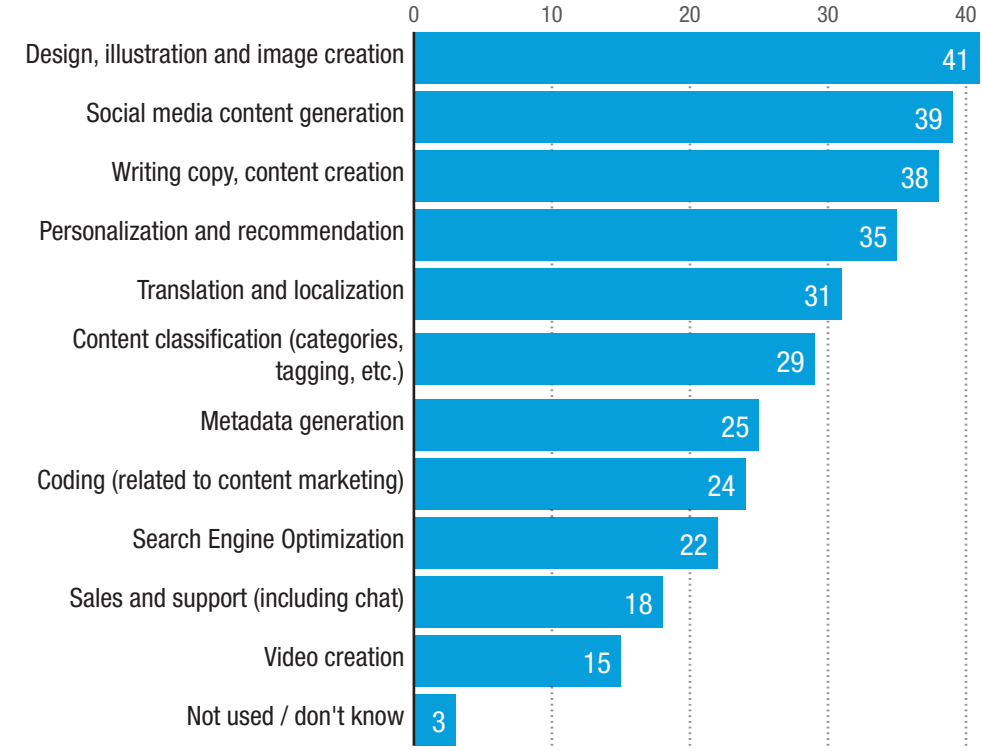
Some functionalities help to free journalists' time while facilitating news research and customisation. Some media organisations[14] employ artificial intelligence tools to offer suggestions for article topics and potential sources to its writers. Similarly, another media organisation[15] uses an artificial intelligence system that conducts real-time data analysis to assist journalists with identifying newsworthy stories much quicker (Saikaly, 2023). Artificial intelligence performs data analysis to pick up stories. For example, a system detected news potential by analysing data and identifying that a football team had won for the first time in 40 matches. As another example, a story relying on data can be customised by generating several stories, each using specific data for an area of a country (Media Voices, 2023).

Artificial intelligence also assists in other functions, including creating illustrative art for articles and blog posts (Newman, 2023). This appears to be the most frequent use of artificial intelligence by 41 per cent of news teams. This is followed by generating social media content – 39 per cent of news teams, writing copy or generating content – 38 per cent, personalising and recommending – 35 per cent, and translating and locating – 31 per cent (WordPress, 2023) (Figure 40). The journalist remains responsible for checking, clarifying, and adding value to the automated media story, for example, by adding empathy, insight, judgement, or customisation. Curation is by people, which remains with more time to produce in the cases where these artificial intelligence tools generate content (Newman, 2023).

An issue in this industry is that image media is highly vulnerable to manipulations, making it hard to distinguish between fact and fiction. Deepfake technology has exploited this vulnerability, distorting or fabricating videos. Deepfakes are computer-generated audio or video that create the illusion of individuals saying or doing things they never actually did (Massachusetts Institute of Technology Open Documentary Lab, 2021). The deepfake video project "In Event of Moon Disaster" highlighted this issue by presenting an alternate history of the Apollo 11 mission. The project won an Emmy for Outstanding Interactive Media in the documentary category (Massachusetts Institute of Technology, 2021). As another example, there is a firm producing digital twins of news anchors. This has the risk of undermining trust (Newman, 2023). Thus, it is becoming increasingly important for people to have media literacy, skills that empower them to find, understand, and assess various forms of media (Massachusetts Institute of Technology, 2021). Other efforts should include transparency, digital watermarking and moral guidelines (Newman, 2023).

[12] Major media organisations including the Associated Press, Reuters and The New York Times.
[13] For example, Associated Press.
[14] For example, the New York Times.
[15] Namely, the Reuters.

Figure 40
Use cases of artificial intelligence by news teams, 2023
(Percentage)



Source: WordPress.

Another important issue with using artificial intelligence in the news and media industry is the asymmetry of benefits and costs. Some workers may gain efficiency to focus on higher value-added tasks, while others may lose their jobs. Some firms are better prepared and develop best-fit tools, while others rely on artificial intelligence solutions provided by big platforms. This increases the dependence of some news and media firms on technology firms (*Columbia Journalism Review*, 2024).

In **performing arts**, artificial intelligence can intervene throughout the whole process. Algorithms can support text research by analysing vast amounts of literature, translating texts, and suggesting scripts, narratives, choreographies and characters. Artificial intelligence can support the production process by drafting grant applications and project proposals and increasing cost efficiency in the production process. It can also contribute to set design by creating interactive environments that respond to actors' movements or changes in the storyline, creating a more immersive experience for performers and audiences. Performers can interact with automatically generated visuals, augmented reality or sound that respond in real-time, customising the performance. Some artists use artificial intelligence to analyse reactions from the audience to improve engagement.

Artificial intelligence has improved design, interactivity, and decision-making in the **video game industry**. As video games increasingly strive to offer more realistic and immersive experiences, often integrating three-dimensional visualisation, augmented reality and virtual reality methods, artificial intelligence algorithms have been utilised to influence multiple layers of dynamic

player experiences. For example, artificial intelligence algorithms have been trained to design and develop interactive storylines that respond to player choices. Artificial intelligence techniques have also been used to procedurally generate content in-game, which refers to the automatic and random generation of content such as levels, environments, and rules. This builds personalised and fresh experiences, giving individual players a sense of autonomy and uniqueness in their gameplay experiences (Anantrasirichai and Bull, 2022).

C. Challenges and risks

The digital transformation of creative industries **also poses challenges**, especially regarding using artificial intelligence. These challenges relate to quality, consumer welfare, copyright, market concentration and competition, jobs, and development asymmetries.

The **quality** of artificial intelligence-produced content needs further assessment. The quality of artificial intelligence products relies on the performance of its algorithm, and on the database the algorithm uses. An artificial intelligence system can be fed with some data rather than others. It can prioritise some patterns to the detriment of others to optimise the commercial objectives of its promoters. This has triggered concerns about how algorithms can reduce cultural diversity because some cultures and languages may be left out from the databases training the algorithms, with the risk of monoculture or bias.

Furthermore, many people consume images, music, videos and news through centralised platforms. The criteria of these platforms' proprietary algorithms to select or recommend content are not transparent or auditable. They may be conditioned to the commercial interests of the platforms (European Parliament, 2020). The preference of most people to consume content related to known references may privilege recommendations of established rather than new artists, favouring consolidation to the detriment of innovation (Maekan, 2022).

Quality concerns can disproportionately affect people in developing countries. Most artificial intelligence systems were trained with data gathered from people from developed countries or otherwise specific to the reality of developed countries. This can generate outputs that do not serve the interests of people in developing countries. For example, digital medical services building on artificial intelligence tools may be better equipped to address concerns of high-blood pressure in a developed region than malaria in a developing country because the algorithm was less exposed to data on the latter. Another dimension of this bias on source data is that many artificial intelligence systems are trained to satisfy the preferences identified by people in developed countries. This may imply that less visible artists from developing countries are less likely to be recommended by artificial intelligence tools which, as previously mentioned, will privilege more known references. Furthermore, artificial intelligence systems are most often trained in English putting at a disadvantage people from developing countries who are not English native speakers (*Foreign Affairs*, 2023) and may have limited access to learn foreign languages.

Appropriation is an issue with both moral and economic dimensions regarding artificial intelligence applied to the creative economy. The moral dimension discusses whether building on work from others is acceptable. The economic dimension discusses whether appropriate compensation is provided for the authors of the work that is used as a basis for appropriation.

The moral analysis between code-based art and people-based art should be similar. Appropriation is the force behind artificial intelligence, as people use databases directly and indirectly to train it. But appropriation is inevitable in art creation as all creators have influences, experiences and aesthetic references. The art world has formally acknowledged appropriation as

an artistic form, which had an established role during art movements such as pop art (Karakaidou, 2019). This implies that artists who use tools from the platforms to facilitate creative activities and other users of those platforms may be doing a morally acceptable appropriation. The acceptance does not hold when the code-based art involves other moral issues related to cultural appropriation.

In addition, many creators argue that artificial intelligence tools undermine the time and talent put into people-based art and affect their livelihood. The latter relates to the need to discuss economic compensation. The economic dimension of appropriation is also key when discussing the centralised governance of artificial intelligence by some tech giants. Artificial intelligence experts who work on these platforms and many of the artists who feed the databases underlying the algorithms have insufficient negotiation power (WIPO, 2018) to claim appropriate compensation from the giant gatekeepers, as discussed in Chapter IV. This challenge also has a development dimension, as many people in developing countries will have less chances to claim appropriate compensation and possibly lower negotiation power to advocate for systemic changes in this current artificial intelligence paradigm.

This brings **intellectual property rights** (IPRs), especially copyrights, to the forefront of discussing artificial intelligence in the creative economy. Copyrights protecting creators are designed for an analogue environment, and new business models, such as streaming, present a challenge for copyright experts. Policymakers and regulators need to discuss issues such as royalties for artists on streaming platforms, reselling of e-books, and platform liability for unauthorised uploaded content (UNCTAD, 2022a).

The “Next Rembrandt” project Illustrates the challenges In determining authorship. The project built on Rembrandt’s work to generate an image that could be the next piece of the painter. In the United Kingdom of Great Britain and Northern Ireland, regulations define the author of a computer-generated artwork as the person undertaking the arrangements to create the work. In Germany, regulations do not protect artificial intelligence artwork. In the regulatory frameworks of Germany and of the United Kingdom, artificial intelligence system cannot be an author, although this barrier is continuously challenged (European Parliament, 2020). Due to copyright concerns, stock image services have prohibited posting and selling artificial intelligence images (Dataconomy, 2022).

Development challenges also exist on IPRs related to artificial intelligence as some developing countries face regulatory gaps in this area. While this is an issue that exists in several areas, the gaps may be particularly acute regarding the regulation of new technology.

Consumer protection remains a key issue of digitalization in the creative economy. For example, when buying creative products, consumers expose themselves by providing personal and payment data to platform companies. However, many countries do not have national laws regulating domestic e-transactions and online consumer protection (UNCTAD, 2021a).

In the case of artificial intelligence in the creative economy, consumers may be exposed to the above-mentioned quality issues. This includes consuming cultural products with possible reduced cultural diversity and bias due to the algorithm’s performance or training data. Excessive reliance on artificial intelligence for decision-making could promote narrow-mindedness (European Commission, 2022).

Furthermore, manipulation of visual or audio media has been enhanced with artificial intelligence for entertainment or malicious purposes. This has created deepfakes with improved realism, sometimes by replacing faces or synthesising mouth movements to fake a speech and with body movements generated by learning with source videos. Text manipulation can also occur with text generator tools that

produce coherent paragraphs and have been used to create fake news or spam (Anantrasirichai and Bull, 2022). Deepfakes call for more debate on whether the manipulators use artificial intelligence to infringe copyright or misappropriate data.

Using personal data, such as images or videos, for deepfakes challenges consumer protection, privacy and moral issues. Developing a regulatory framework that addresses these concerns also requires considering that data has become an inescapable resource for several companies to improve their performance. The use of data in an appropriate, authorised, acknowledged, and economically compensated manner should ensure privacy and consumer protection while allowing firms to build on data for their competitiveness.

Regulatory challenges related to consumer protection in some developing countries also create development challenges. Many people in developing countries will have less recourse to challenge artificial intelligence issues such as use of personal data or manipulation of content. In addition, some artificial intelligence systems can perform worse than advertised and consumers in some developing countries need better ways to report issues and appeal decisions (*Foreign Affairs*, 2023).

Jobs in the creative economy are changing with the increased use of artificial intelligence. Some discussions point to a job decrease in automated activities and a job increase in activities related to automation development. Recent research by the International Labour Organization argued that the emergence of generative artificial intelligence applications shifts the competition to higher-skilled jobs (International Labour Organization, 2023b). Some applications excel in cognitive tasks like analysing texts, drafting documents, and retrieving information from various sources. This study suggests that the new wave of automation will predominantly affect knowledge workers in the short term. Technicians, journalists and market research analysts could face competition from artificial intelligence.

For example, this risk may impact some developing countries which have significant exports related to information technology. For instance, India and Singapore ranked among the three developing countries that exported more telecommunications, computer and information services in 2022. These countries accounted, respectively, for 10 and 2 per cent of global exports in this category. At the same time, information and communication sectors in these countries relied heavily on jobs with advanced education. In 2022, India and Singapore had 87 and 86 per cent of people with advanced education in jobs in this sector, respectively. This is above the global average of 71 per cent in the same year.[16]

In February 2024, concerns about the potential of artificial intelligence halted an investment of US$ 800 million in soundstage expansion to a studio. The investor worried that the ability of intelligent systems to generate scripts and finish videos from simple text prompts might eliminate the need for location travel or set construction and put writers, composers and other creative professionals out of work (Forbes, 2024).

Research on the Mexican economy pinpointed the average likelihood of automation for domestic jobs in the second quarter of 2022. This likelihood was 63.7 per cent in non-creative and non-cultural industries and only 0.15 per cent in cultural and creative industries (CAIINNO, 2023). An analysis of the Survey of Adult Skills (PIAAC) data indicates that the high risk of automation of activities within the OECD stands at 14 per cent for the overall job market and a lower 10 per cent for creative and culture-related jobs (OECD, 2022b). This study aligns with other analyses suggesting that creative roles are more resilient to automation. The ongoing digitalization

[16] Export data from UNCTADstat (https://unctadstat.unctad.org/EN/) and job data from ILOSTAT (https://ilostat.ilo.org/), accessed 22 May 2024.

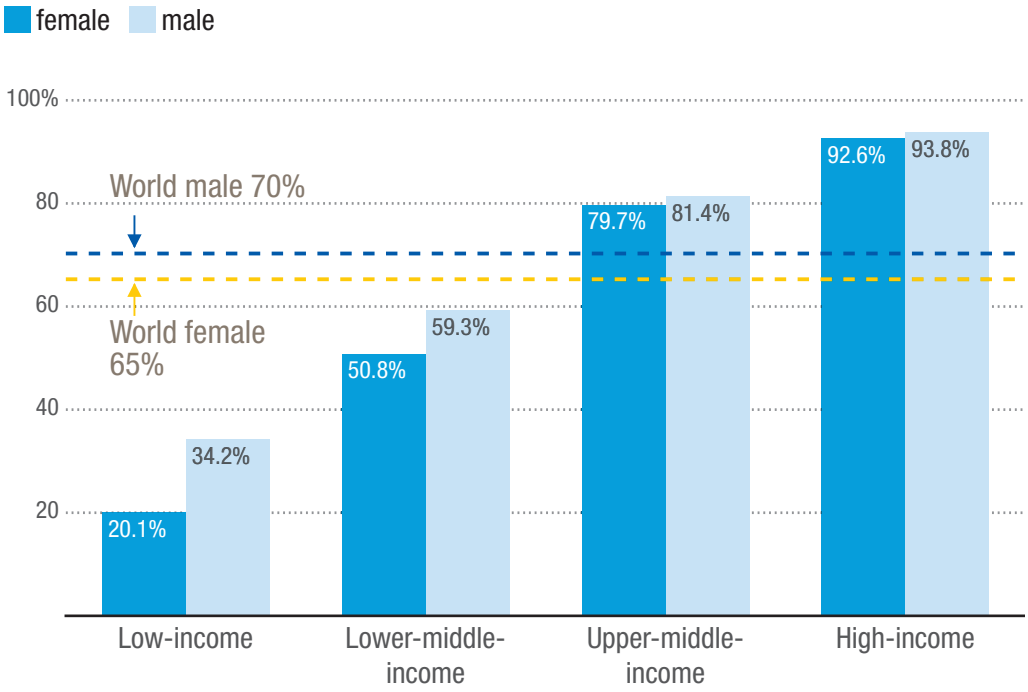
of the economy may even generate increased demand for creative skills.

A challenge In the future of work In the creative economy is identifying professionals who can use artificial intelligence technologies and manage change. Artificial intelligence developers may not understand the work done in creative industries, and creative industry professionals may not be experts in artificial intelligence. This may also imply a change in how sectors are organised. Creative industry firms' lack of in-house capabilities makes them dependent on artificial intelligence technological companies (European Commission, 2022).

Development asymmetries also create development challenges in using artificial intelligence in creative industries. Currently, many artificial intelligence-related technologies come from developed countries. Developing countries must often allocate resources to other urgent needs such as education, healthcare, or public debt repayment (*The Conversation*, 2022). Developed countries, along with China and India, dominate the "Global AI Index", measuring talent, infrastructure and research and development capabilities (Tortoise, 2022). The first Latin American country is Brazil, in 39th place, and the first African country to appear is South Africa at 55th. This trend could widen the digital divide between developed and developing countries (International Finance Corporation, 2019).

In 2023, economies of different development levels showed a wide Internet usage gap. Countries with higher incomes have higher Internet usage. Countries with a high income had 93 per cent of individuals using the Internet, while countries with low income had 27 per cent (International Telecommunication Union, 2023). Women used the Internet less than men at all development levels. This gender gap was 1 percentage point in high-income countries and 14 percentage points in low-income countries (Figure 41). A wider

Figure 41
Percentage of individuals using the Internet by gender, 2023
(Percentage)



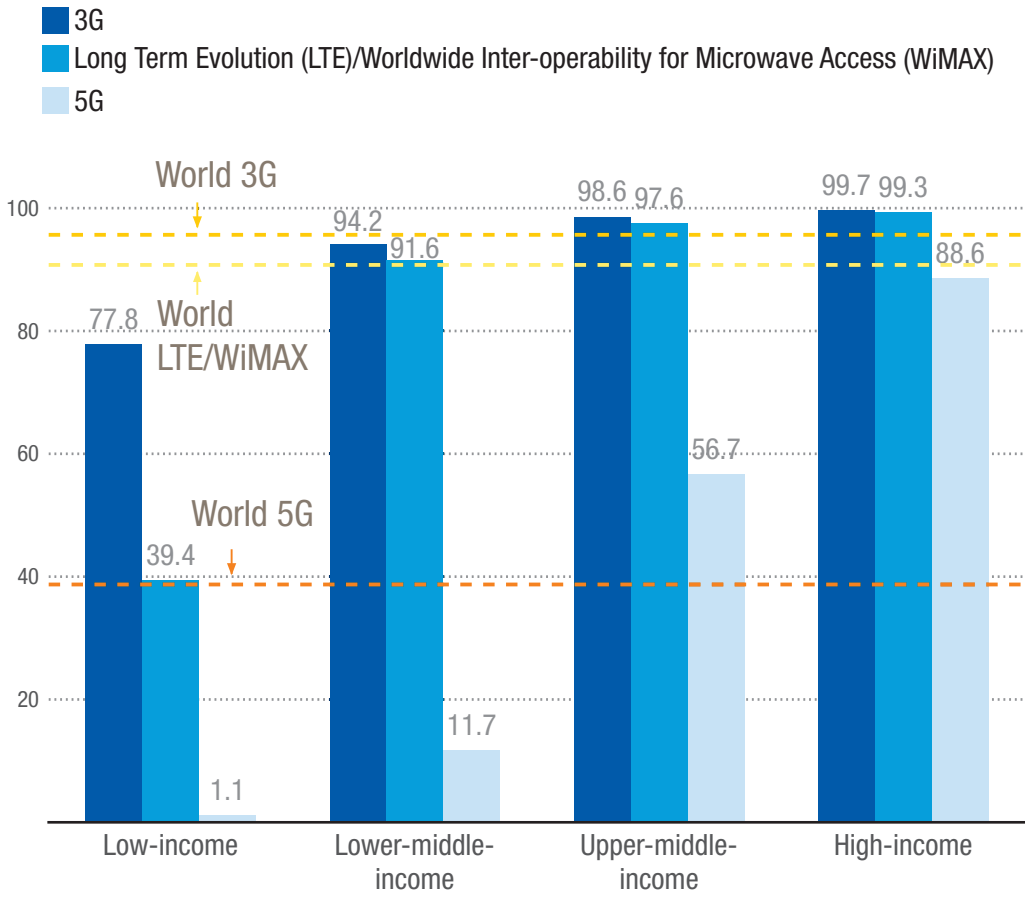
Source: UNCTAD, based on International Telecommunication Union (2023)

gap exists between Internet usage in urban and rural areas, with rural areas showing a lower usage. This gap was 7 percentage points in high-income countries and 30 percentage points in low-income countries (International Telecommunication Union, 2023). Infrastructure, accessibility, and overall cost remain likely issues that inhibit faster growth in this area.

In the same year, many regions reached over 80 per cent of 3G mobile network coverage. LTE or WiMAX mobile networks were implemented later but increased faster and have reached similarly extensive coverages. The more recent 5G mobile network is still facing a more imbalanced global climb, confirming the infrastructure dimension of the digital divide. Countries with higher income have higher coverage of mobile networks. This is valid for all technologies, but the asymmetry is higher in the more recent and advanced 5G mobile network. Countries with high income had 89 per cent of their population covered by 5G mobile networks in 2023, while countries with low income had only 1 per cent (Figure 42).

Another technological benchmark where some developing countries face challenges is on digital recordkeeping systems that are necessary to use the potential of artificial intelligence (*Foreign Affairs*, 2023).

Figure 42
Population covered by mobile network by technology and level of income, 2023
(Percentage)



Source: UNCTAD, based on International Telecommunication Union (2023)

D. Policy considerations

Digitalization and artificial intelligence may be a game changer for several creative industries. Policymakers need to monitor technological developments and update the relevant policy and regulatory frameworks that harness the opportunities and mitigate the risks for the creative industries.

Several countries around the globe recognise the transformative potential of digital technologies and artificial intelligence in the creative economy. 14 of the 36 countries participating in the UNCTAD survey reported specific initiatives on digitalization and artificial intelligence for creative industries (Box 4). Nine countries (i.e., Argentina, Cambodia, Cuba, Egypt, Nigeria, Pakistan, Seychelles, Sri Lanka, and Trinidad and Tobago) provide incentives for enterprises through more generalised policies, including enabling e-commerce and building digital skills.

Box 4
Examples of government-led initiatives to leverage digital tools and the use of artificial intelligence in the creative economy

China made significant investments in integrating science and technology with traditional industries. Efforts are underway to develop digital cultural trade, strengthen digital content creation, and promote digital models of cultural consumption. Notably, the Zigong lantern arts industry used scientific and technological innovations to help transform and upgrade this traditional cultural industry. These used three-dimensional printing, augmented reality and virtual reality, and 5G technologies to revitalise traditional crafts and enhance their market presence.

The **Dominican Republic** outlined a comprehensive digital agenda to harness artificial intelligence across various sectors, including creative industries. The National Artificial Intelligence Strategy seeks to transform and elevate the economy through sophisticated automation and innovation. This strategy is part of a broader effort to position the Dominican Republic as a regional leader in artificial intelligence. It also enhances creativity, innovation, and market access within its creative sectors.

The Gambia responded to digital challenges and opportunities by launching The Gambia Digital Economy Master Plan 2023. This plan aims to build on emerging technologies to benefit creative industries, addressing issues such as copyright and income generation in the digital space.

Indonesia is leveraging digital tools and artificial intelligence to promote its creative economy, focusing on village tourism, developing digital talent, and facilitating the necessary ecosystem. The National Strategy for Artificial Intelligence reflects a comprehensive approach to integrating artificial intelligence technologies across sectors, including creative industries, to foster innovation and competitiveness.

Jamaica, through a project called' Caribbean Animation Business Model, facilitated collaboration across Caribbean studios over a virtual platform and represents a step towards regional cooperation and global competitiveness of animation studios.

By establishing a study group, **Japan** is addressing the complex interplay between artificial intelligence technologies and intellectual property rights. This initiative aims to deepen understanding and provide guidance on legal issues related to artificial intelligence in the creative process.

Malaysia introduced a programme called DIVRSE'22 – Makyung in Metaverse, an innovative project with a series of online events. It combines traditional performing arts with modern digital technologies like augmented and virtual reality. This initiative highlights the potential for cultural heritage and digital innovation, creating new forms of creative expression.

Mauritius embraced augmented reality through the Dodo Expedition AR app, offering a novel way to engage with the extinct Dodo bird at the Natural History Museum. The Mauritius Expo Virtual Platform also represents a digital space for local artists to showcase their work, exemplifying the country's commitment to integrating digital technologies within its creative sector.

Oman launched the Makeen initiative to equip Omani youth with digital skills, reflecting the country's ambition to transform its economy and workforce through digital technology and artificial intelligence. This initiative emphasises the importance of developing national competencies to meet the evolving demands of the digital creative economy.

In the **Philippines**, the Implementing Rules and Regulations of Republic Act 11904 aims to develop and promote the Philippine creative industries. The law provides for digitalizing creative industries by granting access to digital services and digital training platforms for creative businesses.

The **Republic of Korea** is addressing copyright concerns related to artificial intelligence by preparing an AI-Copyright Guide. This guide aims to clarify and reduce legal risks for developers, copyright holders, and users of artificial intelligence-generated materials, and underscores the importance of legal frameworks in the age of digital creativity.

In **Slovenia**, upcoming initiatives of the Ministry for Culture will support cultural and creative industries in their fair digital transformation. The initiatives aim to open opportunities for creative SMEs, create new forms of media and storytelling, promote fair e-payments for creators, improve distribution and equal access to information and content, and promote creative businesses' professionalisation and exports.

Sri Lanka is pushing the country's creative economy by integrating emerging technologies to stimulate innovation and international reach. The Academy of Design leverages Sri Lanka's design potential in the global landscape. This academy guides creative industries' young talent with knowledge dissemination and increased engagement with emerging technology institutions from big tech to artificial intelligence startups.

The **United Kingdom of Great Britain and Northern Ireland** has been an early supporter of integrating artificial intelligence within its creative industries. The government's £ 100m BridgeAI programme[a] helps creative industries and other priority sectors to harness the power of artificial intelligence and unlock their full potential. The government is also investing £50 million into the next wave of the Creative Industries Clusters Programme (Department for Science, Innovation and Technology of the United Kingdom of Great Britain and Northern Ireland, 2023) supporting the sector to maximise benefits of artificial intelligence.

[a] See https://iuk.ktn-uk.org/programme/bridgeai/.
Source: 2024 UNCTAD survey on the creative economy.

Quality and consumer welfare

Quality and consumer welfare are promoted with people supervising the results of artificial intelligence in creative industries, acting as human curators. The collaboration of technology and people is the best scenario for developing content, as determined in the analysis of content generation in the film industry. Transparency on algorithms is needed to ascertain which patterns are prioritised and that commercial interests do not unduly condition the algorithm. This includes preserving cultural diversity and ensuring that there is no cultural appropriation.

Regulations should cover these aspects and, in general, online consumer protection. Regulation for deepfakes could envisage the use of data in an appropriate, authorised, acknowledged, and economically compensated way. This would ensure privacy and consumer protection while allowing firms to build on data for competitiveness. International cooperation is a key dimension of devising these regulatory frameworks, as detailed below under "Artificial intelligence governance and

policy frameworks". Managing deepfakes also calls for media literacy to assess and understand media and could include requirements on transparency, digital watermarking, and moral guidelines.

Intellectual property rights

Most existing intellectual property rights regulations and policies were formulated before the widespread adoption of digital technologies. These regulations may not adequately address new issues like intellectual property in the digital realm, online distribution, and user-generated content. Technologies like artificial intelligence are increasingly used in creative processes, raising questions about ownership, accountability, and transparency. Policies need to address these new challenges. Policymakers must collaborate with industry stakeholders, legal experts, technology specialists and others to adapt regulations to the evolving digital landscape.

The main gaps and challenges in public policies related to the increasing digitalization of creative industries include protecting IPRs, especially copyrights. These become more difficult to enforce due to the ease of access to content, copying, and redistributing content. Policymakers need to adapt copyright laws to the digital age and establish an appropriate balance between the rights of creators, consumers, and platforms in the digital space. Similarly, a balance is called between protecting the creators' and authors' copyrights and fostering an environment that encourages innovation and creativity.

In Angola, public policies face the additional challenges of informality and creators' reduced negotiation capacity. Policymakers in the country could consider actions to improve IPR literacy and apply a whole-of-society approach to consultations on IPR regulations. A national IPR strategy can consolidate IPR rules and improve clarity. Adhering to international treaties of IPR can promote minimum levels of rights and obligations.

A recent study conducted on digital video piracy found that this piracy leads to between US$40 to US$97 billion in revenue losses for the global film industry. The losses range from US$40 billion to US$95 billion for the global television industry (Global Innovation Policy Center, 2019). Similar studies show that the Indian entertainment sector experiences an annual revenue loss of approximately US$2.8 billion due to digital piracy (The Times of India, 2022). Piracy of movies and TV shows is an even bigger issue in Africa (*Reuters*, 2009). It is so rampant that some companies choose not to release their content in their countries. Instead, they decided to sell their shows only to audiences living in countries with better rules to control piracy.

The US Digital Millennium Copyright Act (DMCA) of 1998 heightens the penalties for copyright infringement on the Internet. Furthermore, the law criminalises the production and dissemination of technology, devices or services intended to circumvent measures that control access to copyrighted works. The law also criminalises circumventing access control, whether or not there is actual infringement of copyright itself.

The challenges related to copyright issues are even more prominent with the rise of artificial intelligence. The European Union and the United States of America assert that authorship should be attributed exclusively to natural persons. Consequently, the role of artificial intelligence is confined, acknowledged at most, as a tool within the legal framework. This role is not recognised as a co-author. Analysing some regulations in Latin American countries points to similar approaches, recognising only natural persons as authors. This is evident in collaborative and joint authorship regulations in Argentina (Article 16), Chile (Article 5), Colombia (Article 8), Honduras (Article 9), and Mexico (Article 4). None of these legal provisions explicitly address economic compensation for a work resulting from co-creation, treating artificial intelligence solely as a

tool, not a co-author. The challenge with exclusively protecting and compensating works created by natural persons lies in determining their level of participation. This can be particularly difficult with certain creations. Additionally, investors could face uncertainties if artificial intelligence inputs are freely accessible, as property rights would be ineffective and revenue would decrease (Santamaría Hernández, 2021).

Artificial intelligence governance and policy frameworks

Clear and transparent regulation for artificial intelligence is important for creative industries. This clarity and transparency protect artists' rights, uphold moral and commercial responsibilities, provide effective guidelines, balance innovation with responsibility, and prevent the uncontrolled proliferation of artificial intelligence-generated content. Without such regulations, the creative landscape may face moral, legal, and commercial challenges that hinder its growth and sustainability.

Several countries took steps to develop a regulatory framework around artificial intelligence. These frameworks are not specific to creative industries but have important implications for creative industries and workers. Some examples include:

- In Canada, the Pan-Canadian Artificial Intelligence Strategy was launched in 2017 and is the first of its kind. This strategy is a five-year plan that designates US$125 million in investment to advance artificial intelligence technologies to bring positive social, economic and environmental benefits to people and the planet.
- China's New Generation Artificial Intelligence Development Plan in 2017 outlines ambitious goals for artificial intelligence development.
- The European Union's "AI Act" is part of its broader digital strategy and outlines rules for artificial intelligence's moral and trustworthy use.
- France has released a National Artificial Intelligence Strategy, which includes funding for research, development, and the establishment of artificial intelligence moral guidelines.
- Germany has established a Data Ethics Commission to guide data and artificial intelligence morals.
- Singapore has developed a National Artificial Intelligence Strategy, focusing on four key pillars: (1) driving artificial intelligence adoption, (2) growing artificial intelligence capabilities, (3) ensuring artificial intelligence is explainable and human-centric, and (4) ensuring artificial intelligence is applied in a moral and responsible manner.
- The United States of America National Artificial Intelligence Initiative Act of 2020, signed into law in early 2021, aims to accelerate artificial intelligence research and development across various sectors.

Further to these national initiatives, there are arguments about the benefits of international cooperation in designing regulatory frameworks for artificial intelligence. The technical argument recognises that research and development and technological applications of artificial intelligence to creative industries and other sectors are resource-intensive and benefit from scale in knowledge, talent, computing capacity and data. International cooperation on the technical aspects of artificial intelligence can lead to standards through organizations such as the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), the Institute of Electrical and Electronics Engineers (IEEE) and other standard development bodies (Brookings, 2021). Such technical discussions are relevant for development aspirations of countries. Developing countries should be involved in shaping possible artificial intelligence standards, including on how it applies to social, political and economic life, comprising creative industries. These standards should have built-in development concerns, which can include considerations on skill, digital and infrastructure gaps, protection of data, and others.

International cooperation should aim to build trust by producing commonly agreed principles to develop and use artificial intelligence and the related policy and regulatory frameworks (Brookings, 2021). These principles should ensure the right of countries to use artificial intelligence for social and economic development, including industrial policy initiatives. At the same time, the principles should pursue the benefits of regulatory convergence, reducing unjustified trade restrictions for artificial intelligence related innovation, diffusion and trade. Different regulatory requirements can affect how data are collected, stored and transmitted. These differences can change how artificial intelligence models use data and how they are built. Striking a balance between policy space and convergence would allow developing countries, for example, to support their creative industries by protecting their data, while promoting the use of artificial intelligence for efficiency gains in those same creative industries.

The G7, the European Union and 28 European governments emphasized the need for international cooperation in regulating artificial intelligence, recognising that several of the associated risks are of an international nature and require joint efforts. All have further stressed the importance of a multistakeholder governance, security, responsibility and human rights protection in implementing and advancing artificial intelligence (*Italian Institute for International Political Studies (ISPI)*, 2023). In December 2023, the High-level Advisory Body on Artificial Intelligence, created by the United Nations Secretary-General, published an interim report on governing artificial intelligence for humanity. The document suggests several guiding principles for the international governance of artificial intelligence. This report recognises that artificial intelligence can assist people not only in everyday tasks but also on their most ambitious, creative and productive endeavours (United Nations, 2023).

Jobs and skills

The roles and tasks of creative industry actors are changing as emerging technologies such as artificial intelligence become increasingly embedded in creative value chains. An important effect is the increasing demand for new digital skills, which calls for education and training policies to meet that demand.

This shift causes job gains and losses. Support is needed for those in vulnerable situations. This includes education and training, contract protection, and social support. The debate on socialising the benefits of artificial intelligence deserves merit, including more discussion on universalising income decoupled from work.

Strategies to develop skills are particularly relevant for development aspirations. Skill building should attend to some of the aforementioned challenges and include an interdisciplinary approach and a continuous learning dimension. For example, creative economy professionals should learn to use artificial intelligence technologies and also to manage change. This has the objective to prepare these people to seize the benefits of artificial intelligence in their work, while preparing them to the extent possible for the changes that artificial intelligence can cause in job gains and losses.

Development asymmetries

Policies should consider the digital divides and aim to close the digital, knowledge, physical and digital infrastructure gap between genders, urban versus rural areas, and regions with differing developmental levels. This should consider asymmetries in access to the Internet, mobile networks, and other forms of telecommunications.

Policymakers also need to promote affordable digital tools and access to new payment technologies for creative industries in all countries, particularly developing countries.

Chapter IV

Market concentration and competition in the creative economy

Market concentration and competition in the creative economy

Creative markets are often highly concentrated and possess unique characteristics that impact competition. Certain steps commonly used in competition policy need to be adapted for the creative economy. Like digital markets, which are increasingly interlinked with creative activities such as advertising, film and video streaming, and video games, creative industries often have blurred market boundaries, making it difficult to precisely define a firm's relevant market. This chapter explores the primary competition challenges in creative industries and policy considerations to address these issues.

Competition policy is a regulatory tool to promote market competitiveness, efficiency, and openness. It targets a spectrum of goals encompassing economic and non-economic dimensions. Competition policy is intricately linked to growth and positive macroeconomic impacts (OECD, 2014; UNCTAD, 2015).

From an operational perspective, competition policy encompasses three main action areas. The first is competition law enforcement, which aims to curb anticompetitive practices, which can be categorized as collusive practices designed to harm competition—such as cartels—or abuses of market power. The second involves merger review proceedings to rectify or prohibit mergers that could negatively impact or diminish competition. The third area relates to competition advocacy, which involves raising awareness among government bodies and stakeholders, as well as businesses and consumers, about the benefits of competitive markets.

There can be a trade-off between fostering competitive markets and nurturing domestic industries. Competition policy may have to balance protecting consumers and markets from dominant abuses while supporting the growth of national industries that can compete globally, create jobs, and attract investments. This balance is important, for example, in promoting digital transformation and innovation while ensuring fair competition, but also for the creative economy, which has broader cultural and social impacts. Although both competition and industrial policies aim for economic growth and development, they can differ in their objectives, scopes, and means (UNCTAD, 2023d).

Some creative activities are increasingly interlinked with the digital economy. Despite the differences in the maturity stage of competition laws and institutions in different jurisdictions, there are challenges common to all of them related to digital economy issues and the need for international cooperation to deal with problems beyond each country's borders (Burnier da Silveira and Kovacic, 2019; UNCTAD, 2021b, 2024b).

Numerous competition cases from the creative industry have been brought before competition authorities, including both anti-competitive practices and merger cases. For instance, in *United States v. Paramount Pictures, Inc.* in 1948, the United

States Supreme Court ruled against film producers owning exhibitors (separating production and distribution from exhibition), driven by anticompetitive exclusive dealing arrangements between firms.[17] The Court understood that several film studios at the time (Paramount Pictures; Twentieth Century-Fox; Loew's/Metro-Goldwyn-Mayer; Radio-Keith-Orpheum; Warner Bros.; Columbia Pictures; Universal; and United Artists) violated antitrust laws by entering into vertical arrangements. The de-verticalization of the movie chain had far-reaching effects on the entire production, distribution, and exhibition structure (De Vany and Eckert, 1991; Ornstein, 1994; De Vany and McMillan, 2004; Gil, 2008, 2015).

More recently, in 2023, a vertical merger within the creative economy attracted global attention as Microsoft acquired Activision Blizzard, marking one of the most significant deals in the video game industry in recent years. The merger sparked substantial debate and diverse perspectives on the issues. While the Brazilian Competition Authority (the Administrative Council for Economic Defense or CADE, in its Portuguese acronym)[18] and the European Commission (*Case M.10646*)[19] cleared the transaction, the Competition and Markets Authority of the United Kingdom of Great Britain and Northern Ireland granted clearance with the condition of adopting specific merger remedies to address competition concerns in the cloud gaming market.[20] In turn, in the United States of America, the Federal Trade Commission (FTC) is still challenging the merger before courts, even though the District Court has not suspended its closing.[21] This case and others discussed in this chapter ultimately illustrate the current and ongoing significance of competition matters within the creative industries, intensified in a dynamic and disruptive digital economy context.

Some developing countries may have limited capacity to formulate or implement competition policies, including for creative industries. However, knowing the experience of competition authorities in the creative economy in countries where this policy is well developed can also be of great value to less experienced authorities, as they can avoid policies that have proved insufficient or wrong for the desired purposes. On the other hand, successful experiences can inform and inspire countries less experienced in competition policy to take similar measures. Extracting insights from past cases, discerning the underlying concerns, and identifying proposed solutions can contribute to developing a well-suited competition policy framework. This can provide a solid foundation for effective competition law enforcement in the creative economy (Biswas, 2022; Hanssen and Hazlett, 2022; Norris, 2023).

A. Market structure: main concepts and challenges

Market structure, market entry barriers, and competitive rivalry directly contribute to shaping the functioning of creative industries. All these elements have particularities and challenges in the creative economy compared to other markets.

[17] See United States v. Paramount Pictures, Inc., 334 U.S. 131 (1948) and https://www.justice.gov/atr/paramount-decree-review (accessed on 20 November 2023).

[18] For the case records, see https://sei.cade.gov.br/sei/modulos/pesquisa/md_pesq_processo_exibir.php?1MQnTNkPQ_sX_bghfgNtnzTLgP9Ehbk5UOJvmzyesnbE-Rf6Pd6hBcedDS_xdwMQMK6_PgwPd2GFLljH0OLyFX6gl2sGKAL6BCs1NvfGDcTA25PStaVelgicwm5iRue6 (accessed on 18 March 2024).

[19] For the case records, see https://competition-cases.ec.europa.eu/cases/M.10646 (accessed on 20 November 2023)

[20] For the case records, see https://www.gov.uk/cma-cases/microsoft-slash-activision-blizzard-ex-cloud-streaming-rights-merger-inquiry (accessed on 20 November 2023).

[21] For the case records, see https://www.ftc.gov/legal-library/browse/cases-proceedings/2210077-microsoftactivision-blizzard-matter (accessed on 20 November 2023).

1. The multi-sided nature of markets

Most creative industry markets are multi-sided, not only for consumers but also for producers, distributors, publishers, and advertisers. For example, in advertising, a newspaper contends with other newspapers for content production and may also compete for advertising spaces with numerous media and non-media competitors, such as outdoor advertisers.

Multi-sided markets

Multi-sided markets refer to markets characterized by an intermediary platform – digital or not – that creates value by facilitating connections between different types of producers and consumers on multiple sides of a given industry. The various sides of the market impact each other through network structures that make concentration or competition on any side influence the dynamics of the other.

This recurring characteristic of creative industries has significant implications for market access, including the eventual necessity of a firm to orchestrate an integrated entry into various market facets to compete effectively with its rivals (UNCTAD, 2019b).

Digitalization adds a layer of complexity to the creative economy, introducing the specific competitive features and dynamics of digital platform competition, such as the relevance of network effects, "winner-takes-all" dynamics, and increased switching costs. Additionally, it blurs the frontiers between market sides, such as content production, mobilization of workers in relatively restricted labour markets, and advertising (Evens and Donders, 2018; Geurts and Cepa, 2023).

2. Market entry barriers

Market entry barriers

Despite some variations throughout history, entry barriers can generally be understood as any practical obstacle to the entry of new competitors into a given market.

While entry barriers are common in several industries, new firms in creative industry markets face peculiar obstacles to entry.

Barriers to entry can be classified into three categories: state, structural, and strategic barriers to entry. State barriers to market entry refer to administrative market access regulations, such as taxi licenses, patents, etc. Structural barriers to entry are related to the nature of the market, such as economies of scale, investment requirements, advantages from experience and learning, etc. Established companies could create strategic barriers based on structural or state barriers to entry. These include strategies such as increasing rivals' costs, strategic patent requirements, and the creation of incompatibilities and switching costs, for example. Barriers to entry could help to strengthen the dominance of a quasi-monopoly company and allow it to preserve and protect its market power, thereby increasing the possibility of abusing it.

In the creative economy, regulatory barriers, including licenses, influence competitive dynamics. This form of legal entitlement has the potential to establish temporary or permanent monopolies, impacting the regional distribution of market competition and dynamics based on companies' licensed areas of operation (Wirth and Bloch, 1995). These barriers are almost constant in creative industries, protecting copyright productions while encouraging creation.

Economies of scale and scope may significantly affect competition in creative industries, especially as the importance of portfolio diversification and market reach continues to grow. They are particularly relevant, given substantial evidence indicating that economies of scale in the production of content and advertising are linked to concentration in markets, including in creative industries like publishing, newspaper, television, and cinema, among others (Wirth and Bloch, 1995).

Economies of scope and scale

The concepts of economies of scope and economies of scale are distinct forms of cost reduction within a given company. Economies of scope are related to decreased average total cost by producing diverse goods. In contrast, economies of scale involve the cost advantage gained through increased production levels of a single good.

Before digitalization, entry barriers to media markets included scarcity of frequencies, naturally limiting the number of broadcasting channels (radio and television programs). Following digitization, the Internet, and mobile technology, these structural barriers to entry have been replaced by barriers particular to digital markets and platforms. Digital platforms have made it easier for everyone to publish content, which is very important to producers offering their content broadly. On the other hand, this reality has led to information overflow for consumers of digital content, making it difficult for the consumer to make a well-informed choice as they cannot view all the content available on the Internet. This gave rise to promotion or multichannel networks, which took over the role of former editorial offices in selecting what is brought to the user's attention and what is not. These promotion networks interact with individualized search and recommendation algorithms of relevant platforms like Netflix, YouTube, etc. Promotion network managers need to find ways to push their content (artists, videos, songs, movies, etc.) up on the recommendation lists to receive more users' attention. Without such effort, it is more difficult to effectively "enter" online markets, that is, to make content perceived by many users. This is an example of one of the structural barriers to entry in digitized media markets (Budzinski and Kuchinke, 2020). Other barriers include network effects, switching costs, and lock-in effects (UNCTAD, 2019c).

Research on behavioural tendencies shows a cognitive cost in switching platforms regarding time, effort, energy, concentration, and sustained thought required. Competition is not necessarily "one click away" (Candeub, 2014; *Wired*, 2012). Consumers need to understand default settings and how to change them and be willing to do so. Moreover, consumer biases and inertia prevent consumers from trying platforms other than the ones they are familiar with, further reinforcing dominant platforms' market power. High economies of scale and scope, data-driven network effects, control over data, switching costs, and consumer inertia could create high barriers to entry in digital markets (UNCTAD, 2019b).

For example, a study by the Angolan Competition Regulatory Authority (ARC) revealed concern about exclusivity agreements and the sale of packages in the pay-TV segment. For the ARC, this practice – which is common – when associated with the existence of market power can limit or prevent competitors' access to supply and distribution channels. For this reason, the ARC, in *Recommendation No. 01/2023*, dated July 2023, recommended the creation of rules limiting such practices (Angolan Competition Regulatory Authority, 2023).

3. Non-market dimensions

Another issue related to market access in the creative economy is the presence of important non-market dimensions. Creative industries are characterized by features beyond consumer output

maximisation, directly influencing competitive dynamics and commercial success.

For instance, the digitalization of video-on-demand (VoD) business models can raise competition issues regarding consumers' choice and diversification of products, especially in the context of increasing consolidation. In other words, the concentration of VoD services may reduce content variety, such as films from different countries and productions of various genres. Additionally, the fact that these markets are not necessarily characterized by competition related to price poses a challenge in defining relevant markets compared to traditional competition analysis tools (Budzinski et al., 2019; Budzinski and Lindstädt-Dreusicke, 2020). For example, in the case of Facebook, the platform provides access to a social networking platform at zero price. Access to Facebook is not really "free" because the individual provides his/her personal information on the platform. What creates competition between Facebook and other social networking alternatives is among others, the number of people using Facebook. This makes the platform more attractive to people as there is chances to connect with a much wider group of users. This example shows non-price competition factors in the case of "free" digital platforms.

For example, some critics pointed out that competition authorities failed to define the relevant markets involved in the 2014 Facebook and WhatsApp Merger since the case also encompassed potential privacy harm to consumers from increased market concentration (Wu, 2019). At this point, in Brazil, trying to overcome the challenges of defining relevant markets, CADE precedents in merger control cases involving creative industries suggest that it is more conservative to leave the definition of the relevant market open. In such precedents, CADE usually analyses different market share scenarios to assess the impact of a merger on competition.

Concerning the non-market dimensions of creative industries, challenges arise in applying price-related approaches to define relevant markets and their concentration for competition policy purposes. Traditional mechanisms for defining the relevant market based on prices, such as the small but significant non-transitory increase in prices test, may be inadequate for identifying consolidation in areas more relevant and meaningful for consumers, such as privacy, consumer freedom of choice, and industry creativity, among others (Lianos, 2018). Moreover, new theories of harm directly related to these aspects may emerge.

Issues such as entry barriers, multi-sided markets, and non-market dimensions, though more prominent in the creative economy, do not imply a complete departure from concurrent industrial organization paradigms. Even though the primary paradigms of competition policy are under debate worldwide, there are no clear indications that the mainstream approach will be replaced shortly. While new developments in the field are being debated, traditional competition tools are still relevant and helpful in tackling contemporary issues in the creative economy.

B. Market concentration and its impacts

There is currently no systematic, comprehensive, and consistently available public data on market consolidation across various industries within the creative economy. The very definition of the relevant market and the subsequent assessment of market power is not a simple task (for a comparative analysis of media market definitions, for instance, see European Commission, Directorate-General for Competition, 2003). In addition, competition authorities worldwide have found it challenging to define the relevant market in digital market cases. In some cases, the analysis of the specific case is carried out without this prior definition. These developments are important for the creative economy, as many creative activities, such as film and music streaming, video games, and other creative content

production and distribution, are interlinked with the digital economy and platforms. Analysing specific markets suggests that creative industries often exhibit asymmetric levels of consolidation among competing entities, as illustrated below.

1. Market concentration in the creative economy

One critical challenge of studying the market concentration of creative industries is that, especially in developing countries, very little official data is produced to reveal the current and actual market concentration. The lack of data prevents an accurate market diagnosis and hinders the production of public policies in the creative economy. However, recent data suggest the existence of high concentration in some markets.

For example, according to UNCTAD, Google (90 per cent) and Facebook (66 per cent) dominate the global Internet search and social media markets, respectively. Amazon holds at least one-third of the world's cloud infrastructure services and online retail activity market (UNCTAD, 2019c).

The online advertising market in the United States of America is highly concentrated, with Meta and Alphabet/Google holding a 48.4 per cent share, divided into 28.8 per cent for Alphabet and 19.6 per cent for Meta in 2023. Despite a slight decrease in their market share in recent years, the dominance they established over the last decade remains (Axios, 2022).

Book publishing in the United States of America, for example, is dominated by the "Big Five" publishers (Penguin Random House LLC, Simon & Schuster, Inc., HarperCollins Publishers LLC, Hachette Book Group, Inc., and Macmillan Publishing Group, LLC) collectively holding approximately 80 per cent of market share. Penguin Random House LLC alone accounts for roughly 25 per cent of the market share (*Vox*, 2022). Moreover, some studies indicate that horizontal mergers significantly impacted the concentration of the book industry (Greco, 1999). Just a few firms dominate Germany's and France's book publishing industries. Holtzbrinck, Bonnier, and Random House in Germany and Hachette, Editis, Madrigall and Médias Participations in France account for two-thirds of these countries' total revenues accumulated by their top 20 publishers (Wischenbart and Fleischhacker, 2020). The manga industry in Japan is similarly led by four publishers that own most of the popular circulating titles (Shueisha, Kodansha, Kadokawa, and Shogakukan). Shueisha alone accounts for about 30 per cent of the market (Wischenbart and Fleischhacker, 2020).

Similar concentration patterns can also be found in the film industry and the music streaming sector. In the United States, for example, a few movie studios (Disney, Lionsgate, Paramount, Sony, Universal, and Warner Bros) accounted for nearly 90 per cent of box office ticket sales in recent years (CNBC, 2019).

The Competition Commission of India conducted a market study on film distribution chains in 2022 and 2023. The study identified competition concerns within the sector, such as imbalances related to the superior bargaining power of some competitors, unequal revenue-sharing agreements, the challenges posed by new technologies in cinema, and tying and bundling agreements at the exhibition level. The Commission recommended self-regulation by the interested parties (Competition Commission of India, 2023).

Approximately 59 per cent of the global streaming music subscription market in 2021 was dominated by only three companies: Spotify (31 per cent), Apple Music (15 per cent), and Amazon Music (13 per cent). Therefore, while smaller competitors exist in the market, such as YouTube Music (8 per cent), it is still a relatively concentrated market (*The Verge*, 2022).

In China, AliPlay and WeChat hold an oligopoly in the mobile payment solution market (UNCTAD, 2019c).

2. Potential impact of market concentration

While market structures are not the sole factors influencing competitive dynamics in creative industries, as barriers to entry and efficiencies also play crucial roles, they are essential to understanding competition in a specific market. Competition authorities typically use market share as the first step in analysing anticompetitive practices and merger cases (regarding the influence and legacy of structuralism on competition policy, especially in the United States of America, see Crane and Hovenkamp (2013) and Hovenkamp (2014)).

Market concentration presents a nuanced blend of impacts on creative industries, fostering efficiency and innovation alongside certain eventual detrimental effects. It harbours the risk of stifling competition, as dominant players may leverage their market power to erect barriers to entry, diminish consumer choice, and inhibit the dynamism typically fuelled by a pluralistic market landscape. Such dominance can lead to the suppression of alternative and innovative ideas, which are critical for the vibrancy and diversity of creative industries. On the other hand, it should be recognized that the amalgamation of resources and capabilities often observed in concentrated markets can propel significant advancements in creativity and technology, providing firms with the requisite scale to invest in research and development.

The effects of market consolidation are evident in specific markets of the creative economy. For instance, some studies have demonstrated that concentration in the newspaper industry leads to economies of scale in advertising, distribution, and news (Dertouzos and Trautman, 1990). Other research indicates that consolidation in the scientific journals market is correlated with higher average prices, which, in turn, are positively correlated with quality measured by the number of citations they receive (Dewatripont et al., 2007). In the television market, the impact of economies of scale on lowering prices depends on the extent of overlaps on channels that broadcast the same content, with increased overlap leading to a reduction in prices in equilibrium (Beard et al., 2005).

In the context of market concentration observed in some creative industries, some factors can amplify the competitive risks associated with market power. As outlined above, elements such as barriers to entry, multi-sided markets, and non-market dimensions can shape the creative economy's assessment and approach to market concentration by competition authorities.

3. The case of digital creative industries

The section collects recent competition policy cases from creative industries in the digital space, at the intersection of the creative and digital economy. Recent UNCTAD reports provide further discussions on digital markets, that become increasingly relevant for certain digital creative industries (UNCTAD, 2019c, 2024b).

The digitization of multi-sided markets has led to the emergence of ecosystems, including within the creative economy. Digital ecosystems could be understood as "decentralized set of firms, data and processes that are connected through their use of digital resources, particularly related to supporting online platforms" (UNCTAD, 2019c). The traditional methods of market definition have been evolving as the competitive dynamics of new economic structures, given their simultaneous conglomerate, vertical, and horizontal dimensions, cannot be fully comprehended using existing paradigms without new concepts and improvements (Jacobides and Lianos, 2021). The so-called "gatekeepers" can be identified within the ecosystems, serving as the central nodes and eventually wielding a unique form of market power (OECD, 2022a). Different forms of market power abuse are also becoming more common, including self-preferencing

practices, highlighting that this dominance is not solely rooted in market structure but in the privileged position of key competitors within an ecosystem (Bougette et al., 2022).

Gatekeepers

Gatekeepers are intermediaries that control access to critical factors within an ecosystem, whether digital or not (and whether in creative industries or not). From this standpoint, a gatekeeper may either control access to the ecosystem's users by external third-party commercial users or prevent access to the ecosystem's content, products, and services.

The concept of gatekeepers has received legal attention under various legal frameworks worldwide, including the *Digital Markets Act* (DMA). In September 2023, the European Commission designated the first six gatekeepers under the DMA: Alphabet, Amazon, Apple, ByteDance, Meta, and Microsoft.

To address competition concerns arising from self-preferencing practices, Japan issued the Act on Improving Transparency and Fairness of Digital Platforms (TFDPA). Since April 2021, five providers of online shopping malls and application stores have been designated subject to the regulations under TFDPA. Since then, these providers have been required to give advance notification of any changes to their terms and conditions and disclose the scope of use of the data obtained from digital platform users, among other obligations (Ministry of Economy, Trade and Industry of Japan, 2021).

The presence of gatekeepers and their influence are among the concerns of the Korean Fair Trade Commission (KFTC).

Self-preferencing

Self-preferencing is a strategy for leveraging market power in adjacent activities by using the market power a given company holds in its main activity. It is a practice in which a company favours its product over its competitors.

Vertically integrated platforms could have dual roles as platform operators and users of their own platforms. This could give an advantage of self-preferencing their own products or services vis-à-vis competitors on their platforms. For example, Google operates an Internet search engine whereby it can self-preference its comparison shopping services over that of rivals by ranking its own comparison-shopping website on the first page of its search results while demoting rivals' websites. Likewise, Amazon operates a marketplace and sells products in competition with independent traders on its platform. In 2017, the European Commission fined Google EUR 2.42 billion for abusing dominance as a search engine by giving anticompetitive advantage to its own comparison shopping service, which would come in the highest rankings in its search results. This decision was appealed before the European Court of Justice, and a final decision is still pending as of March 2024. In 2019, CADE shelved a similar case against Google in Brazil, understanding that the practices in favour of its own comparison shopping service were not anticompetitive.[22] These opposing decisions among relevant competition authorities only reinforce the idea that cases involving abuse of market power must be analysed individually under the rule of reason (i.e., based on the effects of the respective practices in each jurisdiction).According to the KFTC, a platform's influence as a gatekeeper increases when users use only one platform (single-homing) or multiple platforms but use a particular platform more heavily than others (Korean Fair Trade Commission, 2023).

[22] For the case records, see https://sei.cade.gov.br/sei/modulos/pesquisa/md_pesq_processo_exibir.php?2pXoYgv29q86Rn-fAe4ZUaXIR3v7-gVxEWL1JeB-RtUgqOwvr6ZlwydI0IhRNSr2Q22lByVKByYDYwsa13_JxqldakEIsAfM40O_nlair2nlnoNzF4h6tAzo-cc8tTVt (accessed on 18 March 2024).

In the United States of America, the Epic Games competition cases against Apple and Google[23] are examples of how the multi-sided nature of several markets in the creative economy, especially in a digital environment, can affect market concentration evaluation. The first dispute involved Apple's rules for app developers within the iOS App Store, including a 30 per cent commission in sales from other developers' apps. After numerous attempts to convince the company to open its closed platform, Epic Games breached the iOS App Store rules by introducing its own payment method independent from the iOS App Store, leading to its removal from the platform by Apple. Apple was not fined for its practices before Epic Games. However, the judicial decision in the lawsuit required it to allow developers to inform users about cheaper payment options outside the iOS App Store.

The Epic Games competition case against Google involves similar discussions of the *Epic Games, Inc. v. Apple, Inc*. (i.e., anti-steering), and a jury ruled in favour of Epic Games in December 2023. In both cases above, the United States Supreme Court declined to hear the appeals from the parties.

These lawsuits are noteworthy for their extensive debates on the nature of application stores as an ecosystem and the potential for foreclosure arising from the gatekeeper power of big platforms and technology firms like Apple, which can set the rules for access to their application stores by imposing their own payment systems on application developers.

In April 2023, the Korean Fair Trade Commission imposed a remedy and a fine on Google, as the company prevented mobile game developers from publishing games via its competing app marketplace. According to KFTC, the "*monopolisation of the app store market is particularly likely to negatively affect the entire mobile ecosystem*" (Korean Fair Trade Commission, 2023).

In March 2024, the European Commission imposed a fine of over EUR 1.8 billion on Apple for abusing its dominant position in the distribution of music streaming apps to iPhone and iPad users (iOS users) through its iOS App Store.[24] The European Commission found that Apple applied restrictions on app developers, preventing them from informing iOS users about alternative and cheaper music subscription services outside the iOS App Store. These rules set by Apple are called "anti-steering provisions" and were understood as illegal under Article 102 of the *Treaty on the Functioning of the European Union* (TFEU) by the European Commission since they deprive users of cheaper choices and distort competition. The European Commission's decision is not final and could be challenged by Apple before European courts.

In a nutshell, these are good examples for policymakers and competition authorities in other countries. Instead of suggesting a complete reinvention of the competition toolkit or defining the illegality *per se* of certain levels of market concentration, they point to new areas and points of attention in addressing competition concerns in digital markets within the creative economy.

The distinctive aspects of the creative economy are better contextualized by precisely identifying the competitive risks and their genuine relationship with market concentration. Powerful competitors may deliver significant market efficiencies through essential economies of scale and scope.

For example, despite the concentration of streaming platforms, this disruptive innovation in creative industries has enabled more significant and direct access to new audiences for independent artists and limited or ended piracy in the music industry. However, competition concerns may arise from platform dominance,

[23] See Epic Games, Inc. v. Apple, Inc., No. 21-16506 (9th Cir. 2023).
[24] For the case records, see https://competition-cases.ec.europa.eu/cases/AT.40437 (accessed on 7 December 2023).

including self-preferencing or discrimination among content producers. This does not necessarily require the break-up of digital platforms or ecosystems but instead ensures the robustness of the platform's competitive governance in eventual abuse of market power cases through behavioural measures – such as adopting compliance programs and transparency measures.

Box 5
South African inquiry on the media and digital platforms market

The issue of digital media and platforms is one of the current key concerns of the South African Competition Authority. In October 2023, the South African Competition Commission launched an inquiry designed to scrutinize the distribution of media content on South African digital platforms and the advertising technology markets that link buyers and sellers of digital advertising inventory. According to the Authority, "*the Commission initiated the inquiry as it has reason to believe that digital platforms that distribute news media content have market features that may impede, distort or restrict competition, or undermine the purposes of the Act, and which have material implications for the news media sector in South Africa*." One of the Commission's main concerns is the effects on small to medium enterprises and historically disadvantaged persons, which must be addressed (Competition Commission of South Africa, 2023).

Source: UNCTAD based on Competition Commission of South Africa (2023).

Finally, as governments prioritize digital transformation, they may support specific sectors through legislative measures and subsidies. While competition law aligns with these goals, favourable treatment of certain firms (i.e., national champions) can distort markets and concentrate power. Therefore, involving competition authorities in digital policy is crucial to ensure fair competition. Recent regulations, such as the European Union's Digital Markets Act and Japan's *Act on Improving Transparency and Fairness of Digital Platforms*, underscore the importance of cooperation between competition and industrial authorities to balance innovation with market fairness (UNCTAD, 2023d).

C. Legal and regulatory environment

Despite competition policy's central role in developing the creative economy, it is not the only regulatory framework applicable to these industries. Companies operating in the creative economy, whether small or large, start-ups or established firms, are generally subject to a wide range of regulatory standards. Some adjustments to these rules may be necessary to promote the creative economy, mainly when some of these measures constitute regulatory barriers that prevent the sector's development.

1. Privacy and data protection

Data protection rules have a substantial impact on the creative economy. Research on competition issues in the digital economy reveals the central role played by user data for the platform economy and the environment in which many creative industries develop (UNCTAD, 2021b). In the European Union, the *General Data Protection Regulation* (GDPR) stands out as a standard that has influenced the adoption of numerous national laws on the subject, including the *Brazilian Law No. 13,709/2018*, known as the *Lei Geral de Proteção de Dados Pessoais* (or LGPD, in its Portuguese acronym).

Data protection laws will largely determine companies' market behaviour. In cases involving a dominant position and possible harm to competition, competition authorities may impose measures such as interoperability and data-sharing obligations (Administrative Council for Economic Defense of Brazil, 2023) to prevent abusive conduct, such as market foreclosure.

Interoperability

Interoperability is a technical feature that allows computer systems to interact with each other, even when they come from different companies. It can be imposed as an antitrust or merger remedy to foster rivalry between competitors.

During 2022 and 2023, the Competition Commission of India conducted research on *Data Protection and Antitrust: Two sides of the same coin*. It intends to study the relationships and linkages between data privacy and protection and antitrust issues in the digital environment and prepare an issue paper based on the research (Competition Commission of India, 2023).

2. Internet regulation

Laws regulating the Internet also profoundly influence the development of the creative economy. In this sense, *net neutrality*, an obligation that can be applied, for example, to telecommunications operators offering Internet access, is of great importance.

Net neutrality

Net neutrality means that the firm responsible for transmission, switching, or routing must treat all data packets equally, without distinction as to content, origin and destination, service, terminal, or application (Wu, 2003).

Net neutrality is relevant to competition policy, mainly when vertical integration exists between a company that owns an Internet access provider and a platform that provides services over the Internet. Being alert to the risk of last-mile network infrastructure owners blocking and reducing access to applications or content that compete with their applications should be on the radar of competition authorities.

3. Intellectual property rights

National intellectual property rights (IPR) regimes are also relevant to the creative economy. While IPRs protect authors of inventions or creators of products in the creative economy, they also create legal monopolies. Copyright protection can give rise to market power and its abuse while being shaped by competition dynamics at the same time (Nicita and Ramello, 2007; Cross and Yu, 2008). Similarly, other regulatory barriers, such as licenses and permits, can contribute to market dominance in these sectors and consolidate economic power (Motta and Polo, 1997; Smith and Woods, 2018). Therefore, there is a need to strike the right balance between protecting IPRs on the one hand and protecting competition on the other.

The impact of intellectual property rights on the creative economy in Latin America and the Caribbean has already been the subject of research (Inter-American Development Bank, 2022), identifying a series of challenges. Among the problems are excessive bureaucracy and high costs for accessing the intellectual property system, incorrect protection, outdated legislation using outdated concepts, little respect for the rules or the institutions in charge, and piracy.

Regulatory reforms or establishing parallel laws that address specific intellectual property issues could solve some problems. Some authors point to the *Bayh-Dole Act* in the United States as a positive example of legislation that allows the commercialization of inventions developed at universities (Inter-American Development Bank, 2022). One effect of the law was the increase in the number of patents applied for by universities.

The issue of intellectual property and the promotion of the creative economy, especially in developing countries, is the subject of intense debate. Although some authors advocate strengthening the laws and institutions in charge, others believe that the rights conferred by the current rules impose unnecessary market barriers, preventing the free circulation of artistic and intellectual content. The issue becomes even more complex when the systematic impact of new technologies is considered (i.e., the use of blockchains in regulation or protecting works created through artificial intelligence).

4. Licenses and requirements

Many regulatory rules represent legal obstacles to market entry. In some cases, excessive protection can discourage the full development of creative products and services. It is important to evaluate the concrete effects of national laws governing the exercise of professions, for example, to prevent restrictive requirements from market entry, especially by young people.

The artificial creation of barriers in the labour markets of tech industries should be on the competition authorities' radar. For example, in 2010, the United States Department of Justice reached a settlement with several companies (i.e., Adobe Systems Inc., Apple Inc., Google Inc., Intel Corp., Intuit Inc., and Pixar), preventing them from entering into non-solicitation agreements for employees. The agreements eliminated significant competition, restraining qualified workers, diminishing overall competition, and adversely affecting employees deprived of competitively relevant information and access to better employment opportunities (United States Department of Justice, 2010).

The issue of excessive bureaucracy in carrying out economic activities also deserves attention. The excess of rules, the requirement to pay high or multiple taxes and fees and legal uncertainty lead many entrepreneurs, especially small and medium-sized businesses, to operate informally, especially in developing countries (Inter-American Development Bank, 2022). The existence of a simplified, well-consolidated legal system and strong institutions are challenges developing countries face and directly impact the emergence of new business models. Law No. 13,874/2019 in Brazil, known as the *Lei de Liberdade Econômica* (or Brazilian Economic Freedom Law), was intended to address these issues. The law considers regulatory rules that increase transaction costs without demonstrating the effective social benefits and introduces instruments such as regulatory impact analysis as a requirement before the development of new rules.

D. Policy considerations

Successful regulatory experiences have facilitated the flourishing of creative products in several developing countries. The experience of some economies in promoting a competitive creative economy reveals two types of possible public policy measures: i) regulatory initiatives, which seek to oversee and support the market and indirectly favour competition, and ii) competition initiatives, tackling issues involving companies operating in the creative economy, used by competition authorities. Both measures are convergent and deserve attention from policymakers.

1. Regulatory measures

Regarding regulatory measures favouring competition, it is worth highlighting the design of public policies that promote new financing mechanisms for start-ups, including in the creative economy, considering the difficulties these ventures can find in accessing credit. Public-private partnerships can be an effective solution to this end.

Financing mechanisms

In Latin America, the Inter-American Development Bank (IDB) has carried out projects along these lines, such as the *2019 Bono Naranja*, created in partnership

with the Business Development Bank of Colombia, or the *Vouchers for Innovation in the Creative Industries Project*, implemented in Uruguay in 2016 (Inter-American Development Bank, 2023a).

The African Development Bank (AfDB) highlighted the relevance of investments and funding diversification for the African fashion industry, especially considering its potential (African Development Bank, 2016).

Southeast Asian governments have also adopted measures to support and boost creative industries (Sirivunnabood and Alegre, 2021). For example, Thailand has an agency that aims to promote and develop the creative economy.[25] The *Philippine Creative Industries Act* and the Philippine Creative Industries Development Council have similar goals in the Philippines.[26]

Regulatory sandboxes

From the point of view of policymakers, creating a regulatory framework favourable to new financial ventures could be an important initiative. The use of regulatory "sandboxes" related to credit for entrepreneurship or establishing regulations that favour crowdfunding financing are paths to consider.

Regulatory sandboxes

Regulatory sandboxes serve as enclosed testing environments designed for experimenting with various regulatory approaches in a specific market, mainly to experiment with disruptive innovations.

In the United Kingdom, the Financial Conduct Authority (FCA) launched the world's first regulatory sandbox in 2016 to promote more effective competition in the interest of consumers. It allows participating companies to test innovative business models, products, and services.

Also, the Information Commissioner's Office (ICO) launched a data protection sandbox in 2019, where organizations can develop and test innovative products and services using personal data in ways that may not be fully aligned with existing data protection regulations, under the guidance and oversight of the ICO. This data protection sandbox has been particularly important in digital identity services, finance, and healthcare.

The Monetary Authority of Singapore (MAS) also established its regulatory sandbox in 2016. This sandbox allows companies to test their innovations in a more flexible regulatory environment for a limited period of time, significantly contributing to Singapore's position as a leading fintech hub in Asia.

Successful initiatives also involve education for digitalization, especially for young people in vulnerable situations, considering that a significant part of the creative economy depends on the digital environment. In Colombia, a partnership between the government, companies, and the IDB led to the *Audiovisual Sandbox* (Inter-American Development Bank, 2023b), combining audiovisuals and education for young people.

Public-private partnerships

The Republic of Korea's experience creating a public-private task force to establish guidelines on online platforms also deserves to be highlighted. These guidelines did not introduce new rules but pointed out online platforms' main characteristics (i.e., multi-sided markets, network effects, economies of scale, and data usage). More importantly, the guidelines outlined criteria for assessing potential anticompetitive behaviour regarding restrictions on multi-homing, most-favoured-nation (MFN) treatment, self-preferencing, and tying (Korean Fair Trade Commission, 2023).

[25] See https://www.cea.or.th/ (accessed on 3 January 2024).

[26] See https://lawphil.net/statutes/repacts/ra2022/ra_11904_2022.html and https://www.creativeindustriessummitph.com/home (accessed on 3 January 2024).

Cooperation between companies and international organizations also helps in creating opportunities in the creative economy. In the field of tourism, a study by the World Tourism Organization and Netflix identified the possibility of synergies between government actions and business interests in the creative economy. Providing the infrastructure that allows the production of series or films in regional locations, for example, can develop an interest in tourism in that location and attract visitors worldwide (World Tourism Organization and Netflix, 2021).

Opting for soft regulation or principles-based approaches has been recommended for the digital economy and the creative economy, to the detriment of the command-and-control approach, especially when rules can become outdated rapidly, considering the dynamism inherent in new technologies. In some cases, co-regulation and self-regulation are more appropriate ways of tackling problems. This is the case, for example, with the European Union's regulation of audiovisual media services, which aims to create a level playing field for emerging audiovisual media, preserve cultural diversity, protect children and consumers and safeguard media pluralism. Although it establishes guidelines on the subject, the *2018 Audiovisual Media Services Directive* also encourages Member States to use co-regulation[27] and foster self-regulation[28] through codes of conduct, recognizing their ability to produce consumer welfare (European Commission, 2023).

The example from the Indian film industry discussed earlier in this chapter provides another example of self-regulation recommended by national authorities to tackle market concentration (Competition Commission of India, 2022).

2. Competition law enforcement

Regarding competition policies used by authorities when facing cases in the creative economy, experience has revealed the need to constantly adapt and update guidelines in markets such as digital music and video on demand, for instance, to promote transparency, legal certainty, and rule updates. In 2023, the Brazilian Competition Authority updated its guidelines on digital platforms, justified by the increase in cases involving creative industries and the inherent dynamism of these markets (Administrative Council for Economic Defense of Brazil, 2023).

Competition policy steps must be adapted for the creative economy, where market boundaries are often blurred, making it difficult to define a firm's relevant market. Additionally, measurable criteria for mandatory merger filings, such as market share or turnover, may not capture significant cases. Therefore, competition laws need greater flexibility.

The verticalization of markets has become increasingly prevalent in certain creative industries, such as the digital games markets. Within just the past couple of years, there has been an increasing number of mergers and acquisitions of game-related firms, consolidating the power into the hands of a few significant players within the industry. Tencent, for example, has been increasing its investment in international video game holding companies and studios, exemplified by its high stakes in the French company Ubisoft Entertainment, purchasing of the Hong Kong (China)-based company Leyou Technologies Holdings, and acquisition of the United Kingdom-based company Sumo Group (*S&P Global*, 2022b). In this case, the approach to addressing competition concerns in digital markets introduced by

[27] In co-regulation, the regulatory role is shared between stakeholders and the government or the national regulatory authorities or bodies.

[28] Self-regulation constitutes a type of voluntary initiative which enables economic operators, social partners, non-governmental organisations and associations to adopt common guidelines amongst themselves and for themselves.

the European Commission in the DMA around self-preferencing and discriminatory conduct has provided a good basis for analysis by authorities around the world.

It is also essential to consider that strict competition law enforcement and/or excessive regulation in markets with low entry barriers can encourage informality and piracy. These circumstances are real challenges to tackle in developing countries. Finding the optimum point for the design of competition policy is essential for the creative economy.

Finally, official data is key for proper public policy development (e.g., national statistics about industry output, value-added, employment rates, market shares in some markets, etc.). The absence of primary information makes it difficult to understand the dynamics of businesses involving the creative economy, its impact on the country, and the bottlenecks it faces. It also prevents the creation of historical series that can be compared with other markets (Ministry of Culture of Brazil et al., 2023; Pinheiro et al., 2023).

3. Way forward

Some key regulatory and competition policy measures that can help countries develop their creative economy include the following:

- **Reviewing and modernizing regulations** to avoid establishing inefficient barriers to entry, especially on issues such as intellectual property rights, Internet, infrastructure, regulation of professions and personal data. In the creative economy, the risks associated with the obsolescence of regulatory frameworks should not be underestimated. For instance, the music industry's market structure and business models have drastically changed over the last thirty years. Therefore, rules should be updated to adapt to new market realities.
- **Prioritizing mechanisms of self-regulation, soft regulation, co-regulation or responsive regulation** over regulations based on a command-and-control approach. Such instruments offer an advantage in rapidly and adequately addressing changing creative industries as they imply lower political and bureaucratic costs than legislative changes. They are also more flexible forms of regulation, better suited to dynamic markets. This is particularly true for markets with intensive technology, like gaming.
- **Investing in international cooperation** to tackle the competition challenges posed by the creative economy. These mechanisms can positively impact enhancing competitiveness, both in national and global contexts, as various related Latin American experiences show. For instance, UNCTAD recently published *Guiding Policies and Procedures under Section F of the Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices*, which recognizes the importance of cooperation among competition authorities in addressing anticompetitive practices and reviewing mergers. The interconnection of economies worldwide and the potential cross-border effects in creative industries reinforce the importance of international cooperation (UNCTAD, 2021c).
- **Creating and keeping up-to-date guidelines** on competition aspects of the creative economy. It is crucial to ensure that clear standards regarding the regulatory approaches authorities adopt are accessible to market participants. For example, some competition authorities worldwide regularly publish updated reports and guidelines on digital markets, covering various sectors within the creative economy. In Brazil, CADE has published a new version of its guidelines on digital markets (Administrative Council for Economic Defense of Brazil, 2023).
- **Considering the characteristics and unique dynamics of access and structure of the creative economy** when addressing competition

concerns. Authorities should evaluate cases involving the creative economy considering their specificities, especially the barriers to entry, who creates them, and the implications for competition in the market in the specific case (i.e., the fact that it is a multi-sided market in many cases).

- **Reviewing the applicability of the competition policy mainstream toolbox** giving up some requirements when necessary, always in a transparent, legal, and economically grounded manner. An example is the idea of the consumer welfare standard as an orienting principle for competition authorities. While excluding this parameter is not necessarily imperative, it can be expanded beyond price considerations to encompass diverse dimensions, such as quality measures in the creative industries. This expansion includes aspects relevant to consumers, such as the diversity of products and services, demonstrating the versatility of the standard to address various facets beyond traditional pricing concerns.
- **Awareness of the efficient design of competition remedies,** especially considering the inherent dynamism of the markets involved and the possible benefits of significant concentration levels. On certain occasions, less intrusive yet effective remedies may be better suited. For example, when dealing with digital ecosystems, structural measures like divestments of a gatekeeper's business may impact the overall purpose of these organisations and their users. In contrast, other remedies that ensure openness and contestability, such as transparency or non-discrimination commitments, may be more desirable.
- **Avoiding one-size-fits-all approaches**, particularly considering nation-specific and industry-specific concerns, including national industrial policy priorities. While competitive aspects of the creative economy can be examined globally, it is essential to frame strategies locally. Less-experienced jurisdictions can and should draw on global experiences but must also consider their unique institutional and economic realities, and encourage cooperation between competition and industrial authorities when needed (UNCTAD, 2023d).
- **Investing in producing data about the markets involved**, such as companies' market share, the number of direct and indirect workers, and the volume of wealth produced. Good policies require a definition of relevant markets and an accurate diagnosis of the situation, which means having reliable data to work with.

Chapter V

Sustainable business practices for decarbonization and inclusion

Sustainable business practices for decarbonization and inclusion

The contribution of creative industries to sustainable development aligns with three axes: economic, social, and environmental. While previous chapters discussed the creative economy's role in economic growth and trade, this chapter focuses on the social and environmental dimensions across different subsectors. The chapter examines inclusion in the creative economy, highlighting the role of disadvantaged communities in the sector and initiatives promoting inclusivity. Additionally, it addresses how creative industries can convey messages of inclusivity to drive social change. The chapter also reviews the environmental impact of creative industries, particularly greenhouse gas emissions, and explores how businesses are reducing these emissions through sustainable design, innovative materials, greener supply chains, and energy efficiency. Finally, the chapter presents how governments and business initiatives worldwide are promoting inclusivity and addressing environmental challenges, emphasizing the need for better data, sustainable operations, improved education and working conditions, best practices for funding, and promoting sustainable consumption.

A. The creative economy and inclusion

1. The importance of inclusion for the creative economy

Employment opportunities for women and youth are numerous in creative industries. The development of specific creative industries like traditional crafts supports the inclusion of local communities, thus fostering women's and youth's empowerment. Creative industries' contribution to social cohesion and well-being can also have an indirect economic impact. For example, cultural offers and activities can raise the attractiveness of urban and rural areas (European Parliamentary Research Service, 2019).

Creative industries can also influence thinking and promote behavioural change around sustainability and sustainable development thanks to their prominent role in modern culture and their audience. Examples include documentaries such as "Before the Flood", "Cowspiracy", and "Chasing Coral" or exhibitions like "Big Weather"[29] in the National Gallery of Victoria in Australia, focusing on Aboriginal and Torres Strait Islander peoples' cultural knowledge and understanding of weather systems. Another example is Playing for the Planet[30], an initiative facilitated with the support of the United Nations

[29] See https://www.ngv.vic.gov.au/exhibition/big-weather/
[30] See Home - Playing for the Planet (playing4theplanet.org)

Environment Programme (UNEP) and led by the games industry. The initiative petitions for member organisations to add "green activations" (new features and messaging which highlight environmental themes such as conservation and restoration) to their videogames to influence the gaming community, create a new decarbonization standard for the video games sector, and explore new areas of action.

However, creative industries present specific issues that impact the sector's social sustainability. Firstly, creative workers tend to be self-employed more often, working part-time or combining multiple jobs while exhibiting a higher educational background than the workforce's average. In addition, many professions in the sector, such as artists, writers, creators, or musicians, have on-call, short-term or fixed-term contracts, agency work or false self-employment (European Parliamentary Research Service, 2019). Such precarious arrangements penalise, in particular, vulnerable women by not providing the necessary social security protection (maternity leave, for example). In addition to high job insecurity, a substantial share of the revenues from creative activities is absorbed by intermediaries or platforms. For example, research shows that only 10 per cent of revenues in the publishing industry goes to creators. The remaining 90 per cent is distributed equally among publishers, distributors, and retailers (European Parliamentary Research Service, 2019).

2. Inclusive business practices

Inclusivity remains a core aspiration of the 2030 Agenda for Sustainable Development. The balanced participation of disadvantaged groups – achieved, among others, through enhanced opportunities and access to resources – is an essential element for the well-being of the whole population. Inclusion is generally measured with a multidimensional approach, with individuals possibly intersecting more than one dimension. These dimensions include age, sex, disability, race, religion, ethnicity, migration status, socioeconomic status, place of residence, sexual orientation and gender identity (UNDESA, 2016).

According to available data, women's representation in the creative industries varies by country. For example, in the United Kingdom, the creative industries workforce has a more significant proportion of men than women overall, with 63 per cent being male compared to 37 per cent being female. For the whole United Kingdom economy, the proportion of female workers is 47 per cent (Creative Industries Policy and Evidence Centre, 2020). In the Netherlands, studies report a share of 48.9 per cent of men and 51.1 per cent of women (Been et al., 2023). According to ILO data in Arts, entertainment and recreation, the average share of women in the creative industries fluctuates from 80.5 per cent in the Dominican Republic to 6.5 per cent in India, alongside a global average of around 38 per cent (ILO, 2024). The difference might be due to the presence of gender stereotypes in specific careers, cultural norms, gender-based violence and harassment, financial constraints, access to education and training, or gender equality policies (World Bank, 2023b).

There is evidence of vertical occupational segregation by gender, with fewer women working in senior positions, including as managers. For example, PR professionals see more significant proportions of women than Advertising and PR Directors, which see higher proportions of men.

Social imbalances are also evident when looking at the distribution of creative employment in urban and rural areas. A study conducted by ADB about India's economy finds that the concentration of creative jobs is significantly higher in urban areas, with a substantial 67.1 per cent of all creative workers residing there. In contrast, rural areas have a much lower proportion of creative workers at only 29.6 per cent. Moreover, while the creative workforce makes up 8 per cent of India's overall employment, it constitutes approximately 17 per cent of total urban employment but

just 4.1 per cent of total rural employment (Asian Development Bank, 2022b).

Self-employment is a common form of contractual arrangement in creative industries. The United Kingdom Labour Force Survey analysis highlighted the high level of self-employment in the creative industries, which is more than twice the level (on average) of that found in the overall economy: 31 per cent of people working in the creative industries work on a self-employed basis, compared to 15 per cent across the economy as a whole. However, the survey showed that most people working as self-employed have chosen to do so rather than having no other option (Australia Council for the Arts, 2022). The levels of self-employment vary widely across the creative industry sub-sectors. In museums, libraries and galleries, the workforce is almost all employees (97 per cent), with only 3 per cent being self-employed. By contrast, in some parts of the sector, such as music, performing and visual arts, 71 per cent are self-employed, with less than a third (29 per cent) working as employees.

Self-employment is often used as a response to the project-based nature of many creative industries. Such short-term arrangements hinder disadvantaged individuals' access to these industries. In such situations, hiring is often based on trust and social and cultural matching to reduce risks and search costs. Pregnancy and maternity leave dissociate women from this mechanism, reducing their opportunities. Weak connections also impact migrant workers, hindering their access to critical creative networks. All these obstacles lead disadvantaged individuals to have lower-paid jobs (Been et al., 2023).

An example of an organisation that aims to increase diversity in the creative industries and help represent minority groups is the United Kingdom-based company Creative Access.[31] Through partnerships with creative companies, Creative Access provides early career job opportunities and internships to people from underrepresented groups in the United Kingdom, such as Black, Asian, and minority ethnic backgrounds.

As already stated, the **advertising sector** bears the opportunity to drive social and cultural change thanks to its pervasiveness and contact with consumers. For this reason, campaigns must be built with diversity and inclusion in mind, avoiding discrimination and stereotyping. Initiatives aimed at increasing awareness of diversity and inclusion in this sector include the UNICEF Playbook on promoting diversity and inclusion in advertising (UNICEF, 2021) and the UNstereotype Alliance[32], a platform built by UN Women to use the force of the advertising industry to drive positive change.

Despite the increase in women working in **architecture** since the beginning of the 21st century, they still represent a minority in the sector. For example, in Australia, women passed from around 20 per cent of the architect workforce in 2001 to 31 per cent in 2016 (Parlour, 2016). Actions to support a more diverse and equal architecture include collecting and monitoring gender-disaggregated data and allocating resources for capacity building and training.

Studies show that, in countries like South Africa, the **craft sector** could be an essential and relatively more accessible labour market entry point for women - especially in rural areas - but at the same time, it can trap people into low-skill, low-wage jobs (Hadisi and Snowball, 2022).

Diversity in **design** represents one element that can open essential business opportunities for companies within untapped markets by reaching wider audiences and serving them better. An example of inclusive design comes from Singaporean designer Lim Jin Ying, who designed feeding toys for visually impaired children (Channel News Asia, 2022).

Fashion is also making active progress towards more diverse and inclusive

[31] See https://creativeaccess.org.uk/
[32] See https://www.unstereotypealliance.org/en

practices. In a recent survey, 51 per cent of fashion businesses declared they have a diversity and inclusion (D&I) strategy (British Fashion Council, 2022). Despite the efforts, however, women are underrepresented in Boards and Executive Committees. Larger businesses are more likely to integrate a diversity and inclusion strategy into their overall strategy, and public companies tend to be more active in diversity and inclusion, too, probably due to public scrutiny. Among the United Nations initiatives focused on increasing diversity and inclusion in fashion, the ITC Ethical Fashion Initiative was created to strengthen social enterprises in emerging economies and connect them to international brands in fashion, among other sectors. The initiative supports fashion brands from developing countries by fostering cultural exchanges with different brands, providing an accelerator programme for emerging African and Central Asian designers, raising awareness of equality in target countries, and building partnerships in the textile sector.

The lack of women in leading high-profile positions also affects the **film industry**. In 2019, female artists and producers received just 33 per cent of awards in the primary film categories across 60 major global film festivals. Less than 24 per cent of these awards were granted for achievements in the best director and screenplay categories (*The Guardian*, 2022). In addition, the film industry in Hollywood lacked gender parity both on and off the screen, according to research conducted by the Green Davis Institute (UN Women, 2019). This trend is also present in movies, where female characters represent less than one-third of all speaking characters. Research conducted by Nikkei Asia analysed 1200 Bollywood movies over the past 20 years and found that there is still an underrepresentation of women in leading positions: women represented 25 per cent of leading roles in 2022, although there is an improvement compared to 10 per cent in 2000 (Nikkei Asia, 2023). Women in Film and Television International (WIFTI) is an initiative to achieve a more balanced film industry.[33] WIFTI, an international network of industry professionals in film and media, plays an active role in promoting and celebrating the representation of women within the film and TV industry by organising workshops, lectures, and networking events, among others.

For racial equality, initiatives include scholarship programs to create pathways for black students and listening sessions and surveys for the black community. For example, in the film industry, Netflix has a sub-brand called Strong Black Lead (SBL) that focuses on black talent and encourages the industry to acknowledge and celebrate the black community's contribution to Hollywood and increase the participation of more black creatives. SBL explores content through a black lens and celebrates contributions to the culture on and off the screen (*LA Times*, 2018).

A study by the Dutch authors' society Buma/Stemra (Buma/Stemra, 2023) that focuses on the **music industry** shows that more women than men graduate from music schools and conservatoires in the Netherlands. Still, their share as members of professional organisations for performing artists and music creators is significantly lower than the share of men. When asked for possible reasons of this gender gap, women pointed to environmental factors such as the lack of female role models, gender stereotyping and discrimination, and in general the lower accessibility of the sector to women. Looking at innovative policies in the music industry to increase inclusivity, creative industry firms are carrying on various initiatives.

Recognising the scarcity of African music on the internet and the lack of visibility of African artists, Awa Girard founded Deedo,

[33] See https://www.wifti.net/

a music streaming platform dedicated to Pan-African music. Established in 2017, it now features more than 12 million tracks. Deedo has made its services accessible in six African nations, France, and the United Kingdom. Deedo aims to expand its reach to 27 countries, including 19 countries across West and Central Africa. The platform has also initiated "One Song, One Soul", a program that donates 5 per cent of each subscription to the nonprofit organisation chosen by the user, thereby fostering social engagement (UNESCO, 2022b).

Another example is Mdundo, a music platform dedicated to promoting African music. Founded in Kenya, the service has since expanded to several African countries and is now most prominent in Nigeria and Tanzania. Mdundo collaborates with approximately 150,000 African musicians, collecting rights and providing them with a platform where users can download and stream the music legally.

Efforts to increase inclusivity in **performing arts** focus, among others, on increasing the participation of disadvantaged individuals. Examples include Un-Label - a project co-funded by the Creative Europe Programme of the European Union – focused on forming an inclusive team of artists with and without disabilities to find new ways of performing arts, as well as the festival Sin Límites[34] – an International Festival of Inclusive Performing Arts taking place in Uruguay – focused on the inclusion of artists with and without disabilities in performing arts (Un-Label, 2024). The 2022 edition of the festival included workshops on inclusive art education, talks on communication and creation of inclusive content, and talks on labour rights and inclusion, among others.

Recent surveys on the **publishing** industry in the United Kingdom show that more than 50 per cent of leadership roles in publishing are occupied by women and that the primary workforce is aged between 25 and 44 (International Publishers Association, 2020). The United States of America shows an even more accentuated tendency, with around three-quarters of people working in publishing being women. Including a wide range of voices and perspectives is fundamental in a sector with the power to influence a large audience like publishing. Diversity in the workforce could support the capacity of the publishing industry to include as many experiences as possible in its products, helping the audience to discover different perspectives and increasing their cultural understanding. For example, the Accessible Books Consortium, a public-private partnership led by the World Intellectual Property Organization (WIPO), promotes accessible publishing[35] by providing guidelines and capacity building in developing countries.

The **software and video game development** industry employs a low proportion of women. According to the 2021 biannual Developer Satisfaction Survey released by the International Game Developers Association (IGDA), women comprised only 30 per cent of the responding game industry workforce (International Game Developers Association, 2021). This figure highlights that women tend to be underrepresented in creative industries associated with rapidly advancing technologies while being overrepresented in other, traditionally more precarious fields. However, recent initiatives highlight efforts to combat this low figure.

For example, the Women in Games Education Ambassador Programme initiated in 2020 works to support and empower women in the games sector through academic training, opportunities, and other initiatives (Women in Games, 2024). Distributed by the same organisation, Women in Games, *The Guide: Building a Fair Playing Field* provides guidelines and various tools for good gender equality

[34] See https://festivalsinlimites.com.uy/

[35] Accessible publishing refers to the practice of producing works that are "born accessible" so they can be used directly by both sighted and print-disabled readers. Accessible formats include braille, audio or large print.

and diversity practices (Women in Games, 2023). IGDA also presents event diversity guidelines recommending certain levels of minority group representation regarding the speakers or hosts of community affairs (International Game Developers Association, 2024). In a similar vein, diversity goals are also being explored in the esports segment of this sector, as in 2019, several video games associations, including the Interactive Games and Entertainment Association (IGEA) and Entertainment Software Association (ESA), jointly assembled the Principles of Esports Engagement, detailing four ethical and inclusive standards to direct and develop the esports industry (Interactive Games and Entertainment Association, 2019). Regarding the representation of lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) people, a recent survey highlighted that despite 17 per cent of active gamers identifying as LGBTQI, games that include LGBTQI characters or storylines are only 2 per cent of the total (GLAAD, 2024).

Diversity and inclusion are also gaining pace in the **visual arts** realm by providing visibility and a stronger voice to artists from marginalised communities. The passage from words to action happens through the opening of specific spaces for artists from marginalised communities through initiatives such as the Queercircle project,[36] an LGBTQI-led charity providing spaces for expression to socially relevant causes, or Africa Supernova, a temporary exhibition at the Kunsthal KAdE showcasing 145 artworks by 135 contemporary artists from 33 African countries and the African diaspora (Kunsthal KAdE, 2023). Such initiatives encourage intercultural dialogue by providing an equitable representation of artists from different backgrounds and increasing their visibility, thereby accessing new professional opportunities and increasing their livelihoods.

[36] See https://queercircle.org/

B. The creative economy and environmental sustainability

1. The environmental impact of the creative economy

Environmental sustainability entails different elements: decarbonization, halting and reversing biodiversity loss, protection of ecosystems, and reduction of toxic waste and pollution. To reduce their environmental impact, firms in the creative economy need to pay attention to the entirety of their value chains, from the design and production to the distribution, consumption and dismission of their products.

When looking at greenhouse gas emissions (GHG) in particular, these can be theoretically divided into “Scopes” as proposed by the Greenhouse Gas Protocol (GHG Protocol), which was jointly convened in 1998 by the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI):

- Scope 1: direct GHG from sources owned or controlled by the firm (buildings, vehicle fleet, etc.)
- Scope 2: indirect GHG generated by the generation of energy purchased by the company (the emissions arising from the generation of electricity used for its stores)
- Scope 3: all other indirect GHG emissions, both upstream and downstream, in their value chain (emissions from the extraction of materials used, emissions from the audience of an event or the emissions from the cultivation of cotton) (Creative Industries Policy and Evidence Centre, 2022).

To understand emissions associated with creative industries, a US$ 62 million film produces on average 2,840 tonnes of CO2e (Creative Industries Policy and Evidence Centre, 2022), while the Spotify streaming service emitted around 390,000 tons of CO2e in 2022 (Spotify, 2022).

Overall, the GHG emissions of creative arts and entertainment services are similar to those of other service industries, such as telecommunications, which emits around 8 tonnes of CO2 per US$ million Gross Value Added (Creative Industries Policy and Evidence Centre, 2022).

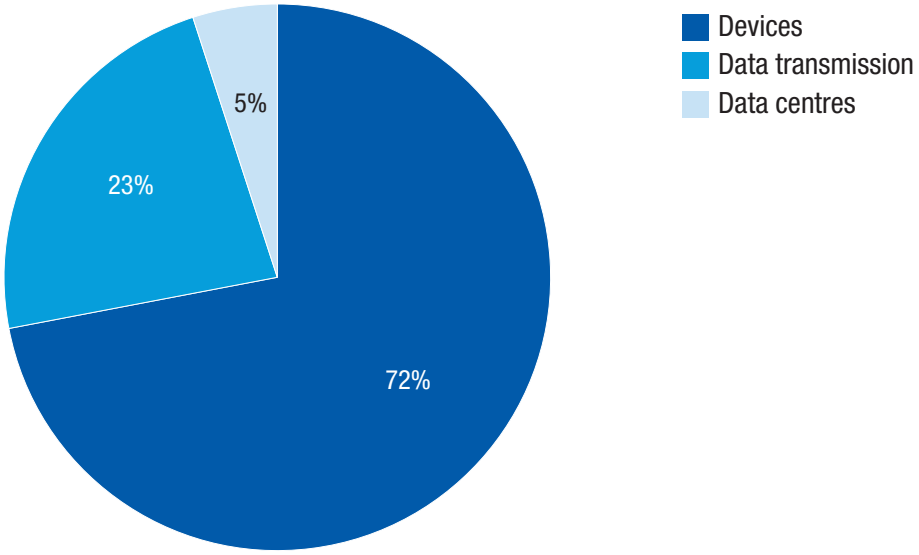
Emissions from producing and consuming creative goods and services depend significantly on countries' energy mix and consumer devices. Figure 43 shows estimates from the International Energy Agency (International Energy Agency, 2020) about the percentage of streaming energy use from devices compared to data transmission and data centres. Most CO2 emissions come from the device itself (due to more electricity consumption in TVs than smartphones). Therefore, choosing energy-efficient devices matters.

While digitalization reduces the environmental impact of some creative activities – such as printing and distributing newspapers and books – the environmental impact of digitalized creative activities can be more complex to estimate. The reason is that it is influenced by the number of customers using the product and of those working to contribute to its production, such as data managers, digital developers and so on (International Labour Organization, 2023a).

The following sections review environmental sustainability considerations in selected creative industries.

The **advertising industry's** environmental impact comes from the production process (e.g., shooting) and the printed material. Indirect emissions are generated from the demand that advertising creates for products. The campaign group Purpose Disruptors has introduced the concept of "advertised emissions", defined as GHG emissions resulting from increased sales generated by advertising (Purpose Disruptors, 2022). Purpose Disruptors has calculated the scale of advertised emissions as being as much as 208 million tonnes

Figure 43
Energy usage during streaming by data centres, data transmission and devices based on average viewing habits.



Source: UNCTAD, based on International Energy Agency

of carbon dioxide emissions equivalent (CO2e) in the United Kingdom of Great Britain and Northern Ireland (Purpose Disruptors, 2022) or "an extra 28 per cent to the annual carbon footprint of every single person in the country" (Creative Industries Policy and Evidence Centre, 2022).

Due to the nature of the work – typically based in an office and computer-based – most of the emissions connected to **architecture** are at the Scope 3 level. The 2022 Global Status Report for Buildings and Construction finds that the sector accounted for over 34 per cent of energy demand and 37 per cent of energy and process-related CO2 emissions in 2021 (United Nations Environment Programme, 2022a).

Due to their overall size, **crafts** have a relatively small carbon footprint, mostly connected to the value chains of material used, the toxicity of materials used in the production process (e.g., glazes) or the fossil fuels used to power the kilns (Creative Industries Policy and Evidence Centre, 2022). Sustainable sourcing of materials used in crafts such as clay and precious stones is a vital strategy to reduce social and environmental externalities related to these activities and to select more natural dyes and alternative fuels for kilns.

On the other hand, **design**, due to its transversal nature – used in advertising electronic goods and vehicles – has the potential to contribute significantly to a more sustainable creative sector. Design can help find cost-effective and durable solutions, minimise waste, upcycle discarded materials, lower pollution, create healthy environments, reduce the consumption of non-renewable resources, and better manage water and energy. Approaches like Design for Environment (DfE) aim to include environmental considerations in designing and manufacturing goods and services. Considering the entire life cycle of a product, from the extraction of the necessary materials until the end of life, design can help reduce the economic, environmental, and social impact. The Flipflopi Project is an example of tackling marine ecosystem health by combining traditional indigenous knowledge and modern innovation. Based in Kenya, Flipflopi constructs traditional sailing and motorised vessels and artisanal furniture from plastic waste, while at the same time providing local quality jobs and advocating for better policies on single-use plastic in the region.

Box 6
The environmental impact of the fashion industry

The whole fashion industry is usually not considered creative. Although there is a general agreement that fashion design is a creative activity, mass-manufacturing apparel and textiles is not. UNCTAD considers design services and producing certain accessories (e.g., scarves and bags) part of the creative economy but not the whole apparel and textile industry. However, because of the role of design in fashion and the strong links between them, it is worthwhile to look at the fashion industry's sustainability.

The fashion industry has been in the public eye regarding sustainability. From greenwashing to fast fashion (in 2014, people bought 60 per cent more garments than in 2000 but kept them half as long (McKinsey & Company, 2016)), challenges in the sector have been abundant. The fashion industry is responsible for around 10 per cent of annual global carbon emissions, more than all international flights and maritime shipping combined. It is estimated that around 96 per cent of the total emissions are in Scope 3, generated by the fashion industry's supply chain and in

their products' use and disposal (Reuters, 2023a). At this pace, the fashion industry's greenhouse gas emissions will surge by more than 50 per cent by 2030 (World Bank, 2023). For example, the company Shein alone generates 6.3 million tons of carbon dioxide annually (Time, 2023), which is similar to the emissions of Timor Leste in 2020 (6.01 MtCO2e) (Climate Watch, 2024). Every year, the fashion industry uses around 93 billion cubic meters of water — enough to meet the consumption needs of five million people. In addition, around 20 per cent of wastewater worldwide comes from fabric dyeing and treatment. Finally, 87 per cent of total fibre inputs are incinerated or disposed of in a landfill (World Bank, 2023).

On top of the emissions connected to the production phase, emissions connected to the industry's business practices are increasingly ending up in the spotlight. Carbon Trust & ORDRE (Vogue India, 2020) collected and analysed data related to the emissions stemming from the business travel of designers and buyers attending fashion weeks and collections for a year. They found that in 12 months, a total of 241,000 tonnes of carbon emissions were created from air travel, accommodation, intercity travel and the transportation of collections by 11,000 individual retail buyers and 5,000 designers. This figure exceeds Dominica's total greenhouse gas emissions in 2020 (approximately 231,000 tonnes) (World Bank, 2023a).

The textile industry in developed countries must pay particular attention to the exports of used textiles and their fate in the countries of destination. In 2019, the export of used textiles from the European Union has reached almost 1.7 million tonnes, while their value per kilogram has steadily decreased during the last 20 years. Asia imported 41 per cent of the used textiles, while Africa imported 46 per cent (European Topic Centre on Circular Economy and Resource Use, 2023). While the imports of used textiles in Africa seems to be meant mainly for local reuse, what is not fit for reuse mostly ends up in open landfills and informal waste streams. Kenya provides an example of how established processes and measures could be able to ensure importation of quality second-hand clothes, ultimately resulting in low levels of clothing waste. In fact, based on findings from Mitumba Association – an association representing traders in second-hand clothing in Kenya – the prioritisation of quality items and high level of compliance with government regulations allow to have only 1 to 2 per cent of second-hand imported clothing items ending up as actual waste, which is then incinerated or dumped in specific dumpsites (Mitumba Consortium Association of Kenya, 2023).

The United Nations Framework Convention on Climate Change (UNFCCC) Fashion Industry Charter for Climate Action aims to drive the fashion industry to net-zero greenhouse gas emissions no later than 2050 (United Nations Framework Convention on Climate Change, 2023). This is a significant challenge that will not only require reshaping production and consumption systems but also necessitate new forms and skills of employment and related capacity building of the workforce involved in the sector. Auxiliary to this issue is the overall problem of poverty eradication, just transition, fair recruitment and fair pay. Many individuals in the fashion industry lack job security and are not paid properly. Migrant workers in vulnerable situations could also be involved in such industries. A just transition would ensure environmental sustainability, decent work, social inclusion, and poverty eradication. It would entail fair income, security in the workplace and social protection for families. The fashion industry must factor in all these elements to attain the goals set forth by the Paris Agreement commitments and the relevant SDGs.

Source: UNCTAD.

Most of the **film and television industry** emissions are concentrated on transportation – especially air travel –, on-set energy consumption, waste from the production process, and catering supplies. Data shows an average footprint of over 33 metric tonnes per shooting day. Thus, films can generate from 391 metric tonnes up to 1,081 metric tonnes, depending on their length. Nearly 24 per cent of that carbon footprint is generated from air travel and utilities (Sustainable Production Alliance, 2021). Similarly, it is estimated that the Nigerian film industry releases approximately 125,000 tonnes of carbon dioxide per year, equivalent to the carbon footprint of roughly 24,000 households in Nigeria (Wilson-Omuso et al., 2022).

Emissions related to the **music** sector mostly emerge from vinyl manufacturing, music streaming, live touring, venues and festivals. According to research from the campaign group Powerful Thinking, in 2018, the United Kingdom festival industry generated 25,000 tonnes of CO2 (excluding audience travel), created 26,000 tonnes of waste and used 7 million litres of diesel (Creative Industries Policy and Evidence Centre, 2022). Scope 3 emissions are the most relevant source of emissions, as they encompass audience travel. Streaming services are in a similar situation. For example, 98.9 per cent of Spotify's GHG emissions in 2022 are coming from Scope 3 – further broken down into end use (26.5 per cent), marketing (26 per cent), goods and services (21.5 per cent), business travel (11 per cent) and cloud use (6.7 per cent) (Spotify, 2022). According to studies in 2019, the total carbon dioxide emissions from online music and video streaming in Japan amounted to approximately 922,000 tonnes. The study expects CO_2 emissions to reach 1545 thousand tonnes by 2025 with the increased number of users (Tabata and Wang, 2021).

The environmental impact of **performing arts** is primarily due to the theatre premises and travelling of companies and audiences, as well as the material used for the sets and the catering. According to a study conducted in 2008 in the United Kingdom, the theatre industry's carbon footprint is more than 50,000 tonnes a year (Greater London Authority, 2008). Mitigating the environmental impact of the performing arts industry on the environment calls for a combination of sustainable practices and technological advancements ranging from energy-efficient lighting systems to eco-friendly vehicles for transportation needs – as well as changes in behaviour.

The **publishing sector's** impact is mainly connected to printing, involving inks, solvents, volatile organic compounds (VOCs), and air pollutants (HAPs) (Aydemir and Özsoy, 2020). In addition, the process consumes wood pulp, water (depending on the mill, it can take up to 13 litres of water to produce a single sheet of paper (Oxford University Press Blog, 2022), metals for foil stamping and fossil fuels. Globally, the pulp and paper sector was responsible for just under 2 per cent of all emissions from industrial activities in 2022 (International Energy Agency, 2024).

In the **video games** industry, the environmental impact arises from the manufacturing of consoles (some of which use materials such as gold or tin (*The Verge*, 2019), categorised by the European Union as conflict materials (European Commission, 2021) and other necessary devices, which use extracted material at risk of coming from conflict zones, and the vast supply of energy used to play, part of the Scope 3 emissions. An example of the energy usage required to power this sub-sector can be found in the studio footprint of London software designer Space Ape. According to their calculations, approximately 50 per cent (or 376.8 tonnes) of their carbon emissions are produced by the cloud servers used to operate their games (Space Ape, 2020).

Finally, looking at **visual arts**, Scope 3 makes most of the emissions. In 2019, Tate Gallery published a report stating that their total carbon footprint for 2018/2019 was 260,000 tonnes of CO_2e, with visitor travel accounting for 92 per cent. Other

emission sources included electricity, procurement, gas, staff travel, food and retail (Tate Modern and Julie's Bicycle, 2019).

2. Business practices for environmental sustainability and decarbonization

Decarbonization and environmental sustainability in the creative industries requires more sustainable consumption and production patterns, in line with SDG 12. Such change implies reducing waste, promoting circular economy practices, and using sustainable procurement policies. Pivoting to more sustainable consumption patterns is central to achieving positive change. In particular, reducing consumption, choosing products with lower environmental impacts and reducing the carbon footprint of daily activities are behavioural changes required.

Circular economy has been defined as an economic model in which products are designed in a way that enables reusing, remanufacturing, recycling and recovering (4-R), minimizing waste and reducing emissions (United Nations Environment Programme, 2019). This is a critical approach to leveraging more sustainable creative industries by focusing on shorter distribution channels, local talent, and locally available raw materials, thereby optimising the life cycle of products (Asian Development Bank, 2022a).

The most Immediate action to reduce the environmental Impact of the **advertising** industry is to minimise business travel (usually around 60 per cent of an agency's Scope 1 emissions) and office energy use (the remaining 40 per cent). In particular, events involving long-distance travel are a significant source of emissions (Ad Net Zero Limited, 2020). Formulating an internal Climate Action Plan – extended to suppliers and clients – with proper reporting mechanisms can go a long way towards reducing the impact of a business on the environment.

It is essential to note that advertising can benefit green products and causes by raising awareness, stimulating behavioural changes, and promoting responsible consumption.

Architecture's contribution to sustainability requires practices focused on mitigation and adaptation to climate change, repurposing old buildings and fostering the shift to more climate-conscious energy and water use design. The buildings and construction sector accounted for 34 per cent of energy demand and 37 per cent of energy and process-related CO2 emissions at the global level in 2021 (United Nations Environment Programme, 2022b). For this reason, architecture's mitigation efforts must focus on their possible contribution to reducing CO2 emissions of buildings, including sustainable design of the entire life cycle of buildings, including the production, construction, use, and end-of-service stages (Birgisdottir and Rasmussen, 2016).

For example, sustainable design of buildings should look at their placement and how they interact with the environment to naturally cool or heat the building. An example is the Rajkumari Ratnavati Girls' School in Jaisalmer, India. Built in a town exposed to severe heat up to almost 50 °C degrees, the school has been designed using traditional techniques and natural cooling mechanisms, being able to avoid the use of air conditioning. In the production phase, sustainability in architecture focuses on the use of sustainable materials to reduce carbon emissions, as well as on the repurposing of already available buildings. Adopting locally sourced, alternative, recyclable or recycled materials; fostering 3D printing; and using green fuels for manufacturing these materials can substantially reduce emissions. In the use phase, associations like Architects Climate Action Network (ACAN) are looking into practices such as retrofitting, insulation, energy efficiency, solar and heat pump strategies, circular economy methodologies and natural materials (Architects Climate Action Network, 2023). Architecture also has the potential to mitigate climate

change and help communities adapt to it. For example, in the Plaza Estacional project, taking place in Caracas, Venezuela and aimed at reducing flooding risk in informal areas, vegetation has been used by the architects to stabilise the ground and absorb rainfall (AGA Studio, 2010).

Actions that workers in the **crafts** can take to reduce their carbon footprint include growing or producing their material sustainably (Crafts Council, 2023), recycling dust and scraps from the production process, focusing on ethical materials, reducing the use of toxic chemicals for surface decoration, using recycled materials (Crafts Council, 2021), and switching to cleaner energy for tools like the kiln (Crafts Council, 2020). Among artists successfully embracing sustainability in crafts, Ghanaian sculptor El Anatsui used aluminium bottle caps to create large-scale wall sculptures. In contrast, Zimbabwean painter Virginia Chihota uses plant-based inks and pigments to paint her art pieces (MoMAA, 2023).

Similarly, sustainability in **design** focuses on material-based research for products to extend the product's lifespan, minimising its impact on natural resources and achieving a full circularity, reducing waste, emissions and energy used. Practices include using sustainable materials (non-toxic, local, recycled or with lower environmental impact than traditional ones), increased energy efficiency and renewable energy use, and the design of products for reuse and recycling. Sustainable design also extends to product packaging, keeping in mind an efficient use of resources. A successful example of sustainable design can be found in the work of Kere Architecture – founded by Francis Kéré, an internationally renowned Burkinabé architect and Pritzker Architecture Prize laureate. Kéré used leftover construction materials to create chairs for the Lycée Schorge Secondary School in Koudougou, Burkina Faso, using rebars from the roof structure for the chair's legs and the hardwood used for the concrete form for the seat and backrest (Kéré Architecture, 2016).

There are many efforts for sustainability in the **fashion** industry. Sustainable practices include zero-waste design, use of sustainable materials, reduced waste, more sustainable energy usage and transport, certifications for sustainable practices, and investment in research and development for new dying and waste management processes. The biggest obstacles for the fashion industry lay in the complexity of global value chains, especially traceability and transparency. Initiatives like the Fashion Industry Charter for Climate Action create the space for producers to collaborate and set commitments based on science-based targets, jointly with transparent reporting. As of 2023, 99 companies are members of the alliance (United Nations Framework Convention on Climate Change, 2023). Among the initiatives focused on increasing sustainability in fashion, the ITC Ethical Fashion Initiative's ESG Due Diligence and Corporate Sustainability reporting approach has been built to evaluate the Environmental, Social and Governance risks throughout a fashion brand's supply chain (International Trade Centre, 2023).

Meanwhile, **film production companies and broadcasters** have made progress regarding sustainability. In the United Kingdom, a tool called Albert has been created to calculate the GHG emissions related to production. The platform also includes a toolkit to increase sustainability in the sector, looks at suppliers and production tools, and provides sustainability certification (albert, 2024). The movie 1917 was the first large-scale movie from the United Kingdom to be certified (albert, 2020).

Different initiatives are taking place in the **music sector**. For live events, for example, the rock band Coldplay worked to measure and reduce the impact of their current global tour, to reduce their CO2 emissions by 50 per cent compared to their previous tour in 2016-2017 (World Economic Forum, 2021). The strategy includes powering their concerts with fully renewable energy, minimising charter flights, using sustainable aviation fuel (SAF), using

local equipment, building a sustainable stage, maximising water efficiency, and encouraging fans to use low-carbon transport. The show produced 47 per cent less CO2 emissions compared to their last stadium tour (Coldplay, 2023). Other live music event organisers promote sustainable consumption by introducing new event policies and systems, more structured venue planning, and encouraging a cultural shift. For instance, the Wonderfruit 2022 Impact Report (about the annual art, culture, music, and nature festival in Thailand called Wonderfruit) reveals that the festival banned single-use cups of all kinds and actively offset the carbon footprint of their attendees' emissions by developing a carbon calculator for festival travellers as well as donating to environmental preservation foundations (Wonderfruit, 2023).

Among other initiatives, in November 2023, three music companies announced the creation of the Music Industry Climate Collective (MICC) to address the music sector's environmental impact. The MICC's first initiative will establish science-based guidance to measure Scope 3 emissions.

Looking at **performing arts**, the initiative Theatre Green Book provides standards to increase sustainability in three main areas: making productions sustainably; making theatre buildings more efficient; and improving the sustainability of operations like catering and front-of-house activities (activities that happen at the part of a performance venue that is open to the public) (Theatre Green Book, 2024). Similarly, the Opéra de Lyon in France demonstrates performance arts' steps towards recognising and deploying more green operations. The opera developed an assessment and decision-making tool (EDEOS), comparing the environmental impacts of decors depending on the building and material choices. It also participates in "Collectif de 17h25", a research project aimed at standardising structural set components in a collective effort to reduce the carbon footprint of the theatre industry (Opéra de Lyon, 2020).

Efforts in the **publishing** industry focus on using certified sustainable paper—sourced responsibly with no deforestation risks—to reduce waste caused by unsaleable stocks and invest in the digital transition (Oxford University Press Blog, 2022).

Like other creative sectors that rely on digital mediums and encompass prolonged energy usage, the **video games** industry requires constant optimisation, especially on consumption. As it is increasingly necessary for the industry to find effective ways to balance technological advances, environmental sustainability, and customer satisfaction, different initiatives and tools are being introduced to reduce the industry's negative environmental impacts. For example, in 2019, significant studios, launched the Playing for the Planet initiative. To drive decarbonization efforts in the gaming sector, the Alliance promotes a transparent reporting methodology for its members and provides them with resources to decarbonise their activities. One of these resources includes the Green Games Guide, where the games industry lifecycle is analysed, and advice on energy use, waste reduction and management, and business operations is provided (Playing for the Planet, 2024).

Compared to more prominent culture industries like entertainment, the contribution of **museums and art institutions** to fight environmental degradation and climate change is relatively modest. Yet some initiatives, such as Gallery Climate Coalition, offer guidelines for arts institutions to increase sustainability (Gallery Climate Coalition, 2024). The initiative has over 800 industry members committed to reducing carbon emissions by over half by 2030 (*The New York Times*, 2022). Another initiative called ART 2030 was established in Copenhagen in 2017 (Art-2030, 2024). Partnering with artists and arts institutions, it aims to advance the United Nation's 2030 Agenda for Sustainable Development. It inspires behavioural change by encouraging museums to have exhibitions for a more extended

period or use works from their existing collections instead of constantly mounting resource-intensive exhibitions. ART 2030 supporters include, among others, Iranian visual artist Shirin Neshat, Vietnamese contemporary artist Danh Võ, the Indian Raqs Media Collective and Brazilian visual artist Ernesto Neto. Other initiatives include the Bizot Group's guidelines for museums to increase their sustainability regarding environmental conditions and transport and the International Committee for Museums and Collections of Modern Art (CIMAM) sustainability toolkit.

C. Way forward

Governments worldwide increasingly incorporate sustainability and inclusivity initiatives within their policies targeting the creative economy. These efforts are tailored to address environmental challenges, promote inclusivity, and leverage technological advancements to foster economic growth and social welfare through the creative economy. 12 of the 36 countries participating in the UNCTAD survey on the creative economy reported having specific sustainability initiatives for creative industries. Twelve other countries incentivise enterprises to adopt sustainable business practices through more general policy frameworks, such as national energy, environment and industrialisation strategies. The examples in Box 7 showcase a diverse range of strategies and commitments towards integrating sustainability and inclusivity into creative industries, often combined with a more general national policy framework for sustainability.

Sustainable creative industries are built on an interwoven fabric of business initiatives and policy actions. The two actors need to work in concert to guarantee that sustainability becomes a pillar in the future of creative industries. The following policy areas and measures could help to push creative industries toward decarbonization and more sustainable business practices.

Box 7
Examples of government-led sustainability initiatives in the creative economy

The government has launched several initiatives in **Argentina** emphasising cultural sustainability and climate change. The program called Argentine Cultural Industries Market (*Mercado de Industrias Culturales Argentinas* or MICA) aims to strengthen the cultural sector's economic and social impact. Furthermore, Argentina has published a comprehensive report on culture and climate change, outlining strategies to integrate cultural practices into broader environmental sustainability efforts (Ministry of Environment and Sustainable Development of Argentina and Ministry of Culture of Argentina, 2023). Additionally, initiatives such as the Cultural Accessibility Program underscore the country's commitment to inclusivity, prioritising the inclusion of individuals with disabilities and ensuring their access to and participation in cultural experiences (Argentine Cultural Industries Market, 2023).

China has focused on the intersection of digital economy and inclusivity, particularly for vulnerable groups such as disabled people. Through the 13th Five-Year Plan and subsequent initiatives, China aims to integrate disabled people into the cultural and creative industries, offering support for cultural entrepreneurship and employment. The success of e-commerce platforms, for people with disabilities, highlights the significant economic contributions and employment opportunities created within this framework.

Costa Rica has pioneered the concept of "Ecofilming Pioneers," promoting environmental best practices in filmmaking, especially in public areas and national parks. This initiative reflects a broader commitment to sustainability across all sectors, including the creative industries. Companies involved in exporting and receiving support from the Film Commission undergo sustainability diagnostics, ensuring that environmental considerations are integral to their operations.

Several programs and regulations articulate the government's sustainable creative economy development strategy in **Indonesia**. These initiatives range from the Ministry of Tourism and Creative Economy's Strategic Plan to the Indonesia Village Tourism Award, encouraging renewable energy use and sustainability in village tourism. Villages will be evaluated based on their attractivity in terms of nature, arts and culture, as well as how they leverage local wisdom and handicraft in fashion or culinary tradition. The Indonesia Creation Appreciation Program (Apresiasi Kreasi Indonesia or AKI), the Indonesian Creative Districts/Cities Program, and the Incubation Programme for Local Craftspersons and Local Fashion Designers further underscore the commitment to sustainable development through capacity building, inclusivity, and environmental stewardship in the creative economy.

Mauritius has introduced a mobile app, Mau Heritage[a], to enhance the experience of national and world heritage sites, incorporating digital technology to promote sustainable cultural heritage. This initiative is part of a broader effort to integrate technology and sustainability in preserving and promoting the country's cultural assets.

In **Oman**, the "Innovation in Craft Industries" competition exemplifies the nation's approach to sustainability in the creative industries. By encouraging using natural materials and advanced techniques, Oman aims to preserve traditional crafts while fostering innovation and sustainability. This initiative reflects a commitment to a sustainable creative economy that balances heritage preservation with modernisation.

Peru has implemented several policies and strategies to guide the sustainable development of the country's cultural and creative industries. The Strategic National Development Plan aims to improve this sector by recognising geographical and cultural diversity in the context of climate change. The National Competitiveness and Productivity Policy provides a path to achieve medium and long-term economic growth through establishing innovation and market efficiency related to creativity, productivity, export, technology, and intellectual property protection. In addition, the National Policy on Reading, Books, and Libraries sets goals to increase the country's reading habits, ensure public access to reading spaces and materials, and support actors in the book value chain through sustainable production and circulation.

Slovenia supports sustainable, green, creative, and smart development through specific measures in the creative and cultural sectors. These initiatives promote technological and non-technological innovations, digital transformation, social and sustainable design, and the circular economy, aiming to minimise environmental impact and promote sustainable growth.

South Africa recognises the critical role of cultural and creative industries in sustainable development, economic expansion, and social cohesion. Through government funding and support, initiatives like the DSAC Mzansi's Golden Economy programme aim to upscale the creative economy sustainably by funding sustainable touring ventures and creative enterprises (Department of Sports, Arts and Culture of South Africa, 2023).

Sri Lanka's creative economy has several supportive systems and global relationships focusing on sustainability. The Academy of Design houses the Circular Design Lab initiative that guides the sustainability-consciousness of Sri Lanka's design talent while also working with international partners and experts to provide supplementary educational opportunities.

In **Trinidad and Tobago**, sustainable business practices within the creative economy are supported by The Trinidad and Tobago Creative Industries Company Limited (CreativeTT) and its subsidiaries focusing on music, film and fashion. Additionally, fair employment practices are promoted through legislation, highlighting the country's commitment to inclusivity and sustainability.

The **United Kingdom** has established a Creative Industries Sector Vision to address environmental challenges and achieve net zero targets. Initiatives like the Creative Climate Charter and tailored advice from the Department for Energy Security and Net Zero demonstrate the country's commitment to sustainable practices and skills development within the creative industries.

Source: 2024 UNCTAD survey on the creative economy.
[a] See https://nhfcms.govmu.org.

Better data are paramount to increasing sustainability and inclusion in creative industries, enabling policymakers and businesses to make informed decisions. Improved data on the impact and dependencies on the nature of business – with particular attention on the gender dimension – are essential for adequate progress towards more sustainable business practices. Data will help companies increase the sustainability of their operations, improving their environmental and social impact across the entire value chain.

In terms of **decarbonization and environmental sustainability**, companies need to focus on increasing the sustainability of their operations - which includes Scope 1, 2, and 3 - by looking, among other elements, at their product life cycle. The best practices highlighted in this chapter – from recycled and sustainable materials to energy use and waste reduction, including promoting sustainable consumption patterns among consumers – are necessary stepping stones if companies want to reduce their environmental impact.

Social impact will necessitate a more inclusive creative sector, where the public and private sectors play a crucial role. Increasing inclusivity in creative industries demands a holistic approach, considering how exclusion emerges in an individual's lifetime.

As a stepping stone into the creative sector, policymakers should guarantee **equal access** to creative and cultural experiences and education for all individuals, starting with early childhood education. Arts subjects, including music, visual arts, and drama, are fundamental to early education, fostering creativity and innovation (European Institute of Innovation and Technology, 2022). Pupils from disadvantaged socioeconomic backgrounds tend to experience disparities in creative teaching for creativity and have fewer opportunities for out-of-classroom education (Creative Industries Policy and Evidence Centre, 2021). The shortage of resources for art education has been highlighted in developing countries like Nigeria: shortage of qualified art teachers, inadequate teaching facilities and funding, and low consideration for artistic career paths undermine the growth of creative industries (Okonkwo, 2014). Supporting the increase of an art-skilled workforce, improving facilities and curricula, and raising

awareness of art careers are fundamental for the growth of the creative sector. Supportive policies should also extend to higher levels of education, providing support for marginalised individuals to access higher art education. Notable examples include Market Photo Workshop in South Africa, a photography school focused on providing better access to and training in photography to South Africans from marginalised communities.

It is the role of both the public and private sectors to guarantee **job quality and safety** by working together to deliver decent working conditions. Low salaries, job security, and poor workplace practices represent barriers for disadvantaged individuals. Workers in creative occupations in the United Kingdom perceive a higher level of insecurity in their jobs compared to other sectors, as only 58 per cent of workers feel that their job is secure, against an average of 77 per cent in all industries (Creative Industries Policy and Evidence Centre, 2021). The high rate of self-employment also presents issues for disadvantaged individuals, providing less support such as childcare or paid absence from work. For this reason, there is a need for new frameworks that can guarantee fair remuneration for freelancers and funds to alleviate short-term cash-flow needs (International Labour Organization, 2022). Policies should also guarantee decent working hours for all creative industry workers, safe working environments, and social security, maternity and sick leave benefits. An example of efforts to promote safe work environments is the Joint Operational Committee for Live Events, established by the South African Promoters Association. It ensures that significant events comply with safety regulations (International Labour Organization, 2022).

Companies must also focus on informing and promoting **sustainable consumption practices among customers**. The creative industries play a significant role in achieving SDG 12, which ensures sustainable consumption and production patterns. Responsible consumption involves making informed choices, reducing waste, and supporting ethical and sustainable practices. Despite young consumers seeming to be more likely to choose brands based on moral values, businesses must do more to engage with consumers on sustainable consumption. For this reason, they must inform consumers of the social, economic, and environmental impacts of their choices while providing sustainable goods and services to all (UNCTAD, 2023e). In line with the United Nations Guidelines for Consumer Protection, countries should also provide consumer education, awareness-raising initiatives on sustainability, and monitor green claims to avoid greenwashing. At the same time, businesses are responsible for promoting sustainable consumption by designing, producing and distributing goods and services. In line with this aim, advocacy materials and guidelines about sustainable consumption and data are increasing, allowing consumers to consume more sustainably.

Funding from public and private entities to foster further growth and sustainability in creative industries represents essential support for the industry. For example, the Czech Ministry of Finance, in collaboration with the Ministry of Culture, Arts Council Norway, and the Icelandic Centre for Research, announced an open call via the European Economic Area (EEA) Grants 2014-21 to offer funding of approximately EUR 3 million for projects with a focus on the fundamental aspects of cultural and creative industries and the creative economy. The condition for financing is that proposals must demonstrate a commitment to fostering sustainable and inclusive economic growth (OECD, 2022b). Another example comes from the Nigerian film industry, which has been attracting more and more local and foreign investment. These include, among others, the partnership among China's Huahua Media, FilmOne and South Africa's Empire Entertainment to set up a one million US$ fund for a series of movies produced by the Nigerian film industry (International Labour Organization, 2022).

Box 8
Guidelines for responsible consumption of creative goods and services

The Ethical Consumer, the United Kingdom's major alternative consumer organisation, provides ratings and details on various industries and companies' environmental reporting, carbon management, product sustainability, and the status of other eco-friendly practices[a].

Regarding the fashion industry, the Fashion Revolution's "Buyer's Guide"[b] offers sustainable fashion tips for consumers, who are encouraged to purchase timeless, durable fashion items that can withstand multiple seasons, reducing the need for frequent replacements. Another possibility is to consider second-hand shopping and explore thrift stores, consignment shops, and online platforms to extend the lifespan of clothing and reduce textile waste.

While the digitalization of many creative and cultural industries has ultimately reduced physical material waste, there are still greenhouse gas emissions produced by online activities. Initiatives like the Swiss Centre for Digital Responsibility suggest methods consumers can use to reduce their data and energy consumption in the digital environment. These include turning on power-saving settings and cutting back on video streaming quality. Alternatively, consumers can download content for offline use to mitigate the need for continuous streaming of music, films, or other audio-visual work. This conserves data and allows users to enjoy content without an internet connection.[c]

Source: UNCTAD.
[a] See https://www.ethicalconsumer.org/
[b] See https://www.fashionrevolution.org/resources/how-tos/
[c] See https://digitalresponsibility.ch/

Annex I
Creative economy definition and update on the statistical framework

The creative economy is continuously evolving, with innovation and digitalization introducing new creative products and altering traditional ones, such as the shift from physical to digital media for film and music. Consequently, updated statistical classifications are required to accurately reflect these sectors' economic impact. Recent UNCTAD reports (UNCTAD, 2022a, 2024c) have detailed these changes and the need for a better understanding and measurement.

Measuring the creative economy involves multiple dimensions, including economic contributions, employment, and societal participation in creative activities (UNESCO Institute for Statistics, 2009).

Recognising the need for updated definitions and classifications, UNCTAD initiated a global consultation, establishing an Informal Working Group on the Creative Economy, composed of creative economy experts from developed and developing economies. UNCTAD is also part of the United Nations Statistics Division's Task Team on International Trade Statistics to refine the measurement of international trade in creative goods and services in a collaborative effort with the United Nations Educational, Scientific and Cultural Organization (UNESCO). This work has culminated in a methodological proposal linking creative industries to products and traded goods and services, offering a significant advancement in understanding and leveraging the creative economy's potential, especially in developing countries.[37]

The annex summarises UNCTAD's recent work on defining and measuring the creative economy.

A. UNCTAD's definition of the creative economy

UNCTAD defines creative industries as creation, production, and distribution cycles that leverage creativity and intellectual capital. These industries encompass knowledge-based activities focusing on culture and heritage, including tangible and intangible creative products with economic value. The creative economy is an evolving concept that drives economic growth, supports job creation, and fosters social inclusion and cultural diversity. It emphasises integrating economic, cultural, and social aspects with technology and intellectual property.

Despite rapid technological changes, the current definitions, established in the 2008 Creative Economy Report (UNCTAD and UNDP, 2008), remain relevant and applicable globally, as confirmed by UNCTAD's Informal Working Group on the Creative Economy. This definition is a comprehensive foundation for understanding and developing the creative economy across countries.

[37] Established in 2021, the informal working group deliberated on definitions, measurement frameworks, and case studies from both developed and developing nations. This section contains key elements of this work. For a comprehensive report of the work of the Working Group see UNCTAD, 2024, Advancing the measurement of the creative economy: A revised framework for creative industries and trade, UNCTAD/DITC/TSCE/2024/1.

UNCTAD definition of the creative industries

The creative industries:

- are the cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs;
- constitute a set of knowledge-based activities, focused on but not limited to arts, potentially generating revenues from trade and intellectual property rights;
- comprise tangible products and intangible intellectual or artistic services with creative content, economic value and market objectives;
- are at the cross-road among the artisan, services and industrial sectors; and
- constitute a new dynamic sector in world trade.

UNCTAD definition of the creative economy

The creative economy is an evolving concept based on creative assets potentially generating economic growth and development.

- It can foster income generation, job creation and export earnings while promoting social inclusion, cultural diversity and human development.
- It embraces economic, cultural and social aspects interacting with technology, intellectual property and tourism objectives.
- It is a set of knowledge-based economic activities with a development dimension and cross-cutting linkages at macro and micro levels to the overall economy.
- It is a feasible development option calling for innovative, multidisciplinary policy responses and interministerial action. At the heart of the creative economy are the creative industries.

Source: 2008 Creative Economy Report (UNCTAD and UNDP, 2008).

B. Updated measurement framework

UNCTAD's previous framework focused solely on international trade data for creative goods and services and faced challenges due to the lack of linkage between creative goods and services and creative industries and outdated creative product lists. To address these, UNCTAD has updated its framework to link creative industries (expressed with International Standard Industrial Classification of All Economic Activities or ISIC codes) and creative goods and services (expressed with Harmonized System or HS and Extended Balance of Payments Services Classification or EBOPS codes). The framework now better captures the creative economy's dynamics using the latest ISIC revision (Rev. 5) and HS 2022 classifications. This approach aims to provide countries with a tool for assessing their creative economy, its performance in international trade, ensuring that the classification of creative industries remains relevant and comprehensive, in line with the evolving nature of the creative economy (UNCTAD, 2024c).

UNCTAD's creative goods and services cover a broad range of products. It includes a large group of industrially produced or handmade art crafts (i.e., carpets, wickerware, yarn products) and design products (i.e., interior design, fashion accessories, glassware, toys), recognising their cultural significance for many developing countries. It also covers software, research and development, and license-related services (i.e., to reproduce or distribute audiovisual or software products), as they involve significant intellectual capital, innovation, and the creation of new ideas or technologies. The Informal Working Group on the Creative Economy recommended retaining these essential items.

Table 10 developed from the UNCTAD-UNESCO proposal in Guidance Note 16: Clarification on Cultural Products Resulting from Creative Industries[38], as part of the Task Team on International Trade Statistics, categorises creative industries into ten main groups, ranging from advertising to research and development, based on global consultations. It aims to put international trade statistics for creative goods and services into context, highlighting industries that, while producing creative outputs, also manufacture non-creative products. This classification serves as a tool for countries to quantify the creative economy's economic impact, especially where specific definitions or methodologies are lacking, leveraging existing ISIC codes for comprehensive economic data collection.

UNCTAD's updated framework strengthens the connection between creative industries and international trade statistics. The framework categorises creative goods into seven industry groups (audiovisual, multimedia and photography; crafts and design goods; books and publishing; music, performing and visual arts; architecture; software, video games and recorded media; and cultural and natural heritage).

Three creative industry categories (i.e., advertising; design; and research and development) do not produce creative goods that would be traded internationally. Therefore, they are only accounted for in the global trade of creative services. UNCTAD's recent report (UNCTAD, 2024c) details the list of creative industries and corresponding creative goods and services.

The adjustments in statistical coverage for creative goods have not significantly altered the value of global trade in creative goods. No creative goods were removed, per recommendations from the UNCTAD Informal Working Group on the Creative Economy. UNCTAD added 33 new goods during the classification update. Additionally, the scope of trade in creative services has remained unchanged.

The framework aligns with the United Nations-wide efforts to harmonise the understanding of the cultural and creative economy. A recent UNCTAD pilot project in Angola and the UNCTAD report on *Mapping the cultural and creative industries in Angola* showed the framework's applicability and utility, offering a methodology that can be adapted and replicated in other developing countries (UNCTAD, 2023f).

[38] United Nations Committee of Experts on Business and Trade Statistics. Task Team on International Trade Statistics (TT-ITS), Guidance Note v.16 Clarification on Cultural Products Resulting from Creative Industries, 2023.

Table 10
Creative industries using ISIC Rev. 5

Creative industry group	ISIC Rev.5	ISIC Rev.5 description
Advertising and marketing	7310	Advertising activities
	7320	Market research and public opinion polling
Architecture	7110	Architectural and engineering, and related technical consultancy activities
Audiovisual, multimedia and photography	5911	Motion picture, video and television programme production activities
	5912	Motion picture, video and television programme post-production activities
	5913	Motion picture, video and television programme distribution activities
	5914	Motion picture projection activities
	6010	Radio broadcasting and audio distribution activities
	6020	Television programming and broadcasting and video distribution activities
	6031	News agency activities
	6039	Social network sites and other content distribution activities
	7420	Photographic activities
Books and publishing	4761	Retail sale of books, newspapers, stationery and office supplies
	5811	Publishing of books
	5812	Publishing of newspapers
	5813	Publishing of journals and periodicals
	5819	Other publishing activities
	7430	Translation and interpretation activities
	9111	Library activities
Cultural and natural heritage	5310*	Postal activities
	9112	Archives activities
	9121	Museum and collection activities
	9122	Historical site and monument activities
	9130	Conservation, restoration and other support activities for cultural heritage
	9141	Botanical and zoological garden activities
	9142	Nature reserve activities
Design: product, graphic and fashion design	7410	Specialised design activities
Manufacturing of crafts and design goods	1391	Manufacture of knitted and crocheted fabrics
	1393	Manufacture of carpets and rugs
	1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials
	2310	Manufacture of glass and glass products
	2393	Manufacture of other porcelain and ceramic products
	3211	Manufacture of jewellery and related articles
	3212	Manufacture of imitation jewellery and related articles
	1392*	Manufacture of made-up textile articles, except apparel
	1399*	Manufacture of other textiles n.e.c.
	1410*	Manufacture of wearing apparel, except fur apparel
	1420*	Manufacture of articles of fur
	1512*	Manufacture of luggage, handbags and the like, saddlery and harness of any material
	1701*	Manufacture of pulp, paper and paperboard

Creative industry group	ISIC Rev.5	ISIC Rev.5 description
Manufacturing of crafts and design goods	1709*	Manufacture of other articles of paper and paperboard
	2220*	Manufacture of plastics products
	2593*	Manufacture of cutlery, hand tools and general hardware
	2599*	Manufacture of other fabricated metal products n.e.c.
	2740*	Manufacture of lighting equipment
	2829*	Manufacture of other special-purpose machinery
	3101*	Manufacture of wooden furniture
	3102*	Manufacture of other furniture
	3240*	Manufacture of games and toys
	3250*	Manufacture of medical and dental instruments and supplies
	3290*	Other manufacturing n.e.c.
Music, performing and visual arts	1820	Reproduction of recorded media
	3220	Manufacture of musical instruments
	5920	Sound recording and music publishing activities
	8552	Cultural education
	9011	Literary creation and musical composition activities
	9012	Visual arts creation activities
	9013	Other arts creation activities
	9020	Activities of performing arts
	9031	Operation of arts facilities and sites
	9039	Other support activities to arts creation and performing arts
Software, video games, computer and web services	2619*	Manufacture of electronic components and boards n.e.c.
	2620*	Manufacture of computers and peripheral equipment
	2640*	Manufacture of consumer electronics
	5821	Publishing of video games
	5829	Other software publishing
	6211	Development of video games, video game software, and video game software tools
	6219	Other computer programming activities
	6220	Computer consultancy and computer facilities management activities
	6290	Other information technology and computer service activities
	6310	Computing infrastructure, data processing, hosting and related activities
	6390	Web search portal activities and other information service activities
Research and development	7210	Research and experimental development in natural sciences and engineering
	7220	Research and experimental development in social sciences and humanities
	7740	Leasing of intellectual property and similar products, except copyrighted works

Source: UNCTAD (2024).

Note: * Indicative list of industries contributing to manufacturing some creative goods. Handmade and artisanal goods or handicrafts are vital to the creative sector, especially in developing countries. However, there is no distinction between handmade and mass-produced goods in the Harmonised System. Certain industries produce art crafts, carpets, paperware, wickerware, yarn, fashion accessories, glassware, interior design goods, toys, etc., that are handmade and considered important creative goods. But, these industries also create other mass-produced goods that are not creative. Therefore, considering all related manufacturing industries as creative would result in an over-estimation of the sector. The table distinguishes creative industry groups and an "Indicative list of industries contributing to manufacturing some creative goods."

Annex II
2024 UNCTAD survey on the creative economy: National agencies and strategies

UNCTAD conducted an online survey on the creative economy and creative industries. The responses from 36 countries, including 30 developing countries, provide insights into how the creative economy has become an important sector for several developing countries. The survey included questions across six categories.

1. **Economic impact assessment:** Has there been any assessment or study conducted to measure the economic contribution of the creative economy in your country (i.e., contribution to gross domestic product, international trade, employment, survey among firms or creative workers)? For the survey answers, see Figure 1.
2. **Export promotion:** Has your government identified a specific creative industry (industries) for export promotion due to its (their) export potential and competitive advantage? Are these industries receiving or will receive (financial or technical) policy support (export promotion)? For the survey answers, see Box 1.
3. **Sustainability initiatives and government support**: Does your government support or promote sustainable business practices within the creative economy? Please provide details of any policies, incentives, or programs that foster sustainability in this sector (initiatives that promote reduced environmental impact, use of renewable energy, inclusiveness, fair employment practices, etc., in the creative economy). For the survey answers, see Box 7.
4. **Digitalization and artificial intelligence policies**: Is digitalization, including the use of emerging technologies like artificial intelligence (AI), impacting the creative economy in your country? Are there initiatives to leverage digital tools or address the use of AI in the sector? For the survey answers, see Box 4.
5. **Government oversight:** Is there a designated government ministry or agency responsible for overseeing and supporting your country's cultural and creative industries? For the survey answers, see Table 11.
6. **National strategy:** Does your country have a national strategy or plan that outlines objectives and measures to support and develop the creative economy? If available, please provide an overview or a link to the strategy. For the survey answers, see Table 11.

Table 11 presents the answers to survey questions on government oversight and national strategies.

Table 11
Government oversight and national strategies for the creative economy

Country	Ministries and agencies responsible for the creative economy	National strategies and policies specific to the creative economy
Albania	• Ministry of Culture • National Theater of Opera, Ballet and People's Ensemble • National Gallery of Art • National Library • National Institute of Cultural Heritage Registration • Regional Directorate of Cultural Heritage	
Antigua and Barbuda	• Ministry of Education Sports and the Creative Industries • Ministry of Foreign Affairs, Agriculture, Trade and Barbuda Affairs	
Argentina	• Ministry of Culture of the Nation • Directorate of Culture of the Ministry of Foreign Affairs • International Trade and Worship	• Argentine Cultural Industries Market
Benin	• Ministry of Digital Affairs and Digitalization	• National Artificial Intelligence and Big Data Strategy
Cambodia	• Ministry of Culture and Fine Arts Other related line ministries include: • Ministry of Industry, Science, Technology and Innovation • Ministry of Commerce • Ministry of Economy and Finance • Ministry of Tourism • Ministry of Labor and Vocational Training • Ministry of Education, Youth and Sport • Ministry of Women Affairs • Others: Authorities and Local Governments.	Relevant strategies and policies include: • Pentagonal Strategy Phase I 2023 • National Policy for Culture 2014 • Industrial Development Policy 2015-2025 • Cambodia Digital Economy and Society Policy Framework 2021-2035 • Circular Strategy on Environment 2023-2028 • National IP Strategy 2023 • National Policy on Science, Technology and Innovation 2020-2030 • Cambodia's Science, Technology and Innovation Roadmap 2030 • National Research Agenda 2025

Country	Ministries and agencies responsible for the creative economy	National strategies and policies specific to the creative economy
China	• Ministry of Culture and Tourism • Ministry of Commerce	• Most recent strategies and plans: • Opinions on Promoting High-quality Development of Foreign Cultural Trade • Opinions on Promoting Rural Revitalization Enabled by Cultural Industries • Opinions on Promoting the Implementation of the National Culture Digitization Strategy • Opinions on Promoting the High-quality Development of National Cultural Industrial Parks • 14th Five-Year Plan for Tourism Development
Costa Rica	• Ministry of Foreign Trade • Foreign Trade Promoter • Costa Rican film Commission • Ministry of Culture and Youth • Costa Rican Center for Cinematographic Production • Ministry of Foreign Affairs	• Creative Strategy 2020-2030 (Ministry of Culture and Youth)
Cuba	• Ministry of Culture of the Republic of Cuba • Ministry of Economy and Planning • Ministry of Foreign Trade and Foreign Investment	• Cultural Development Program • Cultural Development Program of the National Council of Houses of Culture (2019-2030) • Arts Education Development Program 2019-2030
Dominican Republic	• Ministry of Culture • Ministry of Industry, Commerce and SMEs • National Office of Industrial Property (ONAPI) • National Copyright Office (ONDA) • Export and Investment Centre of the Dominican Republic (ProDominicana)	• National Development Strategy, Objective 2.6 “Culture and national identity in a global world” • National Strategy for the Export of Modern Services (Ministry of Industry, Commerce, and SMEs)
Egypt	• Ministry of Culture (MOC) • Ministry of Trade and Industry (MOTI) • Medium, Small, and Micro Enterprises Development Agency (MSMEDA) • Ministry of Social Solidarity (MOSS)	• Egypt Vision 2030 • Ministry of Culture Plans 2018-2022 • Sustainable Development Strategy for Tourism (Ministry of Tourism and Antiquities) • National Strategy of Artificial Intelligence (Ministry of Communications and Information Technology) • National Strategy for Medium, Small and Micro Enterprises and Entrepreneurship • National Strategy for the Development of Organic Clusters: 2019-2030
Ethiopia	• Ministry of Culture, Art, Creativity Economy and Sport	

Country	Ministries and agencies responsible for the creative economy	National strategies and policies specific to the creative economy
Gambia	• National Centre for Arts and Culture • Ministry of Tourism and Culture • Industrial Property Office under the Ministry of Justice	
Guatemala	• Ministry of Culture and Sports • Guatemalan Intellectual Property Registry, Ministry of Economy	
Indonesia	• Coordinating Ministry of Maritime and Investment Affairs • Ministry of Tourism and Creative Economy • Ministry of Education, Culture, Research, and Technology • Ministry of Law and Human Rights • National Planning Agency • Ministry of Trade • Ministry of Industry • Ministry of Communication and Informatics	• Presidential Regulation 142 of 2018 on National Creative Economy Development Master Plan 2018-2025 • Ministry of Tourism and Creative Economy Strategic Plan 2020-2024
Jamaica	• Ministry of Culture, Gender, Entertainment and Sport • Ministry of Industry, Investment and Commerce • Jamaica Promotions Corporation	• Vision 2030 • Jamaica National Export Strategy
Japan	• Ministry of Economy, Trade, and Industry • Agency for Cultural Affairs • Ministry of Internal Affairs and Communication • Cabinet Office	• Intellectual Property Strategic Program 2023 (Cabinet Office)
Kazakhstan	• Ministry of Culture and Information of the Republic of Kazakhstan	• Concept of creative industries development for 2021-2025
Libya	• Ministry of Industry • Ministry of Economy • Ministry of Tourism • Ministry of Culture	
Malaysia	• Ministry of Tourism, Arts and Culture • Ministry of Communications and Digital	

Country	Ministries and agencies responsible for the creative economy	National strategies and policies specific to the creative economy
Mauritius	• Ministry of Arts and Cultural Heritage • Ministry of Information Technology, Communication, and Innovation • Economic Development Board (EDB)	Economic Development Board: • annual creative sector strategic action plans • several financial incentive schemes: • The National Art Fund • The Film Assistance Scheme • National Resilience Fund Film Grant • The Film Rebate Scheme • SME Refund Scheme
Montenegro	• Ministry of Culture and Media of Montenegro	• National Program for the Development of Culture of Montenegro 2023-2027
Mozambique	• Ministry of Culture and Tourism • Ministry of Industry and Trade • Ministry of Home Affairs	
Nigeria	• Federal Ministry of Culture and Creative Economy • Creative Economy Advisory Council • Federal Ministry of Information and National Orientation • Cultural Industries and Heritage • Entertainment and Creative Service • National Council for Arts and Culture	• 8 Points Agenda (Creative Economy Advisory Council) • Nigeria Destination 2030
Oman	• Ministry of Information • Ministry of Trade, Industry, and Investment Promotion • Ministry of Culture, Sports, and Youth • Creative industries department • Ministry of Heritage and Tourism • Small and Medium Enterprises Authority	• Oman Vision 2040 • Cultural Strategy 2021-2040
Pakistan	• National Heritage and Culture Division	
Peru	• Ministry of Culture, Directorate of Cultural Industries and Arts • National Institute for the Defense of Competition and Protection of Intellectual Property	• Recovery Plan for Cultural Industries and Arts by 2030 • National Cultural Policy by 2030

Country	Ministries and agencies responsible for the creative economy	National strategies and policies specific to the creative economy
Philippines	• Department of Tourism • Department of Trade and Industry • National Commission for Culture and the Arts • Department of Information and Communications Technology • Department of Education • Commission on Higher Education • Department of Science and Technology • National Economic Development Authority • Intellectual Property Office of the Philippines • Department of Interior and Local Government	• Republic Act 11904 Providing for the Development and Promotion of the Philippine Creative Industries and Appropriating Funds Therefor • Philippine Creative Industries Development Plan
Republic of Korea	• Ministry of Culture of Sports and Tourism • Korea Creative Content Agency	• National strategy formulated by the Ministry of Culture, Sports, and Tourism • Digital New Deal Strategy for Culture and Creative Industry
Seychelles	• Ministry of Finance, National Planning and Trade • Ministry of Investment, Entrepreneurship, & Industry • Enterprise Seychelles Agency • Seychelles National Institute of Cultural Heritage & The Arts • Ministry of Education • Seychelles Investment Board • Registration Division • Seychelles Licensing Authority	• Seychelles National Development Strategy of 2019-2023, Goal 2: Creative Industries Policy established in 2012
Slovenia	• Ministry of Culture • Centre for Creativity • Creative Europe Desk Slovenia	• Proposal of Measures for the Development of the Cultural and Creative Sector in Slovenia
South Africa	• Department of Sport, Arts and Culture	• Cultural and Creative Industries Masterplan (2022)
Sri Lanka	• Ministry of Buddhasasana, Religious and Cultural Affairs, Department of Cultural Affairs • Ministry of Industries • Ministry of Arts and Culture • Export Development Board	• Annual strategic action plan (Department of Cultural Affairs, Ministry of Buddhasasana, Religious and Cultural Affairs) • Sri Lanka 2030 A Developed Nation (Economic Growth Strategy and Action Plan) including goals and strategic action plan to improve arts

Country	Ministries and agencies responsible for the creative economy	National strategies and policies specific to the creative economy
Trinidad and Tobago	• Ministry of Tourism, Culture, and the Arts, Culture Division • Ministry of Trade and Industry, Trinidad and Tobago Creative Industries Companies Limited • Ministry of Sport and Community Development, Community Development Division	• National Cultural Policy of Trinidad and Tobago
United Kingdom	• Department for Culture, Media, and Sport	• Creative Industries Sector Vision
Uzbekistan	• Art and Culture Development Foundation under the Cabinet of Ministers of the Republic of Uzbekistan • Ministry of Digital Technologies • Ministry of Culture • Ministry of Investments, Industry, and Trade • Ministry of Construction and Municipal Housing Economy • Agency for Specialized Educational Institutions • Agency for Cultural Heritage • Agency for Youth Affairs • Ministry of Employment and Poverty Reduction	• Uzbekistan 2030 • Arts and Culture Development Foundation (proposing a legal bill to support the development and sustainability of the creative economy)
Venezuela	• Ministry of Popular Power for Culture	• Plan for the Homeland and the 17 Economic Engines

Source: 2024 UNCTAD survey on the creative economy.

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