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**An examination of cultural participation inequalities:
how to approach territorial aspects?**

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List of abbreviations

ACE Arts Council England

CD Compact Disk

DCMS Department for Culture, Media and Sport in the UK

DEPS Département des études, de la prospective et des statistiques du ministère de la Culture et de la Communication in France

DVD Digital Video Disc

EACEA Education, Audiovisual and Culture Executive Agency in Europe

EU European Union

GDP Gross Domestic Product

IBGE Brazilian Institute of Geography and Statistics

ITU International Telecommunication Union

LDC Least developed countries

LP Long Play

MPA Musical performing arts

MR Metropolitan Region

NHS UK National Health System

OLS Ordinary Least Squares

UK United Kingdom

UN United Nations

UNCTAD United Nations Conference on Trade and Development

UNESCO United Nations Educational, Scientific and Cultural Organization

US United States

SDG Sustainable Development Goal

TV Television

VHS Video Home System

Abstract

This thesis demonstrates that the theoretical and analytical focus around the topic of cultural participation inequalities has primarily remained on the impact of person-specific characteristics, namely individual socioeconomic and demographic factors. At the same time, the role of territorial, spatial or geographical aspects are little explored and accounted for. Thus, this work aims to contribute to the cultural participation literature and policy debate by exploring theoretically and empirically territorial aspects that shape cultural behaviour and prevent people from having equal conditions to participate in cultural activities. For this end, it reviews the main approaches and empirical studies on the determinants of online and offline cultural participation and extends them by proposing a theoretical framework that accounts for territorial dimensions. Subsequently, this thesis develops two empirical studies. The first looks at the influence of violence on individuals' willingness to go out to participate in cultural activities. More specifically, it analyses how the fear of violence in the *favelas* of Maré (Rio de Janeiro) influences choices of cultural participation. The second investigates how the distance to cultural facilities and the socioeconomic milieu influence digital/online cultural participation. It uses data from the 2018 French Cultural Practices Survey to assess whether the proximity to cinemas and the median income in the municipality influence an individual's consumption of digital/online movies. Both empirical findings show that territorial aspects affect individuals' opportunities, preferences and choices of cultural participation. Next, this thesis analyses the topic from a public policy perspective. It argues that the main economic fundamentals of cultural policies are not distributive or inclusive in nature and are therefore insufficient to correspond to territorial specific needs. Moreover, while the main international principles and resolutions about cultural participation recognize the importance of accounting for local elements and territorial specificities in the formulation of public policies, an analysis of policies and programs implemented across 38 countries demonstrates that this is not translated into the design and implementation of the main measures employed to address inequalities in cultural participation.

Keywords: Cultural participation; Cultural inequalities; Territorial aspects

Résumé

Cette thèse démontre que les travaux théoriques et analytiques qui traitent des inégalités de participation culturelle se sont principalement focalisés sur l'impact des caractéristiques personnelles, notamment sur les facteurs socioéconomiques et démographiques individuels. Dans le même temps, le rôle des facteurs territoriaux, spatiaux ou géographiques a peu été exploré et pris en compte. Cette thèse vise donc à contribuer à la littérature et au débat de politique publique sur la participation culturelle en explorant théoriquement et empiriquement les aspects territoriaux qui façonnent le comportement culturel et qui empêchent les gens d'avoir des conditions égales d'accès aux activités culturelles. Pour ce faire, ce travail passe en revue les principales approches et études empiriques sur les déterminants de la participation culturelle en ligne et hors ligne et essaie de les élargir en proposant un cadre théorique qui prend en compte les dimensions territoriales. Par la suite, cette thèse développe deux études empiriques. La première s'intéresse à l'influence de la violence sur la disposition des individus à sortir pour participer à des activités culturelles. Elle montre comment la peur de la violence dans les *favelas* de Maré (Rio de Janeiro) influence les choix de participation culturelle. La seconde explique comment la distance aux équipements culturels et le milieu socio-économique influencent la participation culturelle numérique/en ligne. Elle utilise les données de l'Enquête sur les Pratiques Culturelles des Français de 2018 pour savoir si la proximité des salles de cinéma et le revenu médian de la municipalité influencent la consommation de films numériques/en ligne d'un individu. Les deux résultats empiriques montrent que les aspects territoriaux affectent les opportunités, les préférences et les choix de participation culturelle des individus. Ensuite, la thèse analyse le sujet du point de vue des politiques publiques. Elle soutient que les principaux fondamentaux économiques des politiques culturelles ne sont pas de nature distributive ou inclusive et sont donc insuffisants pour répondre aux besoins territoriaux spécifiques. De plus, alors que les grands principes et résolutions internationaux sur la participation culturelle reconnaissent l'importance de la prise en compte d'éléments locaux et des spécificités territoriales dans la formulation des politiques publiques, une analyse des politiques et des programmes mis en œuvre dans 38 pays montre que cela ne se traduit pas dans la conception et dans l'implémentation des mesures employées pour lutter contre les inégalités de participation culturelle.

Mots clés : Participation culturelle ; Inégalités culturelles ; Aspects territoriaux

Chapter 1. General introduction

1.1 Conceptual framework

1.1.1 Culture and cultural participation

Culture is a complex and multidimensional concept, which varies depending on the context and the analytical perspective. The term has etymological origins in the Latin word *colere*, which had multiple meanings, including "to inhabit", "to cultivate", "to care for" and "to prepare". In the research literature, the concept of culture is explored by various fields of study, especially sociology, communication, economics, and anthropology. This term has no consensual meaning, and its applications vary, assuming both narrow and comprehensive definitions.

Authors such as Raymond Williams, Nicholas Garnham and Pierre Bourdieu were pioneers in the field of cultural studies. Since the second half of the last century, they helped establishing the foundations of any conceptual discussion in the universe of culture. According to Bourdieu (1971), culture refers to those outputs which have high symbolic value relative to their utilitarian purposes (Bourdieu, 1971). Raymond Williams defined three dimensions of the concept: i) culture as an "ideal", which refers to universal values; ii) culture as "documentation", which concerns the record of human works based on the intellect; and iii) culture as a "way of life", which refers to lifestyles articulated through common meanings and expressed in the human behaviour of a society (Williams, 2002, apud Azevedo, 2016). All these dimensions have in common the understanding of culture as a factor that organizes and expresses meanings by which a population live and assign significance to their experience and existence (Azevedo, 2016).

The document "Concepts of culture" published by Nicholas Garnham in 1983 defined culture as the production and circulation of symbolic meanings (Garnham, 1983). The context in which this document was written was the elaboration of policies for cultural industries in England. These policies aimed at valorising the economic potential of the cultural sector (Garnham, 1987). Until the 1970s, the scope of cultural policies was

restricted to some highbrow arts and public heritage. At that time, there was a strong opposition between the arts considered as “highbrow culture” (eg. opera, ballet, or theatre) and those assumed as “lowbrow culture” (eg. comics, fashion, or some popular music styles, like Rock). In other words, between “sophisticated” and “popular” culture. From the 1980s onwards, the judgemental distinction between 'high' and 'low' culture began to weaken. Thenceforth, the scope of culture was broadened and so did the scope of cultural policies, which incorporated a broad range of additional activities and products, including films, radio, fashion, design, architecture, tourism, marketing, among others (Throsby, 2010).

The enlargement of the concept of culture and of the scope and purposes of cultural policies coincided with the transition to a creative economy paradigm. This approach emerged in England during the 1980s, in a context of crisis of the Fordist accumulation model and the diffusion of information and communication technologies, such as the Internet and devices to access it. The origin of the creative economy discourse was mainly political. The term “creative industries” was optimistically adopted in 1997 by the New Labour Party, led by the prime minister Tony Blair. It pointed out strategic sectors of the British economy for developing global competitiveness in the Fordism crisis context, aiming at results such as employment, income, exports, growth, etc (Schlesinger, 2016). In this context, the Creative Industries Mapping Document, produced by the UK Department for Culture, Media and Sport (DCMS) in 1998, identified the creative industries as a large and growing component of the UK economy, employing 1.4 million people and generating about 5% of the total UK income (DCMS, 1998). In this document, the creative industries were defined as “those activities which have their origin in individual creativity, skill and talent and which have the potential for wealth and job creation through the generation and exploitation of intellectual property” (DCMS, 1998). Thus, the creative economy approach recognized knowledge-based activities as an engine of the economy. It broadened the notion of ‘cultural activities’ to one of ‘creative activities’, which incorporated in its scope all sectors based on the exploitation of intellectual property rights, such as design or marketing (UNCTAD, 2010; UNESCO, 2013).

A comprehensive definition of culture is often used by UNESCO. The main international organization for the preservation of culture considers the term as "the set of distinctive spiritual and material, intellectual and affective features that characterize a

society or social group and that encompasses, in addition to the arts and letters, ways of life, ways of living in community, value systems, traditions and beliefs", as described in the Universal Declaration on Cultural Diversity (UNESCO, 2001). At the same time, for statistical purposes, UNESCO (2009) offers a more pragmatic view of culture, which is based on the concept of cultural domains. Those domains are a) cultural heritage; b) performances and celebrations; c) visual and manual arts; d) books; e) audio-visual; f) design and creative services. In this sense, from an economic perspective, cultural activities, goods and services are those involved in the value chain of at least one of these domains, including the creation, production, dissemination, exhibition and consumption stages (UNESCO, 2009).

Grounding on these definitions of culture, it is possible to build an understanding on the notion of cultural participation. O'Hagan (1996) refers to at least three cultural participation forms that individuals may undertake: i) as culture suppliers (artists, producers, etc.); (ii) as consumers of artistic goods and services, either actively (for example, dancing or playing the piano for non-professional purposes), or passively (for example, watching a show or listening to music); and iii) as participants of the policy-making process (O'Hagan, 1996). According to Garnham and Williams (1980), cultural participation (or cultural practice), like any practice, involves the idea of appropriation rather than the mere consumption of cultural goods and services (Garnham and Williams, 1980). The measurement of cultural participation varies according to the context and to data availability. The main international reference for principles on the assessment of cultural participation is a manual developed by UNESCO (2012) called "Measuring Cultural Participation". This handbook aims at standardizing metrics and facilitating the comparability of international surveys. According to the manual, cultural participation includes not only attendance at cultural places and events, but also everyday cultural practices, whether receptive or creative. Having exposed several views of the concept, it must be highlighted that the most frequent use of the term "cultural participation" in the literature is to refer to the consumption of artistic goods and services, either actively or passively. This thesis also uses cultural participation as a synonymous of cultural consumption.

1.1.2 Cultural equity, democracy and democratization

Cultural equity refers to the promotion of justice and provision of the necessary

conditions for all individuals to access culture, regardless of social class, race, gender, age, professional category, educational level, locality, etc. The concept of cultural equity can be associated to the notions of freedom and capabilities developed by Amartya Sen (1999). According to the author, freedom is a primary means for development. It encompasses the processes that allow individuals' choice of actions and decisions, as well as the real opportunities that people have, given their personal and social circumstances. Complementary to the elimination of hardships for the exercise of freedom is the notion that there is a need to expand individuals' capabilities. These refer to the capacity that people have for carrying on the kind of life that they value. It can be achieved through public policies, while it can also influence public policies, through the expansion of people's participatory capabilities (Sen, 1999).

Hence, cultural equity involves equal rights, opportunities and conditions to achieve more equality of participation in the cultural life. Equality of participation is an ex-post concept, while equality of rights is ex-ante and equality of opportunities and conditions are both ex-ante and ex-post at the same time (it is the product of cultural equity and a condition for equality in participation). However, it is almost impossible to arrive at any direct measurement of equality of opportunity. Hence, most studies use the concept of equality of participation. Participation rates are outcomes that can be used to measure cultural equity. For instance, where the participation rates refer to the comparison between broad socioeconomic groupings - as they normally do - any marked variation in such rates indicates not only the existence of unequal cultural participation outcomes, but also unequal opportunities across these socioeconomic groups (O'Hagan, 1996).

These concepts are also connected to the cultural democracy and democratization purposes. The notion of cultural democratization emerged in the post-World War II in Europe, focusing on the civilizing character of the arts, and aiming at broadening the diversity of the socioeconomic profile of arts and culture consumers. This is commonly assessed by comparing the share of individuals who consume a particular type of cultural good or service in different socioeconomic categories. For example, comparing the proportion of individuals with higher education who visit museums to the proportion of participants among those who studied only until elementary school.

In turn, the concept of cultural democracy emerged in the 1970s as a critique to the top-down character of democratization (Gattinger and Whitehorse, 2011). It involves

the appropriation of cultural means of production and distribution, as well as the recognition and appreciation of creative activities developed in disadvantaged social contexts. Therefore, cultural democracy implicates expanding the types of activities and products encompassed by cultural policies. In other words, cultural democracy implies a democratization of the concept of arts and culture (Poirrier, 2013). Cultural democracy could be stimulated, for instance, through a comprehensive mapping of initiatives that incorporate the diversity of cultural expressions, particularly those developed in disadvantaged contexts.

Cultural economics should treat the concepts of democracy and democratization as complementary, rather than rivals (Iachan, 2019). There is a clear dependence between democracy and democratization. Greater democracy should lead to more democratization because the propensity of disadvantaged individuals to consume culture is likely to increase when more policy attention is given to cultural contents that these individuals show interest and can build an identification. Greater democratization should lead to more democracy because it is expected that higher rates of cultural participation from underprivileged people will increase the demand for cultural expression developed in disadvantaged contexts (Iachan, 2019).

1.2 Background and motivation of the thesis

1.2.1 The benefits of cultural participation

It is consensual in the contemporary research literature that cultural activities have direct positive effects to individuals, communities and the economy as a whole. Cultural and creative activities are associated with income generation, jobs creation, fostering innovation and creativity; they are essential for improving wellbeing, quality of life, health and other individual experiences; and they produce benefits to the community, for instance by enhancing social cohesion, contributing to crime reduction, to a creative environment and to urban regeneration. The following subsections further discuss these positive aspects of cultural participation.

1.2.1.1 Benefits to individuals and the community

Cultural participation is a fundamental part of individual and social wellbeing. Since the 18th century, the positive effects of cultural participation on communities had been recognized. Enlightenment authors such as Anne Robert Jacques Turgot (1750) and David Hume (1825) argued that art and culture contribute to inhibiting society's vices such as brutality and criminality. In the assessment of the impacts of arts and culture by the report of the European Task Force on Culture and Development "In from the margins: a contribution to the debate on culture and development in Europe" (1997), it is suggested that culture has the capacity to enrich the social environment with public amenities, to induce educational effects, to stimulate a creative environment, to contribute to crime reduction and to produce collective community memories. According to the economist Tibor Scitovsky (1989), known for his recent studies in the economics of happiness, cultural activities are superior sources of satisfaction, both at the individual level, by providing pleasure, and from the point of view of society, by helping reduce the intensity of activities classified as antisocial, such as violence and crime. As one of his examples, the author relates the temporary decline of violence in England, in the early 60's, to the success of Rock and the fanaticism of the youth by the Beatles. Tubadji et al. (2015) also found evidence that greater cultural consumption in the US has a positive impact on happiness and a negative impact on crime, being beneficial to social wellbeing.

At the individual level, there is a large body of empirical literature associating cultural and artistic participation to increased happiness and subjective wellbeing. For example, Wheatley and Bickerton (2019) discussed the association between participation in cultural activities and subjective wellbeing (i.e., the satisfaction with one's own life). The authors found that an increase in individuals' participation in arts events, historical sites, museums and arts activities have a positive impact on their subjective wellbeing. Also, when analysing the determinants of wellbeing for the Italian population, Grossi et al. (2012) found that access to culture is the second most important factor, after the presence or absence of illness and far ahead of all economic and socio-demographic factors. Furthermore, when analysing data from the UK between 2012-2013, Hand (2018) found evidence of a positive relationship between participation in artistic activities and happiness. The author explained two reasons for this. The first refers to some inherent effects of the arts, such as pleasure and a sense of escape. The second is linked to social contact and interaction, which are themselves considered strong determinants of

happiness. One can add to these reasons Amartya Sen's (1999) view that access to culture helps building individual capacities, such as self-determination, and fostering other positive habits and practices.

There is also empirical evidence, mainly studied in the field of medicine, of the positive relationship between access to culture and improved health conditions (e.g., Hacking et al., 2008; O'Neill, 2010; Crociata et al., 2014; Leckey, 2011; Chatterjee et al., 2018; Daykin et al., 2018; Fancourt and Finn, 2019). Participation in arts and culture is positively associated with life expectancy, according to empirical studies covering diverse regions and populations (e.g., Koonlaan et al., 2000; Hyyppä et al., 2006; Bygren et al., 2009). This body of literature also suggests that the arts can improve mental health, for instance by increasing self-confidence and reducing anxiety and depression (Chatterjee et al., 2018). Looking at mental health indicators, Crociata et al. (2014) explored the impact of cultural consumption in Italy between 2002-2007. The authors found evidence that cultural consumption substantially increases the medical liberation rates of people with mental health problems. In public health programmes there is an increasing attention to social prescription methods, which connect patients to non-medical sources of support in a community, mainly through voluntary organizations and the third sector, and very often through arts prescription, that is, the use of arts and culture to support patients' health improvement (Dayson and Bashir, 2014). A large body of the literature has analysed the effects of social prescription programs for older populations (50+, 55+ or 65+) and found evidence of reduction in medical appointments, in medication use, in falls and in the feeling of loneliness (Boliver, 2018; Fancourt and Steptoe, 2019; Cohen et al., 2006). According to Chatterjee et al. (2018), arts prescription is the most comprehensive social prescription model, with positive effects on different age groups, levels of skills and health needs.

1.2.1.2 Economic benefits

The previously discussed benefits of cultural participation to individuals and communities suggest extensive indirect consequences to the economy, namely through a reduction in public expenditure on health and security (Matarasso, 1997; Crociata et al., 2014). In the British neighbourhood Batley Carr, characterized by degradation and crime, the City Challenge survey showed that, after the introduction of arts projects in the neighbourhood, residents' sense of security increased by 11% and public spending on

vandal repair was reduced by 90% (Matarasso, 1997). There is also evidence of the positive economic impact of adopting arts prescription methods (Marsh et al., 2010; Dayson and Bashir, 2014; Kimberlee, 2016; Americans for the Arts, 2019). For example, Dayson and Bashir (2014) analysed the social prescription pilot conducted in Rotherham (England) for over two years and found reductions in demand for hospital care and in public health spending. The estimated total cost reductions for the National Health System (NHS) at the end of the pilot were £552,000 and there was a return on investment of 50 pence for every pound invested.

Cultural participation has also more direct effects to the economy. From a Keynesian economic perspective, a greater demand for cultural contents generates incentives for suppliers to invest in the cultural and creative industries. The cultural and creative economy is one of the world most rapidly growing sectors, contributing to 3% of the global GDP, generating 2,250 billion USD annually and employing around 30 million people worldwide (UNCTAD, 2019; UNESCO, 2018b). Furthermore, the sector has also an inclusive orientation in terms of jobs creation, since it provides more jobs to workers aged 18-25 than any other fields of employment, which supports the idea that it is “the sector of tomorrow” (UNESCO, 2021). Concerning the sustainable development objectives, the sector generates opportunities for human capital development, gender equality and poverty reduction (UNCTAD, 2010; UNESCO, 2012, 2018a).

Additionally, cultural activities are associated with the encouragement of innovative and creative behaviours, which are drivers of the so called “knowledge economy” and generate spill overs to other sectors. According to a recently published UNESCO roadmap, in the current context of climate crisis and the pandemic, creativity is a renewable, sustainable, and limitless resource that can be found anywhere around the world and can be put at the core of a resilient economic recovery, with the potential to drive a human-centric inclusive development (UNESCO, 2021). There is an increasing demand for creative workers across several sectors of the wider economy and cultural participation helps providing some necessary capabilities and skills for this workforce. This calls for responses from education systems, which must acknowledge the importance of stimulating creativity as part of the schooling and vocational training curricula, and cultural policies, which need to be strategic and comprehensive to bring equity in terms of cultural participation opportunities.

1.2.2 Outline of the problem

While the benefits of cultural participation are widely acknowledged, its distribution across people and places remain steadily unequal. Inequalities in cultural participation is a worldwide long-lasting problem and the expansion and consolidation of inclusive channels for cultural participation is an essential aspect of development. The concept of development involves the transformation of the social and environmental context towards a better quality of life for all individuals and presupposes a fair distribution of resources, as well as freedom and equity. In the cultural field, development should hence be measured by the capacity that all individuals have of using, creating and consuming cultural resources.

The main explanation in research for the problem of inequalities in cultural participation has been differences in socioeconomic and demographic characteristics among individuals. Whereas the literature recognises the role of places in cultural participation inequalities, there is a lack of theoretical considerations and comprehensive empirical evidence about the territorial obstacles to the provision of equal opportunities for people to access culture. Furthermore, despite the acknowledgement by international resolutions and policymakers of the importance of local dimensions when thinking of policies and programmes for cultural participation, this does not seem to reflect in an appropriate design and effective implementation of public policies targeting cultural participation.

The lack of consideration of territorial aspects, both in the literature and in the policy paradigm, is an angle that tends to persist, especially considering the growing importance of the Internet and quick spread of platforms to access digital cultural content, a trend that has become even more accentuated with the coronavirus outbreak pandemic. Addressing this issue is essential for the sustainable development agenda, which encompasses individuals' freedom and equity in conditions to make their cultural participation choices.

1.3 General and specific objectives

The general objective of this thesis is to explore the geographical aspects of inequalities in cultural participation. Concerning the specific objectives, the first aim of this thesis is to contribute to the literature on cultural participation by developing a theoretical framework that account for the territorial aspects that influence cultural

participation. Second, this thesis also aims to provide analytical contributions regarding the current policy paradigm for cultural participation and its ability to tackle territorial aspects. Third, it aims to contribute to the empirical cultural participation literature by providing new empirical evidence on how territorial aspects influence cultural participation behaviour.

1.4 Contribution and outline of the thesis

1.4.1 Contribution and overview of chapter 2

The second chapter describes the literature on the determinants of cultural participation. It indicates that the way that cultural choices are conditioned by the characteristics of the locality where individuals live have only been limitedly studied. While a great number of studies acknowledge the role of territorial aspects (namely the size of the locality, urban vs. rural contrasts, the abundance of cultural facilities and, to a lesser extent, the socioeconomic environment), these and other place-specific particularities have been little explored and theorized. After acknowledging this gap in the literature, this chapter proposes a theoretical framework to assess territorial barriers for equal opportunities in cultural participation. It argues that the lack of a comprehensive approach on the problem of inequalities in cultural participation, one that considers the multidimensional influence of territorial specificities, risks leading to an underutilization of public policies targeting cultural participation. It also suggests avenues for empirical research. Specifically, it proposes two directions of empirical research that are subsequently addressed in chapters 4 and 5 of this thesis: first, the impact of non-socioeconomic exogenous (to the cultural sector) territorial factors on cultural participation; second, the impact of the proximity to cultural facilities and of the socioeconomic environment on the consumption of digital/online culture.

1.4.2 Contribution and overview of chapter 3

This chapter examines new challenges of inequalities in cultural participation related to recent evolutions in digital technology and the Internet dissemination. It reviews the way that the literature has looked at digital cultural participation, describing the latest theoretical and empirical approaches to the impacts of digitization in

the cultural sector. Similarly to the wider literature on cultural participation, the review in this chapter shows that while there is emerging research focusing on the socioeconomic and demographic determinants of digital/online cultural participation, the territorial aspects that influence it have been overlooked. In this way, the chapter 3 sets the ground for the empirical analysis developed in chapter 5.

1.4.3 Contribution and overview of chapter 4

Following the conclusions of chapter 2, this chapter is an empirical study that attempts to evaluate how violence, as a non-socioeconomic exogenous characteristic of the territory, affects cultural participation. Particularly, it investigates whether urban violence explains individuals' choice between going out of home to watch movies or watching it at home. Based on individual data from a survey conducted in 2019 with 1,211 residents from a conglomeration of sixteen favelas (slums) located in the Maré neighbourhood in Rio de Janeiro (Brazil), it studies the association between individuals' fear of violence and their choice of consuming culture in private or public spaces. Controlling for socioeconomic, demographic, and other territorial variables, the findings indicate that consuming culture in private spaces is a substitute for public spaces when individuals are more afraid of violence. Furthermore, subjective violence (fear) seems to be a stronger determinant of an individual's behaviour than objective violence (the actual occurrence of armed conflicts). The results presented in this chapter provide evidence for the design and implementation of policies targeting urban territories impacted by high levels of violence.

1.4.4 Contribution and overview of chapter 5

As evidenced in chapter 2, previous research has demonstrated that the proximity to cultural facilities and the socioeconomic environment where an individual lives have an impact on cultural participation. Missing in the literature is whether these geographical aspects remain key factors explaining the consumption of digital/online cultural content. This chapter assesses whether the accessibility to cinemas and the median income of the municipality where individuals live affect their consumption of digital/online movies in France. For that, it uses individual-level data from the 2018 French Cultural Practices Survey, as well as contextual data identifying the median income and the location and

size of cinemas in different municipalities. The findings indicate that geographical aspects continue to have an influence on digital/online cultural participation. It demonstrates that individuals living in more affluent areas and with the greatest accessibility to cultural facilities are more likely to watch online movies. However, while the socioeconomic environment has always a positive influence on digital/online cultural consumption, the results show that the association between the distance to physical facilities and digital/online cultural consumption is U-shaped. Hence, when individuals live in very remote areas, having a lower accessibility to cinemas increase their likelihood of watching digital/online movies, meaning that the digital/online world works as a substitute to the offline world in very remote areas. The findings indicate that the consumption of digital/online culture in less affluent areas can be encouraged by increasing the supply of cultural facilities, while in very remote areas it is particularly important to stimulate a cultural environment and to promote the dissemination of high-quality Internet.

1.4.5 Contribution and overview of chapter 6

This chapter approaches the topic of inequalities in cultural participation from a public policy perspective. First, it provides an overview of the economic fundamentals of cultural policies and the main international principles guiding policies for cultural participation. Then, it uses the Compendium of Cultural Policies and Trends database to describe and critically review policies and programmes aiming at addressing inequalities in cultural participation implemented across 38 countries. It argues that the main economic fundamentals of cultural policies are not distributive or inclusive in nature and are therefore insufficient to correspond to territorial specific demands. Moreover, while the main international principles and resolutions about cultural participation recognize the importance of accounting for local elements and territorial specificities in the formulation of cultural policies, this is not translated into the design and implementation of the main measures implemented across countries.

1.4.6 Contribution and overview of chapter 7

Having shown along the thesis, on the one hand, the importance of the territory in the analysis of cultural participation and, on the other hand, the lack of territorial specificities in empirical, theoretical and policy approaches, the last session describes

some final considerations. It includes some avenues for future research and recommendations to build effective public policies and strategies for reducing inequalities in cultural participation while accounting for territorial barriers that constrain cultural equity.

Chapter 2. Cultural participation inequalities: a literature review and a theoretical framework proposal to address territorial aspects

Introduction

The cultural sector's public bodies have traditionally aimed at broadening the profile of participants in cultural activities. The right to cultural and artistic life is expressed by the Article 27 of the Universal Declaration of Human Rights (United Nations, 1948). Nevertheless, cultural participation remains steadily unequally distributed across socioeconomic and demographic groups, as well as throughout territories. Even in developed countries where the public departments responsible for cultural policies have political strength and well-off budgets, inequalities in cultural participation persist (Tobelem, 2016).

The literature on cultural participation has focused on individuals' socioeconomic and demographic characteristics to explain differences in cultural choices, preferences and behaviours. In particular, the main approaches highlight the influence of human capital accumulation, social status signalling and life cycle effects to explain why person-specific socioeconomic and demographic variables correlate with particular cultural behaviours. For instance, highly educated people are expected to have developed appropriate cognitive capacity to relate with arts; those occupying high status employment categories are supposed to have interest in demonstrating their status through their cultural behaviour; and the young or retired people, single and without children usually have available free time for participating in leisure activities, including culture. Therefore, as shown by the empirical literature presented in this chapter, these groups are more likely to participate in cultural activities.

Less explored however are the place-specific aspects that influence cultural choices, preferences, and behaviour. Location variables have been very narrowly incorporated to the cultural participation theoretical and empirical analysis. For instance, the size of the city or a variable differentiating between urban and rural areas are factors often included in the empirical models as control variables. A few studies also highlight

the relevance of the proximity to cultural supply and local socioeconomic contextual effects on individuals' cultural behaviour, but with little or no connection with the literature on the socioeconomic and demographic determinants of cultural participation. Moreover, if territorial and spatial aspects have been largely overlooked when analysing inequalities in cultural participation, they tend to be completely neglected in the digital era, where virtual technologies allow people to access content from any place (being sufficient to have access to an Internet connection), a trend which has been accentuated even more with the social distancing imposed by the Covid-19 pandemic. We argue that the lack of theory and evidence about the role of geography as a determinant of physical and digital cultural participation behaviour may undermine public policies that aim at reducing inequalities in cultural participation.

The aim of this chapter is to review the literature on the determinants of cultural participation and extend it to incorporate territorial aspects that are often neglected, and which lack analytical and empirical support. The first session presents the main theoretical groundings. The second session discusses the empirical literature on the socioeconomic and demographic determinants of cultural participation. The third session reviews the few empirical studies which explored in a more detailed fashion the role of place-specific characteristics for cultural participation. The fourth session proposes a theoretical framework to incorporate place-specific aspects into the analysis of cultural participation. The last session concludes the chapter.

2.1 Theoretical groundings

Cultural sociologists and economists set the foundations of most theories about the mechanisms that influence cultural participation. Those are often associated to the particularities of cultural goods, in specific their symbolic nature and their characterisation as experience goods. Cultural goods have been described as vehicles for symbolic messages to those who consume them, in the sense that they are not simply utilitarian. Furthermore, they have been characterised as experience goods, meaning that their value can only be fully assessed by an individual after their consumption (Throsby, 2010).

In a pioneer formulation on the relationship between economics and happiness, Scitovsky (1976) characterised cultural activities as “stimulus-satisfactions”, which

require great amount of initial effort to be enjoyed but produce lasting positive effects on happiness. In line with the vision of culture as experience goods, the author argued that the consumption of cultural contents and the ability to enjoy it are the result of training and habit (Scitovsky, 1976).

In their theory of consumer choices, Gary Becker and George Stigler (1977) argued that cultural consumption depends on human capital, defined as the individual's stock of knowledge. The authors suggested that the neoclassical economic¹ assumption of diminishing marginal utility is not valid for cultural goods. On the contrary, the marginal utility of cultural consumption increases with the ability to consume art, which is a function of knowledge and skills gained by past consumption. That is, the pleasure that an individual derives from cultural activities (or goods) is greater as this person practices (or consumes) more. This phenomenon is called "rational addiction" and occurs through the process of habits construction. Hence, demand for culture tends to be cumulative in the sense that present consumption leads to future consumption (Becker and Stigler, 1977).

On the other hand, Lévy-Garboua and Montmarquette (1996) recognized the possibility of past consumption to negatively affect future consumption. From their perspective, the individuals' definition of their tastes and consumption behaviour is a learning process and each new experience can positively or negatively impact a person's future arts consumption. Furthermore, scholars have also acknowledged the importance of a substitution phenomenon between different cultural activities. While participation in one activity is likely to increase an individual's human capital and the skills that are necessary to understand other forms of arts, time constraints generate substitution effects among leisure activities (Vogel, 1990). For example, consumers can replace theatre with cinema and television may be a substitute for both. The price of a cultural activity may be a determining factor when an individual decides to replace one practice for another (Lévy-Garboua and Montmarquette, 1996).

Becker and Stigler (1977) also saw the possibility of human capital to negatively

¹ The Neoclassical school sees the consumer as rational, with stable and orderable tastes, therefore able to define his "preference curves", which represent the degree of satisfaction obtained from what he consumes, which is called "utility". This theory suggests that individuals have decreasing marginal utility curves. That is, as the individual consumes more of one good, the satisfaction that he/she derives from the consumption of one more unit decrease. In this sense, the individual only chooses to consume more as long as his/her marginal utility exceeds the marginal cost of consumption. At the optimum level, his/her marginal utility should be equal to the price of the good.

influence cultural consumption. They suggested that human capital (often measured in economics by formal education) can act on two opposite ways: on the one hand, by increasing the pleasure derived from cultural consumption, and therefore increasing an individual's demand; on the other hand, by increasing the person's labour productivity and consequently her salary, which is equal to her opportunity cost for the time devoted to cultural activities, and thus could negatively affect the consumption of culture. At their formulation, Becker and Stigler (1977) adopted the hypotheses of full rationality and decisions maximization, typical of the neoclassical methodological individualism, and assumed that individuals make decisions independently of the environment where they are set.

On the other hand, Thorstein Veblen (1899), who is considered the founder of the Institutionalist school, proposed an approach that broke with the neoclassical assumptions and presented the behaviour of individuals as socially determined. Veblen's analyses of the leisure class and conspicuous consumption (Veblen, 1899) set the basis for the acknowledgment of social classes as important determinants of cultural tastes and consumption, in particular among social scientists.

In line with Veblen's ideas, the sociologists Pierre Bourdieu and Jean-Claude Passeron (1964) spread the notion of cultural capital, which came to prominence for explaining the perpetuation of cultural access inequalities. Cultural capital was defined as the set of intellectual skills that an individual has (Bourdieu and Passeron, 1964). Based on the symbolic nature of cultural goods, the authors suggested that the obstacles to cultural participation are symbolic in nature, rather than material, and dependent on individuals' cultural capital, which is associated to their social class. Therefore, individuals' social groups are expected to influence participation rates in cultural activities, with the most advantaged consuming more culture (Bourdieu and Passeron, 1964).

The recognition of the importance of the social milieu for individuals' decision-making concerning cultural participation has been associated with the symbolic nature of cultural goods, which makes cultural preferences and practices socially constructed and implemented (Bourdieu, 1984). In fact, culture is not a human need, and the desire to access it does not manifest as naturally as other wants (Bourdieu, 1984). According to Bourdieu (1984, pp.19), "A work of art has meaning and interest only for someone who possesses the cultural competence, that is, the code, into which it is encoded".

Furthermore, the lack of cultural capital constitutes barriers for cultural consumption, by making some people feel they are not suitable for this kind of activities (Mantecón, 2009). Symbolic barriers may hinder the access of individuals from lower classes even for events or activities that are free of charge (Almeida et al., 2019).

Additionally, Bourdieu argued that higher status groups gain “distinction” from others by consuming “legitimate” culture (Bourdieu, 1984). For instance, an individual’s participation in “highbrow” cultural activities, such as operas or ballets, can be motivated by the sense of belonging to a prosperous social class that it might produce (Bourdieu, 1988). From this view, cultural participation is seen as a way of reinforcing social hierarchies. Furthermore, it implicates a virtuous cycle leading to the accumulation of other skills and forms of privilege (Bourdieu, 1984).

In the contemporary world, however, scholars have pointed to changes in patterns of gaining status through cultural consumption. More specifically, Peterson and Simkus (1992) suggested that status is gained by knowing about and participating in diverse forms of cultural activities. Thus, the upper classes have redefined their tastes as an appreciation for diversified contents, including both highbrow and lowbrow culture. People who engage in a diversity of cultural activities are denominated “omnivores”. On the other hand, less advantaged groups of individuals tend to be involved in one or just a few cultural participation forms. Individuals with this behaviour are classified as “univores”.

2.2 The socioeconomic and demographic determinants of cultural participation

There is a vast body of empirical literature on the socioeconomic and demographic determinants of cultural participation. Initially examined by Bourdieu and Passeron in the 1960s, these studies remain prominent in the present days. Most of them provide evidence on how individual differences in terms of socioeconomic strata (such as income, type of employment and education) and demographic groups (like age, gender, ethnicity, race and the household structure) are associated with differences in terms of cultural participation.

In order to understand the influence of socioeconomic and demographic individual characteristics on cultural participation, a literature review based on 40 selected empirical studies was conducted. The appraisals examined took place between 1974 and 2020. Most

of them were articles published in economic or sociology journals. They were examined and detailed in terms of four features: i) the independent variables analysed, ii) the key findings and iii) the methodological specificities, including aspects such as the data sources, the analytical methods and the dependent variables observed. A summary table can be found in Appendix 2.1 ('The socioeconomic and demographic determinants literature review').

Most of the analysed studies were based on data from surveys conducted in developed countries, employing econometric methods and observing individual participation in passive forms of cultural consumption (as arts spectators). Most of them explain socioeconomic and demographic differences in cultural participation at least partially based on the human capital and the social status effects. Although some of the studies include territorial variables, such as dummies for the region where individuals live, the city size or an urban versus rural specification, these geographical aspects are often included as control variables and only narrowly theorized (subsection 2.2.3 provides further details about it). The next subsections discuss this literature in detail.

2.2.1 Education, income and occupation

The statistics shown by several national surveys and empirical studies have corroborated a "elitism hypothesis", suggesting that the arts are elitist in terms of audiences (Seaman, 2006). The findings indicate that participation in most artistic and cultural activities is positively related to the individual's years of formal education, his/her employment condition and his/her income level. For instance, the Special Eurobarometer survey on cultural participation applied for 24 European Union member countries in 2013 showed that the most educated people, occupying the highest qualified professional categories and almost never facing financial difficulties are the ones most likely to participate in cultural activities (European Commission, 2013).² Noteworthy is the fact that those factors are strongly correlated, thus mutually reinforcing each other. In other words, the greater the educational level, the more likely the person is to have a more qualified occupational status and a higher income.

² Special Eurobarometer 399, available for consultation at: https://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_399_en.pdf, accessed 15 April 2020

Formal education (often measured by the number of years of study or highest level of schooling achieved) is generally distinguished as the most relevant factor determining cultural participation (see Nielsen et al., 1974; DiMaggio and Useem, 1978; Baumol and Bowen, 1966; O'Hagan 1996; Katz-Gerro 1999; Seaman, 2006; Muñiz et al. 2015; Courty and Zhang, 2018). Not only the individual's own education matter, but a higher educated spouse also leads to a greater odd of cultural participation for both men and women (Kraaykamp et al., 2008; Upright, 2004).

The positive effect of education on cultural participation rates has been associated with both cognitive skills and social status (Notten et al., 2015). The first is connected to the hypothesis that human capital facilitates the assimilation and understanding of arts and culture (Becker and Stigler, 1977; Ganzeboom, 1982), while the second refers to the notion that individuals come to appreciate arts and culture because it expresses their belonging to a certain social class (Bourdieu, 1984).

The positive and significant association between education and cultural participation has been held for all forms of culture, although its intensity varies according to the type of cultural activity (Dimaggio and Useem, 1978). From data on cultural participation in Ireland, O'Hagan (1996) concluded that educational attainment is more relevant for explaining attendance at “highbrow” activities (e.g., plays, operas, concerts, musicals, art exhibitions, contemporary dance, and literature) than at “lowbrow” ones (e.g., cinema, Rock, Pop, Jazz or Country concerts, and traditional Folk dancing or music events). Suarez-Fernandez et al. (2019) also found that the marginal effect of education is more relevant to determine “highbrow” cultural participation than participation in popular culture. According to these authors, this result is compatible with the idea that “highbrow” cultural consumption involves the comprehension of more complex symbolic elements, and the ability to decode it is strongly dependent on education.

Moreover, in a more updated classification of individual behaviour concerning cultural participation forms, scholars have classified the cultural behaviour as omnivore (diversified taste) vs. univore or paucivore (who absorb very little culture). Empirical studies have shown that greater education levels are associated to the omnivore behaviour, that is, to the engagement on a diverse set of cultural activities (Šebová and Révészová, 2020; Chan and Goldthorpe, 2007a; Chan and Goldthorpe, 2007b; Alderson et al., 2007; Chan and Goldthorpe, 2005).

The influence of education was also discussed in terms of how the cognitive skills and the social status explanations have each of them a different influence according to type of cultural participation. For instance, individual practices, such as reading, have been argued to require more cognitive skills, but to be less strongly influenced by status-signalling reasons than collective and public forms of cultural consumption, such as attending concerts (Notten et al., 2015).

Furthermore, the intensity with which cognitive skills and social status explain differences in cultural participation seem to vary according to the society's context. The status-related effect of education on cultural participation is smaller in societies with larger educational expansion and with greater intergenerational educational mobility, while these distributional characteristics do not affect the cognitive explanation (Notten et al., 2015). This occurs because in societies where education is more equally distributed, status-signalling incentives are less likely to influence individuals' decision to consume culture (Notten et al., 2015). Besides, when a society shows weak associations between the level of education of parents and children (meaning a high level of intergenerational education mobility), it implies that a large proportion of highly educated people have not been raised in a high-status environment. In such a context, the status-related effect of education is less likely to act (Notten et al., 2015). This occurs because part of the influence of education in cultural participation is linked to the parental education. Children of highly educated parents are more likely to have earlier exposure to arts and culture and to become adults who participate more frequently in cultural activities as compared to children of poorly educated parents (Kraaykamp et al., 2008). Indeed, early socialization experiences (often expressed as the level of cultural participation in the childhood) are acknowledged as a strong determinant for cultural participation in the adult life (Orend, 1988; Walker et al., 2002; Upright, 2004; Andreasen, 1991).

Concerning income, its positive effect over cultural participation can be explained by different reasons. Above all, income indicates the capacity (or incapacity) to pay for cultural contents. If these are normal goods (being them essential or luxury goods), the economic theory predicts a positive income elasticity (Borgonovi, 2004). Depending on the type of cultural participation form, the positive effect of income may be greater or smaller. A greater positive influence of income usually occurs for activities where attendance (or consumption) is more expensive (luxury goods), such as opera performances. On the other hand, the positive effect of income over cultural participation

may be partly counterbalanced by the greater opportunity cost that it implies due to the value of time. In particular, time-intensive cultural participation forms may have the positive effect of labour income partly offset by a negative effect caused by the opportunity cost of time (Withers, 1980; Zieba, 2009). Other mechanism through which income can influence cultural participation results from its correlation with the individual's family income in the childhood and the consequent greater possibility that the child had been supported with early arts socialization (Borgonovi, 2004).

Empirical research has shown that the positive effect of income on cultural participation generally surpasses the negative effect provoked by a greater opportunity cost of time, thus producing a positive net effect (Falk and Katz-Gerro, 2015; Yaish and Katz-Gerro, 2012; Katsuura, 2008; Alderson et al., 2007; Ringstad and Loyland, 2006; Upright, 2004; Lewis and Seaman, 2004; Walker et al., 2002; Gray, 1998; Lévy-Garboua and Montmarquette, 1996). Some particularities have been found, however, when considering the interaction between income and other factors. For instance, the influence of income is greater among individuals with intermediate and higher education levels than among those with a lower education level (Rodriguez et al, 2018).

Concerning the type of culture that income affects the most, research has found contradictory results: the effect has proved to be greater for both lowbrow (Suarez-Fernandez, 2019) and highbrow culture (Yaish and Katz-Gerro, 2012). Furthermore, income seems to bring imbalances in the bargaining power of members of a couple. When men's share of household income is larger, the probability of men's attendance at female-dominated high culture events decreases (Mauri and Wolf, 2016). Finally, the influence of income also seems to depend on the macro context. It was found to be lower in countries that invested more in cultural policies (Falk and Katz-Gerro, 2015) and weaker in richer cities (Courty and Zhang, 2018).

The effect of occupational status on cultural participation has likewise shown to be mixed. First, it is at least partially the result of greater income and social status. Besides, similarly to education and income, the occupational status is correlated with the family background (parental education) and early arts socialization (Borgonovi, 2004). From these perspectives, qualified professionals are expected to participate more in cultural activities. On the other hand, similarly to labour income, a negative effect results from the opportunity costs associated to time allocation (Becker and Stigler, 1977), which are greater for higher status professionals, who are better paid for their work. In general,

empirical studies have found that arts audiences, especially highbrow, are dominated by individuals in high-status occupations, who have a preference for ‘legitimate’ culture (Bourdieu, 1996; Katz-Gerro, 1999; Dimaggio and Useem, 1978; Nielsen et al., 1974). This is particularly true for those people who have been born as a member of high-status groups (Bourdieu, 1996). From a more contemporary perspective about individual preferences, individuals in dominant occupational categories are more likely to present an omnivore behaviour as compared to inactive, univore or paucivore behaviours (Chan and Goldthorpe, 2007a; Chan and Goldthorpe, 2007b; Alderson et al., 2007; Chan and Goldthorpe, 2005; Peterson and Simkus, 1992).

Most empirical research on the impact of education, income and occupations on cultural participation have been carried out in developed countries, but the few studies conducted in the developing world have also found evidence that support the elitism hypothesis (Courty and Zhang, 2018; Diniz and Machado, 2011; De Almeida et al., 2019). In Brazil, Diniz and Machado (2011) and De Almeida et al. (2019) analysed data from the Family Budget Survey (POF) and found that spending on culture is strongly determined by formal education and the level of income. In China, Courty and Zhang (2018) found the impact of education, and to some extent also income, to be weaker in richer cities. In areas considered to be of low income in developed countries such as the United States, United Kingdom and Ireland, findings indicate low cultural participation in general for all inhabitants (Moore, 1998).

2.2.2 Age, gender, race and the household structure

Demographic factors such as gender, age, ethnicity, race and household structure (in particular the marital status and the existence and number of kids) are also found to influence cultural participation. Though these aspects present more ambiguous effects, they generally influence particularly the type of content people access and/or the type of cultural activity they practice (e.g., Christin, 2012; Borgonovi, 2004).

Different age groups explain differences in cultural participation for varied reasons. First, age is associated with life cycle effects, such as the professional situation, childbearing or health and physical mobility constraints. Second, the older a person is, the greater the chances that she/he has experienced more cultural events, progressed in the processes of learning-by-consuming and accumulated more human capital and skills

that are necessary to appreciate cultural activities (Gray, 1998; Borgonovi, 2004). However, life cycle and human capital development effects can have different directions. While the first suggests a direction that is first negative, then positive and then negative again, the second implies a positive linear relationship between age and cultural participation (Borgonovi, 2004).

Furthermore, earlier studies have pointed out that cultural preferences, tastes and behaviours modify with and are associated to generational habits (Donnat, 2009; Notten et al., 2015). For instance, the current young generations read less than people from previous generations with the same age, while the baby-boomers³ were the most assiduous generation in reading (Donnat, 2009).

On top of it, different types of arts and culture appeal more to different age groups. Considering the consumption of performing arts, Borgonovi (2004) found evidence that age increases the attendance to classical music performances, while theatre attract more the younger generations. Different age groups have also quite distinctive patterns of music taste, thus determining the music styles that people listen to (Peterson and Simkus, 1992; Mellander et al., 2018). For instance, Peterson and Simkus (1992) found that classical music, big band music and hymns/gospel appeal more to older people, rock to the young generations and country to those who are neither very old nor very young. Younger people also show more preference for popular genres (Šebová and Révészová, 2020; Favaro and Frateschi, 2007; Katz-Gerro, 1999), consume more culture outside the home (Paglioto and Machado, 2012), are more likely to be univores rather than omnivores (Chan and Goldthorpe, 2007a) and are expected to engage more in active cultural participation forms (Orend, 1989).

Concerning gender differences, it is acknowledged that women are generally more likely to participate in arts and culture than men, particularly in highbrow cultural activities (Bihagen and Katz-Gerro, 2000; DiMaggio and Mukhtar, 2004; Christin, 2012; Mauri and Wolf, 2016; Šebová and Révészová, 2020; Katz-Gerro, 1999). Studies looking at different forms of cultural activities have found similar results, including museums and historical sites visits (Falk and Katz-Gerro, 2015), theatre attendance (Ateca-Amestoy, 2008) and books reading (Ringstad and Loyland, 2006), among others.

³ Those who were born between 1946 and 1964 in Europe, the United States, Canada or Australia.

Two main arguments have emerged to explain the association between gender and cultural participation. First, it may be the result of differences in socialization in the arts for girls and boys because of gendered stereotypes, especially in middle- and upper-class families (Christin, 2012; DiMaggio and Mukhtar, 2004). The second explanation focuses on the effect of the workplace culture and the structure of employment. For instance, women are more likely to work part-time, which allows more free time for cultural participation, and more likely to have a culture related occupation (Christin, 2012; Lizardo, 2006).

Although women are overrepresented among cultural participants, there are a few variations according to the type of arts (Dimaggio and Useem, 1978). Empirical evidence has found that women are generally more participative than men in visual arts, dance, ballet, theatre and art museums (Bennett & Silva, 2006; Borgonovi, 2004; Dimaggio and Useem, 1978), while men go more often to history and science museums, consume more science fiction, fantasy and horror books and listen more to heavy metal than women (Gayo-Cal et al., 2006; Dimaggio and Useem, 1978). Furthermore, women are more likely to consume culture outside of the house (Paglioto and Machado, 2012) and to be omnivore consumers (Favaro and Frateschi, 2007; Chan and Goldthorpe, 2007a; Chan and Goldthorpe, 2005). Still, when a man's share of household income is larger, the probability of the man's attendance at a female-dominated high culture event decreases even more, because of the increase in the man's bargaining power in the couple's decisions (Mauri and Wolf, 2016).

Being a lesbian, gay or bisexual (LGB) person also seems to affect cultural participation (Lewis and Seaman, 2004). According to the 1993 and 1998 General Social Survey in the United States, substantially higher percentages of LGB than straight respondents had visited an art museum or gallery, attended a ballet or dance performance, and gone to a classical music or opera performance in the prior year. LGBs' significantly higher educational levels and probabilities of being unmarried, childless city residents contribute to higher arts attendance rates. Even after controlling for these variables, however, LGBs were significantly more likely than analogous straight people to attend the arts. Furthermore, the attendance differences between LGB and heterosexuals appeared equally strong for men and women (Lewis and Seaman, 2004).

The household structure, in particular the marital status and the family composition are also likely to influence cultural participation. These factors are linked to

one of the possible effects of the life cycle over cultural participation: middle age responsibilities might reduce the time available to partake in cultural activities (Borgonovi, 2004). Time availability has been found to be positively associated with cultural consumption, as these activities are time intensive (Machado et al., 2017). Family responsibilities, such as having kids, are likely to decrease individuals' time availability (Hallman et al., 2016) and real income (Lévy-Garboua and Montmarquette, 1996) for participation in cultural activities.

However, regarding the presence (and number) of kids, a contrary effect could also occur in the sense that parents might like to enjoy cultural activities with their children (Hallman et al., 2016). In this sense, having kids might affect the kind of cultural participation chosen by parents (Walker et al., 2002). For instance, couples with small children (less than 7 years old) were the most likely to buy books in Norway, despite their economic budget and time restrictions, because they were inclined towards buying children books (Ringstad and Loyland, 2006).

Nevertheless, most studies found evidence of the negative effect of the existence and number of children on cultural participation. The presence of children has appeared to reduce the chances of an individual to be an omnivore rather than an univore (Chan and Goldthorpe, 2007b; Chan and Goldthorpe, 2005), to decrease attendance to highbrow cultural events (Kraaykamp et al., 2008) and to diminish cultural expenditures outside the house (Paglioto and Machado, 2012; Muñiz et al., 2015). This negative association between having children and cultural participation has been verified for different cultural expressions, including theatre (Lévy-Garboua and Montmarquette, 1996), dance (Lewis and Seaman, 2004), classical music events (Lewis and Seaman, 2004) and live concerts for all kinds of music genres (Favaro and Frateschi, 2007).

Concerning the marital status, being married has an influence on the personal priorities in the use of free time (Walker et al., 2002). Empirical evidence has shown that being single increases the frequency of cultural participation (Ateca-Amestoy, 2008; Ringstad and Loyland, 2006; Muñiz et al., 2015; Lewis and Seaman, 2004) and the probability of being a cultural omnivore (Šebová and Révészová, 2020; Chan and Goldthorpe, 2007b). Furthermore, individuals in couples where both partners hold a full-time job attend significantly fewer highbrow cultural events than people in couples with other work arrangements (Kraaykamp et al., 2008). Nevertheless, when one's spouse has high levels of arts socialization and educational attainment, this one person is more likely

to attend arts events both with and without his or her spouse (Upright, 2004). Noteworthy, the influence of the marital status and its interaction with having kids has slight differences according to the type of cultural activity. For instance, while married people with children are less involved than childless singles in dance and classical music attendance, children and marital status covariates are not significant for visits to art museums (Lewis and Seaman, 2004).

Like gender differences, the individuals' ethnic origin and race are also expected to capture early socialization effects (Ateca-Amestoy, 2008). Hence, different types of cultural preferences can be found for each group. For instance, race seems to determine the musical styles that people choose to listen to (Mellander et al., 2018). For most activities, however, empirical evidence has shown that the probability of participation is greater for white people as compared to other races (Dimaggio and Useem, 1978). White people were more likely to spend on cultural goods (Paglioto and Machado, 2012), to frequently go to ballet performances (Borgonovi, 2004) and to visit art museums/galleries and attend live classical music, musicals, plays, dance or opera performances (Upright, 2004).

2.2.3 Location of residence

Among the 40 studies revised with the focus on socioeconomic and demographic aspects, 18 (45%) included any variable characterizing the locality where individuals live. These comprised: 1) the city size (Lewis and Seaman, 2004; Katz-Gerro, 1999; Lévy-Garboua and Montmarquette, 1996; Šebová and Révészová, 2020); 2) the city population (Alderson et al., 2007; Muñiz et al., 2015); 3) the city income (Courty and Zhang, 2018); 4) living in an urban area (Ateca-Amestoy, 2008; Kraaykamp et al., 2008; Mauri and Wolf, 2016); 5) living in a metropolitan area (Andreasen, 1991); 6) living in a capital (Diniz and Machado, 2010); 7) dummies for different regions (Paglioto and Machado, 2012; Chan and Goldthorpe, 2007a; Chan and Goldthorpe, 2007b; Favaro and Frateschi, 2007; Chan and Goldthorpe, 2005); 8) the cost of living (Diniz and Machado, 2010); and 9) the access to cultural equipment (Diniz and Machado, 2010; Ringstad and Loyland, 2006; Borgonovi, 2004).

These studies introduced these variables specially to account for local differences in terms of cultural supply. Individuals living in areas with more access to cultural

facilities are expected to participate more in culture, because the presence of establishments in the county of residence diminishes the travel costs necessary for attendance (Borgonovi, 2004). The supply of cultural equipment is often more abundant in bigger cities, urban areas, metropolises and capitals, where population is larger and access to cultural equipment is easier.

Empirical findings confirmed the hypothesis that these characteristics of individuals' residence area are positively associated with participation in cultural participation, including attendance to theatre and opera performances (Borgonovi, 2004; Ateca-Amestoy, 2008); Lévy-Garboua and Montmarquette, 1996), buying books (Ringstad and Loyland, 2006) and listening to music (Favaro and Frateschi, 2007), among others (Mauri and Wolf, 2016; Kraaykamp et al., 2008; Lewis and Seaman, 2004). Furthermore, people living in larger cities were more likely to be omnivores than those living in smaller cities, because of more opportunity to pursue a broad and diverse style of cultural participation (Alderson et al., 2007; Šebová and Révészová, 2020).

The only exceptions were found for cultural expenditures outside the house in Brazil (Diniz and Machado, 2010) and for the influence of city income on a wide range of cultural activities in China (Courty and Zhang, 2018). The number of cultural equipment had a negative impact on spending in cultural events out of home, probably due to larger subsidies in these places, which may lead to lower prices or free events (Diniz and Machado, 2010). Furthermore, a U-shaped relationship between city income and attending public cultural activities was found, indicating that cities with intermediate levels of development tend to have the lowest levels of cultural participation in China (Courty and Zhang, 2018).

2.3 The territorial determinants of cultural participation

2.3.1 State of the art

The focus of research on cultural participation has been unquestionably the socioeconomic and demographic differences among individuals. Territorial characteristics were scarcely studied as determinants of cultural participation. According to Gilmore (2013):

It remains the case, however, that the most influential research on arts policy remains focused on the variables of class, age, gender, educational background and ethnicity as determinant to some extent in the propensities of taste, participation and consumption (Bennett et al., 2009; Bourdieu, 1984; Chan & Goldthorpe, 2004) but neglects the role and affordances of place (Gilmore, 2013, pp. 88).

Very few studies have questioned the overemphasis on socioeconomic factors and the limited acknowledgement of the role of spaces to explain differences in cultural participation. The association between territorial characteristics and cultural activities was studied mainly on the opposite direction: the focus has been on the positive impacts that culture and creativity have on territories (Matarasso, 1997; Tubadji et al., 2015; Azevedo, 2016; Florida, 2005). This is a topic that has gained attention on the international agenda and is frequently used to fundament local cultural policies. For instance, the report of the European Task Force on Culture and Development "In from the Margins: A contribution to the debate on Culture and Development in Europe" (1997), stressed the ability of culture to enrich the social environment with public amenities, to induce educational effects and to stimulate creativity, among others. However, the other direction of the association between cultural participation and geographical aspects was less studied.

As discussed previously, some of the studies explaining differences in cultural participation with the focus on socioeconomic and demographic individual characteristics have also introduced in their econometric models variables related to the location (session 2.2.3). Most of them included aspects such as the population size, the city size or the level of urbanization of the area where the individuals live. In general, significant effects were found for these variables. Broadly speaking, individuals living in bigger cities, more urbanized and with greater population were more likely to participate in cultural activities,

while those living in smaller cities have a greater probability of being non-participants or only occasional participants (Ringstad and Loyland, 2006; Šebová and Révészová, 2020; Muñiz et al., 2015). These effects have been associated to scale effects, meaning that bigger cities with greater population are more likely to have greater supply of cultural facilities (Muñiz et al., 2015; Almeida et al., 2019).

When studying and explaining inequalities in cultural participation, the territorial characteristics were rarely the centre of the analysis. A literature review based on 8 empirical studies was conducted. These appraisals took place between 1987 and 2020 and consist mostly of articles published in scientific journals⁴. They were examined and detailed in terms of four features: (i) the independent variables analysed, (ii) the key findings and (iii) the methodological specificities, including aspects such as the data sources, the analytical methods and the dependent variables observed. A summary table of the studies focusing on the territory to explain differences in cultural participation can be found in Appendix 2.2 ('The impact of territorial characteristics literature review').

These studies have mainly disentangled two territorial aspects that can affect cultural participation:

- (i) **Supply availability:** the accessibility to cultural facilities in the territory where the individual resides.
- (ii) **Socioeconomic contextual/compositional effects:** the average/median social and economic characteristics of the location where the individual resides.

The only exception found was a study developed by Delrieu and Gibson (2017), which shifted the focus from the individual's place of residence to the cultural equipment's location, in order to assess the impact of libraries' proximity to other facilities (such as supermarkets) on their number of recorded visits. The authors concluded that the availability of everyday facilities surrounding a cultural venue attracts a greater number of users to the library (Delrieu and Gibson, 2017).

Concerning the impact of the unequal geographical distribution of supply facilities on cultural participation, researchers have considered that accessibility to cultural supply in any given area represents restrictions on what individuals can do. The accessibility indicator is usually measured by a function of the distance to cultural facilities weighted

⁴ The only exception is the report written by Blau and Quets (1987) for the National Endowment for the Arts.

by the size of these facilities (Brook, 2013; Brook, 2016). Individuals having to travel longer distances to access cultural facilities spend more time commuting, usually have higher transportation costs and are thus less encouraged to be frequent participants (Ateca-Amestoy, 2008). This is a particular important barrier in the peripheries of metropolitan regions, where low-income persons encounter transport limitations and consequently tend to stay close to their homes (Machado et al., 2017). Supply restrictions have thus a preeminent influence on how people make decisions of cultural consumption (Rössel and Weingartner, 2016). This perspective is linked to the notion of supply-induced demand, often applied in health economics (Folland et al., 2012; Labelle et al., 1994). Empirical research has shown, for instance, that an increase in the density of doctors in a region is associated with a subsequent greater utilization of the medical services (Carlsen and Grytten, 2000). In the cultural sector, this independent effect of supply on the demand side is also expected (Rössel and Weingartner, 2016).

Grounding on Rössel and Weingartner (2016), on Almeida et al. (2019) and on the economic geography literature, at least three reasons can explain discrepancies across territories in terms of cultural supply:

- a) **Economic barriers:** agglomeration and spill over effects can generate economies of scale and reduce the costs of inputs used in the production process
- b) **Population density barriers:** for certain services to be offered, a sufficiently large population density around a central location is necessary.
- c) **Political allocation of funding for the cultural sector:** cultural attractions, especially highbrow ones, are often dependent on public financing and subsidies, thus the availability of cultural infrastructure may depend on political decisions.

Some empirical findings have revealed the effect of cultural supply on demand (Blau and Quets, 1987; Rössel and Weingartner, 2016; Brook, 2013; Brook, 2016). One of the pioneer studies examined data from the 1982 and 1985 US Survey of Public Participation in the Arts (SPPA) for 8 types of cultural activity and found that supply and planning policies may account for high levels of participation (Blau and Quets, 1987). The authors argued that the persistent low rates of participation shown by residents of non-metropolitan areas is the result of a deficiency in supply, or from the individual's point of view, problems of access and proximity. In metropolitan areas, the authors found that people living in the suburbs have the lowest rates of cultural participation, especially because of transportation problems. Other publications came to similar conclusion when

analysing the example of specific cultural segments, such as museums (Widdop and Cutts 2012; Brooks, 2016) and operas (Brook, 2013). Furthermore, a study in Switzerland not only demonstrated that the availability of cultural attractions contributed to explaining attendance at several types of cultural activities, but it also used a quasi-experimental technique to show that the construction of a new theatre in an area that had previously no equivalent increased theatre attendance of people living in the area (Rössel and Weingartner, 2016).

In addition, researchers have also suggested that another reason why individuals living in different localities have discrepant rates of cultural participation is that the nature of the socioeconomic environment where they live affects their cultural behaviour (Widdop and Cutts, 2012). In this sense, some specific community environments promote an ambience in which a taste for arts and culture prospers and end up having exceptionally high rates of participation because of that (Blau & Quest, 1987). For instance, in England, regardless of one's socioeconomic characteristics, people who live in more deprived areas were found to be more likely not to visit museums than their counterparts living in areas with better economic, social and housing conditions (Widdop and Cutts, 2012; Brook, 2016).

One could suggest that this happens as an indirect effect of supply, since less advantaged areas are more likely to suffer a scarcity of cultural facilities. However, when accounting for supply differences the impact of places' average social and economic characteristics on cultural behaviour have persisted (Blau and Quest, 1987; Brook, 2016). For example, in the US, socioeconomic inequality was shown to not only reduce the number of institutions that supply arts and culture but also to have an independent negative effect on the demand for culture (Blau and Quest, 1987).

Furthermore, the average education achievement and marital status of locations was found to impact cultural participation independent of individuals' own education and marital status (Blau and Quest, 1987). More specifically, a larger number of well-educated and single people in a community increased the likelihood of any individual to participate in cultural activities (Blau and Quest, 1987). This can be explained by the lifestyles that these groups dictate, the public meaning it has and the basis of a critical mass that it forms (Blau and Quest, 1987). Therefore, an individual's cultural behaviour is a function of the nature of the society where they reside.

In additional to affecting the intensity of cultural participation in a locality, the

economic and cultural characteristics of a territory can also affect individuals' cultural preferences. In the United States, aggregated local factors such as the gross regional product, the socioeconomic classes, the share of votes in the election, the average educational attainment, the population density, the race proportions and the scores of personalities and tolerance affected geographic variations in music preferences across different categories of music types (Mellander et al, 2018). Sophisticated and contemporary music were associated with places characterized by more wealth, greater educational level, more knowledge-based workers, more liberal attitude, greater diversity and larger population density, while unpretentious and intense music were associated with less advantaged, less educated, more working class, more conservative, and less diverse – or whiter – places. Besides, mellow music was mainly associated with places where there are lower number of blacks and more open and tolerant personalities (Mellander et al., 2018).

The interaction between supply availability and socioeconomic contextual effects has also been empirically verified (Blau and Quest, 1987). In fact, some territorial social characteristics may intensify the positive effect of proximity to supply. For instance, whatever a person's age, central cities with older populations are more likely to increase residents' involvement in the arts, probably because the disadvantage of travelling long distances to go to cultural institutions affects older people more than young ones (Blau and Quest, 1987). Furthermore, the larger the number of non-whites in big cities, the greater is the likelihood of people to attend cultural events (Blau and Quest, 1987). At the same time, it has been demonstrated that the non-whites are not the ones who benefit the most from this expanded likelihood of participating in cultural activities (Blau and Quest, 1987).

Concerning the impact of non-socioeconomic exogenous territorial characteristics (e.g., climate aspects or criminality) on cultural behaviour, researchers have largely overlooked those, despite their influence on leisure activities. For instance, temperature and weather were found to affect the allocation of leisure time and outdoor recreation (Zivin and Neidell, 2014; Finger and Lehmann, 2012) and the fear of crime was found to have a negative impact on the likelihood to consume several leisure activities (De Oliveira and Silva, 2021). However, the non-socioeconomic exogenous territorial factors have not gained attention in the cultural participation literature, thus originating empirical and theoretical gaps.

2.3.2 A theoretical framework to account for the territorial limitations for cultural participation

The impact of geography has not been adequately theorized or deeply explored in the cultural participation literature. This subsection proposes a comprehensive theoretical framework for evaluating factors influencing cultural participation, including both individual and geographical characteristics that influence cultural choices, preferences and behaviour.

The basic assumption of the proposed model is that individuals' decisions are influenced by two types of factors: i) characteristics connected to the person; and ii) characteristics connected to the environment where the individual is inserted. Participation in culture requires individual and community resources – in terms of money, time, skills, technology and infrastructure – that influence the real opportunities of choices and behaviour individuals have. Furthermore, cultural participation is also shaped by social relations, which have an influence on individuals' motivations, tastes and interests and, like resources, are also conditioned by territorial and personal factors.

As seen in the previous sections, personal characteristics are widely recognized in the literature as determinants of cultural participation. These include demographic, socioeconomic and family composition factors, such as education, income, gender, age, marital status, number and age of the kids, employment category, among others. These factors are particularly important to capture human capital, social status and life cycle effects on cultural participation. For example, low formal education attainment is a personal condition that is associated with a smaller likelihood of participating in cultural activities, while higher formal education is generally associated with a greater motivation for participating in cultural activities.

At the same time, spatial factors relate to characteristics of the territory where the individual resides. These either correspond to factors that are endogenous to the cultural sector (including accessibility to cultural supply and cultural policies and institutions) or to factors that are exogenous to the cultural sector (including socioeconomic contextual effects or non-socioeconomic factors, such as local safety, transportation, or climate aspects). For instance, territorial aspects such as low cultural supply and high levels of insecurity, which are characteristic of deprived areas, correspond to geographical

conditions that are expected to inhibit cultural participation. On the other hand, people living in privileged areas are more likely to face less limitations to participate in cultural activities.

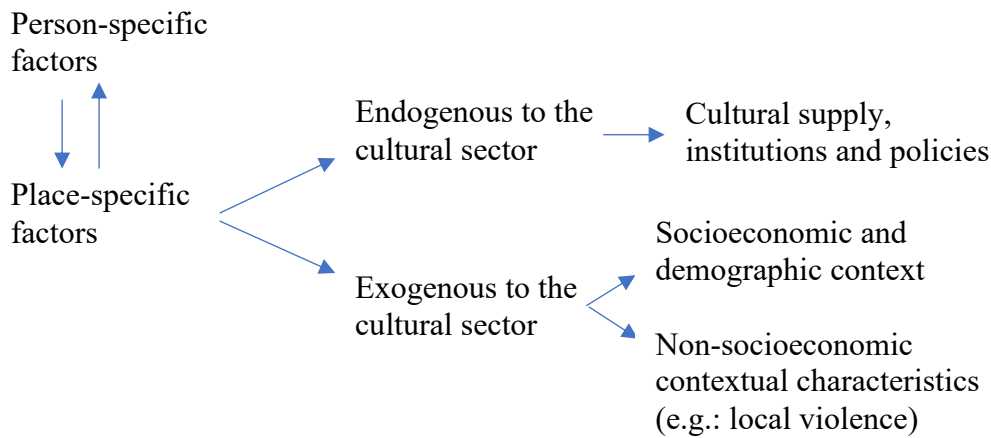
More specifically, one can distinguish the following mechanisms through which the territory affects cultural participation:

- (i) Cultural supply and exposure to other supply forces (e.g., marketing and media communications)
- (ii) Local policies and institutions
- (iii) The socioeconomic and demographic environment
- (iv) Non-socioeconomic contextual characteristics

Personal, territorial exogenous and territorial endogenous factors are frequently correlated. For instance, socioeconomically disadvantaged people usually do not have the power to choose to live in more affluent areas; less privileged territories are more likely to be affected by problems of insecurity or violence; the lack of safety and the context of socioeconomic disadvantage in a territory are usually not attractive for the supply of cultural facilities. This suggests a feedback process between personal and territorial factors that limit cultural participation in a territory.

Figure 2.1 proposes the theoretical framework for disentangling the role of territorial limitations for cultural participation. It assumes that both person-specific and place-specific structural factors may condition individuals' cultural participation possibilities.

FIGURE 2.1: A THEORETICAL FRAMEWORK FOR EXPLORING THE TERRITORIAL FACTORS THAT SHAPE CULTURAL PARTICIPATION



Source: author's elaboration

Conclusion

Territorial and spatial differences are at the origin of several sources of unequal conditions and opportunities for cultural participation. However, a review of the literature has shown that these aspects are scarcely accounted for, both theoretically and empirically, in the analysis of the determinants of cultural participation. Hence, this chapter has proposed a theoretical framework for exploring the territorial aspects shaping cultural participation behaviour. This distinguishes the following place-specific factors: (a) factors endogenous to the cultural sector (cultural infrastructure and supply, institutions, and policies); (b) the socioeconomic and demographic environment; (c) non-socioeconomic contextual factors exogenous to the cultural sector, such as local security.

This chapter has suggested that further empirical evidence is needed to evaluate the influence of these aspects. Missing in research, for instance, is a study on the influence of exogenous non-socioeconomic factors on cultural participation behaviour. This is tested in chapter 4 of this thesis. Furthermore, although there is an emerging body of research investigating the impact of digitization on cultural participation inequalities (see chapter 3), no study has looked at the association between the proximity to cultural facilities and digital cultural participation, which is the subject of chapter 5. Finally, as this chapter has argued that a comprehensive approach to the problem of inequalities in cultural participation should incorporate territorial specificities, it is also argued that public policies for reducing inequalities in cultural participation need to account for

geographical and spatial inequalities, otherwise they run the risk of being underemployed and ineffective for alleviating territorial inequalities. This is the subject of chapter 6.

Appendix to chapter 2

Appendix 2.1

The socioeconomic and demographic determinants literature review

Title, author and year	Independent variables analysed	Key findings	Methodological specificities
Unveiling Trends in Cultural Participation: The Case of Slovakia (Šebová and Révészová, 2020)	Education Gender Age Locality and region Marital status Social class and economic condition	<p>The lower the level of education, the higher probability of being culturally inactive. In contrast, the higher the education, the higher the probability of being culturally omnivorous</p> <p>Females are more likely to consume high-brow culture than males</p> <p>The impact of age in the model was mainly evident in the preferences of popular genres and the use of the internet for cultural purposes, which are both negatively affected by age</p> <p>People from smaller cities are more likely to be inactive or occasional visitors, while those from bigger cities are more likely to be omnivores or focused on popular forms of culture</p> <p>Single people have the highest probability of being culturally omnivores, while married and widowed people are more likely to be occasional visitors</p> <p>People who identify as working class with weak economic status are usually culturally inactive and very rarely consume culture. If they do, then it is mainly through audio-visual media, with some consumption of popular culture</p>	<p>Data comes from the Eurobarometer coordinated by the European Commission</p> <p>12 cultural participation forms analysed in Slovakia: direct participation in 7 cultural activities outside the home in the last 12 months (Opera and ballet, theatre, cinema, concert, library, historical sites and museums/galleries); participation in culture through the media in the last 12 months (participation in cultural broadcasting on TV or radio, reading books and using the internet for cultural purposes); active practice of culture in last 12 months (classic art practice and multimedia art creation)</p> <p>The study identified the probability of belonging to four clusters of individuals based on their participation in culture: the occasional visitors of historical sites and libraries, the culturally inactive, the omnivores, and those focused on popular forms of culture</p>
The changing role of education as we move from popular to highbrow culture (Suarez-Fernandez et al., 2019)	Education	<p>The effect of education varies between activities, being its marginal effect more relevant for highbrow activities than for popular culture</p> <p>Given a certain level of education, an increase in income will bring more people to the cinema than to theatres or museums</p>	<p>It estimates a Zero Inflated Ordered Probit using the 2006 and 2015 Spanish modules of the European Union Statistics on Income and Living Conditions</p> <p>It analyzes the probabilities of going to the cinema, attending live performances (concerts,</p>

			opera, theatre, ballet, dance) and visiting cultural sites
Cultural participation in major Chinese cities (Courty and Zhang, 2018)	Education Income City income Age Occupation Gender	<p>Education and income increase participation in cultural activities. However, income does not increase media consumption (books and TV) or the consumption of online culture. Besides, the impact of education, and to some extent also income, are weaker in richer cities</p> <p>There is a U-shaped relationship between city income and cultural participation in public cultural activities (cities with intermediate levels of development tend to have lower levels of cultural participation)</p> <p>Cultural participation is decreasing with age for three measures (public, movie and online) and U-shaped for four measures (frequency, time, performance and craft). Consumption of media increases with age</p> <p>Occupations do not display systematic patterns across the nine cultural indicators with the exception of students, who participate more in all cultural activities but performance and craft</p> <p>Males tend to use public cultural activities more frequently but spend less time. They consume less media, performance, craft and movies and more karaoke and online cultural goods</p>	<p>It covers thirteen major Chinese cities</p> <p>The survey covers a wide range of cultural activities including free and non-free culture, highbrow and mass culture, individual and collective culture, conventional and technology-based culture</p> <p>It uses a linear probability model complemented by a seemingly unrelated model</p>
Cultural consumption: a question of taste or of price? (Rodriguez et al., 2018)	Education Income Age	<p>For any income level, individuals with a greater education attainment attend cultural activities more regularly</p> <p>Income are related with greater participation across all activities, but the influence of income is greater among individuals with intermediate and higher education levels than among those with a lower education level</p> <p>The age effect is greater for cinema attendance, with the oldest having greater probability of not attending</p>	<p>The data used for analysis are from the year 2015 edition of the Survey on Living Conditions in Spain</p> <p>Three activities are analysed: going to the cinema, attending live performances and visits to sites of cultural interest</p>
Consumption of cultural goods and services and time allocation in Brazil (Machado et al., 2017)	Time availability Schooling level Labour market participation	<p>Time availability is positively associated with cultural consumption, as these activities are time intensive</p> <p>Schooling levels and labour market participation increase expenditure on cultural services</p>	<p>The study uses data from the Household Budget Survey and the National Household Sample Survey in Brazil</p> <p>It applied multinomial logistic regression models to analyse</p>

			the consumption of non-free cultural goods and services
Household decisions on arts consumption: How men can avoid the ballet (Mauri and Wolf, 2016)	<p>Distribution of resources within the household: men's share of income in the couple, couple's age difference and couple's education difference</p> <p>Individual variables: age, educational attainment and hours worked</p> <p>Household variables: household income and urban residence</p>	<p>When men's share of household income is larger, the probability of men's attendance at female-dominated high culture events decreases. This result holds true for all three distribution factors (greater age difference and education difference in favour of the men also imply lower men's attendance at female-dominated activities)</p> <p>There are significantly positive effects of both own educational attainment and partner's educational attainment. The role of age and hours worked are not very strong, but not the same in different types of activities and</p> <p>The urban dummy and the household income increase the expected number of attendances in any class of activity</p>	<p>The data for this study come from the Survey of Public Participation in the Arts (SPPA) merged with the Annual Social and Economic (ASEC) Supplement for 2008 and 2012</p> <p>Households were selected when they consisted of a couple of a man and a woman with any number of children and for which both cultural attendance and individual income data was available</p> <p>Nine cultural activities were analysed and grouped into non-gendered or female-dominated activities</p> <p>Zero-inflated negative binomial regression models were applied</p>
Leisure participation: modelling the decision to engage in sports and culture (Hallmann et al., 2016)	<p>Leisure time</p> <p>Gender</p> <p>Age</p> <p>Education</p> <p>Income</p> <p>Nationality</p> <p>Having children</p> <p>Health</p> <p>Subjective well-being</p>	<p>Findings indicated that leisure time is positively correlated with cultural participation</p> <p>Females were significantly more likely than males to participate in cultural activities</p> <p>The different age groups showed — compared to the youngest—a negative relationship with cultural activities</p> <p>Education, nationality (being German) and subjective well-being showed positive relationships with cultural participation</p> <p>Having children, income and health were not significant</p>	<p>Data were derived from the German Socio-Economic Panel (SOEP) in 2011</p> <p>Cultural participation was measured by the frequency of participation in arts and musical activities</p> <p>The study applied bivariate probit regression models</p>
Cultural participation in Europe: Can we identify common determinants? (Falk and Katz-Gerro, 2015)	<p>Age</p> <p>Gender</p> <p>Education</p> <p>Income</p> <p>Nationality</p> <p>Having children</p>	<p>The age effect is positive on average. However, there is a negative effect for the age category of 65 years and older, indicating a nonlinear, inverted U-shaped relationship. The magnitude of the marginal effects of age is small</p> <p>Women are significantly more likely to visit museums and historical sites compared to men (as evidenced by 19 EU countries). The magnitude of the marginal effects of gender is quite small</p>	<p>The study is based on data for 350,000 adults in 24 EU countries using the European Union Survey of Income and Living Conditions (EU-SILC) in 2006</p> <p>It estimates the determinants of the likelihood and number of museum and historical site visits</p>

	Health and subjective well-being	<p>An increase in per capita disposable household income leads to a decrease in non-participation and an increase in participation in all countries</p> <p>Education is slightly more important than household income in increasing both the likelihood and frequency of visits to cultural sites</p> <p>The unemployed and people with disabilities are less likely to participate. Students, on the other hand, are significantly more likely to participate.</p> <p>Individuals born in non-EU countries are more likely not to visit museums and historical sites</p> <p>Household size also has a negative effect on museum and historical site visits, but is not significant in the majority of countries</p> <p>A higher degree of urbanization has a positive influence on participation</p>	It uses ordered Probit models
Participation in cultural activities: specification issues (Muñiz et al, 2015)	<p>Education</p> <p>Non-labour income</p> <p>Labour earnings</p> <p>Age</p> <p>Family composition (number of adults in the household, number of children under 13 and marital status)</p> <p>Labour status</p> <p>Degree of urbanisation</p>	<p>The educational level has a direct positive effect on participation and frequency, in addition to its indirect effect via hourly earnings</p> <p>Non-labour income and earnings have a positive effect on the frequency of participation in cultural activities</p> <p>Labour earnings do not affect male frequency decisions, but increase female frequency of participation</p> <p>Young and elderly people have a higher probability of attending cultural events</p> <p>The number of adults in the household, the marital status and the number of children significantly increase the likelihood of non-participation and reduce the frequency of participation</p> <p>Working does not significantly affect male frequency of participation, but it reduces the frequency of attendance of working females</p> <p>The likelihood of never participating is greater in less populated areas</p>	<p>It uses the Spanish Time Use Survey (Encuesta de Empleo del Tiempo) 2002–2003 and focuses on working-age adults, running separate estimates by gender</p> <p>It applies the the zero-inflated negative binomial (ZINB) regression model</p> <p>It analyses cultural events (taking place outside home), including attendance at theatre plays, dance, concerts, cinema and visits to museums and monuments</p>
Educational stratification in	Cognitive ability	The findings show that both cognitive skills and status-related incentives	It uses data from the International Adult Literacy

<p>cultural participation: cognitive competence or status motivation? (Notten et al., 2015)</p>	<p>measured by literacy skills</p> <p>Social status measured by the remaining effect of education</p>	<p>explain the relation between education and cultural participation, with the latter being more decisive</p> <p>The status-related effect of education on cultural participation is smaller in societies with larger educational expansion and intergenerational educational mobility</p> <p>The relation between cognitive skills and cultural participation is unaffected by distributional variation in education</p>	<p>Survey (IALS), comprising 43,409 men and women in 18 countries interviewed between 1994 and 1998.</p> <p>It measures cultural participation (mostly highbrow) as the frequency with which respondents reported attending cultural performances (movies, plays, or concerts) and reading books.</p> <p>It uses OLS regressions and multilevel models</p>
<p>Neither Class nor Status: Arts Participation and the Social Strata (Reeves, 2014)</p>	<p>Education</p> <p>Social status</p> <p>Social class</p> <p>Gender</p> <p>Age</p> <p>Childhood stimulus to participate in cultural activities</p>	<p>Education has a net effect on arts participation over and above social class and social status</p> <p>Social status and social class are not good predictors of arts participation</p> <p>In these data, men are more likely to be arts participants than women</p> <p>The youngest age category (ages 16–29 years) is the most active but older age groups are not demonstrably different</p> <p>High levels of parental encouragement increase the probability of being an arts participant</p>	<p>Data are taken from three pooled waves of the Taking-Part survey in England (2005–6, 2006–7, 2007–8) (N = 78,011)</p> <p>It applies multinomial logistic regressions</p> <p>17 cultural participation forms were transformed into 5 clusters</p>
<p>Determinants of cultural and popular celebration attendance: the case study of Seville Spring Fiestas (Palma et al., 2012)</p>	<p>Age</p> <p>Gender</p> <p>Education</p> <p>Income</p> <p>Being a local</p>	<p>Age negatively affects attendance. However, people over 50 attend more days than people in the second category (age 30–49 years). It should be remembered that this is a time-intensive cultural good and that the opportunity cost is lower in young people and people near retirement or already retired</p> <p>Gender is not a significant variable</p> <p>Education and income are positive but not significant</p> <p>Non-locals attend fewer days than locals within the same level of income</p>	<p>Data were collected via a survey conducted amongst 594 attendees at the Seville Spring Fiestas</p> <p>A zero-truncated Poisson regression model was estimated</p>
<p>Disentangling cultural capital: the consequences of cultural and economic resources for taste and participation</p>	<p>Tastes (highbrow, popular music, popular variety and folk culture)</p> <p>Income</p>	<p>Tastes affect participation: there are positive associations between highbrow taste and highbrow participation and between popular taste and popular participation. Highbrow taste is negatively associated with popular participation and popular taste is negatively associated with highbrow participation</p>	<p>Data are based on a telephone survey that was conducted in 2007 using a nationally representative sample of the Israeli Jewish population (N = 1005)</p> <p>The analysis based on 17 questions on participation in</p>

<p>(Yaish and Katz-Gerro, 2012)</p>	<p>Respondent's education</p> <p>Parents' education</p> <p>Parents' cultural participation</p>	<p>Income is positively associated with cultural participation, in particular highbrow</p> <p>The respondent's education is significantly associated with tastes. It has a positive significant association with the highbrow factor and a negative one with the non-highbrow taste factors</p> <p>Parental education have no significant effect on tastes</p> <p>Parental highbrow cultural participation has a positive association with highbrow taste, and a negative association with popular taste. Parental lowbrow cultural participation has a positive association with popular music taste and a negative one with highbrow taste</p>	<p>cultural activities, divided in 'highbrow' (including performance items such as theatre and opera, participation in social activities such as lectures, sing-along evenings, and visiting museums) and 'popular participation' (including items such as attending rock concerts, eating out in restaurants and cafes, and going to the movies)</p> <p>The study applied bivariate and multivariate analysis</p>
<p>Perfil dos Frequentadores de Atividades Culturais: O Caso nas Metr6poles Brasileiras (Paglioto and Machado, 2012)</p>	<p>Income per capita</p> <p>Complementary goods</p> <p>Age</p> <p>Education</p> <p>Artistic education</p> <p>Gender</p> <p>Race</p> <p>Having kids with less than 10 years old</p> <p>Region</p>	<p>Income, as well as expenditures on complementary goods, are positively and significantly associated with expenditures on cultural products</p> <p>Age decreases the probability of cultural consumption outside the home</p> <p>Education and artistic education show a positive and significant association with spending money on cultural products</p> <p>Women are more likely to spend on cultural goods out of home than men.</p> <p>White people are more likely to spend on cultural goods than others</p> <p>Having kids with less than 10 years old affects negatively and significantly cultural expenditures outside home</p> <p>Being located in the southeast region positively affects spending on culture</p>	<p>It uses the databases of the Family Budget Survey in Brazil (POF, IBGE) between 2002-2003 and 2008-2009</p> <p>The study applies the Probit regression model</p> <p>It analyses the probability of spending money on cultural products out of home (cinema, theatre, live concerts, circus, museums, exhibitions and dance performances).</p>
<p>Analysis of the consumption of artistic-cultural goods and services in Brazil (Diniz and Machado, 2010)</p>	<p>Gender</p> <p>Age</p> <p>Education</p> <p>Household income</p> <p>Consumption of indirect goods</p>	<p>Female household heads tend to consume more artistic-cultural goods and services than male heads.</p> <p>Households with older heads are less likely to spend on culture</p> <p>Consumption increases with the number of years of education.</p> <p>The demand for artistic-cultural goods increases (less than proportionally) with income</p>	<p>The study uses data from the Family Budget Survey (POF) in Brazil for the period 2002–2003. The regional variables come from the Culture Supplement of the Survey of Basic Municipal Information - MUNIC, both from IBGE.</p> <p>The dependent variable corresponds to the household's average value of the expenditures on artistic goods</p>

	<p>Household size</p> <p>Regional variables: cost of living, index of cultural equipment, dummy for capitals</p>	<p>The consumption of cultural goods is positively related to the expenditures on indirect goods and services.</p> <p>The larger the household (number of individuals), the greater is the per capita expenditure on artistic-cultural goods and services, although such effect is smaller for households with higher expenditures</p> <p>The dummy for the location being a “capital” is significant for households with higher expenditures on culture</p> <p>The parameter referring to the index of cultural equipment was negative, indicating smaller expenditure in the places where this offer is more abundant. (this is probably due to larger subsidies in cities where the offer is more abundant, which may lead to lower prices or free events)</p> <p>The coefficients of cost of living, race and religion were not significant</p>	<p>and services. The goods and services were the following: reading, audio and video materials, visits to museums, exhibitions, theatres, dance performances, operas, concerts, circus and cinemas, and home material goods.</p> <p>The model was estimated by the CLAD (censored least absolute deviations) quantile method.</p>
<p>El capital humano como determinante del consumo cultural (Ateca-Amestoy, 2009)</p>	<p>Education</p> <p>Artistic education</p> <p>Income</p>	<p>Formal education and artistic education reduce the probability of belonging to the group of the population that never attends cultural activities</p> <p>Above all, it is the artistic education received after the age of 18 the one that has a statistically significant effect on attendance and frequency</p> <p>The cultural capital variables have more influence than income on participation</p>	<p>Data is derived from the Survey of Public Participation in the Arts 2002 for the U.S.</p> <p>The cultural activities analysed were: attendance to concerts and performances of jazz, classical music, opera, musicals, ballet and dance and visits to museums and art galleries.</p> <p>It applied Zero-inflated negative binomial regressions</p>
<p>Determining heterogeneous behavior for theater attendance (Ateca-Amestoy, 2008)</p>	<p>Gender</p> <p>Income</p> <p>Being single</p> <p>Age</p> <p>Living in urban area</p> <p>Education</p> <p>Participation in other forms of theatre consumption</p>	<p>Men are more likely to never participate in theatre performances, while females are more likely to go more often</p> <p>Income reduces the probability of never attending for the first three quartiles of the income distribution. It increases the frequency of attendance at a significant level only for the last quartile</p> <p>Being single reduces the probability of never attending and increases the frequency of attendance</p> <p>Age and living in an urban area increase the probability of going more often</p>	<p>The study uses data contained in the 2002 Survey of Public Participation in the Arts from the USA</p> <p>The analysis focuses on the number of theater performances that an individual attended</p> <p>It applies a Zero Inflated Negative Binomial Model</p>

	<p>Arts education</p> <p>Parental education</p>	<p>Low education levels determine lower frequency</p> <p>Reading theatre, consuming it on the media (in a passive way) and having received drama classes as an adult also lead to higher frequentation.</p> <p>Art education is more important than any other type of education to explain the likelihood of theatre attendance</p> <p>Parental education does not seem to play a major independent effect on participation in performing arts</p>	
<p>Examining Arts Participation in Japan by the Survey on Time Use and Leisure Activities (Katsuura, 2008)</p>	<p>Age</p> <p>Gender</p> <p>Education</p> <p>Income</p> <p>Occupation</p> <p>Working hours</p> <p>Age of the youngest children</p>	<p>Concerning age, U-curved tendencies can be observed for arts and cultural activities except watching films, which declines with age</p> <p>Females tend to participate overall more than males in arts and cultural activities</p> <p>People with higher levels of education tend to have higher participation rates</p> <p>Income is positively associated with most activities</p> <p>The greatest positive effects by occupation are found among teachers and artists. Following such occupations, managers and officials, clerical workers, and technical workers have higher participation rates than manufacturing and transport workers.</p> <p>Participation rates do not always decrease as working hours increase, but for most activities the coefficient of working hours falls dramatically when working hours exceed 60 h per week</p> <p>The younger the child, lesser the parents participate in arts activities. In particular, having children below kindergarten age would be a significant barrier to parents' participation in arts activities.</p>	<p>The study uses microdata of the Survey on Time Use and Leisure Activities (STULA) in Japan.</p> <p>It applies Logit regression models</p> <p>The activities considered were watching works of art, watching plays, watching movies, going to classical music concerts, going to popular music concerts, playing musical instruments, karaoke, traditional japanese music, japanese flower arrangement, japanese tea ceremony, gardening, reading books, TV games and traveling</p>
<p>Social Stratification and Cultural Consumption: Music in England (Chan and Goldthorpe, 2007a)</p>	<p>Gender</p> <p>Age</p> <p>Marital status and family composition</p> <p>Region</p>	<p>Women are less likely than men to be omnivore–listener rather than univore, but are more likely to be a true omnivore rather than omnivore–listeners</p> <p>Younger people are more likely than older people to be univore rather than omnivore–listener or true omnivore. Among the omnivores, older people are more likely to be true omnivores rather</p>	<p>Data comes from the Arts in England Survey in 2001</p> <p>The analysis concerns attendance at musical events (a classical music concert, an opera or operetta, a jazz concert, or a pop or rock concert) as well as listening to music through various media</p>

	<p>Status (occupation category)</p> <p>Education</p>	<p>than omnivore–listeners.</p> <p>Married people appear less likely, as compared with singles, to be omnivore–listeners rather than univores, and the presence of older children appears to reduce the chances of individuals being true omnivores or omnivore–listeners rather than univores.</p> <p>Living in the North or Midlands rather than in London reduces the chances of being an omnivore.</p> <p>The higher an individual’s status, the more likely they are to be a true omnivore rather than a univore, and a true omnivore rather than a omnivore–listener.</p> <p>The higher an individual’s educational level, the more likely he/she is to be an omnivore or omnivore–listener rather than a univore, and more likely to be an omnivore than an omnivore–listener</p>	<p>(radio, TV, CDs, records, tapes, etc., to the same four genres of music.)</p> <p>Patterns of behaviours were classified into true omnivores, omnivore-listeners and univores</p> <p>The study applied multinomial logit model.</p>
<p>Social stratification and cultural consumption: The visual arts in England (Chan and Goldthorpe, 2007b)</p>	<p>Age</p> <p>Gender</p> <p>Family composition</p> <p>Region</p> <p>Status (occupation category)</p>	<p>The chances of being a paucivore or an omnivore increase with age, but they decrease for parents with young children</p> <p>There is no gender effect in the visual arts. However, the probability a woman being inactive falls with her education</p> <p>In comparison with Londoners, those living in the North, Midlands or South East are more likely to be inactive</p> <p>Status exerts has a positive effect on the chances of being paucivore or omnivore rather than inactive</p> <p>The level of qualification has positive, close to monotonic, effects on the chances of being a paucivore or omnivore</p> <p>Income has significant effect in the paucivore–inactive contrast, but not in the omnivore–inactive contrast</p>	<p>Data comes from the Arts in England Survey in 2001</p> <p>By cultural consumption in the domain of visual arts, the study refers to visits to (1) a museum or art gallery, (2) an exhibition or collection of art, photography or sculpture, (3) a craft exhibition (excluding ‘craft markets’) or attendance to (4) any event including video or electronic art or (5) a cultural festival</p> <p>Patterns of behaviours were classified into inactives, paucivores and omnivores</p> <p>The study applied multinomial logit model.</p>
<p>A discrete choice model of consumption of cultural goods: the case of music (Favaro and Frateschi, 2007)</p>	<p>Age</p> <p>Gender</p> <p>Education</p> <p>Having children / Being married</p>	<p>Age increases the probability of attending “only classical” or “all music” concerts. On the contrary, the probability of attending exclusively “popular” music concerts is negatively affected by age. In the meanwhile, age has a negative effect on the probability of listening to “only popular” or “all music”, while it has no significance in</p>	<p>The analysis is focused on three groupings of musical genres - “only classical music”, “only popular music” and “all music” - concerning both concerts attendance and music listening</p> <p>It uses micro data from the</p>

	<p>Region</p> <p>Size of the city</p>	<p>the case of “only classical music”.</p> <p>Going to “only classical” or “all music” concerts is a predominantly female behaviour, while “popular” music is predominantly male. Females are more likely than males to be omnivore music listeners.</p> <p>The educational level significantly increases the concertgoing and listening behaviour for all musical genres, but the strength of the influence varies: the weakest effect associated to increasing levels of education can be observed in the case of the “popular” music, the medium one in the case of the “omnivorous” behaviour, and the strongest one in the case of the “snob” behaviour.</p> <p>A negative effect of the presence of children in the household affects the probability of attending live concerts for all kinds of music alternatives. Concertgoing seems to be predominantly associated with the status of unmarried</p> <p>Occupational category is only significant for 2 cases: being unemployed or unable to work has a significant inhibiting impact on concert attendance and music listening; being retired is associated with a positive effect for the “only classical” choice and a negative effect in the case of the “only popular” one.</p> <p>There is a positive effect of the region on concert attendance (of any kind). Being a resident in the North-Eastern regions (as compared with the reference group of Central Regions) increases attendance; on the contrary, there is a negative impact associated with living in the South</p> <p>People living in relatively smaller municipalities tend to have a significantly lower probability of listening to music as compared to people living in heavily urbanized areas</p>	<p>Italian Survey on Households, Citizens and Leisure for the year 2000</p> <p>The model is estimated using multinomial logit regression</p>
<p>Cultural participation and time restrictions</p> <p>Explaining the frequency of individual and joint cultural visits</p>	<p>Couple time restrictions</p> <p>Age</p> <p>Education</p> <p>Spouse's</p>	<p>Individuals in couples where both partners hold a full-time job visit significantly fewer highbrow cultural events than people in couples with other work arrangements. Especially men who work part time seem to participate in culture more compared to men who work full time. Moreover, in households</p>	<p>Data comes from the Family Survey of the Dutch Population 1992, 1998, 2000 and 2003</p> <p>The cultural activities measured are: attendance at classical concerts, the opera or</p>

<p>(Kraaykamp et al., 2008)</p>	<p>education Parents' education Income Urbanization Having children</p>	<p>where the husband works part time, the wife's cultural participation is higher</p> <p>Older people tend to participate more in cultural activities</p> <p>Higher educated people are more likely to visit cultural events</p> <p>A higher educated spouse leads to a greater odds of cultural participation from men and women</p> <p>Parents' education increases the likelihood of attendance at museums, theatres and classical concerts.</p> <p>Annual income increases the rate of cultural participation.</p> <p>Urbanization increases the likelihood of a couple to attend cultural events.</p> <p>Having children younger than 12 years old seems to affect male cultural participation more than female one. As children grow older, couples increase the likelihood of cultural participation</p>	<p>ballet; visits to historical museums or art exhibitions; and attendance at classic or popular theatre</p> <p>It applies OLS regression models</p>
<p>Social status and cultural consumption in the United States (Alderson et al., 2007)</p>	<p>Social status (occupation groups) Education Income City population</p>	<p>Social status plays the largest role in distinguishing styles of cultural consumption: higher status individuals are more likely to be Paucivores or Omnivores than Inactives.</p> <p>Education also distinguishes those who participate (Paucivores and Omnivores) from the Inactives</p> <p>Those with more income are more likely to participate in cultural activities too</p> <p>People in large cities have more opportunity to pursue a broad, omnivorous style of consumption</p>	<p>Data comes from the Culture Module of the 2002 General Social Survey in the U.S</p> <p>The cultural activities analysed are: going to a classical music or opera performance, to a live ballet or dance performance, to a live performance of a non-musical stage play, visiting an art museum or gallery, going to a live performance of popular music like rock, country, or rap, reading and going to the cinema</p> <p>The study applies multinomial logistic regression</p>
<p>The demand for books estimated by means of consumer survey data (Ringstad and Loyland, 2006)</p>	<p>Price and income Access to bookstores Gender Age Marital status</p>	<p>The household income, as expected, has a positive impact on the likelihood of buying books, and demand is quite price sensitive</p> <p>The likelihood of buying books decreases in small communities with few bookstores than in cities</p> <p>Women consume more books than men</p> <p>Age decreases the likelihood of buying</p>	<p>It uses survey data for more than 18,000 households in Norway from the period 1986–1999</p> <p>Various methods of estimation are used and they provide unambiguous results (Logit, Tobit and AIDS)</p>

	and household composition Consumption of other cultural goods	books Single persons and households with small children are frequent book-buyers Books and other cultural goods are substitutes	The paper analyses the likelihood of buying books
A Cultural Map of the United Kingdom, 2003 (Gayo-Cal et al., 2006)	Education Class Age Gender	The educated middle-class shares 'legitimate' established cultural preferences. They are particularly more likely to go to opera and rock concerts, own books and like modern jazz. Less well-educated, working class groups participate less in cultural activities and in particular show an aversion to 'legitimate' culture. The lower the educational level and the greater the involvement in manual work, the more time is spent watching TV and the more likely a person is to have no books. Younger and better-off people go more often to rock concerts and night clubs, like relatively more contemporary musical genres and are more likely to dislike classical music. On the other hand, opera and classical music attract more older middle-class. More than women, men consume science fiction, fantasy, horror books, heavy metal and sports	It employs Multiple Correspondence Analysis, which constructs the space relationally on the basis of similarities and differences in responses to questions about a large number of cultural items in several sub-fields It is based on a national random sample survey of the British population in 2003 168 modalities of cultural sub-fields were considered, including TV (23 modalities), cinema (20 modalities), reading (25 modalities), music (38 modalities), visual art (23 modalities), eating out (16 modalities) and participation in leisure and sport (21 modalities).
The social stratification of theatre, dance and cinema attendance (Chan and Goldthorpe, 2005)	Gender Family composition Region Age Status (occupation category) Education Income	Women are more likely than men to go to the theatre and to be theatre and cinema omnivores rather than simply cinema-only univores Having a family that includes children below age 5, as compared with having no children, has a negative effect on the chances of being an omnivore Age and living in regions outside London show no significant effect The chances of being an omnivore rather than a univore increase with status and education. The effect of education is greater than the one of status The higher an individual's income the more likely he or she is to be an omnivore rather than a univore.	Data is used from the Arts in England survey in 2001 (N = 3,819). The activities included were: attending a performance of a play/drama, a musical, a pantomime, a ballet, some other form of dance or watching a movie at a cinema (or at other venue rather than at home) It applies a binary logistic regression analysis.
Social capital and cultural participation: spousal influences	Spouse's arts socialization Spouse's education	For married men the level of arts socialization reported by his wife is a strong indicator of participation (it is a more reliable predictor of a man	This study uses data from the 1992 Survey of Public Participation in the Arts (SPPA)

<p>on attendance at arts events (Upright, 2004)</p>	<p>Race and ethnicity</p> <p>Education and income</p> <p>Gender</p> <p>Arts socialization</p>	<p>attendance than his own early exposure, even if he attends without her). For women, the effect of a husband's arts socialization is more limited, and can be observed when both attend galleries and museums, as well as when a woman attends musicals and theatre alone.</p> <p>A spouse's level of education attainment is an even stronger predictor of an individual's attendance at arts events.</p> <p>Income and education are two of the best predictors of arts attendance in any category</p> <p>Whites and women are more likely to attend than ethnic minorities and men</p> <p>Early arts socialization is a significant predictor of later participation.</p>	<p>It performs multinomial logistic regressions</p> <p>It considers six activities: visits to art museums/galleries, attending live classical performances, and attending live stage productions of musicals, play, dance or opera.</p>
<p>Sexual Orientation and Demand for the Arts (Lewis and Seaman, 2004)</p>	<p>Sexual orientation</p> <p>Education and income</p> <p>Parents' education</p> <p>Gender</p> <p>Marital status and family composition</p> <p>Location</p>	<p>Substantially higher percentages of LGB than straight respondents had visited an art museum or gallery, attended a ballet or dance performance, and gone to a classical music or opera performance in the prior year. LGBs' significantly higher educational levels and probabilities of being unmarried, childless city-dwellers contribute to higher arts attendance rates. Even after controlling for these variables, however, LGBs were significantly more likely than comparable heterosexuals to attend the arts. LGB-straight attendance differences appeared equally strong for men and women</p> <p>Education and income were the strongest predictors of arts attendance.</p> <p>Parents' education had a significant, positive impact on all three types of arts attendance.</p> <p>Men were consistently less likely than women to attend the arts.</p> <p>Married people with children were less likely to attend dance and classical music than childless singles.</p> <p>City-dwellers were more likely than residents of small towns to attend the arts.</p>	<p>Data comes from the 1993 and 1998 General Social Survey (GSS)</p> <p>It uses logit analysis</p> <p>The variables analysed were going to an art museum, a classical music or opera performance and a ballet or dance performance</p>
<p>Performing arts attendance: an</p>	<p>Art education</p> <p>Prices</p>	<p>Art education is positively correlated with participation, but not with the frequency of attendance.</p>	<p>The data used to estimate the demand (participation and frequency) for performing arts</p>

<p>economic approach (Borgonovi, 2004)</p>	<p>Participation in complements to and substitutes for the performing arts</p> <p>Geographic distribution of arts establishments</p> <p>Family background characteristics</p> <p>Age</p> <p>Gender</p> <p>Race/ethnicity</p> <p>Educational attainment</p> <p>Occupational category</p> <p>Income</p>	<p>Prices are generally not correlated with participation, with the exception of classical music, where there is a negative association.</p> <p>Correlations between participation in other leisure activities are highest among art forms that require the same skills to be enjoyed, suggesting the importance of learning-by-consuming processes</p> <p>Participation in theatre and opera performances was positively linked to the number of establishments present in the county of residency (which diminishes the travel costs necessary for attendance)</p> <p>Family background, as measured by mother's and father's educational attainment, does not seem to play a major independent effect on participation</p> <p>Classical music attendance increases with age, while theatre appeals more to the youngest generations</p> <p>Females are more likely than males to participate in dance and ballet. When males participate, they are more likely than females to be frequent attenders.</p> <p>Both Hispanics and African Americans are much less likely than white non-Hispanics to take part in ballet performances as frequent visitors.</p> <p>Education attainment is strongly associated with participation rates at all performing arts events except for ballet performances.</p> <p>Income and occupational categories have a positive significant effect only for attendance to theatre performances.</p>	<p>events in the USA come from the 2002 Survey of Public Participation in the Arts (SPPA).</p> <p>The results were estimated using logistic (attendance) and ordered logistic (frequency) regressions.</p>
<p>Reggae to Rachmaninoff: How and why people participate in arts and culture? (Walker et al., 2002)</p>	<p>Early socialization</p> <p>Education</p> <p>Income</p> <p>Marital status and the presence of children</p>	<p>Early socialization experiences make a difference in the cultural participation patterns of adults, regardless of income and education.</p> <p>The likelihood of attendance and frequency goes up with more education</p> <p>People with the lowest incomes participate at far lower rates than those who earn the most</p>	<p>The study is based on data from a telephone survey of 2,406 adults in five communities in the US in 1998</p> <p>Attendance at any live music, theatre, or dance event or seeing visual art</p>

	<p>Race and ethnicity</p> <p>Being a recent immigrant</p>	<p>Both marriage and children appear to raise participation rates</p> <p>Across the five communities the difference in participation rates between whites and non-whites is significant in only one</p> <p>Recent immigrants attended arts and cultural events at lower rates (and less frequently) than did the native-born</p>	
<p>Cultural Consumption and Social Stratification: Leisure Activities, Musical Tastes, and Social Location (Katz-Gerro, 1999)</p>	<p>Occupational class</p> <p>Race</p> <p>Gender</p> <p>Education</p> <p>Age</p> <p>Religiosity (measured by church attendance)</p> <p>Urban status</p>	<p>It appears that class still has a significant effect on cultural consumption, even after controlling for the other variables. For instance, professionals and routine white-collar workers participate more in highbrow culture as compared to semi/unskilled workers</p> <p>Whites are associated with participation in popular culture, while non-whites are identified with the youth music factor</p> <p>Women prefer highbrow lifestyle to the other types and men are more active in popular culture</p> <p>Higher education is associated with the popular, highbrow, and youth music factors</p> <p>Younger individuals engage more in popular lifestyle and prefer youth music</p> <p>The more religious people are, the more they tend to engage in a highbrow lifestyle and less in youth culture</p> <p>Residents of big cities are more involved with highbrow and youth lifestyle and suburban residents are active in popular culture</p>	<p>Data comes from the 1993 culture module of the General Social Survey in the U.S.</p> <p>It employed regression models to analyse 14 items of leisure activities and 18 items of musical preferences. Four cultural types were defined: highbrow, popular, outdoor nature, and youth music</p>
<p>Hope for the Future? Early Exposure to the Arts and Adult Visits to Art Museums (Gray, 1998)</p>	<p>Early exposure</p> <p>Race</p> <p>Education, age and income</p>	<p>Early exposure (in particular art lessons) increases later participation. The influence seems to be strongest for exposure in the pre- and post-teen years</p> <p>Race does not seem to be significant</p> <p>Attendance rises with education, age and income</p>	<p>Data comes from the 1997 survey of public participation in the arts (SPPAs)</p> <p>The study employs logistic regression</p> <p>It analyses art museums visits</p>
<p>A Microeconomic Study of Theatre Demand (Lévy-Garboua and Montmarquette, 1996)</p>	<p>Price</p> <p>Participation in other cultural activities</p>	<p>Demand for the theatre is price-elastic</p> <p>Televised theatre broadcasts and cinema have complementarity effects on going to the theatre, while reading and going to the cinema too often are substitutes</p>	<p>Data comes from a "Theatre" survey conducted in 1987 by the French Ministry of Culture</p> <p>The analysis focuses on the determinants of theatre</p>

	<p>Size of the city</p> <p>Having children</p> <p>Income</p>	<p>The size of the city is positively correlated with theatre attendance</p> <p>The existence and number of children negatively affects theatre participation because of its effects over the parents' time availability and real income</p> <p>Income increases theatre attendance</p>	<p>attendance</p> <p>It uses OLS, probit and tobit regression models</p>
<p>Access to and Participation in the Arts: The Case of Those with Low Incomes/Educational Attainment (O'Hagan, 1996)</p>	<p>Education</p> <p>Income</p>	<p>The most educated and with greater income have higher mean attendance</p> <p>The variation across educational level is enormous for plays, operas, concerts, musicals, art exhibition, contemporary dance and reading and much less so for popular and traditional forms of arts</p>	<p>It draws on a survey of 1,200 persons in Ireland carried out in 1994 and on data from the National Endowment for the Arts carried out in 1993 in the United States</p> <p>It analyses attendance in four categories: high arts (plays, operas, concerts and musicals), popular (film and rock/pop/jazz music); experience (art exhibitions, contemporary dance, literature/poetry readings); and traditional (traditional folk dance/music and country and western music)</p> <p>The analysis is done using descriptive statistics</p>
<p>Distinction: A Social Critique of the Judgement of Taste (Bourdieu, 1996)</p>	<p>Occupational status</p> <p>Having been born as a member of the bourgeoisie</p>	<p>The dominant occupational categories are associated with a preference for 'legitimate' highbrow culture</p> <p>This is particularly true for those who have been born as a member of the bourgeoisie</p>	<p>It used correspondence analysis based on data from a survey conducted in 1963 and 1967-1968 with a sample of 1,217 individuals in France</p>
<p>How Musical Tastes Mark Occupational Status Groups (Peterson and Simkus, 1992)</p>	<p>Occupational status</p>	<p>Evidence shows that musical taste is a marker of occupational status. High-status groups not only participate more in high-status cultural activities, but in all forms of culture (they are omnivores)</p>	<p>It used the Survey of Public Participation in the Arts (SPPA) in the U.S., where respondents were asked about their preferences among thirteen music styles</p>
<p>Expanding the Audience for the Performing Arts (Andreasen, 1991)</p>	<p>Early socialization</p> <p>Area of residence</p> <p>Life cycle stage</p>	<p>Early childhood socialization is associated with more participation</p> <p>Residents of metropolitan areas show more participation</p> <p>Attendance at multiple events is greatest by those who are young and single and</p>	<p>The study uses data from the Survey of Public Participation in the Arts (SPPA) in the U.S. in 1982</p> <p>The study looks at performing arts attendance</p>

		those who are older and have no children living at home	It applies bivariate and multivariate analysis for six stages of engagement: (1) Disinterest; (2) Interest; (3) Trial; (4) Positive Evaluation; (5) Adoption; and (6) Confirmation
Socialization and Participation in the Arts (Orend, 1989)	Early socialization Age	<p>Early socialization in the arts is reflected in higher rates of adult participation, in particular, taking classes and when individuals are between 18 and 24 years old</p> <p>There is a decline in participation with the age, in particular for active participation, while other activities an increase in participation of middle-age groups</p>	<p>The study uses data from the Survey of Public Participation in the Arts (SPPA) in the U.S. in 1982</p> <p>The cultural participation variables analysed were: attendance to concerts or other live performances, visits to museums or galleries, media-related participation and active participation (as artists, dancer, musicians, etc.)</p> <p>It applied factor analysis</p>
Cultural Democracy in a Period of Cultural Expansion: The Social Composition of Arts Audiences in the United States (Dimaggio and Useem, 1978)	Gender Age Education Occupation Income Race	<p>Women were slightly overrepresented among arts attenders, but this varied according to the type of arts: for instance, audiences for ballet, dance and art museums were most heavily female while opera and history and science museums audiences drew the largest proportion of males</p> <p>Arts audiences had age profiles similar to that of the entire US population, but this varied considerably: for instance, ballet and theatre attracted the youngest audiences of the performing arts, while opera and symphony drew the oldest</p> <p>Arts audiences had a very high proportion of the college-educated, with some variations by type of arts: for instance, performing-arts audiences were found to be somewhat higher educated than museum visitors. Among the performing arts, ballet and dance audiences included larger proportions of well-educated attenders than others</p> <p>Arts audiences are dominated by individuals in high-status occupations</p> <p>The median income of arts audiences are higher than that of the US population</p>	<p>Materials were collected on 268 audience studies in the United States: 74 of theatre audiences; 44 of art-museum visitors; 32 of visitors to natural history, general, anthropology, and related museums and exhibits; 19 of science-museum or science-exhibit visitors; 16 of classical-music audiences; 14 of audiences for two or more kinds of art institutions; 12 of history-museum visitors; 11 of art-centre visitors; 7 of opera audiences; and 6 of ballet and dance audiences</p> <p>Descriptive statistics was used to compare the socioeconomic profile of arts audiences to the whole U.S. population</p>

		Blacks and other racial/ethnic minorities are underrepresented in arts audiences, relative to their share of the US population	
Performing Arts Audience Segments (Nielsen et al., 1974)	Education and occupation Age Religion	The audiences for all types of events were similar in that they were highly educated and were professionals, educators, and researchers Older people preferred more than younger people classical music and dance Agnostics and Jews attended theatre more than Catholics and Protestants	Data comes from a survey with 800 people from Champaign and Urbana, Illinois People were asked about their participation in nineteen different types of music, dance, and theatre performing arts events Step-wise regression analysis was used

Appendix 2.2

The impact of territorial characteristics literature review

Title, author and year	Independent variables analysed	Key findings	Methodological specificities
Expenditure on cultural events: preferences or opportunities? An analysis of Brazilian consumer data (Almeida et al., 2019)	Cultural supply	The analysis shows a lack of correlation between expenditure and cultural supply. However, the result was affected by the fact that disparity of supply was not significant across the metropolitan regions (MRs) The results do not allow to conclude that the distribution of facilities is not important; however, it can be concluded that the difference may be related to distribution within the MRs.	It uses microdata from the Brazilian Consumer Expenditure Survey of 2002–2003 and 2008–2009 and from cultural supply databases to estimate a two-stage (households and MRs) multilevel logistic model

<p>The geography of music preferences (Mellander et al., 2018)</p>	<p>Economic conditions (for instance, gross regional product)</p> <p>Socioeconomic classes</p> <p>The share of votes in the elections</p> <p>Average educational attainment</p> <p>Population density</p> <p>Race</p> <p>Scores of personality and tolerance</p>	<p>Of the five broad musical types, two—sophisticated and contemporary—are associated with more affluent, more educated, more knowledge based, more liberal, more diverse and denser places.</p> <p>Two others—unpretentious and intense—are associated with less advantaged, less educated, more working class, more conservative, and less diverse or whiter places.</p> <p>One remaining type, mellow music—is mainly associated with race, ethnicity and personality (lower levels of blacks and more open and tolerant personalities), than class or economics</p>	<p>It assesses geographic variation in music preference in the United States across five broad categories of types of music: mellow, unpretentious, sophisticated, intense, and contemporary</p> <p>It uses factor analysis to identify and map geographic variation of musical preferences, and both bivariate correlation and regression analysis to examine the associations between metro-level musical preferences and key regional economic, demographic, political, and psychological variables</p>
<p>Libraries and the geography of use: how does geography and asset “attractiveness” influence the local dimensions of cultural participation? (Delrieu and Gibson, 2017)</p>	<p>The presence and number of other facilities surrounding it (such as supermarkets, shops, medical surgeries, Post Office, banks, cafes, parks, metro stations, unique bus routes and educational facilities)</p>	<p>Location is an important factor for participation. The availability of everyday facilities surrounding a destination provides important influence on participation. Library members are more likely to make use of libraries which are nearby other facilities</p>	<p>The study analyses data on the last used library of active members for all 17 libraries in Gateshead (England)</p> <p>The analysis comprises the categorization of libraries according to attractiveness index and the comparison of participation rates in these libraries</p>
<p>Opportunities for cultural consumption: How is cultural participation in Switzerland shaped by regional cultural infrastructure? (Rössel and Weingartner, 2016)</p>	<p>Availability of cultural attractions (per capita number of cinema seats and per capita cantonal and community cultural expenditures for theatres and museums in 2008)</p>	<p>The structure of what is culturally available can explain part of the variation in cultural behaviour, particularly when explaining museum and cinema visits. However, it has virtually no difference for theatre attendance. Also, the construction of a new theatre in a region that had previously no equivalent can lead to a marked increase in demand</p>	<p>It relies on data from the Swiss Federal Statistical Office (Bundesamt für Statistik (BFS)) on “Cultural Participation in Switzerland in 2008”</p> <p>The analysis focuses on attendance rates at three cultural venues: theatres, museums (all types), and cinemas</p> <p>It employs multilevel analysis (logistic regressions). Also, a quasi-experimental study</p>

			analyses the impact of the construction of a new theatre
Spatial equity and cultural participation: how access influences attendance at museums and galleries in London (Brook, 2016)	<p>Index of accessibility to cultural facilities (measured by the distance between each facility and residential area, weighted by the facility's size or attractiveness - measured by the number of times it was searched for on Google)</p> <p>Access to public transport</p> <p>Index of Multiple Deprivation 2007</p>	<p>Better accessibility to museums and galleries significantly increases the probability of attendance from many population groups, not only elites. the group which has the strongest positive relationship between access and the probability of attendance is the educated ethnic minority respondents</p> <p>Access to public transportation has a positive effect on museums and galleries participation</p> <p>People living in most deprived areas are less likely to visit museums and galleries</p>	<p>The study analyses data between 2006 and 2009 from the Taking Part survey from the DCMS in England</p> <p>The dependent variable is attendance at museums and galleries</p> <p>The study uses a gravity measure, which calculates the distance between each facility and residential area, and weights this according to the facility's size or attractiveness (using the number of times a facility was searched for on Google)</p> <p>It employs logistic regression model</p>
Reframing models of arts attendance: Understanding the role of access to a venue. The case of opera in London (Brook, 2013)	<p>Accessibility to the opera venue (a function of the distance from each residence to the venue and the number of tickets sold by the venue)</p>	<p>The accessibility index has a positive effect on opera attendance</p>	<p>This study makes use of administrative data collected by The Audience Agency (TAA) from 38 arts venues presenting opera in London between 2004 and 2006</p> <p>The data sets were then used in a series of grouped logistic regression models</p>

<p>Impact of place on museum participation (Widdop and Cutts, 2012)</p>	<p>Immediate neighbourhood and postcode</p> <p>Population Density (people per hector)</p> <p>Multiple Index of Deprivation 2004 (MID), which includes economic, social and housing issues</p> <p>Percentage of the Black, Indian, Pakistani, and Bangladeshi ethnic groups in the district</p>	<p>The district an individual resides impacts museum participation, even after accounting for individual and area level characteristics</p> <p>The greater the population density in a local authority district, the higher the rate of museum participation</p> <p>Whatever one’s personal characteristics, those who live in deprived areas are more likely not to visit museums than their counterparts living in less deprived areas</p> <p>Areas with a more diverse population (percentage of non-white people) did not have an independent effect on participation</p>	<p>The study uses data from the 2005–2006 Taking Part Survey (TPS) from the DCMS in England</p> <p>It employs multilevel logistic model to analyse museum visits</p>
<p>The Geography of Arts Participation: Report on the 1982 and 1985 Surveys of Public Participation in the Arts (Blau and Quets, 1987)</p>	<p>Region, geographical area and being a metropolitan area</p> <p>Availability and distance to cultural facilities or transportation problems</p> <p>Social and economic context</p>	<p>The South has consistently low rates of participation, whereas the West has nearly consistent high rates of participation. Residents of non-metropolitan areas (small cities and towns and of rural places) have the lowest rate of overall participation. Within MR, those living in the suburbs (not central cities) have the lowest rates of cultural participation. Also, background characteristics that typically enhance people's interest in the arts are primarily salient for people who live relatively close to diverse cultural opportunities, but not to those who live outside MRs</p> <p>In rural areas, the great distance to cultural facilities or lack of availability inhibit cultural participation. In metropolitan areas, transportation problems are important barriers to participation in cultural events</p> <p>The mean education and marital status of residents have influences on individuals' cultural participation independent of individuals' own education and marital status (probably because of the public meaning of lifestyles and the basis of a critical mass that it forms). Also, regardless of a person's age, central cities that include a greater number of older people are more likely to increase an individual's involvement in the arts (probably</p>	<p>Data for the study were extracted from the 1982 and 1985 "Survey of Public Participation in the Arts" (SPPA)</p> <p>The cultural activities analysed are: attending performances of live jazz, live classical music, live opera, live musical stage play or operetta, non-musical stage play, live ballet, visiting an art gallery or art museum and reading</p> <p>The study employs Multiple Classification Analysis that controls for the effects of education, age, gender, income, marital status, children, race, and work hours. It also analyses the effect of individual characteristics by the mean social and economic characteristics of places where they live and it uses regression models to analyse the impact of social and economic context on cultural participation</p>

		<p>because commuting from far away to cultural institutions disadvantages attendance of older people more than young ones). Furthermore, the larger the number of non-whites in large cities the greater is the likelihood of individuals to attend cultural events. Finally, socioeconomic inequality depresses not only the institutions that supply art, but it also has an independent effect on the demand for it</p>	
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Chapter 3. Digitization and inequalities in cultural participation

Introduction

In the 21st century, technological transformations are changing both supply and demand for cultural goods and services. The current technological paradigm marked by digitization, broadband Internet dissemination and a quick spread of devices to access it has opened space for new ways of producing and consuming culture. Online platforms for content distribution have become like an “infinite shelf” of books, songs, movies and other pieces of art. Amateur artists more easily than at any other time can produce and distribute their content at low cost. These new possibilities may represent channels for broadening the diversity of cultural participants or, on the contrary, may reproduce or enlarge existing inequalities. In other words, they can either mitigate obstacles for cultural participation and provide more equal conditions and opportunities of access or, on the contrary, produce a context of new inequalities in cultural participation.

The discussion on the possibilities of digital technologies for overcoming social exclusions and widening participation is not limited to the cultural field and is part of a broader debate. For instance, in the field of education, there is a common sense that digital technologies may help overcoming barriers that deter people from learning, by making knowledge provision more flexible, bringing costs down and allowing learning to be more accessible and affordable. However, most scholars are sceptical about the possibility of digitization and the Internet to include all currently excluded groups in a significant and effective way (Selwyn et al., 2001). On the contrary, there are arguments and evidence indicating the emergence of new forms of inequalities. For instance, during the Covid-19 outbreak, with the imposed social distancing and consequent transference of most activities to a digital modality, empirical findings have shown that inequalities in ICT access and usage have aggravated vulnerabilities and exacerbated other kinds of inequalities, like in terms of educational opportunities (Bol, 2020; Beaunoyer et al., 2020).

This chapter examines new aspects of cultural participation related to recent evolutions in digital technology and the Internet dissemination. The first subsection briefly reviews the emerging literature on the impact of digitization on the cultural sector. The second subsection analyses the literature on the determinants of digital cultural participation. The third points out possible links between digital culture and territorial aspects. The last subsection concludes the chapter by indicating policy recommendations and avenues for future research.

3.1 The impact of digitization on the cultural sector

3.1.1 On the supply side

A large part of the economics research about the impact of digitization on the cultural sector has focused on the supply side. Scholars have acknowledged that technology has virtually zeroed the marginal costs of reproducing and distributing cultural content, thus leading to an era of cultural abundance. For example, research has shown that digitization and the Internet allowed new business models to offer cultural content at prices lower than ever before, or even for free (Belleflamme, 2016) and increased the supply of cultural contents, such as music, movies and books (Waldfogel, 2017), as well as the variety of content supplied (Datta et al. 2017). The main concerns of researchers looking at the supply side refer to effects on the cultural sector's economic sustainability and on market concentration.

Concerning the former, since the music industry has been the first to be forcefully affected by digital technology, most studies had it as their focus. Contrasting results have been obtained from the analysis of different contexts and datasets: while some showed displacements of sales (Aguilar and Waldfogel, 2018; Wlömert and Papies, 2016) and found complementarity effects with piracy (Borja and Dieringer, 2016), others identified that the digital distribution increases live music attendance (Dang Nguyen et al., 2014), positively impacts album sales (Kretschmer and Peukert, 2014) and combats piracy (Aguilar and Waldfogel, 2018; Thomes, 2013). In general, results suggest that the positive effects on the industry's revenues outweigh the negative ones.

Regarding concentration in the cultural sector, though the Internet allows cultural offer to become more diversified, it also seems to favour the most popular contents. The digital market is characterized by platforms that aggregate numerous niches markets into

a big one and can exploit markets of very specific consumers tastes. Therefore, the context is one that reduces artists' barriers of entry and allow the most diverse creative content to be digitally distributed. A pioneer study of Anderson (2004) anticipated that technological advances would allow a previously unexploited demand to be fulfilled in a way that the sales of many small markets for niche products would together surpass those of hits, a phenomenon which he called "the long tail".

On the other hand, other scholars have suggested that the superstar effect (Rosen, 1981) will persist, because of the network effects of fast communication, which allows for greater interaction between individuals and create advantages for privileged number of suppliers even more than traditional means (Elberse, 2008). Additionally, recommendation systems and algorithms, which are shaped according to human behaviour, suggest content in conformity with what has been already succeeding (Belleflamme, 2016). Furthermore, the context is one of content hyper-offering, in which consumers' attention becomes more difficult to be attracted, which challenges the long-tail effectiveness at changing the distribution of consumption patterns (Benghozi and Paris, 2016).

Empirical studies have shown controversial results regarding the impact of digitization on market concentration. For instance, while Datta et al. (2017) showed that digital platforms of streaming increase music listening variety and drops concentration, with consumers dedicating less portion of their total time to listen to the top artists and genres, Bourreau et al. (2014) found that stars continue having the highest visibility in the digital world.

3.1.2 On the demand side

Looking at the impact of digitization on the demand side, the Internet and digital technologies have increasingly shifted cultural consumption from a mode of ownership to one of access (Belleflamme, 2016). Regarding effects on the quantity and diversity of cultural demand, Potts (2014) distinguished two compatible ways in which digitization influence cultural access. First, from a neoclassic theoretical standpoint, the author suggested that production costs' reduction arising from technological evolutions permit the charge of lower prices to the final consumer, thus diminishing the opportunity costs for cultural consumption, which increases demand and provides incentives for individuals to experience and discover new cultural products (Potts, 2014). Second, adopting an

approach that relates to the evolutionary theory of demand⁵, the author suggested that the possibilities of cultural consumption are expanded because of technological innovations. More specifically, the Internet and particularly search engines allow new and diverse artistic contents (niche content) to be explored⁶ (Potts, 2014). Both effects suggest that the Internet and the digital developments favour demand intensification and increase the variety of the cultural products consumed, which in turn could potentially benefit the diversity of consumers as well.

Additionally, the author highlighted the impact of technological innovations on the ability of cultural consumers to become producers of artistic content. Technologies used by professional artists are increasingly also available and accessible to amateurs (Potts, 2014). For example, the possibility to access high-quality cameras and the emergence of free distribution platforms like YouTube provide consumers with tools that allow them to become content producers and distributors themselves (Potts, 2014). This phenomenon of consumers who become also producers is commonly nominated 'prosumption'. To illustrate how unusual this phenomenon is in the capitalist system, Potts (2014, pp.14) argued: "Pharmaceutical drugs and automobiles, for example, are produced with sophisticated technologies that are inaccessible to pill or car consumers". In this sense, the Internet and the digital era originated a variety of new forms of participation in cultural life.

3.2 The determinants of digital cultural participation

3.2.1 Theoretical background

The distribution of the benefits of recent technological evolutions remains little exploited in the research literature on cultural participation. Two controversial hypotheses have been raised by scholars. On the one hand, dematerialized access to cultural expressions presents conveniences that may attract some broader social strata and make socioeconomic characteristics less relevant to determine cultural participation (Chen,

⁵ See the evolutionary theory of consumer responses to new goods or services in the market (Nelson and Consoli, 2010).

⁶ This phenomenon is in line with the "long tail" curve, a term coined by Chris Anderson (2004) to refer to the exploration of niche content demands that generate small revenues for long periods of time and, together, can outperform the big hit markets.

2015; De la Vega et al., 2019). These conveniences are linked to the two main characteristics of the access to digital goods and services. First, it requires only an appropriate device and a (broadband) Internet connection, not depending on transport infrastructures or the proximity to cultural facilities. Second, it is often offered to consumers at low cost or free of charge (or with a free version), sometimes being paid by advertisers (Belleflamme, 2016) and/or using the collection of users' data as a source of monetization (Sokol and Comerford, 2016; Newman, 2014).

On the other hand, obstacles for diversifying the profile of cultural participants have been extensively acknowledged. They primarily refer to the current phenomenon that has been named "digital divide" (or gap), which has been seen as a determinant factor for the profile of cultural participants not to broaden because of digital evolutions (see Van Dijk, 2006). According to the World Bank report "Data for Better Lives", the digital divide refers to Internet inequalities between groups of people or geographical areas in three interrelated levels (World Bank, 2021). These gaps reflect both supply-side and demand-side challenges. The World Bank defines the occurrence of digital gaps in the three following levels:

- (i) **In terms of coverage:** although Internet coverage has been increasing worldwide and in most urban areas it is now close to 100%, coverage gaps between urban and rural areas remain, particularly in least developed countries (LDC). According to the International Telecommunication Union (ITU) data⁷ from 2020, 93,1% of the world population is covered by at least 3G mobile network, but while it corresponds to 99,4% in urban areas, it covers only 84,8% of the population in rural areas. Furthermore, in LDC, while the percentage covered in urban areas is 99,3%, in rural areas the proportion of people covered drops to 64%.
- (ii) **In terms of usage:** even if Internet coverage becomes available in any specific geographical area, its use is typically not adopted by everybody, because of demand-side barriers. Like the coverage gap, usage disparities also occur within and between countries. Usually, individuals in the bottom of the national income distribution, less educated, elderly and often female are less likely to connect even when Internet is available (Chen, 2021). This is a problem that affects especially the LDC. Data from the ITU for the year of 2019 indicates that, while in developed

⁷ All ITU data referred to in this thesis is available at the statistics section of the ITU website, at: <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

countries 86,7% of the individuals were Internet users (out of 97,7% of individuals covered by network), only 19,5% of individuals in LDC were using the Internet (out of 76,2% of individuals who were covered). Some of the main reasons that have been put forward to justify the usage gap refer to affordability issues, digital literacy shortages, network effects and people's perception about a lack of relevance of the services offered on the Internet⁸.

(iii) In terms of consumption: even among Internet users, there are consumption gaps in terms of the amount of Internet data used within and between countries. While Internet coverage has increased worldwide, data infrastructure is unevenly developed between countries and within them. For instance, many LDC lack their own domestic data infrastructure and rely instead on overseas facilities for data exchange (via Internet exchange points), storage (at colocation data centres), and processing (on cloud platforms). This reflects in low Internet speeds and high data charges in areas lagging in terms of infrastructure. Therefore, according to data from the World Bank, in 2018 data usage per capita in high-income countries were 30 times higher than in low-income countries. Furthermore, in LDC, the limited expansion of fixed networks made wireless networks become the more relevant. Therefore, in LDC users spend most of their time online in their mobile phones, while fixed broadband connections support much higher levels of data consumption. The same happens with the poorest groups of people living in developed countries. To tackle this issue, affordability constraints need to be addressed by intensifying competition among mobile operators. Furthermore, technical limitations need to be overcome by applying regulatory policies to encourage the migration to higher-generation technologies.

In the academic literature, the usage and consumption gaps are also understood as the result of skills and knowledge discrepancies. The most common typology used by scholars refers to two levels of digital gap: i) in terms of access; and ii) in terms of uses and benefits. The first is linked to Internet coverage and access, while the second is linked to access and consumption, but also includes the kind of use that is made of technology and the consequent benefits obtained from it (see Van Dijk, 2006).

The sustainable development goal (SDG) 9 (Target 9.c) explicitly refers to providing universal and affordable access to the Internet in LDC until 2020, a goal that

⁸ Individuals living close to people who use the Internet are more likely to use it too (World Bank, 2021).

has not yet been achieved⁹. As we can see, there is a clear association between the digital divide and the patterns of socioeconomic inequalities and of geographical inequities. The part of the population that remain excluded from Internet access, usage and consumption are the lowest income, less educated, the elderly, those living in rural areas, and - in some parts of the world – the women (World Bank, 2021). Hence, the digital divide approach suggests that socioeconomic, demographic and geographic characteristics may remain key factors determining digital cultural participation.

Furthermore, since access to culture has proved to be more symbolic than material (Bourdieu and Passeron, 1964), it is argued that increasing accessibility alone is not sufficient to motivate individuals to participate in cultural life if they didn't do it by traditional means (Van Eijck and Majorana, 2013). For instance, as will be further developed in the chapter of this thesis dedicated to discussing cultural policies (chapter 6), it remains difficult to attract a broader audience even when museum gratuity is offered (Bailey et al., 1997; Cowell, 2007; Benhamou, 2008). In the case of France, the survey about living conditions and aspirations applied in 2014 evidenced that 31% of high revenues people had already benefited from the gratuity of museums on Sundays, against only 12% of low revenues people (Bigot et al., 2016).

Therefore, the same logic that says that low entrance barriers (accessibility, gratuity, etc.) alone are not sufficient to diversify cultural audiences can be used to conjecture the effect of the Internet and digitization on cultural participation. While technological evolutions may reduce material barriers for people who are already familiar with culture to have even more access, it does not necessarily translate into a reduction of the symbolic limitations for those lacking previous exposure to arts and culture to change their cultural participation habits.

The effect of a technology introduction in a market demand can be understood in the lens of the Evolutionary Demand Theory, which assesses how different individuals react to the introduction of innovations in the market (Nelson and Consoli, 2010). From this approach, one can distinguish individuals whose desire to consume culture already exists from those who do not hold this want when the technological innovation is introduced in the market. For the former, digitization adds an alternative way of satisfying their desire for culture. When technology is introduced in the market, these individuals

⁹ For further details on SDG 9, see Department of Economic and Social Affairs, United Nations, “Goals: 9, Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation”, at <https://sdgs.un.org/goals/goal9>.

just need to learn the new ways of satisfying their existing wants. On the contrary, people not accustomed to engaging in cultural activities first need to develop the interest and desire to consume culture, and only then learning how to use technology will allow them to benefit from it.

In short, both the digital divide approach and the theories of uneven distribution of cultural capital constitute strong theoretical basis contrary to the possibility that traditional determinants of cultural participation may weaken in the context of digital access. Instead, they suggest that inequalities in cultural consumption may remain or even increase because of digitization and the Internet.

3.2.2 Empirical evidence

The impact of digitization on cultural participation inequalities is still an incipient topic of research. A summary table of the reviewed empirical research can be found in Appendix 3.1 ('the impact of digitization on cultural participation inequalities literature review'). The results are not fully consensual, but most studies have found evidence rejecting the hypothesis that digitization reduces cultural participation inequalities (Ateca-Amestoy and Castiglione, 2016; Mihelj et al., 2018).

For instance, based on arts participation data from the US collected in 2012, Ateca-Amestoy and Castiglione (2016) found that formal education has remained a key factor determining access to the visual arts, books and classical songs through the Internet. Moreover, also examining data collected in the US, Hargittai and Walejko (2008) have showed that the benefits of technological developments in terms of content creation and sharing have been concentrated on individuals of higher socioeconomic status. In the context of museums, Evrard and Krebs (2017) have indicated that the virtual modality is not a substitute for physical visits in France and that the very existence of a digital museum does not seem to attract new publics. Also looking at museums and galleries and comparing online and offline visits, Mihelj et al. (2018) found larger social and demographic gaps in participation online than in the physical version when analysing data from the UK between 2005/2006 and 2015/2016. In particular, being young, belonging to higher status occupational classes, having a degree, not having a disability and not belonging to an ethnic minority group remained strong predictors of digital participation. Additional statistical analysis (done by the author of this thesis) corroborating the

hypothesis that the socioeconomic stratification of cultural participation remains, and is often even accentuated in the digital era can be found in appendix 3.2.

However, as this is still an emerging topic in the literature, the results are not without controversy. For instance, De la Vega et al. (2019) used information about online and live consumption of highbrow performing arts in Spain and found higher discrepancies for in-person attendance than online participation, particularly concerning the role of education, which did not significantly affect online participation. Also, using US data and comparing mobile and in-person cultural participation, Chen (2015) found that whereas both decrease with age and increase with education, the less educated people were more active in mobile cultural participation using applications, and Hispanics were more active mobile cultural participants than whites, who were in turn more active in-person participants.

Concerning the role of location, 4 out of the 6 studies analysed have included at least one territorial variable in the empirical analysis. The results are again not without controversy. On the one hand, De la Vega et al. (2019) found that the perception of supply scarcity has a significant positive influence on online consumption. In other words, those who declared that the lack of supply was their main reason for not being more frequent attendees of live performing arts were more likely to be online cultural consumers. Moreover, Chen (2014) found no significant urban–rural gap in mobile cultural participation.

On the other hand, Mihelj et al. (2018) found that those living outside of London and in the South of England, where cultural supply is more abundant, had a lower likelihood of engaging online with museum and galleries. Furthermore, while the size of the city showed no significant effect for Internet access, Ateca-Amestoy and Castiglione (2016) found it had a positive effect on Internet consumption of highbrow music, dance, visual arts, and books. Hence, the authors suggested that geographical aspects (the size of the city) influence cultural participation (with a positive association), but the digital divides in terms of Internet coverage and access are not enough to explain territorial discrepancies in the use of Internet for cultural participation.

Conclusion

This chapter has reviewed the way that the literature has looked at digital cultural participation. First, it described the main impacts of digitization on the cultural sector,

showing the predominance of optimistic approaches, which argue that the reduction of production and distribution costs have allowed for lower prices and greater quantity and variety of contents. Then, it discussed theoretical arguments and empirical evidence indicating that inequalities in cultural participation might persist in digital modes of consumption.

The findings of the literature review indicate that digitization enables: i) an increase in the quantity and diversity of cultural contents produced; ii) a reduction in costs and prices; and iii) the possibility of reaching remote areas. While these are necessary conditions for equality in cultural participation, they do not seem to be sufficient to generate the necessary structural transformations that reduce cultural participation gaps.

Conversely, factors such as the persistence of cultural capital inequalities and the emergence of digital divides explain why the benefits of digitization tend to be unevenly distributed across individuals and territories. Internet access and quality may be affected by both person-specific and place-specific factors. Socioeconomically disadvantaged and older people are more likely to face cost and usability technological barriers. Likewise, those living in peripheral and rural areas are less likely to have speedy and high-quality Internet access. In this sense, policies for digital cultural participation should be designed in a targeted way to account for inequities in terms of individuals' and places' conditions and opportunities to access digital culture.

Furthermore, more research is needed on the association between the physical environment and the digital cultural participation. While there is a growing body of empirical evidence focusing on the socioeconomic and demographic determinants of digital cultural participation, the geographical aspects influencing it have been little analysed. To fill this gap, chapter five grounds on the theoretical framework developed in chapter two to investigate the way that distance to cultural facilities and the socioeconomic environment where individuals live influence their digital/online cultural participation.

Appendix to chapter 3

Appendix 3.1

The impact of digitization on cultural participation inequalities literature review

Title, author and year	Independent variables analysed	Key findings	Methodological specificities
<p>Playing a play: online and live performing arts consumers profiles and the role of supply constraints (De la Vega et al., 2019)</p>	<p>Gender</p> <p>Age</p> <p>Education level</p> <p>Being married, having children and the number of household members</p> <p>Interest in culture, having physical cultural capital at home and informatic equipment</p> <p>High in-person prices</p> <p>Perception of supply scarcity</p>	<p>There is a complementarity effect between live and online culture consumption</p> <p>Males display lower probability of attending theatre plays and MPA than females, but no gender difference is found in online consumption</p> <p>While education is relevant for explaining live cultural attendance, it does not significantly affect online participation</p> <p>The probability of in-person attendance and online consumption of musical performing arts (MPA) increase with age in a decreasing rate, but age is not statistically significant to explain neither in-person nor online theatre participation</p> <p>Being married, having children and the number of household members are not significant variables</p> <p>There is a positive and significant effect of interest in culture, having physical cultural capital and having informatic equipment at home for attending all cultural activities both online and in-person</p> <p>High price has a positive and statistically significant effect in both theatre and MPA online engagement, suggesting that those who perceive live MPA to be too expensive substitute in-person attendance by online consumption</p> <p>Those who declare that the lack of supply is their main reason for not attending more often are more likely to be online cultural consumers</p>	<p>The study uses the Survey of Cultural Habits and Practices in Spain 2014–2015.</p> <p>It employs Bivariate Probit models using information about online and live consumption of highbrow performing arts and estimates separate analysis for theatre and musical performing arts (ballet, opera, Spanish operetta and classical music concerts)</p>

<p>Culture is digital: Cultural participation, diversity and the digital divide (Mihelj et al., 2018)</p>	<p>Age Sex Occupational class, educational level and ethnicity Long-standing illness or disability Place of residence</p>	<p>Age inequalities in favor of young groups are considerably more pronounced in the digital realm than offline, particularly so when combined with ethnic minority membership</p> <p>While women were less likely to visit museum and gallery in-person in both years and to visit their websites in 2005/2006, this was no longer the case for web visits in 2015/2016</p> <p>In both periods, higher occupational classes and having a university degree are considerably more likely to visit (online and in-person) museums and galleries than their lower counterparts, while ethnic minority members are considerably less likely to visit (online and in-person) museums and galleries than citizens identifying as white.</p> <p>Citizens with disability or long-standing illness see their digital and in-person engagement reduced in comparison to those without</p> <p>Participants residing in London and South of England were considerably more likely to engage with museum and gallery, both online and in-person and in both periods</p>	<p>The article examines the Taking Part Survey data on digital media and cultural participation in the United Kingdom between 2005/2006 and 2015/2016</p> <p>It focuses on museums and galleries online and offline</p> <p>The logistic regression model was used</p>
<p>The authenticity of the museum experience in the digital age: the case of the Louvre (Evrard and Krebs, 2017)</p>	<p>Age Gender Social class and occupation Education Country of origin and of residence Internet use</p>	<p>According to individuals' perception, the in-person museum experience is generally associated to an authenticity value. The possibility of substituting it by Internet experiences is rejected by consumers. The digital version is often seen as a complement alternative rather than a substitute to the in-person one</p> <p>Physical visitors include a statistically significant proportion of middle to low social classes (employees and workers) and men. Virtual users are younger and students and foreigners living in developed countries are overrepresented among them. Complete visitors include a majority of women, a high proportion of teachers and retired people, upper classes, highly educated persons, but also professional artists (thus reproducing the profile of traditional museum consumers). The Internet use frequency is very high among Louvre's website users.</p>	<p>The study consisted of two phases: i) a qualitative one of 29 face-to-face interviews and one focus group, and ii) a questionnaire applied in 2010, in situ for physical visitors (n = 537) and online to website users (n = 5495) of the Louvre museum</p> <p>Three main categories of users were distinguished: a) 'physical' visitors with no relationship to the museum's website, b) 'virtual' visitors, with no physical relationship to the museum and c) 'complete' visitors using both the museum and its website.</p> <p>Descriptive statistics is used to analyze the distribution of the type of visitors by individual characteristics</p>

<p>The consumption of cultural goods through the internet. How is it affected by the digital divide? (Ateca-Amestoy and Castiglione, 2016)</p>	<p>Age, sex and race</p> <p>Education and employment status</p> <p>Household income, marital status and the number of children</p> <p>Size of the city of residence</p>	<p>For the intensity of Internet access, there are age negative effects, as well as black ethnic groups negative effects and a small positive effect of being a female. Also, for cultural participation online, age decreases the probability of consumption (this is true for lowbrow music, dance and ballet), being a woman generally increases consumption (true for dance, ballet, books, but not true for highbrow music, which shows a negative effect for being a woman) and being black decreases participation (in lowbrow music, visual arts and books)</p> <p>A college level education or higher increases the probability of more intense Internet access, as well as being employed part time rather than full time. A negative effect is found for the unemployed and people outside the labour force. The role of university education is positive for highbrow music, dance, visual arts and books online consumption and being part time employed has generally a positive impact on consumption</p> <p>Income has a positive effect on Internet access and listening to lowbrow and highbrow music. Being single increases Internet access. Individuals with three small children or more have greater probability of accessing the Internet. Income also has a positive effect for music and for books. Being single has a positive effect for music and theatre and having two or more children positively affects lowbrow music</p> <p>The city size shows no significant effect for Internet access, but has a positive effect over highbrow music, dance, visual arts, and books</p>	<p>The study uses data from the 2012 Survey of Public Participation in the Arts in the United States</p> <p>It considers Internet consumption of highbrow music, lowbrow music, theatre, dance and ballet, visual arts and books, accounting for the selection of the sample of internet users</p> <p>The analysis is done by estimating a probit model with selection (Heckman), in which there is a part of the model that explains the probability of being an Internet user, and another part that explains the probability of cultural participation</p>
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<p>A moveable feast: do mobile media technologies mobilize or normalize cultural participation? (Chen, 2015)</p>	<p>Age, gender and education, race</p> <p>Urbanization</p> <p>Access to mobile Internet devices and diversity of app usage</p>	<p>Mobile and in-person cultural participation decreased with age and increased with education. However, the less educated were more active in mobile cultural participation when app use was considered. Gender had no significant effect. Hispanics were more active mobile cultural participants than whites, who were more active in-person participants.</p> <p>Urban and suburban residents were more avid in-person cultural participants than rural, but there was no significant urban-rural gap in mobile cultural participation</p> <p>Greater access to mobile Internet devices and more diverse app use were associated with greater mobile cultural participation</p> <p>Mobile and in-person cultural participation were positively correlated</p>	<p>This study uses the National Survey Data in the United States conducted by the Pew Internet & American Life Project in 2011</p> <p>In-person cultural participation is measured by whether a respondent had: (1) visited a museum, (2) visited an art gallery, show, or exhibit, (3) attended a live music, dance, or theater performance, (4) attended an arts, craft, or music festival, or (5) visited an historic site, park, or monument. Mobile cultural participation was measured by whether respondents had used mobile devices to: (1) download or listen to an audio tour at a museum, art gallery, or historic site, (2) view or download information or images from a museum, (3) view or download information or images from a historic site, park or monument, (4) view or download visual arts content, such as painting, sculpture, graphic design or photography, or (5) watch or download a music, dance or theatre performance</p> <p>It uses the zero-inflated Poisson (ZIP) regression model</p>
<p>The participation divide: content creation and sharing in the digital age (Hargittai and Walejko, 2008)</p>	<p>Age, gender, race and parental education</p> <p>Frequency of Internet use, ownership of technical devices, Internet experience and skills</p>	<p>Students who have at least one parent with a graduate degree are significantly more likely to create content, both online and offline, than others. Gender, race and age do not exhibit a statistically significant relationship with creative pursuits. Concerning sharing, women are significantly less likely to post their creations on the web, but once controlling for skill, this difference disappears. Older students are less likely to engage in posting, while race and parental education are not significant.</p> <p>Among the Internet variables (which were only introduced for the sharing activities model), the only significant one was web user skills, which positively affects sharing online</p>	<p>The data used is based on a survey about content creation and sharing practices of 1,060 first-year college students from an urban public research university (University of Illinois, Chicago) in 2007.</p> <p>Creation activities comprised music; poetry or fiction; artistic photography; and film or video. Sharing activities included posting their own poetry or fiction online, their own photography, their own music, and their own video, including those remixed from other people's materials</p>

			Logistic regression analysis was conducted
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Appendix 3.2

The data and analysis presented in this appendix provides original evidence on the diversity of the socio-economic profile of individuals who participate in digital cultural activities as compared to physical ones. For that, we employ separate statistical analysis based on different cultural participation surveys. First, grounding on national survey data from three selected developed countries: France, Spain and England. Then, based on data from the favelas of the Maré district, in Rio de Janeiro¹⁰. In each analysis, the cultural gap between two socio-economic groups for any cultural activity is represented by an indicator that provides the ratio between the participation percentage of the upper socio-economic group and of the lower socio-economic group, as follows:

$$Gap_{activity\ x} = \frac{\% \text{ participation upper group}}{\% \text{ participation lower group}}$$

a) Evidence from national surveys of selected developed countries

Data

These analyses are based on national surveys from selected developed countries. They use as quantitative data sources the national surveys of France (Enquête des Conditions de vie et aspirations, 2014), Spain (Encuesta de Hábitos y Prácticas Culturales, 2014) and England (Taking Part Survey, 2011 – 2017). Meaningful

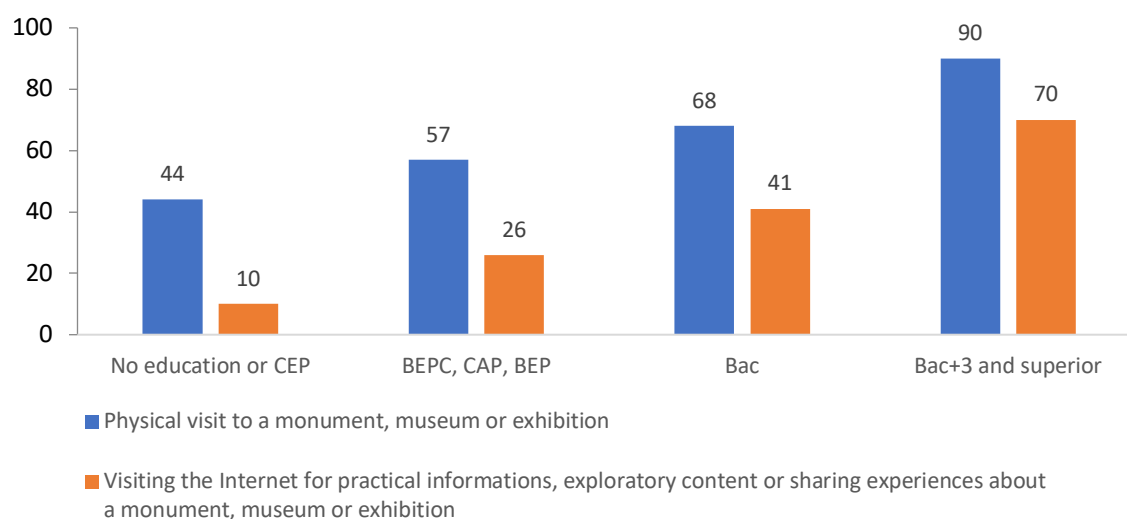
¹⁰ *Complexo da Maré* is an urban conglomeration of 16 slums (favelas) in Rio de Janeiro, Brazil, which population reaches over 140,000 people¹⁰. It has the fourth lowest HDI in the city and faces the inattention of public funding and state structures in multiple areas, including arts and culture. People living there face numerous social and geographical constraints which limit their participation in arts and culture. While cultural experiences in slums should be decisive references for cultural policies aiming at democracy and democratization, public policies in Rio de Janeiro typically do not reach the less developed parts of the city, like *Maré*.

differences in the design of national surveys and systems of socio-economic classification make national statistics on cultural participation not internationally comparable (O'Hagan, 2016). Countries also have different percentage of individuals accessing the Internet. According to the International Telecommunications Union, 84% of the French population accessed the Internet in 2014, while this value was 76% for Spain and 92% for the United Kingdom. Hence, for each country the statistical analysis provided by this chapter focuses on a different cultural activity and a specific socio-economic category.

Results

In France, four income categories and four formal educational levels were taken as reference classifications for comparing physical and digital museum, exhibitions and monuments visits. The data was extracted from the 2014 “Survey on Life Conditions and Aspirations” (*Enquête des Conditions de Vie et Aspirations, du Centre de Recherche pour l'Étude et l'Observation des Conditions de Vie*). Figure A.2.1 shows the percentage of adults that visited monuments, museums or exhibitions in the 12 months previous to the interview, both physically and digitally, by each level of formal education. In the graphic, “Bac+3 or superior” corresponds to the highest education category and “no education or CEP” is the lowest.

FIGURE A.3.2.1: PEOPLE OLDER THAN 18 YEARS OLD VISITING A MONUMENT, MUSEUM OR EXHIBITION IN FRANCE IN THE PREVIOUS 12 MONTHS BY MEANS (PHYSICAL VS. INTERNET) AND EDUCATION LEVEL (% , 2014)



Source: CREDOC, Centre de Recherche pour l'Étude et l'Observation des Conditions de Vie, 2014

The Table A.3.2.1 summarizes the cultural gap between people with the highest level of formal education and each of the following educational levels. For physical participation, people with the highest education level participate 1.3 times more than people with the second highest level (30% more), 1.6 more than those with the third education level (60% more), and their level of participation is two times the one of the people with the lowest education level. For digital participation, the gaps are even higher. The most educated people participate 1.7 times more than those with the second highest education level (70% more), 2.7 times more than people with the third highest education level, and 7 times more than the lowest educated people.

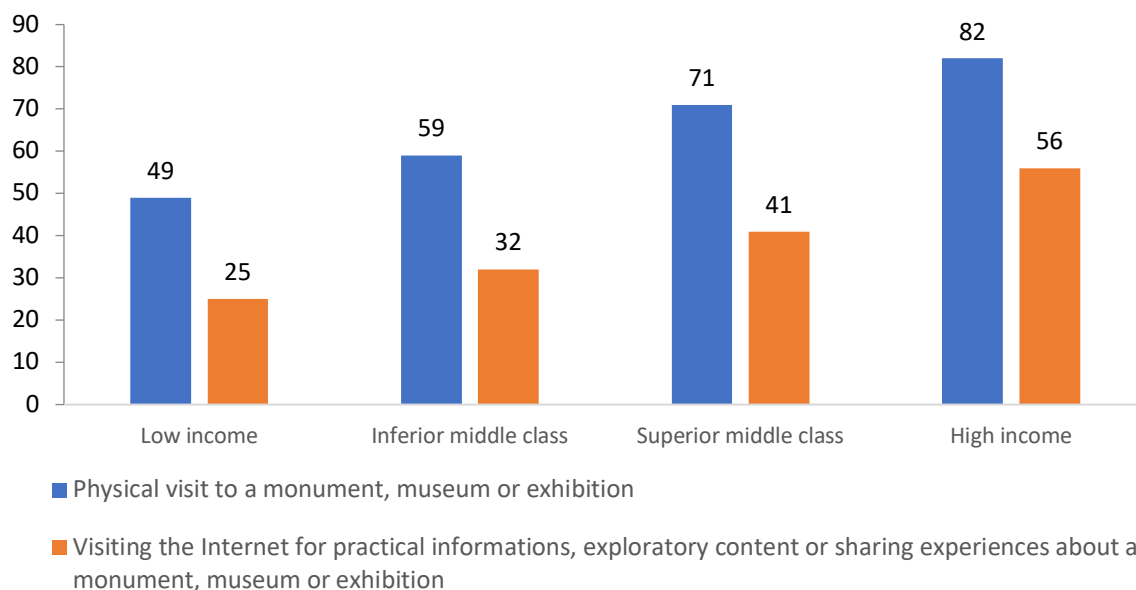
Table A.3.2.1: French cultural visits gap indicators by educational level

	Physical	Digital
Bac+3 and superior/Bac	1.3	1.7
Bac+3 and superior/BEPC, CAP, BEP	1.6	2.7
Bac+3 and superior/No education or CEP	2.0	7.0

Source: self-elaborated

The Figure A.3.2.2 shows the socio-economic composition of visits to museums, exhibitions and monuments, both physically and digitally, according to four income categories: low income, inferior middle class, superior middle class and high income.

FIGURE A.3.2.2: PEOPLE OLDER THAN 18 YEARS OLD VISITING A MONUMENT, MUSEUM OR EXHIBITION IN FRANCE IN THE PREVIOUS 12 MONTHS BY MEANS (PHYSICAL VS. INTERNET) AND INCOME RANGE (% , 2014)



Source: CREDOC, Centre de Recherche pour l'Étude et l'Observation des Conditions de Vie, 2014

The Table A.3.2.2 summarizes the cultural gap indicators observed from Figure 2.2. For physical visits, the high-income people participate 1.2 times more than people from superior middle class (20% more), 1.4 times more than inferior middle class (40% more) and 1.7 times more than low-income people (70% more). Again, for digital visits the gaps are even higher. The high-income people participate 1.4 times more than the superior middle class (40% more), 1.8 times more than the inferior middle class (80% more), and 2.2 times the participation level of low-income people.

Table A.3.2.2: French cultural visits gap indicators by income range

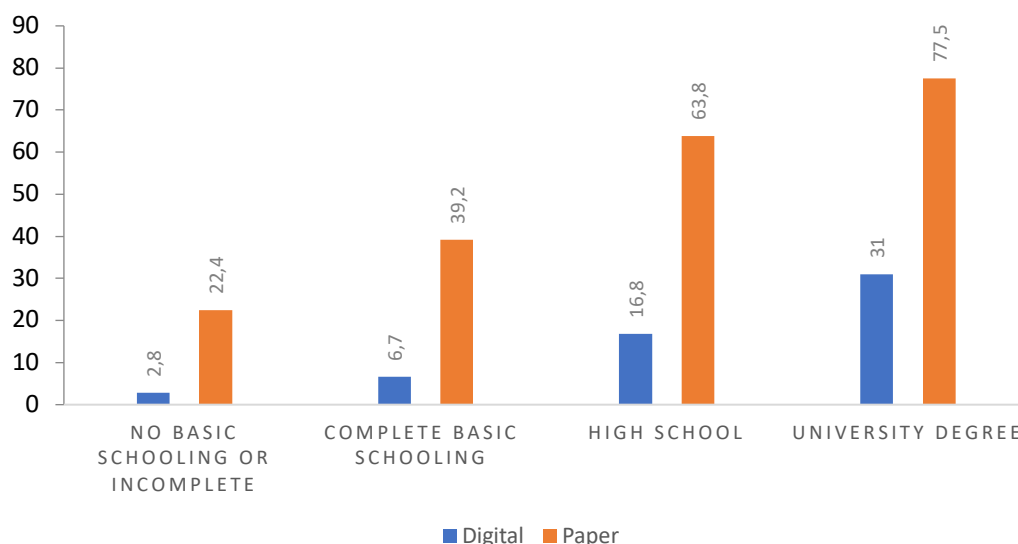
	Physical	Digital
High income/Superior middle-class income	1.2	1.4
High income/Inferior middle-class income	1.4	1.8
High income/Low income	1.7	2.2

Source: self-elaborated

In Spain, the data comes from the 2014/2015 “Survey on Cultural Habits and Practices” (*Encuesta de Hábitos y Prácticas Culturales, del Ministerio de Cultura y Deporte*). Specifically, the socio-economic composition is focused on education levels,

and we compare online versus paper-based books reading. The population is divided in four groups according to their education levels: no or incomplete basic schooling, complete basic schooling, high school and university degree.

FIGURE A.3.2.3: SPANISH PEOPLE OLDER THAN 15 YEARS OLD HAVING READ BOOKS IN THE PREVIOUS 3 MONTHS BY MEANS (PHYSICAL VS. DIGITAL) AND EDUCATIONAL LEVEL (% , 2014)



Source: Ministerio de Cultura y Deporte de España, 2014

The Table A.3.2.3 provides the cultural gap indicators for books consumption in Spain. For the physical version, people holding a university degree read 1.2 times more than people who coursed until high school, almost twice than people who only completed basic schooling and 3.46 times than people with no or incomplete basic schooling. Regarding the digital version, the gaps are much higher. The most educated group of people read 1.85 times the second most educated, 4.63 times more than people who only completed basic schooling and 11 times the lowest educated group of people.

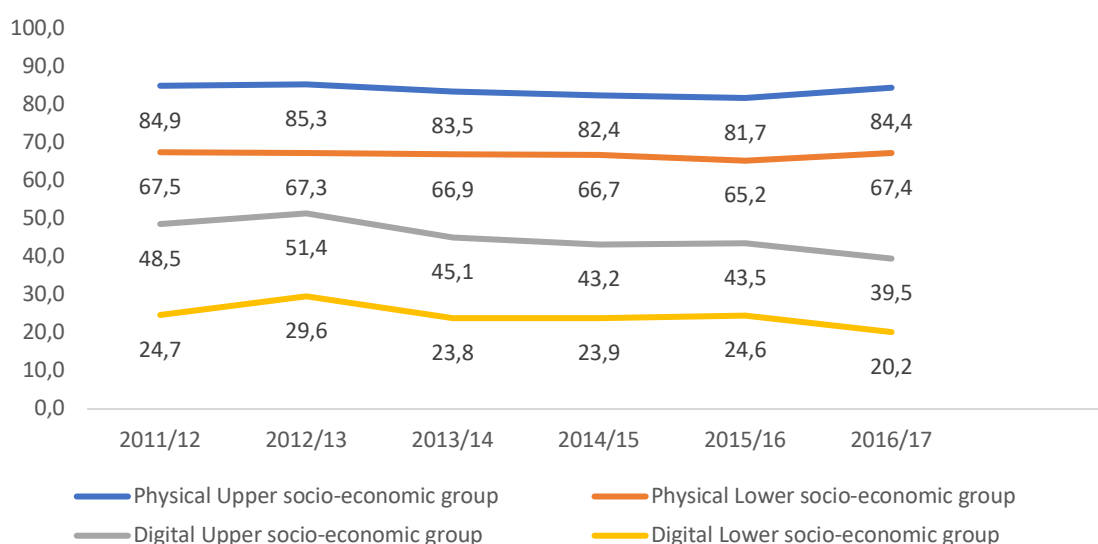
Table A.3.2.3: Spanish books reading gap indicators by educational level

	Paper	Digital
University degree/High school	1.20	1.85
University degree/Complete basic schooling	1.98	4.63
University degree/No basic schooling	3.46	11.07

Source: self-elaborated

The data from England was extracted from the “Taking Part Survey”, from the Department for Digital, Culture, Media & Sport, available between 2011/2012 and 2017/2018. It covers arts engagement (including music, theatre, dance, visual arts and literature), libraries and museums. In England, the population is classified in two different socio-economic groups according to the National Statistics Socio-economic Classification (NS-SEC).

FIGURE A.3.2.4: ADULTS WHO HAVE PARTICIPATED IN ARTISTIC AND CULTURAL ACTIVITIES IN ENGLAND BETWEEN 2011/2012 AND 2016/2017 BY SOCIO-ECONOMIC GROUP (%)



Source: DCMS, 2018

The Table A.3.2.4 summarises the cultural gap indicators for the artistic and cultural activities in England between 2011/2012 and 2016/2017. The cultural gap indicators do not show to vary much within this period, neither for physical nor for digital cultural participation. On average, for physical participation, the people from the upper socio-economic group participate 1.25 times more than people from lower socio-economic group (25% more). Likewise, the previous evidence for other countries and types of cultural activities, the digital mode of participation presents even higher gaps. The calculated average gap within the period is 1.86, meaning that people from highest socio-economic groups participate 86% more on digital cultural activities than people coming from lower socio-economic groups.

Table A.3.2.4: Artistic and cultural activities gap indicators in England by socio-economic group

	Physical upper/lower classes	Digital upper/lower classes
2011/12	1.26	1.96
2012/13	1.27	1.74
2013/14	1.25	1.90
2014/15	1.23	1.81
2015/16	1.25	1.77
2016/17	1.25	1.96
Average	1.25	1.86

Source: self-elaborated

b) Evidence from the Maré favelas complex

Data

This analysis is grounded on data from the neighbourhood of Maré. The dataset is based on interviews with 1,211 adults (older than 18 years old), statistically significant of the whole population of the 16 slums that compose the territory. The survey was collected in the second semester of 2019 and included questions about participation in nineteen cultural activities in the three months previous to the interviews. The analysis of this study focuses on three cultural domains of practices: audio-visual, music and books. Particularly, nine cultural participation forms are investigated: i) going to the cinema; ii) watching movies/series online; iii) watching movies/series by other means at home (such as DVD, VHS, in the television, etc.); iv) watching videos online; v) listening to live music; vi) listening to online music; vii) listening to music by other means (such as CD, LP, in the radio, etc.); viii) reading paper books; and ix) reading digital books. Descriptive statistics are used to investigate the gaps in cultural participation looking at different groups of people, according to demographic (age and gender) and socioeconomic (education, income and employment) profiles.

Results

i) Internet access

In Maré, 83% of the overall population has access to an Internet connection, which is superior to the proportion of Brazilians accessing Internet (74%), according to IBGE (2019). However, when quality is taken into account in Maré, only 68% consider the

quality of their Internet to be good enough to access cultural contents (“quality at least regular”). In addition, Internet access is uneven across population groups, especially by age groups and levels of education. Among the individuals having achieved superior education, 100% access the Internet and 80% consider the quality to be good enough. In contrast, among the least educated, these proportions are 39% and 30% respectively (2.6 times and 2.7 times less respectively). The Internet age gap is even higher. While 97% of the youngest group of people (between 18 and 29 years old) access Internet and 82% consider the quality good enough, these values are only 20% and 17% for the oldest group of people (66 years old or more). This means an age gap of 5 times for Internet access and 4.9 times for Internet access with quality good enough to access cultural contents. At the same time, the analysis distinguishing by gender, household income and employment indicates these variables are less relevant to determine Internet access. Table A.3.2.5 summarizes the Internet access data.

Table A.3.2.5: Internet access across socioeconomic/demographic groups

		INTERNET ACCESS	
		Internet access	Internet access with quality “at least regular”
Maré		83%	68%
Education	Superior education	100%	80%
	High school	96%	82%
	Basic school	71%	55%
	No education	39%	30%
Education gap		2.6	2.7
Age range	18 - 29	97%	82%
	30 - 49	91%	74%
	50 - 65	63%	46%
	66 or more	19%	17%
Age gap		5.0	4.9
Gender	Man	84%	68%
	Woman	81%	67%
Gender gap		1.0	1.0
Household income range	0 - 1000 Reais	74%	62%
	1000 - 1500 Reais	85%	75%
	1500 - 2500 Reais	86%	68%
	2500 Reais or more	89%	71%
Income gap		1.2	1.1
Employment	Not employed or volunteer	83%	67%
	Regular employment	82%	68%
Employment gap		1.0	1.0

ii. Watching audio-visual content

The survey included the question of watching audio-visual content by four different means, being two of them offline and two of them online: i) cinema; ii) other means offline (such as DVD, VHS or in television); iii) videos in online platforms; and iv) movies or series online. Among them, videos online are the most practiced by the population of Maré (67%), even if 17% of the population does not have access to the Internet. When considering only the universe of those who access the Internet, this percentage would rise to 81%. Following videos online, the most practiced forms of watching audio-visual content are watching offline movies/series by means such as DVD or in the TV (53%) and then watching online movies/series (also 53%, which would rise to 64% if considering only the universe of people who have access to the Internet). Far behind, the movie goers in Maré are only 29%.

Differences between groups of individuals are remarkable especially by age range and educational attainment. Also, the extent of the gaps varies according to the modality of watching audio-visual content. The greatest gaps by educational level occur for online films and cinema. While 81% of the population with superior education watch movies online and 67% go to the cinema, only 15% of the lowest educated population do the first and 12% do the second one (5.5 and 5.4 times less respectively). The gap in online videos by level of education is also high: the most educated people practice it 3.8 times more than the least educated. At the same time, watching films by other means varies less according to the person's level of education and is the most commonly performed audio-visual practice among individuals with lower levels of education: 31% of people with no education watch movies by these means, while this value is 12% for cinema, 15% for movies online and 17% for videos online.

Concerning the age gaps, the most remarkable is found for cinema, which is a surprising result, because the online world is supposed to have a higher generational effect due to the difficulty of older generations in keeping up with technological evolutions. While 50% of the people between 18 and 29 years old declare to have gone to the cinema, only 3% of the older ones do so, meaning 17 times less. The second highest gap is found for movies/series online: while 77% of the young people watch it, only 8% of the people older than 66 years old do so. This represents a gap of 9.8. Besides, watching videos online also shows a significant age gap: the youngest group do it 8.9 times more than the oldest one (89% versus 10% of each group respectively). Again, the least unequal activity

across group ages is watching movies by offline means such as DVD or in the TV. This activity is also the most commonly performed among the oldest generations.

While audio-visual content watching behaviour is remarkably different across age and education groups, it varies less for gender, income and employment differences. The only exceptions seem to be income for cinema and online movies. While only 21% of the group in the lowest income range go to the cinema and 40% watch movies online, these values are 36% and 67% respectively for the highest income group. These proportions are both 1.7 times higher. All these data about watching audio-visual content are shown by table A.3.2.6.

Table A.3.2.6: Watching audio-visual content by different means and across socioeconomic and demographic groups

		AUDIOVISUAL			
		Cinema	Movies/series offline	Videos online	Movies/series online
	Maré	29%	53%	67%	53%
Education	Superior education	67%	59%	96%	81%
	High school	42%	56%	85%	73%
	Basic school	11%	50%	48%	33%
	No education	12%	31%	25%	15%
	Education gap	5.4	1.9	3.8	5.5
Age range	18 - 29	50%	62%	89%	77%
	30 - 49	24%	53%	73%	55%
	50 - 65	14%	47%	37%	26%
	66 or more	3%	29%	10%	8%
	Age gap	17.0	2.2	8.9	9.8
Gender	Man	26%	55%	69%	58%
	Woman	31%	50%	64%	49%
	Gender gap	0.8	1.1	1.1	1.2
Household income range	0 - 1000 Reais	21%	48%	58%	40%
	1000 - 1500 Reais	27%	56%	70%	57%
	1500 - 2500 Reais	30%	55%	69%	52%
	2500 Reais or more	36%	49%	72%	67%
	Income gap	1.7	1.0	1.2	1.7
Employment	Not employed or volunteer	25%	54%	67%	53%
	Regular employment	32%	52%	67%	53%
	Employment gap	1.3	1.0	1.0	1.0

iii. Listening to music

In line with the rest of the world, the most widespread online cultural activity in Maré is listening to music. Also, even if part of the population does not have access to the Internet, this is the most common modality for doing this activity in Maré: while 70% of the overall people listen to music online, only 34% listen to live music and 51% do it offline. However, this is also the most unequal activity across educational levels and age ranges groups: while 97% of the most educated and 92% of the youngest generation listen to music online, only 28% of the not educated and 6% of the oldest generation do it. This represents an education gap of 3.4 and an age gap of 15.8. While the first is just slightly greater than the gap in Internet access of 2.6, the second is well above the Internet gap of 5.0 (Table 1). This refers to the two levels of digital divide: the access to the technology *per se* and the use of the technology (Van Dijk, 2006). For people with lower education attainments, the main obstacle for listening to music online is usually the Internet access, while people from older generations generally face other barriers, such as the knowledge for making use of the new technologies. Besides, music online additionally shows a slight gap for income levels: people in the highest income group do it 1.2 times more than the ones in the lowest income group.

Live music also shows differences across socioeconomic and demographic groups. While 50% of the most educated attend it, only 27% of the lowest educated do it (1.9 times less). Besides, not surprisingly, the proportion of people attending live music also decreases with age: the people between 18 and 29 years old do it 3 times more than the ones older than 66. There are also gender and income gaps: 40% of the men attend live music versus 29% of the women (a gap of 1.4) and 43% of the people living in households with the highest income versus 28% of the people living in households with the lowest income (a gap of 1.6).

Concerning music offline by other means, not only a relatively high proportion of the population do it (51%), but it is also quite uniform across socioeconomic and demographic categories. The only exception is across age ranges: diverging from other activities, the ones who listen the most to music offline by means such as CDs, LPs or radios are the oldest generations (55% of the older than 66 years versus 41% of the ones between 18 and 29).

Independently on the modality of music listening, there is not much variation between the proportion of people employed or not employed doing it. Table A.3.2.7

summarizes the data on listening to music by different means and across groups of the population.

Table A.3.2.7: Listening to music by different means and across socioeconomic and demographic groups

		MUSIC		
		Live music	Music online	Music offline
Maré		34%	70%	51%
Education	Superior education	50%	97%	51%
	High school	40%	87%	48%
	Basic school	27%	52%	52%
	No education	27%	28%	52%
Education gap		1.9	3.4	1.0
Age range	18 - 29	44%	92%	41%
	30 - 49	38%	77%	51%
	50 - 65	18%	38%	64%
	66 or more	14%	6%	55%
Age gap		3.0	15.8	0.7
Gender	Man	40%	73%	49%
	Woman	29%	66%	52%
Gender gap		1.4	1.1	1.0
Household income range	0 - 1000 reais	28%	62%	50%
	1000 - 1500 reais	33%	72%	57%
	1500 - 2500 reais	33%	73%	47%
	2500 reais or more	43%	75%	52%
Income gap		1.6	1.2	1.0
Employment	Not employed or volunteer	37%	71%	52%
	Regular employment	33%	68%	49%
Employment gap		0.9	1.0	1.0

iv. Reading books

Among the virtual cultural practices, reading digital books is the least disseminated in Maré: only 13% of the population declared to have done it in the three months previous to the survey. At the same time, 34% of the population read books by traditional means. Both of them are unequally practiced across groups of educational attainment, but this gap is particularly high for the digital modality: among the most educated, 70% read paper books and 47% read them digitally, which are proportions respectively 13.8 and 30.7 times higher than among the least educated (5% and 2%

respectively). Also, age gaps are notably high for digital books, even if the proportion of people doing this activity is low for every age range: while 25% of the people between 18 and 29 years old read books digitally, only 2% of the ones older than 66 do it. At the same time, the age gap is not as important for paper books, since the youngest people read only 1.7 times more than the oldest (42% versus 25%).

Besides, digital books reading is also particularly different across groups of household income range. While 21% of the people living in households earning more than R\$2500 read books digitally, 10% of people in the lowest income group do it (a gap of 2.1). At the same time, 38% of the people living in households earning the highest level of income read paper books versus 34% of the people in the lowest income group (a gap of only 1.1). There is also a slight difference between men and women concerning digital readings (16% versus 10% respectively), which is difficult to explain and may be more linked to the interaction with other variables, such as income and education, than to the gender itself. This is an example of why an econometric analysis is also needed for more precise diagnostics. Again, the differences between employed and non-employed individuals are not significant for any reading modality. The table A.3.2.8 summarizes data on books reading by different means and across individuals' profiles.

Table A.3.2.8: Reading books by different means and across socioeconomic and demographic groups

		BOOKS	
		Paper books	Digital books
Maré		34%	13%
Education	Superior education	70%	47%
	High school	39%	18%
	Basic school	26%	3%
	No education	5%	2%
Education gap		13.8	30.7
Age range	18 - 29	42%	25%
	30 - 49	31%	10%
	50 - 65	30%	5%
	66 or more	25%	2%
Age gap		1.7	14.5
Gender	Man	33%	16%
	Woman	34%	10%
Gender gap		1.0	1.6
Household income range	0 - 1000 reais	34%	10%

	1000 - 1500 reais	38%	13%
	1500 - 2500 reais	30%	11%
	2500 reais or more	38%	21%
	Income gap	1.1	2.1
Employment	Not employed or volunteer	34%	14%
	Regular employment	34%	12%
	Employment gap	1.0	0.9

Hence, the data show that digital and virtual cultural practices have a potential for widespread reaching in Maré. Although part of the population does not have access to the Internet, online cultural practices are among the most popular modalities for both music and audio-visual contents. In a context remarked by mobility and territorial limitations, such as high levels of urban violence, poor urban infrastructure (transport, cultural centres, etc.) and difficult access to central and more prosperous parts of the city, cultural participation could be indeed facilitated by virtual means.

However, likewise the traditional cultural activities, online forms of accessing arts and culture are more practiced by people with higher educational achievements, by the youngest generations and usually, but less significantly, by the ones with greater income¹¹. This is especially true for online movies and digital books. For these activities, the differences between socioeconomic groups (especially according to the age, educational attainment and income level) are far above the ones referring to the first level digital divide (technology access). This means that differences in terms of device and Internet access are not the only explanation for variations across groups of individuals in their online access to online culture. This is also true for the age gap of online music.

Although online cultural activities are reaching a greater proportion of the overall population of Maré, the highest levels of equality between different socioeconomic groups are found for films and music accessed by traditional modalities (DVD, CD, TV, radio, etc.). Notably, these are the most common means used by disadvantaged

¹¹ The smaller significance of income levels may be because the values used in this analysis refer to the household income range, without distinguishing the number of people living in together in the house, or because in general the income variations in Maré are low (for example, only 16% of families earn more than R\$ 2500 per month, which is equivalent to approximately 380 euros – currency exchange rate of the 20/08/2020).

demographic and socioeconomic groups to access culture in Maré, particularly the older generations and the least educated people.

Chapter 4. An empirical study on the impact of urban violence on choices of cultural participation: the case of the Maré *favelas* complex in Rio de Janeiro¹²

Introduction

Urban violence has been the object of several economics-based studies. Empirical evidence revealed that this violence generally imposes costs on society and, at the individual level, the fear of becoming a victim often affects behaviours and habits (Greenbaum and Tita, 2004; Warr, 2000; Skogan and Maxfield, 1981). This chapter looks at the way this fear affects the means through which people consume cultural content or, in other words, participate in cultural activities.

Many different approaches have dealt with the indirect consequences of urban violence. These consequences range from losses in terms of GDP and costs imposed on the labour market, to the influence over individuals' decisions of where to live and what to consume (Carboni and Detotto, 2016; Greenbaum and Tita, 2004; Cullen and Levitt, 1999; Mejía and Restrepo, 2015). However, none of these studies investigated the impact of the fear of victimization on decisions of where to consume, or in other words where to participate in certain cultural activities whenever they can be undertaken at home as a substitute for public spaces.

This question is particularly relevant in a global context where new technologies progressively offer digital consumption alternatives that compete with traditional modalities (presential, physical or face-to-face) in numerous sectors. The cultural sector was especially affected by this in recent years. Access to cultural and creative content is increasingly made via digital means, through platforms such as Youtube, Spotify, Netflix, and others (Waldfogel, 2017). At the same time, part of the importance of culture and creativity in terms of socioeconomic development seem to be related to public spaces. There is an acknowledgement of the role of culture and creativity for socioeconomic

¹² This chapter is based on the multidisciplinary research project "Building Barricades" (ES/S000720/1 ESRC-AHRC GCRF Mental Health 2017) and on a joint working paper with François Moreau, Paul Heritage, Leandro Valiati and Eliana Sousa Silva.

development, economic growth, quality of life and urban regeneration (Schlesinger, 2016; Florida, 2002; Galloway, 2006). Since the 90s, several cultural-based initiatives at the local level were implemented to support and stimulate economic and social development. Those are committed to appealing to the creative class and providing an intensive cultural supply (Florida, 2002). This is also part of the creative economy paradigm, which associates creativity with human capital and long-term productivity and competitiveness (Bakhshi et al., 2015).

This chapter focuses on the decision between participating in cultural activities in public or private spaces in territories where the fear of violence restricts mobility. If the fear of being a victim constitutes an obstacle to participation in cultural life, urban areas affected by violence may lag behind in terms of socioeconomic development and in any possibility of regeneration through a creative economy.

It is widely known that urban violence is unevenly distributed across territories and that some segments of the population commonly face greater risk than others (Winton, 2004). Briceño-León and Zubillaga (2002) reported, for instance, that the homicide rate in Rio de Janeiro is on average 4.5 times higher in the lower-income districts than in the city's middle-class and tourist areas.

This chapter studies the case of the sixteen favelas of the Maré district, which is home to approximately 10% of the population living in favelas in Rio de Janeiro. Based on individual data from a survey conducted in 2019 with 1,211 residents, it associates the fear of victimization with choices between different ways in which people can consume culture. More specifically, between listening to music and watching movies in public spaces as compared to private spaces.

In Rio de Janeiro, 1.3 million people (around 22% of the population) live in favelas according to the Brazilian Institute of Geography and Statistics (IBGE, 2010). Most of the favelas¹³ are particularly affected by violence due to the presence of gangs linked to illegal drug trade or of militias that exploit basic services through the use or threat of violence, and precariously monopolize functions that the State is supposed to regulate. At the same time, public security agents generally do not recognize the right of this population to live in safety and use practices that intimidate and contribute to creating insecurity and fear in daily life. The current logic of the State in most of these spaces is warmongering, characterized by specific actions of police operations marked by intense

¹³ Favela is used in the remainder of the paper to refer to Rio de Janeiro's slums.

armed conflict. These conflicts often employ heavy weaponry, such as grenades and modern military machine guns, and regularly lead to deaths, including of those not directly involved in the drug trade. The imminence and unpredictability of armed confrontations, whether between rival armed groups or between those groups and the police forces, have massive adverse impacts on the daily lives of favela residents, particularly on their freedom to move.

The findings of this chapter show a statistically significant and negative effect of the fear of being hit by a stray bullet on cultural participation and consumption that require individuals to go out (as compared to modalities that take place in private spaces). Results also show that the fear of being a victim represents a stronger determinant of individuals' behaviour than the actual occurrence of armed conflict events.

The chapter is organized as follows. The next section reviews the literature about the impact of violence on individuals and society. Then, the subsequent section defines the hypothesis of this study and the theoretical background that support them. Section 4.3 describes the context of the empirical study, the data and variables used for the analysis, and the estimation strategy. Sections 4.4 and 4.5 provide the results and discuss them respectively. The last section concludes the chapter.

4.1 Literature review: the impact of violence on individuals and society

The consequences of violence and the fear of crime were the subject of several empirical studies. Multiple results were observed. These range from negative impacts on macroeconomics outcomes, such as the GDP (e.g., Carboni and Detotto, 2016) to impacts on the individual level, such as health deterioration (e.g., Ross and Mirowsky, 2001). Most of the analyses discuss and provide evidence of what can be called the indirect costs of violence, which in turn affect the quality of life of individuals and society as a whole (Hale, 1996). Among those studies, a few are on the effects of the fear of crime on individuals' behaviours and habits, including where they choose to live (e.g., Cullen and Levitt, 1999), their use of public transportation (Patterson, 1985), handgun ownership (DeFronzo, 1979) and conspicuous consumption (Mejía and Restrepo, 2015). No study was found however on the association between the fear of violence and individuals' avoidance to go out for certain activities that can alternatively be done without leaving their residence. The literature suggests that this kind of avoidance behaviour must inevitably provoke negative feedback effects on violence rates (Hale, 1996), decrease

levels of social interaction (Garofalo, 1981) and negatively impact economic activities (Warr, 2000), with all of these bringing losses in terms of well-being.

From a development economics and human capital accumulation perspective, Brown and Velásquez (2017) showed that young adults exposed to increased local violence attained significantly fewer years of education and were less likely to complete compulsory schooling. Furthermore, the effect of armed conflict on the accumulation of schooling in Tajikistan were studied by Shemyakina (2011). The author's findings indicate that exposure to violent conflict had a large and statistically significant negative effect on girls' enrolment and completion of compulsory studies, but no significant effect on the education of boys. Similarly, evidence from the 1994 Rwandan Genocide revealed its strong negative impact on schooling, with exposed children presenting a drop in education attainment of 18.3% relative to the average (Akresh et al., 2009). In Brazil, Monteiro and Rocha (2017) showed that the gunfights between drug gangs in Rio de Janeiro decreased students' scores at school, and that the supply side of education played as an important mechanism, since schools in violent areas in Brazil experienced greater teacher absenteeism, less stability in administration and were more likely to temporarily close.

Other indirect economic costs of urban violence include the effects on businesses and the labour market. Greenbaum and Tita (2004) found a negative impact of violent crime on the creation of new business establishments and the growth of employment in existing businesses. Looking at the businesses' choice in terms of location, Rosenthal and Ross (2010) showed that retailers are more likely to locate in safer areas as compared to wholesalers in the same industry. Regarding impacts on the labour market, Hamermesh (1998) found that homicide rates deter working in the evening and at night, shifting it to the daytime. Besides, multiple studies have shown that the Mexican Drug War adversely impacted employment and earning outcomes (BenYishay and Pearlman, 2013; Robles et al., 2013; Dell, 2015; Velásquez, 2020).

The housing market is also deeply affected by criminality and violence in urban areas, especially in most crime ridden areas (Lynch and Rasmussen, 2001). For instance, Linden and Rockoff (2008) and Pope (2008) both found significant negative effects on property values when a registered sex offender moved into a neighbourhood. This happens as a result of a lower demand for living in areas perceived as dangerous (Hartnagel, 1979). Studies on the effect of crime on an individual's residence location confirm this trend. Cullen and Levitt (1999) found that high crime rates cause people to

move out of cities and Gould Ellen and O'Regan (2008) indicated that these cities are better able to retain residents after these rates are reduced.

The choice of where to live is not the only behavioural aspect impacted by urban violence that was the subject of research. Mejía and Restrepo (2015) showed that property crime reduces the consumption of visible goods, not only because some of these may be stolen, but also because they reveal information about an individual's wealth. Besides, scholars refer to other multiple individual reactions to the fear of crime, such as: adopting more protective behaviour and ensuring personal safety, like owning guns (DeFronzo, 1979; Krahn and Kennedy, 1985), avoiding activities perceived as dangerous, like walking down some shared-use routes (Ravenscroft et al., 2004), and using less public transportation (Patterson, 1985). Moreover, Hale (1996) argues that the fear of crime is expected to make individuals stay at home more. No study was found however on the impact of violence and fear on cultural participation.

The relationship between violence and culture was studied mainly in the opposite direction: how arts, culture and the creative sector seem to make territories safer, reducing and preventing urban violence. The report of the European Task Force on Culture and Development "In from the Margins: A contribution to the debate on Culture and Development in Europe" (1997), identified the reduction of crime as an indirect social impact of arts and culture. According to the document, this impact results from the ability of culture to enrich the social environment with public amenities, to induce educational effects, to stimulate creativity, among others. Several studies have also verified this association empirically (Matarasso, 1997; Tubadji et al., 2015; Azevedo, 2016). However, no study was found on the other direction of this association, that is, on how violence may determine cultural participation.

4.2 Theoretical background and hypothesis

This study investigates whether urban violence explains individuals' choice between participating in cultural activities in private or public spaces. A large body of evidence in economic psychology, criminology and urban studies suggests that fear of crime shapes individuals' behaviour and choices (Becker and Rubinstein, 2011; Liska et al., 1988; Garofalo, 1981; Greenbaum and Tita, 2004). Particularly, behavioural

economists acknowledge that individuals' emotions cannot be ignored by any theory of choice (Kahneman, 2002).

Among different types of individual behavioural reactions to crime (as a consequence of fear), avoidance is defined as "actions taken to decrease exposure to crime by removing oneself from or increasing the distance from situations in which the risk of criminal victimization is believed to be high." (DuBow et al., 1979, pp. 16). For instance, the fear of being a victim makes people alternate the routes they take when commuting, the form of transportation they use and the number of times they choose to leave their residence (see DuBow et al., 1979; Warr, 1994). According to survey data, spatial avoidance is the most common reaction to fear of urban violence in the United States (Warr, 1994). Such responses of avoidance must undeniably affect economic, leisure and social activities (Warr, 2000). An implication of this for the cultural and creative sector is that fear is expected to make people reduce attendance to these activities in public spaces. Hence, this study formulates the following hypothesis:

H1: individuals with more fear will choose to participate more in culture in private spaces as compared to public spaces.

From the perspective of the economic geography field, the literature on objective and subjective geography of opportunities provides a theoretical framework to understand the way urban violence limits behaviours in the territory (Galster and Killen, 1995). This theory links individuals' process of decision making to their geographical context. In short, subjective geography is seen as a limitation of the opportunities that are in fact available for individuals (objective geography). In the particular case of this study, investment on cultural equipment is essential to improve available opportunities for cultural participation (objective geography), but the fear of violence (subjective geography) might limit these opportunities. From an economic development perspective, this is also in line with Amartya Sen's capability approach (Sen, 1999). More specifically, the fear of violence can be seen as a factor that limits individuals' capabilities (or their freedom to act and make choices). In other words, the fear caused by urban violence is expected to restrict the real opportunities and the freedom of choice that people have.

On the other hand, objective assessments of urban violence are less expected to affect individuals' choice than subjective perceptions expressed by fear. In other words, individuals' decisions and behaviours are more likely to be based on their fear than on

the actual probability of occurrence of the feared event (Becker and Rubinstein, 2011). While the frequency of violent events might affect individuals' perception of danger, the literature of behavioural economics shows that individuals' fear and responses to risk are not proportional to the probability of victimization. Instead, fear is a subjective perception that diverges from objective assessments of the danger (Becker and Rubinstein, 2011). Researchers have focused on bounded rationality and availability heuristics¹⁴ to explain these divergences between individuals' judgments and the probability of occurrence of an event (Tversky and Kahneman, 1982). In this sense, this study tests also the following hypothesis:

H2: fear is a stronger determinant than the number of violence occurrences for individuals to choose cultural activities in private spaces over the modalities in public spaces

4.3 Empirical approach

4.3.1 Context of the empirical study

The territory of Maré is composed of sixteen favelas occupying an area of 5.79km². The last official data accounted for a population of 139,073 inhabitants in 2013 (Redes da Maré, 2019). This makes it the ninth most populous neighbourhood in Rio de Janeiro, and more populous than 96% of Brazilian municipalities. At the same time, according to IBGE, Maré has the fourth lowest human development index and the fifth lowest income per capita among 126 neighbourhoods in Rio de Janeiro (IBGE, 2000). This is a reflection of a public sector that historically neglects favelas. Also, this implies a shortage of many basic services and public infrastructures. In what concerns the cultural and creative field, the neglect of the state produces a scenario in which cultural initiatives usually come from the third sector or informal community mobilizations. For instance, the Centre of Arts of Maré, founded by the non-governmental organization Redes da Maré, or an itinerant cinema, which is organized by a community resident.

¹⁴ The tendency to judge the frequency of occurrence of events by the ease with which they come to mind (Kahneman, 2002).

The sixteen favelas of Maré demarcate three different areas in the territory, as distinguished by table 4.1. The demarcation of the territory by different areas emerged with the development, history of occupation, migratory movements, and urban policies of the several favelas that compose it¹⁵.

Table 4.1: Maré’s favelas encompassed by each geographical stratification

Geographical strata	Favelas
Area 1	Nova Holanda, Parque Maré, Parque Rubens Vaz e Parque União
Area 2	Baixa do Sapateiro, Conjunto Bento Ribeiro Dantas, Conjunto Esperança, Conjunto Pinheiros, Morro do Timbau, Nova Maré, Salsa e Merengue, Vila do João, Vila dos Pinheiros
Area 3	Marcílio Dias, Parque Roquete Pinto, Praia de Ramos

There is a correspondence of these areas with the occupation and regulation by different armed groups¹⁶. Since the public sector traditionally neglects favelas, these criminal groups ended up finding an aperture to control the territory (Silva et al., 2008). The action of these armed groups occurs through the governance of a series of illegal and irregular economic activities, such as drug trafficking, security services, public transportation, taxation of the sale of gas cylinders, distribution of TV signals and Internet connection, among others. All of this is sustained by an armed base and the frequent use of violence (Silva et al, 2008). This setting ends up producing a scenario marked by conflicts between different factions of the drug trafficking and between the state police and the armed gangs, which are central sources of violence and fear. People who live in areas affected by armed conflicts or near them are deeply impacted. Particularly, freedom of movement is considerably restricted during armed conflicts, given the danger of being hit by stray bullets.

¹⁵ These three areas are not homogeneous: they count with different housing characteristics, social dynamics, as well as access roads and public facilities. While the firsts favelas originated at the beginning of the XXth century, when the Pereira Passos reform removed the poorest population living in the city centre and in the south zone of Rio de Janeiro towards Maré, other favelas emerged more recently. For instance, during the dictatorship period, or by the removal of populations living in territories at risk of landslides and floods.

¹⁶ The introduction of drug trafficking in the 1990s divided the favela complex into areas controlled by rival armed factions (the Militia, the Comando Vermelho and the Terceito Comando).

4.3.2 Data and variables description

The data used on this work was extracted from the Building Barricades survey carried out in the period between September 2019 and January 2020 with 1,211 adults residing in Maré. Appendix 3.3 contains the survey questions. The in-person door-to-door survey was organised and mediated by Redes da Maré, a local non-governmental organization which was one of the research partners. The surveyed population was made up of adults aged 18 years old or over, residing in households of the sixteen favelas in Maré.¹⁷ The estimated number of people aging 18 years old or over in Maré was 101,549 for the year of 2019.

The sample size of 1,211 adults was chosen as sufficient to reduce the margin of error and significantly represent the total population. Appendix 4.1 includes the tables containing the estimated population of Maré by age groups and gender in 2019, as well as the sample distribution by age groups and gender.¹⁸

The Building Barricades survey included sixty questions and lasted around fifty minutes. The respondents were asked about the frequency of their participation in a variety of cultural practices, their perceptions and experiences of violence, their mental health and life satisfaction, in addition to personal and socioeconomic characteristics, such as age, gender, education, employment, the favela of residence, etc. The variables used for the analysis in this chapter are described in Table 4.2.

Table 4.2: Description of the variables

Dependent variables	
Gap between the frequency of cinema attendance and watching movies through the Internet	Difference between frequencies (ranging from -4 to 4, where never - daily or almost daily = - 4, and daily or almost daily – never = 4)

¹⁷ The linear trend method (Madeira and Simões, 1972) was used to estimate the population of Maré for July 1st, 2019. This was based on the population estimates by Federation Unit and simple age produced by the Brazilian Institute of Geography and Statistics (IBGE) for the years of 2010 (2010 Demographic Census, from IBGE), 2013 (year of the Maré Census) and 2019 (year of the Building Barricades survey).

¹⁸ The sampling process employed in the survey is stratified and selected in two stages. In the first stage, households were selected by inverse sampling (Haldane, 1945; Vasconcellos et al., 2005; Vasconcellos et al., 2013). In the second stage, an adult resident was selected with equal probability among the adult residents of the selected household. Inverse sampling is a sequential sampling procedure that aims to mitigate the non-responses observed in classic household surveys. In this process, the interviewer receives the list of addresses and visits them sequentially until reaching the number predicted or exhausting the area (stratum or unit sample) of research. For that, the research population was stratified into three geographic strata, composed of clusters of favelas in Maré, delimited according to their location, housing characteristics and social dynamics of the favelas, in addition to access roads and common public facilities.

Gap between the frequency of cinema attendance and watching movies by other means	Difference between frequencies (ranging from -4 to 4, where never - daily or almost daily = - 4, and daily or almost daily – never = 4)
Gap between the frequency of live music attendance and listening to music through the Internet	Difference between frequencies (ranging from -4 to 4, where never - daily or almost daily = - 4, and daily or almost daily – never = 4)
Gap between the frequency of live music attendance and listening to music by other means	Difference between frequencies (ranging from -4 to 4, where never - daily or almost daily = - 4, and daily or almost daily – never = 4)
Independent variables	
Fear of being hit by stray bullet	No fear=0, rarely=1, sometimes=2, many times=3, always=4
Age	Numerical discrete variable
No education or pré-school	Dummy (if this was the last level of education completed=1, otherwise=0)
Elementary or middle education	Dummy (if this was the last level of education completed=1, otherwise=0)
High school	Dummy (if this was the last level of education completed=1, otherwise=0)
University, specialization or Master's degree	Dummy (if this was the last level of education completed=1, otherwise=0)
Female	Dummy (female=1, male=0)
Household income	Numerical discrete variable
Childhood stimulus	Dummy (yes=1, no=0)
Unemployment	Dummy (unemployed=1, employed=0)
Internet quality	No Internet=0, terrible=1, bad=2, regular=3, good=4, excellent=5
Favela Baixa do Sapateiro	Dummy (if residing in this favela =1, otherwise=0)
Favela Conjunto Bento Ribeiro Dantas	Dummy (if residing in this favela =1, otherwise=0)
Favela Conjunto Esperança	Dummy (if residing in this favela =1, otherwise=0)
Favela Conjunto Pinheiros	Dummy (if residing in this favela =1, otherwise=0)
Favela Marcilio Dias	Dummy (if residing in this favela =1, otherwise=0)
Favela Morro do Timbau	Dummy (if residing in this favela =1, otherwise=0)
Favela Nova Holanda	Dummy (if residing in this favela =1, otherwise=0)
Favela Nova Maré	Dummy (if residing in this favela =1, otherwise=0)
Favela Parque Maré	Dummy (if residing in this favela =1, otherwise=0)
Favela Parque Roquete Pinto	Dummy (if residing in this favela =1, otherwise=0)
Favela Parque Rubens Vaz	Dummy (if residing in this favela =1, otherwise=0)
Favela Parque União	Dummy (if residing in this favela =1, otherwise=0)
Favela Praia de Ramos	Dummy (if residing in this favela =1, otherwise=0)
Favela Salsa e Merengue	Dummy (if residing in this favela =1, otherwise=0)
Favela Vila do João	Dummy (if residing in this favela =1, otherwise=0)
Favela Vila do Pinheiros	Dummy (if residing in this favela =1, otherwise=0)

For the purpose of this study, two variables of cultural practice were selected: watching movies and listening to music. The choice of these practices is justified by the fact that both are well developed and widely popularized in their domestic modalities (through online platforms or by other means, such as CDs and DVDs), which enables the comparison between participation in private and public spaces. These activities are assumed to take place in public spaces when individuals need to displace themselves in the territory in order to practice or participate in them. They are considered to take place in private spaces when their practice does not demand individuals to displace themselves

in the territory. More specifically, watching movies in the cinema and listening to live music are cultural activities that take place in public spaces. On the other hand, practices that take place in private spaces are listening to music through online platforms or by other means (such as CDs and radio) and watching movies through online platforms and by other means (such as DVDs and TV). Participation in cultural activities were assessed in the survey using five levels of frequency, ranging from daily participation to not participating at all.

Since the interest of this chapter is to assess the individuals' choice between participating in cultural activities in private or public spaces, four new variables were created to be used as dependent variables: i) the individual gap between the frequency of watching movies in the cinema and watching movies through online platforms; ii) the individual gap between the frequency of watching movies in the cinema and watching movies by other means (DVDs, TV, etc.); iii) the individual gap between the frequency of listening to live music and listening to music via online platforms; iv) the individual gap between the frequency of listening to live music and listening to music by other means (CDs, radio, etc.). Each of the four gaps are measured by the difference between the individuals' frequency of consuming movies and music in public and private spaces. Therefore, these variables assess individuals' propensity to consume culture in public spaces as compared to private spaces. Relying on the gaps' measurement, instead of considering only the frequency of cultural participation forms in public spaces, allows this study to control for personal preferences for culture. In other words, it certifies that it is not other factors, such as lack of motivation or interest, that determine the individual's decision not to attend the form of the activity that takes place in public spaces.

For the calculus of the gap variables, the five levels of frequency of the variables of cultural participation were transformed into categorical ordered values ranging between 0 and 4 (where never = 0, less than once per month = 1, at least once per month = 2, at least once a week = 3, daily or almost daily = 4). Since the gaps are calculated by the difference between two variables of cultural participation, the gaps variables can assume nine levels of frequency, and, when transformed into categorical ordered values, they range between -4 and 4.

To account for the explanatory variable of violence, the individuals' subjective assessments of danger were questioned on the survey. This is measured by five degrees of fear of being hit by a stray bullet, ranging from never to always. The categorical

frequencies of fear were thus recoded into a numerical ordinal scale as follows: no fear at all = 0, rarely = 1, sometimes = 2, many times = 3, always = 4. The choice of the fear of being hit by a stray bullet as the indicator representing the individuals' perception of violence is because of its relevance in Rio de Janeiro, where previous studies have shown that this is the biggest fear of people living in the city (Rio Como Vamos, 2011).

Besides, the model includes as control variables socioeconomic and demographic characteristics, such as age, gender, education, household income, and employment. There is a consensus in the literature that socioeconomic and demographic variables are strong determinants for both cultural participation and fear. Generally, studies report that older people, women, people with low income, the unemployed and people with less formal education feel more vulnerable to crime and consequently show more fear (for a review of the literature, see Hale, 1996). Also, low income, unemployed and less educated people are associated with less cultural participation, and gender and age determine specific patterns and preferences of participation in the cultural life (see, for instance, Falk and Katz-Gerro, 2016 and Seaman, 2006).

In the model, age and household income are included as numerical discrete variables. The education level is transformed into four dummy variables (for the categories no education or pré-school; elementary or middle education; high school; and university, specialization or Master's studies), which assume the value 1 if the person achieved a determinate level, and zero otherwise. Gender and unemployment are also dummy variables: gender assumes the value 1 if female and 0 if male; and unemployment is equal to 1 when the respondent does not have a job, and 0 otherwise.

Finally, the model also includes as control variables the Internet quality, the stimulus for cultural participation in the childhood, and the favela of residence among the sixteen in Maré. These variables are included to avoid endogeneity problems. Particularly in the case of the favela of residence, intrinsic territorial characteristics, such as the proximity to public equipment and better services infrastructure, might impact both the cultural participation behaviour and the perception of violence. In the model, the Internet quality is an ordinal variable that can assume values ranging between 0 and 4 (no Internet=0, terrible=1, bad=2, regular=3, good=4, excellent=5); the childhood stimulus variable is a dummy that assumes the value 1 when the person had stimulus for cultural participation as a child, and 0 in the contrary case; and the favelas are incorporated as

sixteen dummies, assuming the value 1 if the individual resides in the corresponding favela, and 0 otherwise.

Table 4.3 summarizes the (weighted) descriptive statistics of the variables included in the model¹⁹. Observations with missing values were dropped from the analysis. This amounted to less than 5% of the observations for each of the variables.

Table 4.3: Descriptive statistics of the variables

Dependent variables	Obs	Mean	Std. Dev.	Min	Max
Live music	1209	.745	1.216	0	4
Music on the Internet	1209	2.289	1.869	0	4
Music by other means	1209	1.935	1.887	0	4
Movies in the cinema	1209	.463	.883	0	4
Movies by other means	1209	1.643	1.751	0	4
Movies on the Internet	1206	1.511	1.74	0	4
Gap movies cinema – Internet	1208	-1.541	2.025	-4	4
Gap movies cinema – other means	1208	-1.19	2.183	-4	4
Gap music live – Internet	1206	-1.046	1.674	-4	4
Gap music live – other means	1208	-1.182	1.863	-4	4
Independent variables	Obs	Mean	Std. Dev.	Min	Max
Fear of stray bullet	1201	2.53	1.603	0	4
Violence events	1211	5.635	3.274	1.634	23.595
Age	1211	43.86	16.942	18	91
No education or pré-school	1211	.079	.27	0	1
Elementary or middle education	1211	.458	.498	0	1
High school	1211	.403	.491	0	1
University, specialization or Master's degree	1211	.057	.232	0	1
Female	1211	.614	.487	0	1
Household income	1112	1801.259	1091.485	0	5000
Childhood stimulus	1200	.308	.462	0	1
Unemployment	1210	.441	.497	0	1
Internet quality	1205	2.417	1.591	0	5
Favela Baixa do Sapateiro	1211	.038	.191	0	1
Favela Conjunto Bento Ribeiro Dantas	1211	.016	.124	0	1
Favela Conjunto Esperança	1211	.019	.137	0	1
Favela Conjunto Pinheiros	1211	.035	.183	0	1
Favela Marcilio Dias	1211	.107	.31	0	1
Favela Morro do Timbau	1211	.042	.201	0	1
Favela Nova Holanda	1211	.088	.283	0	1
Favela Nova Maré	1211	.012	.107	0	1
Favela Parque Maré	1211	.073	.26	0	1
Favela Parque Roquete Pinto	1211	.162	.368	0	1
Favela Parque Rubens Vaz	1211	.044	.205	0	1
Favela Parque União	1211	.131	.338	0	1
Favela Praia de Ramos	1211	.065	.247	0	1

¹⁹ Due to the sampling design, a weight must be employed for the statistical analysis, so as to adjust the sampling in accordance to the gender and age of the whole population. This is calculated by multiplying the inverse of the probability of selection of an adult for a calibration factor (Silva, 2004).

Favela Salsa e Merengue	1211	.016	.124	0	1
Favela Vila do João	1211	.079	.27	0	1
Favela Vila do Pinheiros	1211	.074	.262	0	1

4.3.3 The estimation strategy

The econometric model aims at analysing the effect of violence on the individuals' choice between cultural participation in public or private spaces. The econometric strategy chosen is the simultaneous bivariate ordered probit model. The ordered probit model is more suitable than conventional regression procedures (e.g., ordinary least squares) when the dependent variables are discrete ordered values, ranging between limited lower and upper boundaries (Greene, 2002). The choice of a simultaneous bivariate model is to analyse the joint determination of two dependent variables with correlated disturbances (Greene, 2002).

The model is built around latent variables Y^* , which are unobserved, but can be associated to observed discrete dependent variables Y (Wooldridge, 2012). In this case, the latent variables are: i) the gap between watching movies in the cinema and through the Internet; ii) the gap between watching movies in the cinema and by other means; iii) the gap between listening to live music and through the Internet; and iv) the gap between listening to live music and by other means.

The observed dependent variables Y are available in discrete form, with nine possible values, ranging from -4 (no participation in public spaces = 0, and daily or almost daily participation in private spaces = 4) to 4 (daily or almost daily participation in public spaces = 4, and no participation in private spaces = 0). The intermediate values that the observed variable can assume result from different combinations of participation frequencies in public and private spaces. For instance, when the observable variable is equal to 3, it can result of two different combinations: daily participation in public spaces and less than once per month participation in private spaces ($Y_i = 4 - 1$), or at least once a week in public spaces and no participation in private spaces ($Y_i = 3 - 0$). The correspondence between the latent variable and the observed dependent variable is expressed as follows:

$$Y_i \begin{cases} -4 & \text{if } -\infty < Y_i^* \leq y_1 \\ -3 & \text{if } y_1 < Y_i^* \leq y_2 \\ -2 & \text{if } y_2 < Y_i^* \leq y_3 \\ -1 & \text{if } y_3 < Y_i^* \leq y_4 \\ 0 & \text{if } y_4 < Y_i^* \leq y_5 \\ 1 & \text{if } y_5 < Y_i^* \leq y_6 \\ 2 & \text{if } y_6 < Y_i^* \leq y_7 \\ 3 & \text{if } y_7 < Y_i^* \leq y_8 \\ 4 & \text{if } y_8 < Y_i^* \leq +\infty \end{cases}$$

The dependent variable is thus a function of the latent variable Y^* , which is assumed to depend linearly on a set of personal, socioeconomic and demographic variables X , and on the continuous explanatory variable of fear Z . Thus, the dependent variable is determined as such:

$$Y_i(Y_i^*) = \sum_{n=1}^N \beta_n X_{ni} + \alpha Z_i + \varepsilon_i \quad \because \quad \varepsilon_i \sim N(0,1), \quad (1)$$

where i is the individual, β is the vector of coefficients to be estimated for the set of personal, socioeconomic and demographic variables, α is the coefficient to be estimated for the explanatory variable fear of violence, and ε is the error term, which is assumed to be normally and identically distributed with a mean of zero and variance normalized to one.

When applying the econometric model, the sample was reduced to consider only the individuals who do at least one of the three possible modalities of participating in each of the practices (in public spaces, in private spaces through Internet or in private spaces by other means). Thus, when analysing watching movies, the sample was reduced to 761 individuals, considering only those who answered to watch movies at least “less than once per month” either in the cinema, or through Internet, or by other means. When analysing listening to music, the sample was reduced to 953 individuals, who answered to listen to music at least “less than once per month” either live, or through Internet, or by other means. In this way, the study is able to deal with two problems. First, it avoids a zero-inflated regression model, which happens as a result of a large number of zero-valued observations (Heilbron, 1994). In addition, it prevents people who have no interest in the cultural practice (whether listening to music or watching movies) from being considered

equal to those who participate with the same frequency in the modalities that take place in public and private spaces, given that both cases would result in a zero-valued observation. In other words, by eliminating the non-participants in any modality (in public spaces, through Internet or by other means), the analysis focuses only on individuals who show interest for the corresponding cultural practice²⁰.

4.4 Results

4.4.1 Descriptive statistics

Among the weighted sample, 13.3% of the people declared not to be afraid of being hit by a stray bullet, while 9.2% rarely fear it, 14.8% fear it sometimes, 12.4% fear it many times, and 50.2% fear it every day. This represents a total of 86.6% fearing it at least partially, which shows the relevance of this fear among the residents of Maré.

Concerning the cultural practices of interest for this study, attendance in public spaces is significantly smaller than participation in private spaces for both movies and music. Besides, among those participating in cultural practices in private spaces, the majority do it on a daily base (or almost daily). While 71.3% of the interrogated declared not having gone to the cinema in the three months preceding the interview, the non-participants corresponded to only 46.5% and 47.2% of the people for watching movies in the cinema and by other means respectively. Attending the cinema was done by 7.2% of the respondents less than once per month, by 17.7% at least once per month, by 2.9% at least once a week, and by 0.9% daily or almost. Watching movies on the Internet was done by 1.9% of the people less than once per month, by 6.8% at least once per month, by 18.3% at least once a week, and by 26.4% daily or almost. Watching movies by other means was done by 2.2% less than once per month, by 6.5% at least once per month, by 18.9% at least once a week, and by 25.1% daily or almost.

Analogously, 65.4% of the respondents did not attend live music concerts, far above the 30.3% and 49.4% who did not listen to music on the Internet or by other means. Listening to live music was done by 4.6% of the people less than once per month, by

²⁰ We have checked that excluding the non-participants does not bias the results. In a configuration where the non-participants are added to the sample with a gap equal to zero, the results remain unchanged.

14.2% at least once per month, by 12.9% at least once a week, and by 2.9% daily or almost. Among those listening to music on the Internet and by other means, the majority do it daily or almost. This corresponded, respectively, to 54.6% and 37.3% of the interviewed. Listening to music on the Internet was also done by 0.6% less than once per month, by 1.9% at least once per month, by 12.6% at least once a week. Listening to music by other means was also done by 2.0% less than once per month, by 2.4% at least once per month, and by 9.0% at least once a week.

Moreover, it is possible to notice that practices in public spaces and on the Internet are more common among individuals who are younger and reached higher educational levels. On the other hand, listening to music and watching movies by other means are more homogeneously practiced across the population groups. The descriptive statistics of the average frequency (ranging between 0 and 4) of cultural participation in each modality of watching movies and listening to music, by educational level, age range and household income, are displayed in Table 4.4.

Table 4.4: Average frequency (between 0 and 4) of cultural participation in each modality of watching movies and listening to music, by educational level, age range and household income

Educational level	Live music	Music Internet	Music other means	Cinema	Movies Internet	Movies other means
No education / pre-school	0.769	1.003	1.914	0.229	0.392	1.028
Elementary / middle education	0.603	1.898	1.922	0.192	1.108	1.673
High school	1.002	3.31	1.723	0.817	2.444	1.862
University / specialization / Master	1.237	3.598	1.824	1.244	2.414	1.71
Age range	Live music	Music Internet	Music other means	Cinema	Movies Internet	Movies other means
18 to 29 y.o.	1.076	3.572	1.4	0.948	2.619	2.019
30 to 49 y.o.	0.898	2.815	1.883	0.481	1.795	1.752
50 to 65 y.o.	0.453	1.38	2.357	0.236	0.846	1.502
66 y.o. or more	0.359	.225	1.993	0.067	0.223	0.875
Household income	Live music	Music Internet	Music other means	Cinema	Movies Internet	Movies other means
0 – 1500	0.67	2.28	1.81	0.39	1.30	1.64
1500 – 2000	0.71	2.72	1.91	0.55	1.77	1.76
>2500	1.02	2.69	1.77	0.64	2.01	1.74

4.4.2 Econometrics estimates

This study aims at analysing the hypothesis that individuals' cultural choices are affected by their fear of violence, which in this case is represented by the fear of being hit by a stray bullet. For that, two simultaneous bivariate ordered probit models were estimated, measuring if fear affects the frequency with which individuals chose to participate in cultural activities that take place in public spaces (cinema and live music) over those that can take place in private spaces (watching movies and listening to music on the Internet and by other means). People with more fear of violence are expected to choose more often cultural participation in private over public spaces (*H1*). Therefore, the coefficient of the variable that captures the individuals' fear is expected to be negative.

The joint regression of the dependent variables that represent the gaps between movies (music) in the cinema (live) and on the Internet, and movies (music) in the cinema (live) and by other means is proved to be necessary. The LR tests of independence of equations (see Tables 3.5 and 3.6) indeed show that we can reject the null hypothesis of independence between the two equations. This corroborates the choice of the simultaneous bivariate model for the analysis of the joint determination of the dependent variables, which present correlated disturbances (Greene, 2002).

Let us consider first the estimates for the traditional socioeconomic and demographic variables. Age is significant for determining all the four dependent variables. While it positively affects the individuals' choice of participating in culture in public spaces as opposed to participation on the Internet (significant at 1% level for music and at 5% for movies), it negatively affects participation in public spaces as opposed to participation by other means (significant at 1% level for both music and movies). In other words, all other variables being constant, the older a person is, more she is expected to participate in culture by other means (CDs, radio, DVDs, TV, etc.) as compared to public spaces (cinema and live music), and more she is expected to participate in culture taking place in public spaces as compared to doing it on the Internet. Likewise, Internet access and quality is significant (at 1% level) for determining all dependent variables. Not surprisingly, it is negatively associated with the choice between cultural participation in public spaces and on the Internet, and positively associated with the choice between participation in public spaces and by other means. Also, household income is significant for determining most of the dependent variables (except for the gap between live music and music on the Internet). While it is positively associated with the gap between the

frequency of cultural participation in public spaces and participation by other means (at 5% level for music and 10% level for movies), it is negatively associated with the choice of watching movies in the cinema over doing it on the Internet.

Furthermore, while education is distinguished by the research literature as an important characteristic associated with greater levels of cultural participation (see, for instance, Seaman, 2006), the results indicate mostly that it is not significant for impacting individuals' choice between modalities of participation. The only exception is for the determination of the gap between the frequency of going to the cinema and of watching movies by other means, which probability of being greater increases when the individual accomplishes elementary studies or middle education (significant at 10% level) and high school (significant at 5% level). Similarly, unemployment is only significant (at 5% level) for determining the same choice. In other words, unemployed individuals are less likely to choose cinema attendance over watching movies by other means. On its turn, gender is only significant for determining the choice between going to the cinema and watching movies on the Internet, which probability of being greater increases if the respondent is a woman (significant at 10% level). Finally, the stimulus for cultural participation in the childhood is only significant for determining the choice between listening to live music and doing it by other means (significant at 10% level).

Both simultaneous bivariate ordered probit models, for movies and music, corroborate the hypothesis 1 (*H1*) that the fear of stray bullet negatively impacts the choice of attending cultural events in public spaces over participating in cultural activities in private spaces, on the Internet or by other means. The results are significant at 5% level when comparing cinema and live music to watching movies and listening to music through the Internet respectively, at 10% level when comparing cinema to watching movies by other means, and at 1% level when comparing live music to listening to music by other means. Table 4.5 describes the econometrics results for the gap between listening to music in public spaces and in private spaces, and table 4.6 the ones for the gaps between watching movies in public spaces and in private spaces.

Table 4.5: Regression results for the gap between listening to music in public and private spaces

Simultaneous bivariate ordered probit for listening to music	
Gap music live – Internet	Gap music live - by other

	means			
Age	0.0177***	(0.00292)	-0.0188***	(0.00292)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	-0.0717	(0.152)	-0.0608	(0.159)
High school	-0.191	(0.167)	-0.0627	(0.172)
University / specialization / Master	-0.279	(0.215)	-0.126	(0.215)
Female	-0.0543	(0.0756)	-0.00177	(0.0747)
Household income	-0.000000521	(0.0000353)	0.0000786**	(0.0000346)
Fear of being hit by stray bullet	-0.0509**	(0.0247)	-0.0661***	(0.0244)
Childhood stimulus	0.00482	(0.0812)	0.152*	(0.0792)
Unemployed	-0.0309	(0.0775)	-0.0525	(0.0765)
Internet quality	-0.283***	(0.0286)	0.0839***	(0.0279)
Control for 16 favelas		Yes		
Athrho			0.369***	(0.0378)
cut11			-1.110***	(0.289)
cut12			-0.717**	(0.288)
cut13			-0.387	(0.288)
cut14			0.00603	(0.288)
cut15			1.181***	(0.289)
cut16			1.314***	(0.290)
cut17			1.554***	(0.292)
cut18			2.067***	(0.301)
cut21			-1.054***	(0.291)
cut22			-0.724**	(0.291)
cut23			-0.485*	(0.290)
cut24			-0.272	(0.290)
cut25			0.616**	(0.291)
cut26			0.792***	(0.291)
cut27			1.199***	(0.293)
cut28			2.111***	(0.313)
Observations	953			
LR test of indep. eqns	Chi2(1) = 95.17	Prob > chi2 = 0.0000		

*** p < 0.01, ** p < 0.05, *p < 0.1

Table 4.6: Regression results for the gaps between watching movies in public and private spaces

Simultaneous bivariate ordered probit for watching movies				
	Gap movies cinema - Internet		Gap movies cinema – by other means	
Age	0.00776**	(0.00322)	-0.00912***	(0.00325)
No education / pre-school	Ref.		Ref.	
Elementary / middle	-0.310	(0.201)	0.139*	(0.0819)

education				
High school	-0.310	(0.213)	0.0000811**	(0.0000382)
University / specialization / Master	0.183	(0.247)	-0.218	(0.207)
Female	0.138*	(0.0816)	0.124	(0.218)
Household income	-0.0000779**	(0.0000382)	0.425*	(0.251)
Fear of being hit by stray bullet	-0.0576**	(0.0270)	-0.0509*	(0.0271)
Childhood stimulus	-0.0286	(0.0841)	-0.0433	(0.0843)
Unemployed	0.0230	(0.0837)	-0.171**	(0.0846)
Internet quality	-0.227***	(0.0321)	0.115***	(0.0320)
Controlled for 16 favelas			Yes	
Athrho			0.288***	(0.0408)
cut11			-1.772***	(0.334)
cut12			-1.152***	(0.331)
cut13			-0.637*	(0.330)
cut14			-0.359	(0.329)
cut15			0.818**	(0.331)
cut16			1.026***	(0.332)
cut17			1.567***	(0.343)
cut18			2.032***	(0.369)
cut21			-0.669**	(0.335)
cut22			-0.0194	(0.335)
cut23			0.392	(0.336)
cut24			0.615*	(0.336)
cut25			1.236***	(0.337)
cut26			1.513***	(0.337)
cut27			2.449***	(0.351)
cut28			3.099***	(0.394)
Observations	761			
LR test of indep. eqns.:	chi2 = 49.79	Prob > chi2 = 0.0000		

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

Table 4.7 reports the marginal effects of changes from the minimum to the maximum level of fear on the dependent variables representing the gaps between cultural participation in public and private spaces. For instance, let us consider the case of the variable *Gap music live – Internet*. Each of the four steps of the variation from *fear of stray bullet* = 0 to *fear of stray bullet* = 4 increases the probability of being “intensive in private spaces” (category -4 of the gap variable) from 2.7 percentage points. This means that all other variables being constant, when the fear of violence goes from the minimum to the maximum (from 0 to 4), the probability to be a music listener intensive in private spaces increases from $4 \times 2.7 = 10.8$ percentage points. Likewise, when the fear of violence goes from the minimum to the maximum, the probability to be intensive in private spaces increases from 9.8 percentage points for the *Gap music live – by other*

means, from 10.0 percentage points for the *Gap movies cinema – Internet*, and from 6.3 percentage points for the *Gap movies cinema – by other means*. Therefore, it is noteworthy that an increase in the level of fear has mainly the effect of rising cultural participation in private as opposed to public spaces.

Table 4.7: Marginal effects for the variable that captures the fear of violence

	Gap music live - Internet	Gap music live – by other means	Gap movies cinema - Internet	Gap movies cinema – by other means
-4	0.0272***	0.0245**	0.0250***	0.0157*
-3	0.0001	0.0012*	0.0075***	0.0027*
-2	-0.0035**	-0.0014**	-0.0056**	-0.0026*
-1	-0.0083***	-0.0033**	-0.0089***	-0.0031*
0	-0.0031**	-0.0019**	-0.0023**	-0.0007
1	-0.0021**	-0.0026**	-0.0039**	-0.0028*
2	-0.0032**	-0.0059**	-0.0068**	-0.0068*
3	-0.0042**	-0.0082**	-0.0029**	-0.0018
4	-0.0030**	-0.0024**	-0.0021*	-0.0007

*** p < 0.01, ** p < 0.05, *p < 0.1

The fact that the results are similar for movies and music indicates the robustness of the analysis. It implies that the association between fear and individuals' choice among different modalities of cultural participation is not simply a problem of supply, which could be affecting both fear and the option to consume in public spaces. Indeed, it could be expected to find lower supply of spaces for cultural participation and greater fear in parts of the territory that are more affected by violence. However, the Building Barricades mapping of cultural spaces (2019) indicates that, while there is no cinema in the whole territory, equipment for listening to live music are more or less uniformly distributed across all the favelas (for instance, bars and squares in all parts of Maré were the most cited by respondents of the Building Barricades survey as spaces where they listen to music).

Besides, to test differences between subjective violence (measured by fear) and objective violence, data with the actual number of violence events in the favelas of Maré was extracted from a database provided by Redes da Maré (2019) and incorporated into the econometric model. The objective violence indicator is a value attributed to each of the sixteen favelas and associated with the respondents according to the favela where they reside (among the sixteen in Maré). It is measured by the number of violence events

occurred in the favela where the respondent resides during the 30 days before the survey interrogation, including police operations and armed conflicts by criminal groups, divided by the population size of the corresponding favela. The results confirm the hypothesis 2 (*H2*) that fear (subjective violence) affect people's behaviour and choices more than the actual occurrence of violent events (objective violence). The regression tables including the variable of objective violence are presented in tables 4.8 and 4.9.

Table 4.8: Regression results (with objective violence) for the gap between listening to music in public and private spaces

Simultaneous bivariate ordered probit for listening to music				
	Gap music live – Internet		Gap music live - by other means	
Age	0.0178***	(0.00293)	-0.0186***	(0.00293)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	-0.0676	(0.152)	-0.0588	(0.159)
High school	-0.198	(0.167)	-0.0595	(0.172)
University / specialization / Master	-0.284	(0.215)	-0.117	(0.216)
Female	-0.0662	(0.0762)	0.00630	(0.0753)
Household income	-0.00000458	(0.0000357)	0.0000735**	(0.0000350)
Fear of being hit by stray bullet	-0.0455*	(0.0248)	-0.0667***	(0.0245)
Violence events/inhabitants	-0.201*	(0.111)	-0.0308	(0.109)
Childhood stimulus	-0.00734	(0.0816)	0.155*	(0.0795)
Unemployed	-0.0428	(0.0777)	-0.0523	(0.0767)
Internet quality	-0.277***	(0.0288)	0.0826***	(0.0281)
Controlled for 16 favelas		Yes		
Athrho			0.371***	(0.0380)
cut11			-1.166***	(0.292)
cut12			-0.777***	(0.291)
cut13			-0.444	(0.291)
cut14			-0.0518	(0.291)
cut15			1.131***	(0.292)
cut16			1.265***	(0.292)
cut17			1.509***	(0.294)
cut18			2.012***	(0.304)
cut21			-1.060***	(0.293)
cut22			-0.728**	(0.293)
cut23			-0.490*	(0.293)
cut24			-0.279	(0.293)
cut25			0.600**	(0.293)
cut26			0.776***	(0.293)
cut27			1.187***	(0.295)
cut28			2.093***	(0.315)

Observations	945	
LR test of indep. eqns	Chi2(1) = 95.50	Prob > chi2 = 0.0000

*** p < 0.01, ** p < 0.05, *p < 0.1

Table 4.9: Regression results (with objective violence) for the gaps between watching movies in public and private spaces

Simultaneous bivariate ordered probit for watching movies				
	Gap movies cinema - Internet		Gap movies cinema – by other means	
Age	0.00805**	(0.00323)	-0.00891***	(0.00326)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	-0.312	(0.201)	-0.225	(0.207)
High school	-0.307	(0.213)	0.119	(0.218)
University / specialization / Master	0.184	(0.247)	0.419*	(0.251)
Female	0.150*	(0.0821)	0.148*	(0.0824)
Household income	-	(0.0000386)	0.0000814**	(0.0000386)
Fear of being hit by stray bullet	-0.0630**	(0.0272)	-0.0528*	(0.0273)
Violence events/inhabitants	0.126	(0.121)	-0.111	(0.121)
Childhood stimulus	-0.0248	(0.0844)	-0.0335	(0.0846)
Unemployed	0.0195	(0.0839)	-0.172**	(0.0847)
Internet quality	-0.225***	(0.0322)	0.115***	(0.0321)
Controlled for 16 favelas			Yes	
Athrho			0.289***	(0.0410)
cut11			-1.724***	(0.335)
cut12			-1.098***	(0.332)
cut13			-0.591*	(0.331)
cut14			-0.312	(0.331)
cut15			0.872***	(0.333)
cut16			1.072***	(0.334)
cut17			1.614***	(0.344)
cut18			2.080***	(0.371)
cut21			-0.696**	(0.337)
cut22			-0.0443	(0.336)
cut23			0.362	(0.337)
cut24			0.584*	(0.337)
cut25			1.207***	(0.338)
cut26			1.487***	(0.339)
cut27			2.417***	(0.352)
cut28			3.068***	(0.395)
Observations	756			
LR test of indep. eqns.:	chi2 = 49.91		Prob > chi2 =	0.0000

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

Moreover, to test for the possible limitation of endogeneity in the model, the instrumental variable method is used (Newhouse and McClellan, 1998). In this case, endogeneity could occur because of omitted variables correlated with both fear and the error term, or because of simultaneity, meaning that the dependent variables could also affect the explanatory variable of fear. Indeed, there are evidences of how social behaviour and cultural life affect individuals' fear (Liska et al., 1988; De Donder et al., 2005). An instrumental variable (IV) must satisfy both exclusion and inclusion restrictions. The exclusion restriction stipulates that the IV should not directly impact the dependent variable, whereas the inclusion restriction means that the IV should be correlated with the possible endogenous variable.

This robustness check is done by introducing as the IV an indicator of the fear that anyone close to the respondent would be hit by a stray bullet (0 – 4 scale). Indeed, the fear for others is not expected to directly affect the dependent variables (satisfying the exclusion restriction), while it is correlated with the individuals' fear for themselves (satisfying the inclusion restriction). A simple ordered probit model with the instrument as an independent variable and the potentially endogenous variable as the dependent variable should show that both variables are highly correlated. The conduction of four simultaneous bivariate ordered probit models for the joint determination between each of the dependent variables and the variable of fear should not allow the rejection of the null hypothesis of independence between the equations. The results (presented in the Appendix 4.2) indicate that, for all dependent variables, the observed LR test of independence of equations indicates that the null hypothesis of independence between the two variables cannot be rejected. Therefore, the models do not seem to present any endogeneity problem and the regressions presented on Tables 4.5 and 4.6 are relevant.

4.5 Discussion

This chapter provides evidence on the way violence restricts individuals' behaviour. It documents a statistically significant and negative effect of the fear of being hit by a stray bullet on cultural participation in public spaces (as compared to the modalities in private spaces), in particular in relation to watching movies and listening to music. Results also show that subjective violence (fear) is a stronger determinant of

individuals' behaviour than objective violence (its actual occurrence). This is in line with other studies. For instance, research on the behavioural impacts of terrorism have shown disproportionate effects of terrorist attacks in cafés and public buses on people's fear and response in terms of public bus usage and café visits respectively (Becker and Rubinstein, 2011).

There are multiple externalities linked to the impact of violence on decisions between undertaking activities in private and public spaces. That includes social and economic effects. First, it represents a limit for the potential of culture and creativity to generate positive effects in terms of socioeconomic development and urban regeneration. Furthermore, restricting cultural participation in public spaces might reduce socialization and some well-being benefits. Future studies would be useful to analyse the difference between cultural consumption in public and private spaces in terms of wellbeing and mental health impacts. Besides, the avoidance of cultural consumption in public spaces might provoke direct and indirect economic losses. Direct losses come from reduced ticket sales, while indirect losses result from less sales of goods and services that are normally consumed along the way or in a complementary way to the fruition of the cultural activity in public spaces (for instance, popcorn in cinemas or drinks in bars where live music is played). Future research could also assess the dimension of these economic losses. Finally, the negative impact of violence on cultural participation in public spaces can be misused by policymakers as an argument for not investing in cultural equipment in the territory. Noteworthy is the fact that the impact on cultural attendance is a particular case of a trend that might also happen in other sectors and services, including health, education, social assistance, etc. For instance, previous research has shown that schools in violent areas in Brazil experience greater teacher absenteeism (Monteiro, 2017). This could be further tested by future studies.

In this sense, this chapter contributes to policymaking in a context where there is usually a lack of empirical evidence that can support public policies. Based on the results, the intertwined nature of public policies should be emphasized. Although supply side investments on services and infrastructure in favelas are essential, those need to be coordinated with comprehensive social and urban policies in order to guarantee the conditions for individuals to have real freedom of choices. Particularly, policymakers of all sectors should pay attention to the way that security policies are designed and implemented. Those should not be solely concentrated on reducing objective violence,

whereas ignoring subjective violence. For instance, there is a risk that their focus on confronting armed groups and drug trafficking ends up strengthening or reproducing the sentiment of fear in favelas.

Moreover, it is also worth noting that the Internet could be a particularly relevant tool in contexts in which violence restricts mobility and consequently the realization of activities that require leaving home. People can substitute activities that demand going out for cultural activities on the Internet or other more traditional means. In the precise case of cultural participation, there is a global trend of shifting from offline to online (Waldfoegel, 2017). Since the Coronavirus pandemic outbreak and the social distancing that it imposed, this trend accentuated even more and digital access to culture has become more critical than ever (Radermecker, 2021). However, the findings of this study show that different individual characteristics explain choices of substitution by each of the alternative means. Hence, in the context of Maré, the Internet does not seem to be a perfect substitute for other means yet. More specifically, the data shows that the youngest, with greater educational achievements and earning higher income are the ones most frequently accessing culture online, while access by other means is almost homogenous across personal characteristics (see Table 3). Indeed, the digital divide might represent a strong obstacle for the development of online activities as alternatives (Van Dijk, 2006). Opportunities for access to and use of the Internet do not seem to be equally distributed across different demographic and socioeconomic strata of the population (see, for instance, Ateca-Amestoy and Castiglione, 2016). On top of that, the distribution of Internet access in Brazilian favelas is economically controlled by armed groups. Again, it should be a mission of the public sector, intertwining security, technological and cultural policies, to develop and guarantee the access and effective use of Internet in these territories.

Apart from offering evidence and contributing for the design and implementation of public policies, this study also provides theoretical, empirical and methodological contributions to the literature, particularly in the fields of urban economics, economic geography and development economics. First, from an empirical perspective. Although the impact of urban violence for individuals and the society as a whole have been studied through varied angles, often missing in research are studies of the large-scale social and behavioural effects of spatial avoidance and how it affects certain types of consumption in public spaces. This work not only investigates the phenomena mentioned above, but it does it in a usually overlooked territory.

Second, from a methodological standpoint, this study offers an alternative for dealing with the problem of measuring what people are not doing. Indeed, a major difficulty to deal with the behavioural effects of fear in empirical sciences is the difficulty involved in measuring what people are *not* doing (Warr, 2000). By relying on the gaps between the frequencies of cultural consumption in public and private spaces, the empirical method proposed controls for personal preferences and avoids putting under the same umbrella those who are not attending cultural activities in public spaces because of fear and those who are not doing it because of lack of interest.

Finally, the findings in this chapter illustrate and make evident the link between two often distant theoretical frameworks: the capabilities approach in the field of development economics (Sen, 1999) and the theory of geography of opportunities (Galster and Kellen, 1995). More specifically, given the individuals' contextual and social circumstances, violence and the fear of being victimized are aspects that limit their capabilities (meaning their freedom of choices) and the real opportunities that the territory provides for them to participate in cultural activities taking place in public spaces.

Conclusion

This chapter provides evidence that the fear of being a victim (more than the actual occurrence of armed conflicts) negatively affects the frequency with which people participate in cultural activities that require going out, as compared to the modalities that take place in private spaces. Although several studies have indicated the negative spill overs of urban violence, there is only limited understanding on the way that restrictions imposed to freedom of mobility disturb the daily lives of people living in territories affected by armed conflicts. The findings of this study contribute to filling this gap. Given the creative economy paradigm and the acknowledgement of the importance of culture and creativity for local social and economic development, the externalities of violence over the cultural life may represent an obstacle for urban regeneration in favelas.

It is also important to notice that the restrictions that the fear of victimization impose to urban mobility might similarly affect other sectors, especially in a context in which technological advances allow more and more the substitution of activities that traditionally require going out for Internet-based alternatives. In this sense, this study opens avenues for future research. First, more empirical studies are needed to verify the

possibility of generalizing the results for other sectors and activities. Besides, the dimension of the impact of the Internet should be assessed. Given the restrictions that fear causes to mobility, Internet could be a compensation tool for certain activities. However, Internet access inequalities and the digital divide are still a worldwide reality, which is expected to impact especially socioeconomically disadvantaged territories such as favelas. Indeed, the case of Maré suggests that new technologies are not yet perfect substitutes for traditional modalities of consumption in private spaces. Future research is needed to investigate differences in the determinants of digital cultural participation when compared to other means of cultural access in private spaces.

This study is not without limitation. The econometric strategy and robustness check allowed the assessment of the causal association between an increase in the fear of violence and a rise in the probability of being more intensive in consumption in private spaces, disentangling the effects of other personal characteristics that correlate with cultural engagement. However, it is based on cross-sectional individual differences rather than temporal variation. An ideal investigation would, instead, rely on a database that collects information of the same individuals along the time, so as to enable the assessment of how variations in fear (and in the actual occurrence of violence events) provoke variations in the localities of cultural participation. This would minimize measurement errors and omitted variable biases.

Still, the indirect costs of violence should be considered a relevant policy concern in conflict areas. In particular, fear of violence has detrimental effects on the use of public spaces. In the context of this study, it specifically disrupts the localities where individuals chose to do cultural activities. Hence, the results suggest that the design and implementation of cultural policies in particular, and urban and social policies in general, should take into consideration externalities associated with exposure to violence. While localized investment in the supply side could benefit urban regeneration in favelas, it should be designed in coordination with comprehensive security and social policies.

Appendix to chapter 4

Appendix 4.1

TABLE A.4.1 ESTIMATED POPULATION OLDER THAN 18 YEARS OLD IN MARÉ BY GENDER AND AGE GROUPS (1ST JULY 2019)

Age group	Total	Male	Female
Total	101.549	49.435	52.114
18 to 29 y.o.	30.603	15.186	15.417
30 to 49 y.o.	45.911	22.911	23.000
50 to 65 y.o.	17.750	8.418	9.332
More than 66 y.o.	7.285	2.920	4.365

TABLE A.4.2 SAMPLE DESCRIPTION BY AGE GROUP, GENDER AND GEOGRAPHICAL STRATIFICATION

Geographical strata	Total	Age group and gender							
		18 to 29 y.o.		30 to 49 y.o.		50 to 65 y.o.		More than 66 y.o.	
		Male	Female	Male	Female	Male	Female	Male	Female
Total	1.211	113	168	190	303	116	166	49	106
Area 1	406	32	66	68	101	36	53	14	36
area 2	400	38	50	63	107	34	63	18	27
Area 3	405	43	52	59	95	46	50	17	43

Appendix 4.2

TABLE A.4.3 SIMULTANEOUS BIVARIATE ORDERED PROBIT FOR THE VARIABLE OF FEAR AND THE GAP BETWEEN LISTENING TO LIVE MUSIC AND LISTENING TO MUSIC BY OTHER MEANS

	Simultaneous bivariate ordered probit			
	Gap music live – by other means		Fear of stray bullet	
Age	-0.0175***	(0.00340)	0.00726*	(0.00400)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	0.0163	(0.178)	0.240	(0.200)
High school	0.0354	(0.197)	0.340	(0.227)
University / specialization / Master	-0.0746	(0.249)	0.204	(0.291)
Female	-0.0294	(0.0884)	0.151	(0.106)
Household income	0.000101**	(0.0000415)	0.00000719	(0.0000503)
Fear of being hit by stray bullet	-0.0746**	(0.0350)		
Fear for others			1.012***	(0.0467)

Childhood stimulus	0.173*	(0.0941)	0.0399	(0.117)
Unemployed	-0.0441	(0.0909)	-0.121	(0.108)
Internet quality	0.0418	(0.0319)	0.0844	(0.0390)
Controlled for 16 favelas			Yes	
Athrho			0.0196	(0.0655)
cut11			-0.836**	(0.330)
cut12			-0.441	(0.330)
cut13			-0.121	(0.330)
cut14			0.214	(0.330)
cut15			0.366	(0.330)
cut16			0.553*	(0.330)
cut17			0.982***	(0.332)
cut18			1.889***	(0.350)
cut21			1.794*	(0.390)
cut22			2.426***	(0.390)
cut23			3.194***	(0.396)
cut24			3.885***	(0.406)
Observations	721			
LR test of indep. eqns	Chi2(1) =	Prob > chi2 =		
	0.09	0.7649		

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

TABLE A.4.4 SIMULTANEOUS BIVARIATE ORDERED PROBIT FOR THE VARIABLE OF FEAR AND THE GAP BETWEEN LISTENING TO LIVE MUSIC AND LISTENING TO MUSIC ON THE INTERNET

	Simultaneous bivariate ordered probit			
	Gap music live - Internet		Fear of stray bullet	
Age	0.0118***	(0.00355)	0.0000106	(0.00414)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	-0.274	(0.243)	0.239	(0.283)
High school	-0.323	(0.251)	0.301	(0.293)
University / specialization / Master	-0.346	(0.285)	0.326	(0.331)
Female	-0.105	(0.0857)	0.147	(0.0994)
Household income	-0.00000674	(0.0000401)	-0.00000604	(0.0000473)
Fear of being hit by stray bullet	-0.0930***	(0.0353)		
Fear for others			1.009***	(0.0450)
Childhood stimulus	0.136	(0.0885)	-0.00629	(0.104)
Unemployed	-0.0909	(0.0902)	-0.143	(0.104)
Internet quality	-0.271***	(0.0368)	0.0600	(0.0433)
Controlled for 16 favelas			Yes	
Athrho			0.0526	(0.0627)
cut11			-1.403***	(0.379)
cut12			-0.971**	(0.378)

cut13		-0.574	(0.378)
cut14		0.00672	(0.377)
cut15		0.217	(0.377)
cut16		0.375	(0.377)
cut17		0.649*	(0.378)
cut18		1.175***	(0.385)
cut21		1.364***	(0.443)
cut22		2.081***	(0.442)
cut23		2.933***	(0.448)
cut24		3.635***	(0.455)
Observations	748		
LR test of indep. eqns	Chi2(1) = 0.70	Prob > chi2 =	0.4014

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

TABLE A.4.5 SIMULTANEOUS BIVARIATE ORDERED PROBIT FOR THE VARIABLE OF FEAR AND THE GAP BETWEEN WATCHING MOVIES IN THE CINEMA AND BY OTHER MEANS

Simultaneous bivariate ordered probit				
	Gap movies cinema - by other means		Fear of stray bullet	
Age	-0.00833**	(0.00359)	0.00391	(0.00440)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	-0.269	(0.218)	0.000242	(0.255)
High school	0.152	(0.232)	0.0369	(0.276)
University / specialization / Master	0.550**	(0.268)	0.0564	(0.321)
Female	0.189**	(0.0908)	0.139	(0.109)
Household income	0.0000737*	(0.0000423)	-0.0000234	(0.0000517)
Fear of being hit by stray bullet	-0.0322	(0.0378)		
Fear for others			1.039***	(0.0503)
Childhood stimulus	-0.0518	(0.0939)	-0.104	(0.115)
Unemployed	-0.174*	(0.0936)	-0.0928	(0.112)
Internet quality	0.0856**	(0.0345)	0.0891**	(0.0417)
Controlled for 16 favelas			Yes	
Athrho			-0.0652	(0.0675)
cut11			-0.639*	(0.371)
cut12			0.0898	(0.370)
cut13			0.619*	(0.371)
cut14			0.960***	(0.371)
cut15			1.032***	(0.371)
cut16			1.312***	(0.372)
cut17			2.238***	(0.383)
cut18			2.846***	(0.419)
cut21			1.420***	(0.447)

cut22		2.068***	(0.447)
cut23		2.866***	(0.452)
cut24		3.638***	(0.460)
Observations	641		
LR test of indep. eqns	Chi2(1) = 0.93	Prob > chi2 =	0.3336

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

TABLE A.4.6 SIMULTANEOUS BIVARIATE ORDERED PROBIT FOR THE VARIABLE OF FEAR AND THE GAP BETWEEN WATCHING MOVIES IN THE CINEMA AND ON THE INTERNET

Simultaneous bivariate ordered probit				
	Gap movies cinema - Internet		Fear of stray bullet	
Age	-0.000685	(0.00413)	0.00630	(0.00502)
No education / pre-school	Ref.		Ref.	
Elementary / middle education	-1.023***	(0.302)	-0.287	(0.384)
High school	-0.747**	(0.303)	-0.268	(0.387)
University / specialization / Master	-0.160	(0.332)	-0.196	(0.420)
Female	0.213**	(0.0964)	0.272**	(0.116)
Household income	-0.0000164	(0.0000441)	-0.00000485	(0.0000544)
Fear of being hit by stray bullet	-0.0975**	(0.0398)		
Fear for others			1.036***	(0.0531)
Childhood stimulus	0.0636	(0.0978)	-0.0813	(0.120)
Unemployed	-0.0163	(0.100)	-0.103	(0.122)
Internet quality	-0.164***	(0.0469)	0.0979*	(0.0564)
Controlled for 16 favelas		Yes		
Athrho			0.0316	(0.0707)
cut11			-2.190***	(0.441)
cut12			-1.465***	(0.438)
cut13			-0.757*	(0.437)
cut14			-0.249	(0.436)
cut15			-0.121	(0.436)
cut16			0.115	(0.436)
cut17			0.673	(0.443)
cut18			1.115**	(0.460)
cut21			1.226**	(0.542)
cut22			1.883***	(0.541)
cut23			2.827***	(0.547)
cut24			3.529***	(0.555)
Observations	556			
LR test of indep. eqns	Chi2(1) = 0.20	Prob > chi2 =	0.6554	

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

Appendix 4.3

Survey questions conducted in Maré²¹

1. In which geographical area of Maré do you live?

- Area 1
- Area 2
- Area 3

2. In which favela of Maré do you live?

- Nova Holanda
- Parque Maré
- Parque Rubens Vaz
- Parque União
- Baixa do Sapateiro
- Conjunto Bento Ribeiro Dantas
- Conjunto Esperança
- Conjunto Pinheiros
- Morro do Timbau
- Nova Maré
- Salsa e Merengue
- Vila do João
- Vila do Pinheiros
- Em qual comunidade - área 2?
- Parque Roquete Pinto
- Praia de Ramos

3. What is your age?

4. What is your gender?

- Male
- Female
- Other
- Not informed

5. What is the highest level of education that you have attained, regardless of having completed it or not?

- No schooling
- Nursery from 0 to 3 years (nursery or maternity)
- Pre-schooling from 4 to 5 years
- Elementary school
- Middle school
- Youth and adult schooling (EJA) or supplementary schooling for middle school
- High school
- Youth and adult schooling (EJA) or supplementary schooling for high school
- University degree
- Specialization
- Master's degree
- PhD

²¹ The survey was translated from the original one in Portuguese. Also, the questions presented here are only a part of the original questionnaire, i.e., only the questions included in the empirical analysis. Questions that were not used in the analysis were excluded for the sake of brevity. The full questionnaire can be provided under request.

- Post-doc
- Not informed

6. What is your employment situation?

- Unemployed
- Volunteer work/sheltered
- Regular work

7. How much is the monthly household income approximately, summing up the income of all people who live with you?

- No income
- R\$ 500
- R\$ 1.000
- R\$ 1.500
- R\$ 2.000
- R\$ 2.500
- R\$ 3.000
- R\$ 3.500
- R\$ 4.000
- R\$ 4.500
- R\$ 5.000
- More than R\$ 5.000
- Not informed

8. Have you accessed the Internet in the last three months?

- Yes
- No
- Not informed

9. How is the quality of the Internet that you use?

- Terrible: I can never access any online content I would like to access
- Bad: I cannot access most of the online content I would like to access
- Regular: I can access a limited part of the online content I would like to access
- Good: I can access most of the online content that I want to access
- Excellent: I can access all the online content that I want to access
- Not informed

10. Have you watched movies in the cinema in the last three months? With which frequency?

- Does not practice
- Daily or almost daily
- At least once a week
- At least once per month
- Less than once per month
- Not informed

11. Have you watched movies or series on the Internet in the last three months? With which frequency?

- Does not practice
- Daily or almost daily
- At least once a week
- At least once per month
- Less than once per month
- Not informed

12. Have you watched movies or series by other means (DVD, blue-ray, VHS or TV) in the last three months? With which frequency?

- Does not practice
- Daily or almost daily
- At least once a week
- At least once per month

- Less than once per month
- Not informed

13. Have you listened to live music in the last three months? With which frequency?

- Does not practice
- Daily or almost daily
- At least once a week
- At least once per month
- Less than once per month
- Not informed

14. Have you listened to music on the Internet in the last three months? With which frequency?

- Does not practice
- Daily or almost daily
- At least once a week
- At least once per month
- Less than once per month
- Not informed

15. Have you listened to music by other means (CD, LP, cassette audio tape or radio) in the last three months? With which frequency?

- Does not practice
- Daily or almost daily
- At least once a week
- At least once per month
- Less than once per month
- Not informed

16. Did you have any incentive to carry out cultural activities in your childhood?

- Yes
- No
- Not informed

17. Do you fear that you will be hit by a stray bullet in Maré? With which frequency?

- Does not fear
- Rarely
- Sometimes
- Several times
- Always

Chapter 5. An empirical study on the influence of the territory on digital cultural participation: the case of France

Introduction

When looking at inequalities in offline forms of cultural participation, a few empirical studies tested the influence of territorial variables. These studies have focused on whether cultural supply helps determining cultural consumption (Widdop and Cutts, 2012; Brook, 2013; Gilmore, 2013; Brook, 2016; Rössel and Weingartner, 2016; Delrieu and Gibson, 2017) and on whether socioeconomic contextual characteristics help explaining cultural behaviour (Blau and Quest, 1987; Brook, 2016; Mellander et al, 2018). Most studies have argued that these contextual aspects matter for individuals' decision to partake in cultural activities. First, cultural decisions have proved to be dependent on individuals' proximity to cultural supply. That is, those who live close to cultural facilities present higher rates of cultural participation (Brook, 2013; Brook, 2016). Also, the socioeconomic milieu where individuals live has proven to help explaining their cultural behaviour. For instance, the average education of residents in a locality has been associated with greater individual cultural participation independent of the individual's own education (Blau and Quest, 1987). With the advent of digitization and the dissemination of the Internet, missing in the empirical literature are studies that focus on the way that these previously studied territorial aspects, i.e., the physical distance to culture and the social distance to culture, influence digital/online cultural participation.

Despite early interpretations of the Internet as a technology that frees the importance of physical and territorial aspects, geographical disparities were more recently acknowledged to be associated to the causes and consequences of Internet dissemination (Forman et al., 2018). Empirical research on how geography influences Internet usage for online consumption revolve around two opposite hypotheses (Anderson et al., 2003). The first hypothesis suggests complementarity between physical and online consumption, meaning that people living in more urbanised and privileged territories are the ones benefiting the most from Internet. The second hypothesis suggests substitution between

the offline and online worlds and a greater likelihood of people to consume online when their accessibility to physical commerce is relatively low. Empirical studies have found evidence that support both hypotheses when looking at the consumption of different goods and services (Sinai and Waldfogel, 2004; Krizek et al., 2005; Farag et al., 2006; Hortaçsu et al., 2009; Ren and Kwan, 2009; Cao et al., 2013; Clarke et al., 2015; Beckers et al., 2018). However, no study has been found on the way the location of residence impacts the digital or online cultural participation.

This chapter uses individual-level data from the 2018 French Cultural Practices Survey (*Enquête des Pratiques Culturelles*) to investigate the way that the physical cultural supply and the socioeconomic context where individuals live help explaining digital/online cultural participation. For that, it examines the case of watching movies. Complementary to the use of the 2018 French Cultural Practices Survey, this study also uses information identifying the location and size of cinemas, as well as the median income in the different municipalities. Hence, for each respondent to the 2018 survey, it was possible to associate the distance to the closest cinema, measured by the time taken to arrive at the municipality where it is located, as well as the median income of the municipality where the respondent lives. These data allowed identifying whether the individuals farthest from physical access to cinemas are relatively more or less motivated to watch digital/online movies, as well as the influence of the socioeconomic context where individuals live on their consumption of digital/online audio-visual movies.

This chapter is structured as follows. The next subsection reviews the literature, focusing on the influence of geographical, territorial, and physical aspects on online consumption of different goods and services. The second subsection discusses the theoretical background and hypothesis of this empirical study. Then, subsection 5.3 specifies the empirical approach employed, including the context of the study, the data, and the empirical strategy. This is followed by the presentation of results and a discussion about them. The last subsection concludes the chapter.

5.1 Literature review: the impact of geographical aspects on online consumption

Despite early interpretations of the “anti-spatial nature” of the Internet (Mitchell, 1995), the rising of a “borderless world” (Ohmae, 1995), the “end of geography” (O’Brien, 1992) and the “death of distance” (Cairncross, 2001), more recently researchers

have acknowledged that economic geography remains important in the Internet age (Leamer and Storper, 2014) and that differences across locations leads to heterogeneous impacts of Internet dissemination (Forman et al., 2018). Empirically, Tranos and Nijkamp (2013) showed that physical and relational proximities significantly impact the organisation of the Internet infrastructure, thus emphasizing the “spatiality” of the previously called “placeless” Internet. Concerning the consequences of Internet dissemination and the influence of spatial aspects on digital/online behaviour, empirical research has shown, for instance, that the density of commercial internet domain registrations increase with the metropolitan-area size (Kolko, 2000), that most online newspapers remain locally bounded (Mersey, 2009) and that while online crowdfunding platforms allow users to freely lend money regardless of their geographical or cultural distance to the borrowers, both physical and cultural distances decrease the likelihood of peer-to-peer online lending (Burtch, 2014).

Empirical research has also shown that geographical aspects have an influence on people’s online consumption (Sinai and Waldfogel, 2004; Farag et al., 2006; Ren and Kwan, 2009; Hortaçsu et al., 2009; Cao et al., 2013; Beckers et al., 2018; Clarke et al., 2015). In this realm, authors have raised two contrasting hypotheses (Anderson et al., 2003; Sinai and Waldfogel, 2004). On the one hand, the first hypothesis sees online shopping as a complement of offline shopping. This hypothesis expects online consumption to be more predominant in urban and affluent areas. This is often denominated the “innovation-diffusion hypothesis” or “complementarity hypothesis” and is grounded on the idea that innovation is first and mainly adopted in strongly urbanised areas and then slowly (and to a smaller extent) diffused to remote, rural and poorly urbanised regions. On the other hand, the second hypothesis expects e-commerce to penetrate more in remote areas, where accessibility to physical shops is low. In other words, it suggests that when the variety and quality of local offline options decline, e-commerce can work as a substitute for physical retail establishments. This hypothesis assumes that the Internet brings efficiency by saving trips and costs associated to it, as well as communication and search costs, when individuals have limited accessibility to physical commerce. Hence, it suggests that the lack of accessibility to physical infrastructure will stimulate the use of the Internet in less affluent and poorly urbanised areas. This is often called the “efficiency hypothesis” or “substitution hypothesis”.

Both seemingly opposite hypotheses have shown not to be mutually exclusive and

to depend on the type of product that is observed (e.g., Farag et al., 2006; Cao et al., 2013). For instance, in one of the pioneer empirical studies on this matter, Farag et al. (2006) used data from the Netherlands and found that people living in very urbanised areas are more likely to buy online, but people buying online when having low shop accessibility are more likely to do it more often. Their analysis also showed that online airline tickets are mainly bought in strongly urbanised areas, whereas CDs, DVDs and clothing are bought online relatively more often in remote and weakly urbanised areas (Farag et al., 2006). In line with this finding, in another pioneer study analysing whether the Internet works as a substitute or a complement for cities for people to buy books and clothes, Sinai and Waldfogel (2004) concluded that a greater distance from retail establishments induces Internet-connected people to spend relatively more money over the Internet. Moreover, after accounting for people's tendency to spend in books and clothing, online spending increased with the individuals' isolation to retail stores relative to their offline spending (Sinai and Waldfogel, 2004). Further, Ren and Kwan (2009) also found evidence that people with lower levels of accessibility to local shopping opportunities are more likely to buy online, but looking at the socioeconomic context where individuals live, they found that people living in locations with white majority are more likely to adopt e-shopping.

In a more recent study, Clarke et al. (2015) looked at the geography of e-commerce in England and found that online consumers are more likely to live in city centres, despite evidence of increasingly high Internet usage and e-shopping in rural areas due to better quality in broadband services. At the same time, the authors found that in the case of grocery shopping people are more likely to adopt e-commerce the further away they live from a supermarket. In its turn, a study done by Hortaçsu et al. (2009) analysed the geographic patterns of e-shopping using data from two marketplace platforms (eBay and MercadoLibre) and found that a greater distance between buyers and sellers discourages purchases, though to a lesser extent than what has been observed by studies looking at offline commerce. Further, their analysis suggested a "home bias", with more commercial transactions occurring when buyers and sellers are located in the same city. This effect was specially led by location-specific goods, such as tickets to cultural events (Hortaçsu, 2009).

To sum up, empirical evidence on the impact of geographical aspects on online consumption has indicated mixed and inconclusive results. In line with the evolution of

theoretical approaches, pioneer studies accounting for differences in Internet dissemination found evidence of a relatively greater use of e-commerce by people living in less urbanised locations and isolated from physical shops. Later, however, despite evidence of greater dissemination and increased quality of broadband connection in less urbanised areas, other studies found that for most goods e-commerce works as a complement of physical consumption and that individuals living in strongly urbanised and more affluent areas tend to be the ones benefiting the most from it.

Missing in the empirical literature is an analysis of the influence of the physical and social distance to culture over digital/online cultural participation. This is the contribution that this chapter aims to bring to the literature.

5.2 Theoretical background and hypothesis

This study investigates how territorial characteristics, namely the distance to offline cultural facilities (the physical distance to culture) and the socioeconomic context (the social distance to culture), explain individuals' frequency of online/digital participation in cultural activities. A large body of evidence in urban economics and regional studies indicate that territorial characteristics matter for online consumption (Farang et al., 2006; Ren and Kwan, 2009; Sinai and Waldfogel, 2004; Clarke et al., 2015).

Both innovation-diffusion (complementarity) and efficiency (or substitution) hypotheses are pertinent to justify trends in online/digital cultural consumption. In line with the efficiency (or substitution) hypothesis, cultural consumers aim to save costs associated with long travel distances or durations, and the lack of nearby cultural facilities may stimulate those willing to consume culture to do it by virtual (or digital) means. Furthermore, the lower costs of accessing cultural content digitally/online may also imply a lower influence of the socioeconomic context where individuals live on their digital/online cultural participation. Nevertheless, if these physical and social distances to culture translates into a lack of habit, familiarity, or other symbolic obstacles for cultural consumption, then the adoption of the Internet for cultural participation by individuals who are physically and socially distant to culture is expected to be low.

Hence, concerning the physical distance to culture, a first hypothesis (*H1.1*) of this study would suggest that after accounting for other factors that could affect the relationship between the location individuals live and their propensity to consume

digital/online culture, people living at greater distance to physical spaces for cultural consumption would make more use of digital/online culture. Alternatively, grounded on the specificities of cultural goods, a second hypothesis (*H1.2*) would suggest that living in areas with less access to cultural facilities would decrease not only physical cultural participation, but also the consumption of digital culture. Therefore, the two first hypotheses to be tested by this study are specified as follows:

H1.1: accessibility to cultural facilities has a negative association with digital/online cultural consumption.

H1.2: accessibility to cultural facilities has a positive association with digital/online cultural consumption.

Concerning the influence of the socioeconomic milieu where individuals live (the social distance to culture), two other alternative hypotheses coexist. The first (*H2.1*) would suggest that after accounting for other variables that affect cultural consumption, living in less affluent areas would be negatively associated with consuming digital/online culture, as it is with conventional forms of cultural participation. The second (*H2.2*) would suggest that living in less affluent areas would be positively associated with the consumption of digital/online culture, which would work as a substitute for offline forms of cultural participation. Hence, the two other hypotheses to be tested by this study are specified as follows:

H2.1: the socioeconomic affluence of an area has a positive association with digital/online cultural consumption.

H2.2: the socioeconomic affluence of an area has a negative association with digital/online cultural consumption.

5.3 The empirical approach

5.3.1 Context of the empirical study

In France, the issue of inequalities in access to culture and cultural institutions due to geographic, economic and social obstacles has been one of the main bases of cultural policies since the 1960s. Cultural policies in the country are recognized as a means to achieve cultural democracy and democratization. Nevertheless, inequalities in cultural participation between different social and territorial groups of people have been

confirmed year after year by the results of the national surveys applied by the French Ministry of Culture since 1973 (Donnat, 2003, 2009, 2011, 2012; Tobelem, 2016; Lombardo and Wolff, 2020). These inequalities in cultural participation refer to the complex interplay of several factors, such as differences in the level of education, socio-professional category, age, household composition and the location of residence.

While there has been an increase in the cultural participation of the French population over time, analyses of the results of the 2008 French cultural practices survey attributed it more to factors such as the increase in the population's purchasing power and progress in terms of education, without diversifying the profile of individuals who participate in cultural life (Donnat, 2003, 2011). According to previous research, most cultural policies in France focus on expanding the cultural supply, which has been found to be beneficial mainly for individuals who are more socially advantaged and already traditionally active in cultural life (Donnat, 2011).

In turn, the 2018 French Cultural Practices Survey has shown a reduction in territorial and social gaps for certain practices, especially those most affected by the massification of cultural supply (Lombardo and Wolff, 2020). For example, while higher education graduates were three times more likely than the less educated to listen to music daily in 1973, this gap was only 1.8 times in 2018. Likewise, this practice was more than three times lower in rural areas in 1973, while in 2018 daily listening to music concerns the same proportion of inhabitants in rural areas and in large cities. Particularly regarding music streaming, 30% of the inhabitants of small municipalities practice it against 45% in municipalities with more than 200,000 inhabitants, a difference of 1.5 times. Despite the significant reductions in gaps for listening to recorded music, these gaps remain significant in 2018 for other practices. For example, the most educated individuals and those belonging to higher socio-professional categories are even more likely now than before to frequent heritage places, such as museums, exhibitions and monuments. Surprisingly, the differences between age groups have not widened for digital practices, especially the audio-visual ones.

Cultural policies to tackle inequalities in cultural participation in France have focused on investments in cultural facilities (supply side), price reductions (demand side) or cultural vouchers and cards (demand side). After the digital revolution and the considerable impetus of digital cultural practices in recent years, it is imperative to reflect on how to adapt and better benefit from public policies aimed at cultural democratization

and democracy. Indeed, the recent developments of digital technologies are strongly present in the public debate of French cultural policies. In 2011, the French Department of Studies, Foresight and Statistics of the Ministry of Culture and Communication (DEPS)²² conducted a prospective study entitled *Culture & Media 2030* to explore and discuss possible trends in the State's cultural policies. For example, the dematerialization of works, which allows their remote access and on demand, raises the question of the role of supplying physical public cultural equipment and its appropriate territorial distribution (DEPS, 2011a). In addition, the new profiles and shifting behaviour of digital cultural consumers trigger a discussion on the targeted beneficiary populations and the partner cultural facilities in the allocation of cultural vouchers and cards (DEPS, 2011b).

In France, 89% of the population have access to the Internet, which is slightly greater than the average of 86% in the European Union (EU)²³. On the other hand, while in the EU 54% of individuals watch audio-visual content on the Internet, whether on commercial or sharing platforms, only 48% of French people do so²⁴. This may indicate an under-explored potential of digital cultural practices in France. According to data from the Eurostat, among French people with high formal education, 62% watch audio-visual content online, which is 1.7 times more than among those with little education, whose figure is 36%²⁵. In addition, French people living in cities watch audio-visual content online 1.3 times more compared to rural areas (53% against 42%) and 1.15 times more compared to towns and suburbs (46%)²⁶. Regarding cinema attendance, the gap between residential areas is almost equivalent to that of watching videos online (64% in cities against 52% in rural areas and 54% in towns and suburbs, i.e., approximately 1.2 times more in cities than in both rural areas and towns and suburbs) and considerably higher according to the level of the diploma (79% for the most educated against 36% for the less educated, i.e., 2.2 times more)²⁷.

²² *Département des études, de la prospective et des statistiques du ministère de la Culture et de la Communication*

²³ Eurostat (data from 2018)

²⁴ Eurostat (data from 2018)

²⁵ Eurostat (data from 2018)

²⁶ Eurostat (data from 2018)

²⁷ Eurostat (data from 2015)

5.3.2 Data and variables description

The data used in this work was extracted from the 2018 French Cultural Practices Survey carried out by the French Ministry of Culture. The sample of respondents is representative of the population of France aged 15 and over. The sample of 9,234 people was stratified by regions and categories of agglomeration, using quota method for face-to-face questioning at the respondents' home.

The survey focuses on the different forms of participation in cultural life (watching movies, reading books, listening to music, among others) and includes information on individuals' socio-demographic profile. To address the research question, the survey's individual-level data were complemented with information identifying the location and size of cinemas (number of screens) in each municipality, as well as the median income of the municipality, all of which were also provided by the French Ministry of Culture. Using the software METRIC²⁸, developed by the French National Institute for Statistics (INSEE), we were able to calculate the time needed for each respondent to reach the town with the closest movie theatre from her/his hometown. Table 5.1 briefly describes all the variables included in the model.

Table 5.1: Description of the variables

Dependent variables	Description
Movies online	Dummy (if the person watched movies on demand or via streaming in the previous 12 months = 1; otherwise = 0)
Movies DVD and Blue Ray	Dummy (if the person watched movies through DVD or Blue Ray in the previous 12 months = 1; otherwise = 0)
Independent variables	Description
Weighted distance to the cinema	Numerical discrete variable (measured by the time taken to go to the closest cinema by car at peak hours divided by the number of cinema rooms available)
Median municipality income	Numerical discrete variable
Frequency of going to the cinema	Ranging between 0 and 3 (didn't go to the cinema in the last 12 months=0; once per year=1; once per month=2; once per week=3)
Age	Numerical discrete variable
Female	Dummy (female=1, male=0)
Household income	Numerical discrete variable divided in 10 ranges of income
Education	Numerical discrete variable divided in 13 categories
Children	Dummy (has at least one child=1, no child=0)

²⁸ http://www.progedo-adisp.fr/apf_metric.php

Farmers	Dummy (farmers=1, employed=0)
Independent workers	Dummy (independent workers=1, employed=0)
Liberal professionals	Dummy (liberal professions=1, employed=0)
Intermediate professions	Dummy (intermediate professions=1, employed=0)
Employees	Dummy (employees=1, employed=0)
Qualified workers	Dummy (qualified workers=1, employed=0)
Unqualified workers	Dummy (unqualified workers=1, employed=0)
Retired	Dummy (retired=1, employed=0)
Internet access	No Internet=0; Not Fibber Internet=1; Fibber optic Internet=2

For this study, the cultural practice analysed was watching movies. The choice of this practice is justified by the fact that it is widely popularized in the digital/online modality and that the virtual experience (watching movies on demand/via streaming) is comparable to the physical one (watching movies at the cinema). Using the survey data, two dummy variables were created, referring to the modalities of watching movies alternatively to going to the cinema: i) movies online: it assumes the value 1 when individuals watched in the digital/online modality (on demand/streaming) in the last 12 months, and 0 when they didn't; and ii) movies DVD and Blue Ray: assumes the value 1 when individuals have watched movies through DVD or blue ray in the last 12 months, and 0 when they didn't.

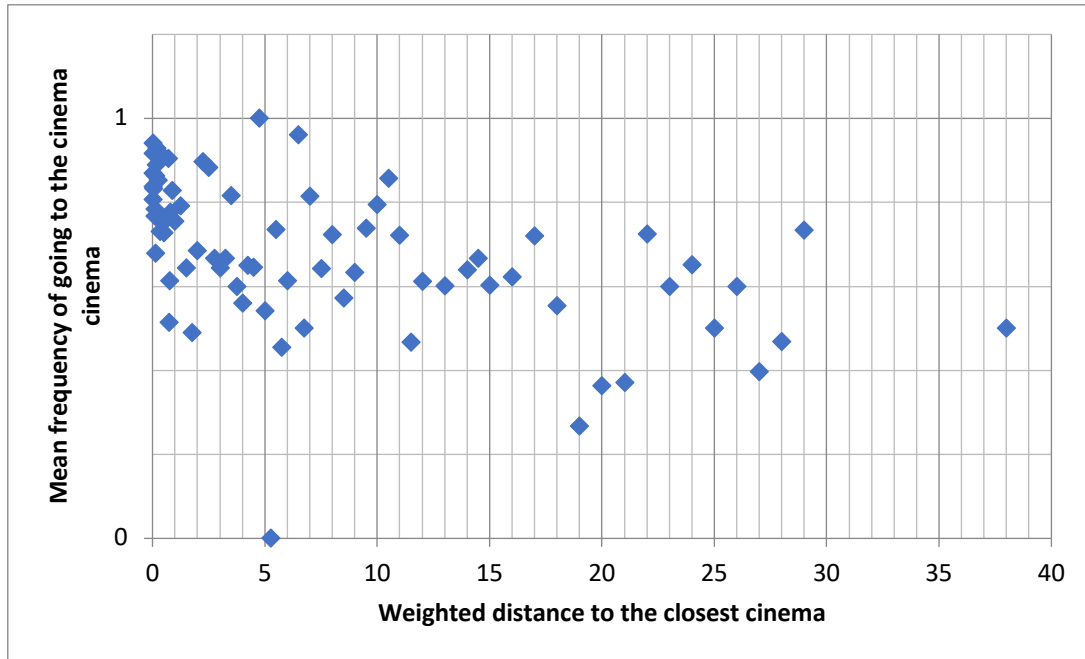
For each respondent to the 2018 survey, it was possible to associate their distance to the municipality where the closest cinema is located. This is measured by the time individuals take to arrive there during peak hours. That is, the distance is zero when individuals live in a municipality with a cinema, and it is measured by the time they take to arrive at the closest cinema when individuals live in a municipality without a cinema. Previous literature usually builds the accessibility indicator as a measure of the distance to cultural facilities weighted by the size of these facilities (Brook, 2013; Brook, 2016). Hence, based on previous research, the variable of distance to the closest cinema was weighted to account for the size of the cultural facility. This was done by dividing the time taken to arrive at the municipality where the closest cinema is located by the number of cinema rooms available in the closest cinema. For individuals living in municipalities owning a cinema, the distance of zero was replaced to one (one minute instead of zero minute). This allowed to differentiate individuals living in large municipalities owning a cinema with a large number of screens from individuals living small municipalities owning a cinema (usually with a single screen).

Additionally, to assess the effect of the local socioeconomic environment, data on the median income of the municipality where individuals live was added to the model. Also available was data indicating whether individuals live in a neighbourhood that is considered a priority for French urban policies (*quartiers prioritaires de la politique de la ville - QPV*). However, this dummy variable was strongly correlated with the median income and, being the median income a more precise measurement of the socioeconomic milieu, the paper opted for not incorporating the QPV indicator into the model.

To control for individual characteristics that influence cultural participation behaviours, socioeconomic and demographic variables, such as age, gender, education, household income, having children and the professional occupation were introduced as control variables. In the model, age is a numerical discrete variable, while household income and education are ordinal variables categorized according to different ranges (while household income varies between 1 and 10, education varies between 1 and 13). Occupation is transformed into eight dummy variables (farmers, independent workers, liberal professionals, intermediate professions, employees, qualified workers, retired and professionally inactive). Having children is a dummy variable equal to 1 if the person has at least one kid and 0 otherwise. Gender is also a dummy variable: it assumes the value 1 if the gender of the respondent is female and 0 otherwise.

Furthermore, two other control variables were included in the model: i) the quality of the Internet; and ii) the frequency of going to the cinema. The Internet quality was added to control for the fact that some individuals may not consume movies in the digital/online form because of a lack of access to Internet of sufficient quality. It is an ordinal variable that can assume values ranging between 0 and 2. In its turn, the frequency of going to the cinema was added to control for the fact that the supply of cinemas is often concentrated where there is demand, that is, where people have an appetite for going to the cinema to watch movies. Indeed, people living close to movie theatres present on average a greater frequency of going to the cinema. The graphic exposed in Figure 5.1 verifies this association.

FIGURE 5.1: THE ASSOCIATION BETWEEN GOING TO THE CINEMA AND THE DISTANCE TO IT



Hence, the objective of including the variable of frequency of going to the cinema is to isolate the effect of accessibility to the cinema from the fact that the location (and size) of the cinema might have been originally defined to satisfy a localized demand for it. The variable of frequency of going to the cinema is an ordinal variable, ranging between 1 and 3 (didn't go to the cinema in the last 12 months=0; went to the cinema just once (or approximately) in the last 12 months=1; went to the cinema approximately once per month in the last 12 months=2; went to the cinema at least once per week in the last 12 months=3).

Table 5.2 summarizes the descriptive statistics of all variables included in the model.

Table 5.2: Descriptive statistics of the variables

Dependent variables	Obs	Mean	Std. Dev.	Min	Max
Movies online	9,234	0.530	0.499	0	1
Movies DVD and Blue Ray	9,234	0.869	0.336	0	1
Independent variables	Obs	Mean	Std. Dev.	Min	Max
Weighted distance to the cinema	9,234	4.515	6.156	0.002	38
Median income	9,183	21828.4	4371.9	10100	44500
Frequency of going to the cinema	9,214	0.743	0.716	0	3
Age	9,234	52.55	19.09	15	97
Female	9,234	0.549	0.49	0	1
Household income	8,029	2.05	2.33	1	10
Cinema in the childhood	9,204	1.15	1.03	0	3
Education	9,234	7.39	3.03	1	15
Children	9,234	0.540	0.498	0	1
Farmers	9,234	0.01	0.10	0	1
Independent workers	9,234	0.29	0.17	0	1
Liberal professionals	9,204	0.10	0.30	0	1
Intermediate professions	9,234	0.13	0.34	0	1
Employees	9,234	0.13	0.33	0	1
Qualified workers	9,234	0.68	0.25	0	1
Unqualified workers	9,234	0.02	0.15	0	1
Retired	9,234	0.36	0.48	0	1
Internet access	9,234	0.96	0.53	0	2
Frequency of going to the cinema	9,214	0.74	0.71	0	3

5.3.3 The estimation strategy

The econometric model aims at analysing whether the presence of a cinema close to individuals' location is relevant for them to watch movies online/digitally. The econometric strategy chosen is the simultaneous bivariate Probit model, which allows modelling the joint determination of multiple variables with binary outcomes and correlated disturbances (Greene, 2002). Similar methods using multivariate analysis have been carried out by other authors in the field (e.g., Krizek et al., 2005; Farag et al., 2006).

The model is built around latent variables Y^* , which are unobserved, but can be associated to observed binary dependent variables Y (Wooldridge, 2012). In this case, the latent variables are: i) watching movies online; and ii) watching movies by DVD and Blue Ray. The latter is added to the model because it is believed that the decision of watching movies online is correlated with this of watching it by other means at home. The observed dependent variables Y are dummies, assuming the value 1 if the individual practiced it in the past 12 months and zero otherwise. Since the interactions involved in these practices are complex, the analysis needs to take into consideration socioeconomic, demographic, and other personal characteristics that can override accessibility and compositional effects (Clarke et al., 2015).

The dependent variable is thus a function of the latent variable Y^* , which is assumed to depend on a set of personal, socioeconomic and demographic variables X , on the variable of distance to the cinema Z and on the median income of the municipality W . Also, it is possible that the variable of distance to the cinema does not uniformly associates to the dependent variable. That is, it may start positively (negatively) associated with other forms of movies' consumption when individuals live close to the cinema, then change to a negative (positive) association when individuals live in medium distances to the cinema and change again to a positive (negative) association when they live very far. In other words, there could be a U-shaped or an inverted U-shaped association between the two variables. To verify the linearity of the relationship between the physical distance to the cinema and watching movies online, the square of the variable Z is also included in the model. Hence, the dependent variable is determined as such:

$$Y_i(Y_i^*) = \sum_{n=1}^N \beta_n X_{ni} + \alpha Z_i + \omega Z_i^2 + \gamma W + \varepsilon_i \quad \because \quad \varepsilon_i \sim N(0,1), \quad (1)$$

where i is the individual, β is the vector of coefficients to be estimated for the set of personal, socioeconomic and demographic variables, α is the coefficient to be estimated for the explanatory variable of weighted distance to the cinema, γ is the coefficient to be estimated for the explanatory variable of median income in the municipality and ε is the error term, which is assumed to be normally and identically distributed with a mean of zero and variance normalized to one.

5.4 Results

5.4.1 Descriptive statistics

Table 5.3 presents the descriptive statistics of the average frequency (ranging between 0 and 1) of cultural participation in each modality of watching movies by quantiles of the weighted distance to the cinema and of median income in the municipality. Among the 25% people with lower weighted distance to the cinema, 59% have watched movies online in the past 12 months, 66% have gone to the cinema and

84% have watched movies by other means, against 47%, 55% and 89% respectively of the 25% people living the farthest to the cinema.

Also, among the people living in municipalities which are in the upper median income quantile, 61% have watched movies online, 68% have gone to the cinema and 86% have watched movies by other means, against 48%, 53% and 86% respectively of those living in municipalities which are in the lower median income quantile. This is in line with the “complementarity hypothesis”. In other words, the hypothesis that having a cinema close to the residence and living in an affluent area not only influences individuals’ practice of going to the cinema, but also of watching movies online.

Table 5.3: average frequency (ranging between 0 and 1) of cultural participation in each modality of watching movies by quantile of the weighted distance to the cinema and of median income in the municipality

Distance to the cinema weighted by the number of cinema rooms	Online movies	Movies by other means	Cinema
Lower quantile (lower weighted distance)	0.59	0.84	0.66
2 nd quantile	0.54	0.87	0.60
3 rd quantile	0.52	0.87	0.58
Upper quantile (higher weighted distance)	0.47	0.89	0.55
Median income in the municipality	Online movies	Movies by other means	Cinema
Lower quantile	0.48	0.86	0.53
2 nd	0.49	0.87	0.56
3 rd quantile	0.53	0.87	0.62
Upper quantile	0.61	0.87	0.68

5.4.2 Econometric estimates

The objective of this empirical study is to verify the association between the territorial characteristics where individuals live and their consumption of online/digital culture. For that, a simultaneous bivariate Probit model was estimated. The results are described in Table 5.4. The joint regression of the dependent variables “watching movies online” and “watching movies by DVD or Blue Ray” is proved to be essential, since the LR tests of independence of equations indicate that the null hypothesis of independence between the two equations can be rejected. This validates the choice of using the simultaneous bivariate model for the analysis (Greene, 2002).

Concerning the estimates' analysis, one can start by the socioeconomic and demographic individual variables that are usually found to determine cultural consumption. Age negatively affects watching movies online and by DVD and Blue Ray and this is significant at 1% level. In other words, all other variables remaining constant, the older the individuals, the less they will watch movies online or by DVD and Blue Ray. Likewise, being a woman is negatively associated with both forms of movies' consumption at 1% level. Education is positively associated with both dependent variables and this is also significant at 1% level. The variables referring to having at least one child and those of most professional categories are not significant to explain none of the two forms of movies consumption.²⁹ Household income does also not have a significant impact on watching movies online or by DVD and Blue Ray. This is probably because of its strong correlation with other variables, namely education.

Considering the other control variables incorporated into the model, the Internet access (and quality) is only significant to explain watching movies online (at 1% level). In its turn, the frequency of going to the cinema is significant at 1% level and positively associated with both watching movies online and by DVD or Blue Ray. That is, all other variables remaining constant, the more individuals go to the cinema, the more they do also watch movies by the other analysed means. This positive relationship is as anticipated, since the frequency of going to the cinema is a measure of the individuals appetite for movies (one that might have influenced the definition of the cinema's location). Hence, it is expected to be positively associated with watching movies by the other means. Indeed, the variable was included in the model to control for the fact that cinemas may be located in areas where individuals have the willingness to go to the cinema.

The weighted distance to the closest cinema to where the individual lives is only significant (at 1% level) to explain watching movies online. The association between the two variables is U-shaped. This is indicated by the negative coefficient of the simple variable that measures the weighted distance to the closest cinema and the positive coefficient of the squared variable. This means that initially, the more distant individuals live from the cinema, the less they watch movies digitally/online, and afterwards the association becomes positive. That is, while an increase in the distance to the cinema

²⁹ The only exception refers to being a farmer, that negatively affects watching movies online at 1% level and watching movies by DVD or Blue Ray at 10% level.

diminishes the consumption of online movies when people live relatively close to the cinema, it increases the consumption of online movies for those who live further from cinemas. Precisely, if the weighted distance is lower than 13 (see Table 5.5), the more distant individuals are from cinemas, the less likely they are to watch movies online, while if it is greater than 13, the greater the distance, the more likely they are to watch movies online. Hence, when people live not far from cinemas, watching movies online is a complement to the cinema (which corroborates H1.1) and when people live further away, it becomes a substitute (which corroborates H1.2). While having a cinema nearby is important for individuals to watch movies online, it is not associated with watching it by DVD or Blue Ray.

Finally, the median income of the municipality where individuals live is positively associated with both watching movies online and watching movies by DVD or Blue Ray (at 1% level in both cases). This is in line with previous studies that found that more affluent areas increase cultural participation (Widdop and Cutts, 2012; Brook, 2016). Hence, while several studies had verified the same association for conventional forms of cultural participation, this study presents the persistency of this trend when looking at digital/online cultural participation. Hence, it corroborates H2.1, showing that the socioeconomic affluence of an area has a positive association with digital/online cultural consumption. In other words, the social distance to the cinema helps explaining the consumption of digital/online movies.³⁰

Table 5.4: Regression results

	Watching movies online		Watching movies by DVD or Blue Ray	
Weighted distance to cinema	-0.0237***	(0.00754)	0.000955	(0.00702)
Squared weighted distance	0.000957***	(0.000357)	-0.000162	(0.000339)
Median income	0.0000149***	(0.00000402)	0.0000114***	(0.00000370)
Age	-0.0465***	(0.00165)	-0.00766***	(0.00147)
Female	-0.210***	(0.0361)	-0.136***	(0.0328)
Household income	0.00655	(0.00704)	0.00360	(0.00656)

³⁰ Noteworthy, this study also tested the linearity of the relationship between the municipality's median income and watching movies online, but found no significance in the results, meaning that there is a linear association between both variables.

Education	0.0630***	(0.00724)	0.0439***	(0.00659)
Children	0.0419	(0.0388)	-0.0415	(0.0365)
Farmers	-0.770***	(0.205)	-0.312*	(0.180)
Independent workers	-0.0383	(0.102)	0.00234	(0.100)
Liberal professionals	0.0489	(0.0718)	0.0737	(0.0678)
Intermediate professions	0.00981	(0.0621)	(0.0594)	0.0122
Employees	-0.0104	(0.0605)	-0.0447	(0.0589)
Qualified workers	-0.0147	(0.0724)	0.0287	(0.0706)
Unqualified workers	-0.106	(0.110)	0.00573	(0.107)
Retired	0.0318	(0.0761)	-0.0896	(0.0707)
Internet access	0.298***	(0.0383)	-0.0152	(0.0334)
Frequency cinema	0.177***	(0.0251)	0.211***	(0.0233)
Cons	0.764***	(0.120)	-0.891***	(0.110)
Observations	7951 ³¹			
LR test of indep. eqns	Chi2(1) = 16.1672		Prob > chi2 = 0.0001	

*** p < 0.01, ** p < 0.05, *p < 0.1; standard errors in parenthesis

Since the econometric estimation is a non-linear model, a better interpretation of the results can be provided by calculating the marginal effects (Greene, 2002). Table 5.5 reports the marginal effects of changes in levels of accessibility to cinemas on the probability of watching movies online. The table shows, for instance, that when moving from *weighted distance to the cinema* = zero to *weighted distance to the cinema* = 1 the probability of watching movies online decreases by 0.6 percentage points, all other variables remaining constant. Then, the variation of the probability of watching movies online becomes each time smaller with an increase in one unit on the weighted distance to the cinema, up to the turning point at the weighted distance of 13, where an increase in cinema accessibility stops being associated to a greater probability of watching movies

³¹ The loss of a considerable number of observations from the original sample is because many of the respondents did not answer to the household income question. The authors decided to keep the inclusion of household income in the analysis because the variable is often significant to explain cinema participation. The econometric model was also run without this variable to verify if there was any important change in the results. When suppressing household income from the model, all the direction and significance of all econometric estimates remain unchanged.

online. The marginal effects are not significant between the weighted distance of 10 and 18, but from 19 on it becomes significant again. When moving from *weighted distance to the cinema* = 19 to *weighted distance to the cinema* = 20 the probability of watching movies online increases by 0.3 percentage point. From this distance on, the variation of the probability of watching movies online becomes each time greater with an increase in one unit on the weighted distance to the cinema.

Hence, for those living closer to the cinema, when moving from *weighted distance to the cinema* = zero to *weighted distance to the cinema* = 10 the probability of watching movies online decreases by approximately 3.8 percentage points (which is the sum of the marginal effects from zero to 10). For those living further from the cinema, when moving from *weighted distance to the cinema* = 19 to *weighted distance to the cinema* = 38, the probability of watching movies online increases by approximately 14.9 percentage points (which is the sum of the marginal effects from 19 to 38).

Table 5.5: Marginal effects of the weighted distance to the cinema on watching movies online

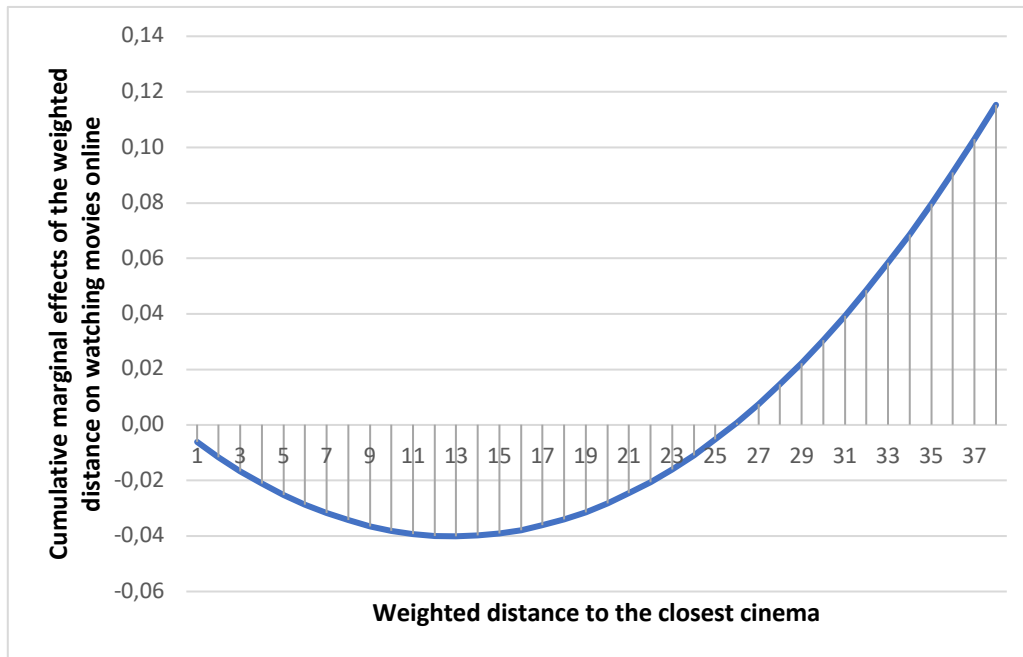
Weighted distance to the cinema	Marginal effects
0	- 0.0060467***
1	- 0.0055368***
2	- 0.0050319***
3	- 0.004532***
4	- 0.0040369***
5	- 0.0035464***
6	- 0.0030601***
7	- 0.0025776***
8	- 0.0020984***
9	- 0.001622***
10	- 0.0011478
11	- 0.0006752
12	- 0.0002035
13	0.0002679
14	0.0007397
15	0.0012125
16	0.001687
17	0.0021637
18	0.0026433
19	0.0031263*
20	0.0036132*
21	0.0041043*

22	0.0046*
23	0.0051006*
24	0.0056062*
25	0.0061168*
26	0.0066324 *
27	0.0071526*
28	0.0076771*
29	0.0082053*
30	0.0087366*
31	0.00927*
32	0.0098044*
33	0.0103384*
34	0.0108706*
35	0.0113991*
36	0.011922*
37	0.012437*

*** p < 0.01, ** p < 0.05, *p < 0.1

Figure 5.2 graphically represents the cumulative marginal effects of the weighted distance to the closest cinema on watching movies online. It shows that all other variables remaining constant, in comparison to someone who has the greatest accessibility possible to a cinema, an individual living at a weighted distance equal to 13 has a probability of watching movies online lower by approximately 4 percentage points, but an individual located at a distance equal to 36 has a probability of watching movies online greater by approximately 11.5 percentage points.

FIGURE 5.2: THE CUMULATIVE MARGINAL EFFECTS OF THE WEIGHTED DISTANCE TO THE CLOSEST CINEMA ON WATCHING MOVIES ONLINE



Concerning the association between the socioeconomic environment and digital/online cultural consumption, Table 5.6 reports the marginal effects of changes in the municipality’s median income on the probability of watching movies online.

Table 5.6: Marginal effects of the municipality’s median income on watching movies online

Median income	Marginal effects
10100	0.00000366***
20100	0.00000380***
30100	0.00000391***
40100	0.00000398***

*** p < 0.01, ** p < 0.05, *p < 0.1

In this case, the association is always positive. When moving from a municipality with a *median income* = 10,100 to one with a *median income* = 20,100, each additional euro increases the probability of watching movies online by 0.00037 percentage points. Hence, all other factors remaining constant, an individual living in a municipality with

median income of 20,100 euros will have a probability of watching movies online increased by 3.7 percentage points as compared to an individual living in a municipality with median income of 10,100 euros. In this sense, when moving from a municipality with *median income* = 10,100 to one with *median income* = 40,100, all other factors remaining constant, an individual will have a probability of watching movies online increase by 11.4 percentage points (that is, 3.7 + 3.8 + 3.9).

5.5 Discussion

The results show that both physical and social distances to culture play a role in shaping digital/online cultural participation. While the physical distance to cultural facilities presents a U-shaped association with watching movies online, the social distance (measured by the mean education in the municipality where individuals live) presents a linear positive relationship with watching movies online. This indicates that the socioeconomic environment where individuals live remain a relevant factor influencing digital/online cultural participation and that the physical accessibility to cultural facilities is positively associated with digital/online cultural participation when individuals don't live too isolated from cultural facilities. Hence, in most cases the evidence supports the complementarity hypothesis. However, when individuals have a relatively low level of accessibility to cultural facilities, the more isolated they live, the greater their digital/online cultural consumption, thus supporting the substitution hypothesis.

Some characteristics of cultural goods may help explaining the relevance of the complementarity hypothesis for those living relatively close to cultural facilities and in more affluent socioeconomic environments. These can be discussed in terms of two approaches that are commonly found in the cultural economics and cultural sociology literature:

- (i) First, that cultural tastes and consumption are a learning process (Lévy-Garboua and Montmarquette, 1996), which depend on habits (Scitovsky, 1976) and human capital (Becker and George Stigler, 1977). In economic terms, the marginal utility (additional pleasure) of cultural consumption increases with the ability to consume it, which is a function of knowledge and skills gained by past consumption (Becker and George Stigler, 1977). Hence, if living close to a cultural equipment implies more familiarity with cultural consumption, then it will be a relevant determinant also for online/digital cultural consumption. This

helps explaining why individuals who have the greatest accessibility to cinemas are also among the ones who are the most likely to consume movies online/digitally.

- (ii) Second, that the socioeconomic environment where individuals are inserted works as a determinant of cultural tastes and the frequency of cultural participation (Veblen, 1899; Bourdieu, 1984). This can be explained by the fact that the community's characteristics has an influence in lifestyles, and certain lifestyles, such as those of well-educated people, form a basis of critical mass and reinforce the demand for culture. Indeed, network effects are likely to increase the value that people derive from cultural consumption when other people in their surroundings consume the same type of culture (Liebowitz, 2004). On top of that, such communities are likely to be more attractive for cultural suppliers (Blau and Quest, 1987). This helps explaining why individuals living in municipalities with greater median income are more likely to consume movies online/digitally.

Indeed, according to pioneer scholars on cultural studies, the obstacles to cultural consumption are often symbolic in nature, rather than material (Bourdieu and Passeron, 1964). Hence, affluent areas with better access to cultural facilities may be better at stimulating also digital/online cultural participation, by stimulating habits of consumption, fostering a cultural social milieu, and mitigating symbolic obstacles to culture. This is in line with empirical studies that found evidence supporting the complementarity (or innovation-diffusion) hypothesis. One implication of this is that public policies aiming at fostering digital/online cultural participation should not neglect the role played by territories at shaping it. A creative environment, where accessibility to cultural facilities is high and cultural lifestyles are fostered can also stimulate digital/online cultural participation.

At the same time, the findings also show that the association between the physical distance to culture and watching digital/online movies is U-shaped. That is, for those living further from the cinema, the likelihood to consume digital/online movies increases with the distance. This result is in line with the substitution (or efficiency) hypothesis and indicates that digitalization and the dissemination of the Internet play a role on facilitating and decreasing costs of cultural participation for those who live further from cultural facilities. That is, while the social distance to culture remains always relevant to explain online/digital cultural participation, the physical distance to culture seems to have become

less relevant to explain digital/online cultural participation. This is certainly connected to the Internet development in sparsely populated and remote areas, and it demonstrates the importance of the dissemination of high-quality Internet in these territories, where the online world represents a substitute and not a complement to the offline world.

Conclusion

This study evaluated the way that the physical distance to cultural facilities and the socioeconomic environment impact individuals' digital/online cultural participation. Based on data from the 2018 French Cultural Practices Survey, it has showed that individuals living in most affluent areas and with greater accessibility to cultural facilities are more likely to watch online movies, but for individuals with relatively low accessibility to cinemas, the further they live, the greater their likelihood to watch online movies. Hence, similarly to previous research that analysed the influence of geographic aspects on offline cultural participation, this study found evidence that the accessibility to physical facilities and the socioeconomic environment where individuals live affect digital/online cultural participation.

While previous research demonstrated that the Internet and digitization do not broaden the socioeconomic profile of individuals who consume culture, this study demonstrates it also hardly broadens the geographical range of individuals consuming culture online. More specifically: the social distance to culture of individuals living in less affluent areas is always negatively associated to watching movies online; and the physical distance to cultural facilities is negatively associated to watching movies online when individuals have a relatively good level of accessibility to the cinema (but if they don't, their likelihood to watch online movies increases the further they live from cinemas).

In this sense, this study added to the cultural economics literature in at least two ways: by analysing how digitization and the dissemination of the Internet affect the geographic profile of cultural consumers; and by examining how geographic characteristics that help explaining offline cultural consumption also help explaining digital/online cultural consumption. Besides, most empirical studies that have addressed geographical attributes have often used flawed measures, either at extremely aggregate scales (e.g., urban versus rural) or not precisely defined, and rarely considering the

socioeconomic aspects of the locality.

Furthermore, this study also provided lessons to sectors other than the cultural one. Like showed in the literature review, evidence on the way that geography impacts online consumption is inconclusive and no empirical study considered the possibility of a non-linear association between physical accessibility and online consumption. The finding of a U-shaped association between the two variables may contribute to future analysis. Furthermore, most empirical research that have addressed geographical aspects of e-commerce have overlooked the socioeconomic characteristics of the environment and concentrated only on the effect of accessibility. The findings of this study indicate that individuals living in areas where the median income is greater are more likely to watch movies online, regardless of their own education, so the socioeconomic environment may also influence other forms of online consumption.

This study is nevertheless not without limitations. First, while efforts were done to separate the effect of accessibility from the fact that a greater demand for movies might be at the origin of higher cinema supply in the locality, adding to the model the variable of frequency of going to the cinema may not be sufficient to control for this effect. Also, the objective of the study was to test if having a greater accessibility to a cinema leads to greater online movies consumption, being a greater appetite for movies one of the mechanisms for this possible association. When including in the model the frequency of going to the cinema to isolate the effect of the demand on the supply, the results don't get the supposed mechanism that cultural facilities are important to generate the taste for culture, which may mean they are underestimated. Second, data limitations on the socioeconomic environment did not allow to account for the impact of the municipalities' average education and its interaction with the median income. This would help building a better understanding about the impact of socioeconomic heterogeneity across municipalities. Finally, the analysis was carried out only in French municipalities and it is based on cross-sectional individual differences, which raises a question about the external validity of the findings. Hence, future research could examine to which extent the results hold for the other countries (in particular developing ones), and time periods (especially considering the evolution of technology dissemination).

Despite the above-mentioned limitations, the results of this empirical study can help basing public policies to encourage digital/online cultural participation in less favoured areas. In France, cultural policies to address inequalities in cultural participation

put a strong focus on supply side investments in cultural facilities. While this remains important in the digital age, the social distance to culture seems to have a stronger influence on online/digital cultural participation than the physical distance to culture. Hence, fostering creative environments in remote and less affluent areas is essential to break symbolic obstacles to cultural participation. This can be done, for instance, via demand side instruments, such as creating incentives for targeted individuals to use cultural vouchers for the consumption of online/digital culture. Additionally, the findings demonstrate the importance of high-quality Internet dissemination in remote areas, where digital/online cultural consumption is a substitute and not a complement to traditional modes of cultural participation.

Chapter 6. Public policies for cultural participation

“Ensuring access to the many facets of culture on the part of the largest number of people involves not only opening the doors of cultural organisations but ensuring that citizens have an equal capacity to make choices” (Bamford, 2011, pp. 14).

Introduction

Promoting cultural participation and reducing its inequalities are some of the main internationally acknowledged objectives of cultural policies, programmes and institutions. However, in practice most policies for the cultural and creative sectors give central attention to the instrumental value of culture, usually measured by quantitative indicators, and overlook the distribution of these values among different layers of the population.

This can be linked to an increasing influence of economics on the orientation of cultural policies, the determination of its objectives and the evaluation of the best mechanisms to achieve them (Hesmondhalgh et al., 2015; Schlesinger, 2016; Towse, 1994)³². In fact, this trend is not limited to the cultural sector, but is part of a phenomenon that has been denominated as “intellectual imperialism of economics” and which refers to a predominant application of economic empirical principles, theories and methods to analyse different sectors (Blaug, 1976; Towse, 2010; Dekker, 2015).

In the cultural sector, most public investment in culture is justified by the view of creative activities as major economic engines, capable of generating high levels of employment, income, value added, exports and urban regeneration. At the same time, the obstacles for cultural equity are relatively ignored by the main theoretical frameworks that justify the use of public policies for the cultural sector. Whereas in most countries the importance of participation in cultural life is acknowledged in public policy

³² Noteworthy is the fact that the economic logic is not limited to influencing public policies that involve subsidy and tax incentives. For instance, market competition regulations are justified by cultural industries' high economies of scale; copyrights regimes are established to ensure the appropriate remuneration of culture suppliers; and national content quotas are set for the media as a way of protecting domestic production.

deliberations, this is not necessarily converted into measures that reduce inequalities in cultural participation (Laaksonen, 2010). Likewise, while the role of local dimensions is widely recognized by the international agenda for the cultural sector and countries' policy deliberations, this is not necessarily reflected in policies and programmes that account for territorial specificities.

This chapter approaches the topic of inequalities in cultural participation from a public policy perspective. The aim is to provide analytical contributions concerning the current policy paradigm for cultural participation and its ability to tackle territorial barriers. The first subsection provides an overview of the main economic fundamentals justifying cultural policies and its criticisms. The second subsection focuses on the international agenda for the cultural sector, particularly concerning the principles that guide policies for cultural participation. Finally, the third subsection grounds on the Compendium of Cultural Policies and Trends database to describe and critically review policies and programmes aiming at addressing inequalities in cultural participation implemented across 38 countries.

6.1 Cultural Economics and Policy

6.1.1 The role of culture for socioeconomic development

Although cultural economics only emerged as a subdiscipline of economics in the 1960s, some of the topics that it currently discusses have roots in the 18th century (Goodwin, 2006). Among them, the role of arts and culture for people and socioeconomic development. Until the second half of the 18th century, artistic and cultural activities or goods were generally identified as vices, waste of resources or distractions for the working class, inhibiting the production of those considered "more useful goods". In contrast, authors of the Enlightenment, such as Anne Robert Jacques Turgot (1750) and David Hume (1825), were the firsts to present a positive view about artistic and cultural practices. They argued, respectively, that these activities helped explaining development in all spheres, including the social and economic ones, and that they were important inhibitors of vices with negative side effects, such as brutality or criminality. Furthermore, in the beginning of the twentieth century, the Bloomsbury group of thinkers, of which John Maynard Keynes was part, emphasized the importance of the arts for individual wellbeing and social welfare (Goodwin, 2006). However, it was not before a

widespread shift of the economic thought from a material-centred approach to a human-centred one that culture began to be more extensively acknowledged as a priority area (Streeten, 2006). Before that, even when authors recognized some value of culture to economic development, they devoted low priority to it, arguing it could be taken care of after addressing more important needs, such as food and health (Streeten, 2006).

In the end of the twentieth century, two other factors contributed to the strengthening of the association between culture and development. First, the shrinking of governments' budgets destined to the cultural sector that came along with neoliberalist ideas and governments. This context generated an urge to show the economic benefits of investing in culture. Second, the exhaustion of the manufacturing industrial model. This made urgent the search for new engines to the economy, a role that was progressively attributed to creative and cultural sectors, which were identified as industries of rapid growth in comparison to others (Azevedo, 2016). This context is associated to a shift in focus from a narrow view of a cultural sector to a broader one, that includes a wider set of creative activities.

Following this shift in paradigm, a large body of empirical research emerged to evaluate the association between culture and different elements of economic development (Smith et al., 2016). For instance, Potts and Cunningham (2008) found evidence that creative industries are engines of economic growth, generate new types of jobs and technologies, which spread across other sectors, and are key elements of national innovation systems.

6.1.2 The main economic fundamentals of cultural policy

The neoclassic economic theory traditionally justifies public investment in culture based on market failures (Peacock, 1994). Market failures occur when the freely acting market is insufficient to deliver an optimal amount of a good or service. One of the arguments for the occurrence of market failures in the cultural sector is based on the positive externalities generated by arts and culture. Positive externalities are the benefits that are not restricted to the public who is attending (or consuming) the cultural offer. These type of benefits contrast with the use value, which are the benefits directly appropriated by the consumers of culture. According to Throsby (2010), arts and culture generate three sources of non-market benefits, which can be identified as follows:

- (i) Existence value: non-consumers value the very existence of cultural offerings)
- (ii) Option value: people value the option of being able to consume culture at some forthcoming point in life
- (iii) Bequest value: people value the legacy of the arts for future generations

Furthermore, a big part of the cultural offer is collective - or public - in nature (Samuelson, 1954). This implies that most of the cultural goods are “non-rival” and often “non-exclusive”. That is, the consumption by one individual does not reduce the amount available for consumption by other individuals (for example, an individual who listens to a music does not preclude others from listening to it) and it is often impossible to prevent non-paying individuals from gaining access to the good (for instance, this is the case of historical monuments)³³. To top it off, most cultural offerings involve high-risk investments surrounded by uncertainty about their private return (Towse, 1994). In the live arts, the pressure is even greater considering the problem of productivity lag, which was first identified by Baumol and Bowen (1966) and later denominated Baumol’s (cost) disease³⁴ (Throsby, 2010). For all these reasons, the private benefits from investment in art and culture tend to be smaller than the social benefits. Thus, like education, cultural goods and services are identified as “merit goods” (Musgrave, 1990), tending to be consumed and produced at levels that are lower than the optimal. These are the principal mainstream economic arguments to justify why public action is necessary in the cultural sector.

In addition to market failures, public investments in the cultural sector have also been justified for its paybacks to the economy. The impacts of public investment on the cultural sector can be measured by multiplier effects, which represent the multiple flows of revenue generated by public expenditures on the cultural sector. Benhamou (1996) defines three flows’ categories: i) direct flows (wages, cultural institutions purchase, etc.); ii) indirect flows (expenses incurred by spectators due to the cultural event or activity); and iii) induced flows (positive returns of these expenses in the long run). This reasoning

³³ If it is possible to exclude individuals by charging a fee for their entrance, the prices are not formed by supply and demand relations, because the marginal cost of a spectator is zero.

³⁴ The Baumol's disease refers to the fact that labour productivity in the live arts does not increase over time as it does in other sectors, because it suffers from a technological disadvantage. For instance, it takes the same number of artists to perform a Beethoven string quartet today as it did in Beethoven’s time. At the same time, an increase in wages in more productive sectors is necessarily transmitted to the live arts. This causes a gap between revenues and costs in this sector because it cannot cover the wage rises by increasing productivity. Hence, Baumol and Bowen predicted that firms in this sector would have to access increasing levels of public subsidy to survive.

is specially in line with contemporary approaches of the creative economy paradigm. Since the second half of the twentieth century, with the shrinking of public budgets for the cultural sector and the growing pressure to justify cultural policies by demonstrating their tangible benefits, predominantly in terms of economic outcomes, but also regarding social and urban regeneration effects, the cultural policy agenda has been oriented mainly by instrumental purposes. For instance, a pioneering document by the Arts Council of England (ACE) entitled "The impact of the arts: some research evidence" had the purpose of informing policy and encouraging the public support for the arts by summarizing evidence on the effect of the arts on community development as measured by indicators of employment, health, criminality, education and communities' regeneration (ACE, 2004).

6.1.2 Criticisms to the economic fundamentals of cultural policies

Frequent are the critics to the economic fundamentals of cultural policies. First, the classification of cultural goods as meritorious is often confronted with the 'consumer sovereignty argument', which states that no one is better than the individuals themselves to judge their welfare decisions (Peacock, 1991). Second, the market failure argument is criticized by those who believe that governments are less efficient than the market (Peacock, 1994). Concerning the benefits of the cultural sector to individuals and the society, frequent critics argue that other sectors, such as education or research and development, have superior positive effects, thus representing better alternatives for the public budget allocation (Towse, 1994). Other authors also criticize the effectiveness of cultural policies oriented by economic fundamentals. For instance, the instrumentalization of cultural policies is frequently criticised by those who argue that instrumental goals distort the main purpose of the policies for the sector, which should be the cultural value itself. These scholars suggest that, instead of focusing on social and economic outcomes, public funding and policies for culture should be oriented and implemented based on the intrinsic value of arts (Belfiore, 2002).

Two other critics to the way that economic fundamentals influence cultural policies are more relevant in the context of this thesis. First, there are authors that question the effectiveness of publicly funded culture for alleviating social exclusion (Belfiore, 2002), suggesting that instrumental cultural policies are predominantly regressive. In other words, it is argued that these policies tend to benefit mainly those with the greatest

levels of income and formal education and who are already the most involved in cultural participation (O'Hagan, 1996). Therefore, rather than benefiting individuals who need the most to be reached by policies and programmes, it is suggested that public funding is often directed towards individuals with more favourable living conditions. Second, some critics argue that the use of economic instrumental fundamentals have justified most allocation of public funding in the supply-side at the expense of the demand-side (Bakhshi et al., 2015). Demand-side instruments, particularly cultural education programmes and money-transfer vouchers targeted to disadvantaged individuals, are supposed to be tools capable of inducing individuals' familiarization with arts and culture and thus increasing and diversifying the cultural participation behaviour of disadvantaged individuals. This idea is in line with the institutionalist tradition, which recognizes individuals' preferences as endogenous and thus subject to transformations (see Bowles, 1998). Although this notion has been widely acknowledged by cultural economists, there has been a general claim that demand-driven instruments are less utilized as policy instruments than supply-side mechanisms and, when implemented, it represents only a small portion of the public budget.

In line with the two previous critics to the economic fundamentals of cultural policies and its impact on the efficiency of cultural policies, this thesis argues that cultural economics has been incomplete to guide inclusive and distributive cultural participation policies that prioritizes equity in the conditions and opportunities to participate in the cultural life.

6.2 Overview of the international principles and policy agenda for cultural participation

6.2.1 Culture and sustainable development

In the international agenda, there is a growing recognition of culture as an important element of sustainable development (UNESCO, 2012; UNESCO, 2018a). For instance, the cultural sector has been seen as responsible for promoting economic development by generating jobs and income, raising greater confidence in institutions and leading to socially and environmentally oriented individual behaviours and consumption patterns (UNESCO, 2012, 2018a). According to the UN, the concept of sustainable

development encompasses the promotion of intergenerational and intra-generational equity, in terms of providing equal capabilities of access to goods and services to the whole society concerning four dimensions that should be contemplated in an intertwined and holistic way: social, environmental, cultural and economic (UNCTAD, 2010; UNESCO, 2018a).

Furthermore, the UN highlights that culture offers limitless resources in responding to development challenges by performing a transversal and effective role in all areas of public policy. Although no sustainable development goal (SDG) is straightforwardly dedicated to it, culture is seen as a cross-cutting theme, because it contributes to all the 17 SDGs and is explicitly reflected in several targets. The commitment of cultural policies with sustainable development has been established, for instance, in the recently published report “Culture and Public Policy for Sustainable development”, organized in the context of the Forum of Ministers of Culture 2019 to correspond to the UN 2030 Agenda for Sustainable Development (UNESCO, 2019).

The UNESCO’s roadmap to the implementation of cultural policies for sustainable development requires de cooperation of governments and non-governmental actors in four key areas defined according to the 2005 Convention: i) supporting sustainable systems of governance for culture; ii) achieving a balanced flow of cultural goods and services and increasing the mobility of artists and other cultural professionals; iii) integrating culture in sustainable development strategies; and iv) promoting human rights and fundamental freedoms. To ensure the achievement of these goals, UNESCO developed a policy monitoring framework with core indicators to be observed. Although none of the four goals explicitly refers to cultural participation, each of them encompasses at least one indicator referring to cultural access and participation. These include policies to support equity in the distribution of cultural resources and inclusive access to them, to facilitate equitable access in the flow of cultural goods, to foster women’s cultural access and participation, to facilitate digital access, and to protect and promote freedoms of creation, expression and cultural participation (UNESCO, 2018b).

In line with the link established by the international agenda between culture and sustainable development, the notion of culturally sustainable development was proposed by Throsby (1995). The author defined it in terms of four principles:

- (i) **The advancement of material and non-material well-being:** the conception of a culturally sustainable development is one that expands the narrow idea of

measuring it solely through economic indicators, like per capita gross domestic product (GDP), and includes several domains of social indicators, such as health status, educational levels, environmental characteristics, public service provision and the characteristics of cultural advancements within a society.

- (ii) **Intergenerational equity and the maintenance of cultural capital:** sustainability involves a concern for the long term and requires the fair distribution of resources and opportunities between present and future generations. For that, investments are needed for the creation and maintenance of physical and intellectual cultural capital.
- (iii) **Equity within the present generation:** the distribution of cultural resources, access, cultural participation, the provision of cultural services for disadvantaged people, and so on, cannot be overlooked in the pursuit of efficiency-related outcomes.
- (iv) **The recognition of interdependence:** A system-wide approach to policy formulation needs to acknowledge the interdependence between the cultural and economic systems.

6.2.2 The importance of cultural participation

The importance of cultural participation is based on the article 27 of the Universal Declaration of Human Rights (United Nations, 1948), which states that “Everyone has the right to freely participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits” (UN, 1948, pp. 7). This implies that governments have the duty to guarantee the right to participate in cultural life to the whole population and consequently a responsibility to monitor the situation. Hence, the identification of cultural participation as a human right and as a commonly agreed goal and obligation in the international system of norms sets up the bases for international conventions and policy agendas (Laaksonen, 2010). For instance, the International Covenant on Economic, Social and Cultural Rights (United Nations, 1966) not only included cultural rights in its title, but also expressly stated in article 15 that the State Parties to the covenant recognized the right of everyone to take part in cultural life, which implied their commitment to take the appropriate steps to achieving the full realization of this and other rights. Furthermore, the Recommendation on Participation by the People at Large in Cultural Life and Their Contribution to It (UNESCO, 1976) recognized that

participation in cultural life should be related to policies for economic growth and social justice, life-long education, science and technology, the environment, the youth and to social policy for attenuating inequalities. At the European level, the European Declaration on Cultural Objectives (Council of Europe, 1984) made a common cause in promoting cultural participation. It declared participation in cultural life as one of the main objectives of cultural policy in Europe, including community action, the recognition of cultural diversity, the promotion of social cohesion and the possibility of everyone to access relevant content and to contribute to the shaping of ideas.

A recent milestone resolution in the field of culture is the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions (UNESCO, 2005). It originated in the context of the General Conference of the United Nations Educational, Scientific and Cultural Organization meeting in Paris during the month of October in 2005. Among its guiding principles, the convention indicates that individuals have the fundamental right to participate in and enjoy culture, which is complementary to and as important as the economic aspects of development.

The Reshaping Cultural Policies report (UNESCO, 2018b) was elaborated to monitor the implementation of the 2005 Convention. According to this document, cultural diversity is indispensable as one of the main possibilities for the enlargement of cultural choices and to ensure people's human right to cultural participation. In the framework of the 2005 Convention, however, very low recognition is given to the influence of territorial aspects. The only mention to it is in a subsection of the report dedicated to discussing equity in the distribution of and in the access to resources within countries, which highlights the importance of infrastructure and its frequently poor distribution between urban and rural areas, particularly in developing countries. Not restricted to the importance of enabling people's access to physical cultural facilities, the document also emphasizes the lack of digital infrastructure for mass adoption of mobile broadband that many countries in the global south face.

6.2.3 Emphasis on local dimensions

There is recognition at the global level of the importance of local elements for the design and implementation of cultural policies. The local dimensions of cultural participation had been subject of advocacy since the 60s, when the Community Arts

Movement emerged in the UK with the idea that participation in cultural, artistic and creative life is fundamental for the cultural development of a community and for social transformations (Jeffers, 2017). The ‘Agenda 21 for Culture’ (UCLG, 2004), a global initiative agreed by cities and local governments from all over the world, has raised awareness to the role of local policy and have proposed a range of principles and policy approaches that should inform local cultural policies and foster knowledge transfer. It includes as one of the local governments’ undertakings to provide the appropriate means for people to have access and participate in cultural life (UCLG, 2004). Furthermore, the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage puts communities at the heart of its accomplishment. The terms of the Convention specify that State Parties must involve communities, which are responsible for the creation, preservation and dissemination of cultural heritage (UNESCO, 2003).

Concerning governance issues and the scope of policy implementations, the Article 4.6 of the Convention on the Protection and Promotion of the Diversity of Cultural Expressions proposes that policy measures can be adopted ‘at the local, national, regional or international level’ (UNESCO, 2005). According to Laaksonen (2010), whereas national policies often recognize politically and legally the importance of cultural participation, it is at the local level that physical access and opportunities for interaction should be provided. Apart from enabling to account for local specificities, another advantage of localized measures is that, while national policies take longer to be designed and implemented, local cultural policies can be quicker at tackling problems. However, it is worth noticing that communities and cities have different expertise and financial conditions to foster the participation of all social groups (Laaksonen, 2010).

6.3 An assessment of public policies targeting cultural participation

6.3.1 Context, methodology and data

Undoubtedly, much more than conventions and declarations are needed to have a real impact on reducing inequalities in cultural participation (Laaksonen, 2010). It is essential to guarantee the appropriate design and implementation of programmes and policies to diversify the profile of cultural participants and guarantee equity of opportunities and conditions for participation in cultural life. To ensure the effectiveness

of these measures, as pointed out in chapter 2 of this thesis, territorial issues cannot be disregarded. This section examines public policies and programmes targeting cultural participation implemented across European countries. It aims at building an understanding about patterns of public action applied to address low and/or unequal levels of cultural participation and if they correspond to the demands of unequal territorial conditions.

The assessment of policies and programmes presented in this section is based on desk research. Most information basing the discussion is extracted from the Compendium of Cultural Policies and Trends database (chapter 6.1 ‘policies and programmes for cultural participation and consumption’), where countries developed a description of their national cultural policy profiles³⁵. Additional material, particularly grey literature and the EACEA national policies platform, were also consulted for validation and supplementation of the primary data source. The discussion is based on an in-depth analysis of policies and programmes implemented across 38 European countries. A detailed description of these measures can be found in the Appendix 6.1. The description is not intended to be exhaustive, but to reflect a diversity of approaches and to identify patterns of actions according to information released by cultural policy experts of each country.

6.3.2 Overview and critical analysis of policies and programmes implemented across countries

In most European countries, the administration of cultural participation policies is either the responsibility of the ministry of culture or the ministry of education. The policies related to participation in cultural life are mostly revealed in the form of state support, including stimulus to the cultural activities of unfavored groups, education policies and allocations to cultural institutions or other types of funding opportunities (Laaksonen, 2010). In some countries (eg.: Austria, Germany and Switzerland), there has been a decentralization of cultural administration and an increasing transfer of responsibilities and decision-making powers to local and regional governments, including their involvement in the design and execution of cultural policies, which activates local authorities’ contribution to enabling environments that stimulate participation in cultural life (Laaksonen, 2010).

³⁵ The Compendium’s country profiles are written by independent experts in cultural policy research

The public bodies for the cultural sector across countries generally understand participation in cultural and artistic life as an essential right and priority goal. Their approach towards access and participation is one that builds a commitment to ensure, either by the constitution, and/or by laws, declarations or other official documents, that those who face social exclusion and are particularly vulnerable have the opportunity and conditions to participate in and access the country's cultural life. They acknowledge not only the value that this has in terms of cultural equity and wellbeing, but also to foster cultural diversity.

Among the policies implemented by countries and described in the Appendix 6.1, one can identify the predominance of five types:

- (i) Cultural education programmes, most frequently targeting kids or the youth.
- (ii) Supply-side strategies for the physical cultural world, i.e., funding or subsidies to the creation or renovation of facilities or to the diversification of cultural supply, to attract targeted publics, not rarely accompanied by campaigns to disseminate the information for potential users.
- (iii) Supply-side strategies for the digital world, i.e., for the digitization of works of art and dissemination of digital culture.
- (iv) Demand-side policies of prices, including discounts or free tickets for accessing public cultural facilities, applied either to targeted groups of people (most frequently students, but also teachers, seniors and others) or to the general public (e.g., in the UK).
- (v) Demand-side policies of vouchers, often targeting specific groups (most frequently students).

Among these varieties, two types of policies are predominantly mentioned as implemented to achieve more equal participation in the cultural life: demand-side price policies (employed by 32 out of 38 countries) and supply-side investments in physical culture (adopted by 30 out of 38 countries).

The first is frequently targeted to specific groups of individuals (commonly in the form of discounts or free tickets to students, the youth in general, teachers, seniors and disabled people) but also often offered to the general public in selected days of the week or during special events. Furthermore, some countries offer free entrance to permanent collections of national museums to everybody (the UK, Ireland and Denmark for its two biggest museums). These kinds of demand-side policies are usually limited to museums or cultural centres. According to Benhamou (2008), museums have one of the

characteristics of public goods, at least in the short term, in the sense that the cost of an additional visitor is null, which allows to offer gratuity to part of the public, but in the long term, additional visitors do increase costs associated to security and maintenance.

As most studies on the effect of free museum entrance on the diversification of the public have shown that the impact is negligible, Benhamou has considered this type of measure to be effective to increase the total number of visits, but counter-productive to diversify the profile of visitors (Benhamou, 2008). Hence, she suggested that the economic resources used to afford free museums could be instead used to finance long term policies that have more impact on creating familiarity and breaking resistance barriers of those groups who are less frequent cultural participants. Regarding the possibility of attracting people living in areas far from the museum, the author argues that price sensitivity is stronger for local audiences than for passing visitors (Benhamou, 2008). In the DEPS study on the impact of the French policy of generalized free museums implemented for six months in 2008, the mobilization of people because of gratuity was shown to be related to the distance between the individual's residence and the destination of visit: local or semi-local visitors were the most mobilized (56% and 52% respectively), while tourists or semi-tourists were the least informed about gratuity (48% and 47% respectively) (Eidelman and Céroux, 2009).

Concerning supply-side physical investments, those are often applied in a broad and un-targeted manner. For instance, In Italy and Spain an important part of the public policy focuses on opening and modernizing establishments, prolonging opening hours of existent cultural institutions and promoting special events of international significance, such as the Museum Night. On the other hand, some other supply-side measures are more focused and targeted to specific groups of the population. For instance, eleven countries have mentioned supply-side interventions directed to individuals living in rural areas or suburbs, five to children and young people, one to economically deprived individuals and another one to disabled persons. These measures include the requirement that funded institutions present a clear strategy to reach unfavoured groups of the population (e.g., in the UK), subsidies to cultural initiatives in regional areas or suburbs (e.g., in Austria, Denmark and Georgia) and funding to cultural projects focusing on topics that awake the interest of specific audiences (e.g., in Bulgaria). Sometimes supply-side policies also come along with a targeted dissemination of information to raise awareness (e.g., in Sweden).

There is a debate in the literature between two possible influences of cultural supply policies on cultural participation. On the one hand, there is an argument that the provision of art and public funding of culture serves as an equalizing force that provides public cultural access despite the presence of market failures and barriers that unfavoured individuals face. On the other hand, there is a predominant view supported by empirical verification that un-targeted public funding reinforces the reproduction of distinction and inequality between social groups by supporting certain cultural forms and arts organizations and not others (Falk and Katz-Gerro, 2015). In respect to territorial differences, the distribution of funding in the cultural sector is generally seen as unequal across geographical locations (Urrutiaguer, 2005; Méndez-Carbajo and Stanziola, 2008; Suárez and Mayor, 2017; Wilson, 2003). Public subsidies, sponsorship and other private funding to cultural amenities are likely to concentrate in major cities and large cultural organizations. A study based on French data has shown, for instance, that subsidies per capita to the performing arts are less equally distributed than regional GDP per worker (Urrutiaguer, 2005). Among the 30 countries allocating funding in the supply side as policy instrument targeting cultural participation, only 11 have mentioned accounting for territorial differences.

The implementation of cultural education programmes is a measure that has been adopted by 20 out of the 38 countries investigated. The adoption of these programmes departs from a premise that experience of art and culture in schools should compensate for inequalities due to the person's social background. Indeed, a large body of research has shown that participation in arts and culture in the childhood and at young ages is a strong predictor for participation in the adult life (e.g., Orend, 1988; Walker et al, 2002; Upright, 2004). Therefore, cultural education policies are predominantly targeted to children and the youth. However, it hasn't been used as a policy to reduce barriers in familiarity of people living in areas constrained by spatial inequity.

In its turn, supply-side stimulus focusing on digital culture is an emerging type of policy. Although only 13 out of 38 countries mentioned the use of this strategy as a tool for broadening cultural participation, the European Union has developed and financed since November 2008 the Europeana³⁶, an online platform developed to disseminate art and culture works from EU Member States which works as digital library, archive and museum to provide free online access to a wide range of European artworks. However,

³⁶ See <https://classic.europeana.eu/portal/en#>

public initiatives targeting digital cultural participation have been designed in a broad way and implemented in an un-targeted manner, not considering the barriers that different groups of individuals face for benefiting from the digitization of arts and culture, including territorial ones. In other words, these policies do not incorporate any strategy to target specific groups of the population, whereas the digital divide across socioeconomic and geographical groups is widely recognised. In fact, public policies targeting digital culture have been broadly designed and implemented based on an optimistic perspective.

The main argument is that digitization reduces distribution costs and makes marginal costs negligible, which enables the offer of cultural content for lower prices or for free. Along with the low costs, unlimited amounts and variety of contents can be offered and accessed from any place, requiring only the access to a device and to an Internet connection with sufficient quality. Therefore, the supply of digital culture is seen as capable of attending an unlimited number of people, with varied tastes and living in any corner of the world. In this sense, the cultural policy agenda focusing on the digital realm is often based on the assumption that technology allows culture to be more accessible than ever and to reach groups of the population who are traditionally excluded from cultural participation. For example, in the United Kingdom, the Department for Digital, Culture, Media and Sport (DCMS) published the "Culture is digital" report in 2018, which emphasized that digital tools could support efforts around audience diversity and therefore justified a great amount of public investment in digitizing cultural content. Hence, public policies aiming at fostering access to digital culture usually focus on the digitization of work of arts and on the construction of online platforms to disseminate content and information to the public. Still looking at the UK, the "Art UK" digital platform is another example of a public initiative that provides online access to digitized cultural content. It currently stores over 200,000 oil paintings from over 3,000 art collections. It has as a main objective to increase cultural democratization and it is supported primarily through public funding from the Arts Council England (ACE).

However, the optimistic perspectives that fundamentals supply-side untargeted policies mask the real complexity of inequalities in digital culture participation, i.e., unequal conditions, opportunities and barriers for different groups of individuals to benefit from the digitization of arts and culture. Actually, digitization seems to primarily affect the same axes impacted by cultural policies that have enduringly failed to achieve participation equality objectives. More specifically, it enables: i) an increase in contents'

quantity and diversity; ii) a reduction in costs and prices; and iii) the possibility of reaching the most distant areas. While these are necessary conditions for equality in cultural participation, they do not seem to be sufficient to generate the necessary structural transformations that reduce cultural participation gaps. Conversely, factors such as the persistence of cultural capital inequalities and digital gaps explain why, in the absence of appropriate policies and programmes, one can expect the benefits of digitization to remain unevenly distributed across individuals and territories. This allows us to evoke previously discussed results from the literature (see chapter 3). For instance, research has shown that experiences of virtual visits to museums seem to be rather complementary to physical visits and do not reach a different, less privileged public (Evrard and Krebs, 2017; Mihelj et al., 2018).

Less implemented across countries are demand-side financial stimulus in the form of vouchers or any similar type of monetary transfer schemes directed to cultural consumption and participation in cultural life (only 5 out of 38 countries employ this type of policy)³⁷. Noteworthy, all the monetary transfer schemes mentioned in the countries' profiles focus either on school students (and schoolteachers, in the case of Slovakia) or on the youth (as is the case of France). No other social, economic or territorial criteria is used to distribute the vouchers. Also, there is little evidence assessing the impact of this kind of policy.

Overall, territorial aspects are rarely mentioned in the design and implementation of policies for cultural participation. The analysis has shown that only 11 out of the 38 countries have implemented measures that account for and tackle territorial differences. All those countries accounting for territorial aspects have adopted supply-side measures targeting people living in the suburbs of metropolitan areas, rural communities or other localities considered to be deprived. These measures include the construction and restauration of facilities, the promotion of events and the diversification of cultural contents. However, these policies seem to maintain a top-down character and do not present a clear strategy for breaking structural barriers that prevent some people from participating in cultural life or affect their cultural behaviour. This could be done by fostering people's familiarity with arts and culture, by legitimizing and meeting specific

³⁷ In Romania there is a financial incentive targeting human capital formation, including culture, which occurs through credit allowance, thus differing from voucher schemes or similar monetary transfer schemes. Therefore, this is not being considered here as one of those measures of financial incentives to the public.

tastes and cultural needs of groups present in the territory and/or by coordinating with other social and local policies. For instance, according to Stevenson (2013) in his analysis about the Scottish cultural policy, the paradigm is one that acknowledges the existence of barriers that create unequal access to culture, but which originates policies that focus too much on boosting participation in activities that “the majority of the public are not interested in attending”. Instead, cultural democracy should be deepened, and more attention should be given to people’s choices and tastes (Stevenson, 2013).

Table 6.1 shows which measures are in place to support cultural participation goals across countries and if the policy profile of the country explicitly declares to account for territorial aspects.

Table 6.1 Policies in place for addressing cultural participation across countries

Country	Policies targeting cultural participation					Explicitly accounts for territorial aspects
	Cultural and artistic education	Financial incentives to the public		Supply stimulus		
		Prices	Vouchers	Physical	Digital	
Albania		X		X		
Armenia	X	X		X		X
Austria	X	X		X	X	X
Azerbaijan		X				
Belgium		X				
Bulgaria	X	X		X		X
Croatia	X	X		X	X	
Czech Republic		X		X		
Denmark	X	X		X	X	X
Estonia		X		X	X	X
Finland	X					
France	X	X	X	X		X
Georgia	X	X		X		X

Germany		X		X		
Greece		X		X		
Holy See		X				
Hungary		X		X		
Ireland	X	X		X		X
Italy		X		X		
Latvia	X	X		X	X	X
Lithuania	X	X	X	X		X
Macedonia		X				
Malta	X	X	X	X		
Monaco	X	X		X		
Norway	X					
Poland	X	X		X	X	X
Portugal	X	X		X		
Romania	X					
Russia				X		
San Marino		X		X	X	
Serbia				X	X	
Slovakia		X	X		X	
Spain		X		X	X	
Sweden	X	X		X		
Switzerland		X		X		
The Netherlands	X	X	X	X	X	
Ukraine				X	X	
United Kingdom	X	X		X	X	

Source: authors' elaboration based on the Compendium of Cultural Policies and Trends

6.3.3 Limitations of the analysis

The previous analysis is not without limitations. First, it is important to highlight the limits linked to the complexity of the problematic of cultural participation and consumption, which mobilizes numerous notions with blurred delineations, varying definitions from one country to another, and which are the subject of endless debates. Second, there might be a regional bias because of the selection of countries analysed, all of them in Europe/Eastern Europe. Finally, another bias may result from the data used. The Compendium of Cultural Policies and Trends database provides summarized information prepared by countries' experts and the information analysed here is based on their understanding of national and regional policies for cultural participation. This is subject to human interpretation and may not represent the whole policy context of the countries. In particular, small scale and localized programmes, when existent, are probably left aside, which is critical for the purpose of this research, because these are more likely to account for territorial specificities.

Conclusion

This chapter has discussed cultural participation inequalities from a public policy perspective. The first section analysed the economic fundamentals of cultural policies. These were found to be incomplete to guide policies that target cultural participation, because they are not distributive or inclusive in nature and do not account for the needs of specific localities. The following section reviewed the international principles orienting public policies for cultural participation. Contrary to the economic fundamentals of cultural policies, these were found to emphasise the importance of both employing inclusive policies and incorporating territorial dimensions in their implementation.

The last section described and critically reviewed policies and programmes for cultural participation applied across 38 European countries. These were found to be misaligned with the international principles guiding policies for cultural participation, because a large proportion do not target specific unfavoured groups and very few of them account for territorial specificities. Furthermore, most of them are top-down policies, focusing either on the supply-side or on prices reductions offered to broadly defined categories of the public.

Based on the analysis developed in this chapter, some policy recommendations can be traced for governments to ensure that citizens have an equal capacity to make choices of cultural participation. First, broad un-targeted policies should be replaced by structured programmes, targeted to specific groups and locations. Second, territorial specificities should be accounted for in the design and implementation of policies targeting population living in unfavoured areas. Finally, a bottom-up approach should be adopted. Bottom-up policy strategies propose that its design and implementation should be initiated by target groups (Matland, 1995). This allows strategies to be shaped by the needs of the people who are directly impacted by the policy and adapted to any specific local conditions.

Appendix to chapter 6

Appendix 6.1

Overview of policies and programmes implemented across 38 countries

Albania

The only special provision to promote public participation in cultural activities is that university students obtain a 50% discount on admission fees to all state-owned cultural institutions.³⁸

Armenia

Entrance to museums is free for war veterans, participants of the liberation movement and schoolchildren. Sometimes the Ministry of Culture also offers free concert and theatre tickets. Moreover, once a month, museums have "open doors days" and once a year there is a "museum night" event, when visitors can visit museums at no cost and they stay open until midnight.

Furthermore, the "Philharmonic for schoolchildren", which reopened in 2007, implements educational and scientific programmes for children and youth. It presents to them the works of both world classical art and Armenian folk art.

Concerning supply-side stimulus aiming at promoting cultural participation, the government and other funds carry out major restoration works in certain cultural institutions. For instance, the preservation and reconstruction of cultural houses, inherited from Soviet times, is considered to be a priority, because they have different functions in the rural communities (i.e., library, leisure centres etc) and, in general, they are the principal places for organising cultural and public activities.

³⁸ Between 2007 and 2012, Albania, together with Bosnia and Herzegovina, Kosovo, Macedonia and Serbia, also benefited from the Swiss Cultural Programme (SCP) in the Western Balkans. On behalf of the Swiss Agency for Development and Co-operation, the Arts Council of Switzerland coordinated the SCP programme, which consisted on granting subsidies to cultural projects having as one of the main priorities, among others, to broaden cultural participation (Laaksonen, 2010).

Austria

Since 2009, the admission to all federal museums is free for people up to the age of 19. This led to an augmentation in visitors of 15% in this age group. Furthermore, since 2018, there has been a joint annual ticket (Bundesmuseen-Card³⁹) for eight Austrian federal museums (at the price of €59 in 2021⁴⁰). To avoid the risks of social exclusion of people living in precarious financial conditions, some initiatives have also been implemented, such as the *Hunger auf Kunst und Kultur*⁴¹ (Hungry for Arts and Culture). This programme offers free entrance (via a culture pass) at more than 500 cultural institutions to socioeconomically disadvantaged people, such as individuals who receive social welfare or a minimal retirement pensions, unemployed persons and refugees. In addition, the event Long Night of Museums⁴² is an initiative of ORF (Austrian Broadcasting) created in 2000. Visitors only need one ticket (at the price of €15 in 2021) and there are special buses operating to take people from museum to museum. Every year it attracts more than 400.000 visitors in about 800 museums, galleries and cultural institutions.

The Austrian Agency for Education and Internationalisation (Agentur für Bildung und Internationalisierung, OeAD) promotes and gives organizational support to participative cultural education projects and activities with schools, directed to children and young people, in cooperation with artists, cultural professionals and artistic and cultural institutions. As a state-owned non-profit, this initiative funded by public sources. Its total budget for 2019 amounted to € 72 million, most of which were available for scholarship and grant programmes.

At the local level and in a decentralized manner, the City of Vienna has launched the Cultural City Laboratories, an initiative that build on existing cultural actors and focuses on cooperation and synergies to revitalise the suburbs, create social spaces and stimulate participation. The pilot project started in 2019 in the twelve outer districts of Vienna with a total budget of € 700,000.

³⁹ See <https://www.bundesmuseencard.at>

⁴⁰ The price was reduced to €19 instead of €59 between May and August of 2021.

⁴¹ See <https://www.hungeraufkunstundkultur.at>

⁴² See <https://www.visitingvienna.com/entertainment/events/night-of-the-museums/>

The country adopts digital measures to foster cultural participation, including the Kulturpool⁴³ platform, an initiative of the Arts and Culture Division of the Ministry, which offers central access to digitalised Austrian cultural heritage resources in museums, libraries and archives.

Azerbaijan

Free or favourable access to museums, reserves and monuments is offered for Nagorno-Garabagh War participants, martyrs' family members, disabled people, pensioners, orphans, secondary school pupils and high school students, etc., as well as for all visitors on state official holidays, international museum and tourism days.

Belgium

On the Flemish level of government, the Participation Decree (since 2008) offers support for hobby associations and local networks for people in poverty. For instance, it arranges the support for two participation institutions: Dēmos and Publiq. Dēmos acts as research and advocacy organisation on policies and practices that focus on groups that are under-represented and underexposed in society and organises Vrijuit, a network of organisations that provides reduced entry fees for cultural and sport events to people in poverty. Publiq offers a service where people can search for activities around the place they live and manages the UiTPAS, a pass that gives points by participating in leisure activities in Flanders and Brussels and users can exchange them for benefits. Holders with low or fixed incomes are entitled to concessionary rates for activities linked with the pass – information which remains discreet.

Lasso⁴⁴ is an online platform for cultural participation in Brussels. It develops projects that promote cultural participation, shares knowledge on the subject, and supports a network of partners. It receives support from the Flemish Community Commission and the Brussels-Capital Region.

Bulgaria

All state cultural institutes offer discounts on ticket prices or free admission for children and young people under the age of 16-18, retirees, and disadvantaged people. According

⁴³ See <http://www.kulturpool.at/display/kupo/Home>

⁴⁴ <https://lasso.be/en>

to data from the National Statistics Institute a total of 5.084.387 people have visited Bulgarian museums in 2018, 1.024.552 of those visits have been free of charge. Furthermore, in 2019, the Ministry of Culture and the Ministry of Education signed an agreement that school students were allowed to go to the theatre for free.

The National Culture Fund (NFC) uses funds from the state budget to endow artistic and cultural projects address social issues and causes. Furthermore, Sofia's Access to Culture programme funds with the municipal budget cultural projects that focus on topics that provoke the interest of specific audiences. One of the goals of the programme is to include people who live outside the city centre and traditionally have much lower access to cultural life in the capital.

In 2018, an agreement was signed by the Ministry of Culture and the Ministry of Education in the fields of museums, galleries and cultural heritage to hold classes and provide museum education programmes for school students.

Croatia

There are no strategies on the national level or on local levels in relation to cultural participation and consumption, but there are several programmes that are oriented towards enhancing cultural participation. For instance, programmes that bring artists and cultural events directly to kindergartens, primary and high schools.

The National Strategy for Promotion of Reading has been implemented and it focuses on offering mobile libraries. Furthermore, there is a National Audiovisual Programme for the digitalisation of cinemas throughout Croatia.

Special categories of the population (school children, people with disabilities and senior citizens) pay only 50% of the full ticket price for some cultural events. There are also reduced cards, primarily oriented towards tourists, which can be used to buy cheaper tickets for various cultural events.

Czech Republic

There are initiatives that seek to promote cultural participation supported by both ministries and municipal authorities in two ways: by establishing their own cultural

organisations or through grant programmes. Support is given for ensuring that people with disabilities can access the cultural spaces (for instance, through the construction of barrier-free structures and the creation of accessibility maps available to the public). There is also support to the development of modern interactive exhibits, such as the Museum Night project and theatrical tours of sites. Moreover, every museum has a museum pedagogue who works mainly with child visitors using creative games and activities.

Furthermore, cultural institutions offer family tickets and discount admission for certain age groups (children) and social categories (seniors, unemployed). Heritage Days and Monument Doors Open Days are also traditionally organised where the public is granted access to places usually closed to them and the admission is usually free.

Denmark

Since 2006, the public has free access to the two biggest national museums (the Royal Museum of Fine Arts and the National Museum of Denmark) and children and young people under 18 have free access to all state approved museums.

Since 2006 there is also an Internet portal⁴⁵, where schoolteachers can search educational material of Danish museums and use the knowledge in their teaching. Also, many cultural institutions provide special activities for children, such as the Danish Film Institute and music schools that offer music education.

In Denmark the countrywide programmes strategy *Kultur i hele landet*⁴⁶ aims at supporting culture outside the metropolitan area. The EACEA national policies platform explicitly mentions the country's measures to reduce geographical barriers for people to participate in cultural life, such as the allocation of state funding to 97 museums and other long range of cultural institutions all over Denmark. Noteworthy is the fact that the country has laws enforcing the obligation of these spaces to adapt to the needs of people with disabilities.

Estonia

⁴⁵ See <http://www.e-museum.dk>

⁴⁶ See <https://kum.dk/ministeriet/udgivelser/kultur-for-alle-kultur-i-hele-landet>

Several cultural institutions have special discounts or membership cards. For instance, museums are free of charge for children under 9 years old, disabled persons and their companion. Also, there is an annual Museum Night, when most museums are open free of charge.

The Culture Endowment and the Ministry support the programme Theatre to Rural Areas to guest performances in the countryside or to help rural school groups to visit performances in theatre-cities. Furthermore, the Ministry's programme Support for Music Festivals and Support Programme to Private Organisers and Music Groups helps to reduce the urban rural difference.

There is also a support for the digitalization of museums, archives and libraries to increase the accessibility of their cultural service.

Finland

Cultural institutions have introduced audience education programmes and have increased co-operation between schools, cultural institutions and artists. One example is the audience education programme of the National Opera. There are also different programmes aiming at creating opportunities for children to participate in the cultural life and offering cultural education programmes to people during their whole life span.

France

To tackle territorial differences, the Ministry carried out the opening of Maisons de la Culture (community culture and arts centers) in the 1960s.

There are low or free entrance fees to numerous national cultural institutions and, since 2009, the Ministry of Culture has granted free entrance to the permanent collections of national museums and monuments for all people under 26 living in the European Union. In Paris, several national museums are free to everybody in the first Sunday of each month.

At the level of territorial authorities, cultural "cheques", "cards" or "vouchers" give targeted individuals (usually to young publics) access to diverse institutions (such as cinemas, theatres, museums, bookshops, etc.). In 2009, 18 out of 22 French metropolitan

regions had a scheme like this. Furthermore, in 2021, France initiated a programme that gives all 18-year-olds €300 to spend on any kind of cultural goods or services.

Georgia

The Ministry of Culture and Monument Protection and the Ministry of Education and Science launched, in 2015, the joint project "The Field Trip to Theatres" for school students to learn about theatre's history, attend rehearsals, meet with theatre directors and actors and enjoy a 50% discount on tickets.

Part of the state budget is dedicated to the promotion of cultural life of regions, for instance through the implementation of regional festivals, theaters, movies and exhibitions, tours of state theaters and musical centers in the regions, among others. Moreover, other programmes have been implemented in the context of the 'Culture strategy 2025' to raise awareness to culture, such as the European Heritage Days and the Night in Museum. Noteworthy, cultural institutions and events focus at integrating people with disabilities and ethnic minorities.

Germany

Some initiatives promote participation in cultural life for people with lower incomes or for children and young people. For instance, the programme *Kultur macht stark* (Culture makes you strong) launched by the Federal Ministry of Education and Research in 2013 supports projects that are explicitly aimed at children and young people with low education, low income or parental unemployment. Also, several cultural institutions provide free admission for children and young people, as is the case in numerous museums. Worth mentioning is also the initiative Kulturlogen (culture lodges), carried out in several cities and rural districts to enable people with lower incomes to have free access to cultural performances by distributing seats that are provided by theatres and other cultural institutions.

Greece

Free entry to museums and galleries has been a major policy supporting the familiarization of certain groups, such as children and adolescents up to the age of 18 years, students of higher education institutions, unemployed people, those serving their military service, employees of the Ministry of Culture and of the Archaeological Receipts

Fund and tourist guides and journalists. Furthermore, museums are free for all visitors on Sundays during the low season. People over the age of 65 pay a reduced price. In addition, lower income workers and their families have access to reduced theatre tickets under a scheme operated by the Ministry of Labour.

Support to produce films is provided by the Greek Film Centre. Also, TV channels are required to provide a subsidy for the promotion of cinema⁴⁷. The distribution and screening of films and open-air cinemas are supported through a network of municipal cinemas.

Holy See

The last Sunday of each month is a free-entry day for the Vatican Museums. There are also facilities for student groups.

Hungary

There are several publicly subsidized events, such as the Day of Open Heritage, the International Day on Monuments and Sites, the Night of Museums, the Month of Libraries, among others. During these days, the participating institutions offer free entrance and special events for the participants.

Ireland

Museums and galleries in Ireland are free of charge for all to attend.

The Creative Ireland Programme 2017-2022 has two out of five pillars focusing on cultural participation. First, participatory opportunities are created for children and young people within and outside the formal education setting in partnership with schools and other youth services. The second pillar supports over 2500 creative projects in partnership with local authorities, to enable cultural participation in every community.

Italy

Most initiatives undertaken to foster participation are on the supply side. For instance, opening, reopening, modernizing and prolonging opening hours of cultural institutions.

⁴⁷ In practice, this measure is adhered only by the public broadcasting corporation ERT.

Furthermore, special events of international significance like the White Nights, the Museum Night, the Heritage Weeks and the Feasts of Music are strategically organized.

Most measures on the demand side are mainly targeted at attracting younger audiences, like the introduction of more flexible types of theatre subscriptions, as well as the offer of lower prices for cinema attendance in the afternoon, opera rehearsals and free access to museums for those under 18 years old. Furthermore, since 2014, access to all national museums and monuments is free of charge every first Sunday of the month and there are at least two Museum Nights (instead of one) every year (with an entrance fee of €1).

Latvia

Several cities offer membership cards or discount cards for cultural events. Most of the museums have a free entrance day or range of hours each week. Museums do not require an entrance fee for children under 7 years old and for other disadvantaged groups of society (such as children from large families and disabled persons). Latvian museums also participate in the international Museum Night event.

There is a programme for the digitization of libraries, which contributes to the accessibility of cultural services in regions. Also, in collaboration with the state agency "Cultural Information Systems", a digital platform⁴⁸ has been developed to provide public a film catalogue that can be watched from home and public libraries.

Several projects have been developed by the National Film Centre of Latvia to promote the distribution of national films throughout the country, such as the "Film Marathon", the "Films for everyone and everywhere in Latvia" and the "Cultural Spot". Furthermore, the project "Film education at schools" has been developed to encourage teachers to include Latvian films in the learning process.

Lithuania

In 2018, the Lithuanian Ministry of Culture in cooperation with the Ministry of Education, Science and Sport, launched a programme for schoolchildren called *Kultūros pasas* (Cultural Pass). The measure provides each pupil with a "cultural passport" worth €15

⁴⁸ See <https://filmas.lv>

per school year that can be used for visiting performances, concerts or exhibitions, either with their class or individually (depending on their age groups).

Since 2019, under the initiative of the Ministry of Culture, permanent exhibitions of national and state museums are free of charge every last Sunday of the month.

The “2012-2020 Programme for the Development of Regional Culture” establishes priority areas of regional cultural development and create conditions for cultural access and dissemination by making the regions more attractive for local communities, investors and tourism. Furthermore, since 2008, the contest “Lithuanian Capital of Culture” has been organized to select every three years one Lithuanian town (except for the capital Vilnius) to receive special funding to implement cultural programmes, festivals, exhibitions and provides educational workshops for children and young people. Also, the Minor Lithuanian Capital of Culture competition is organized since 2015 by the Union of Rural Communities of Lithuania to stimulate cultural life in small villages.

The “Reading Promotion Programme for 2019 – 2021” provides events, conferences and workshops aimed at modernization and accessibility of reading environments, as well as the development of reading competences and of a positive attitude towards reading.

Macedonia

Special segments of the population (such as students) pay 50% of the full ticket price for museums.

Malta

There are free cultural events, such as the all night *Notte Bianca*. Furthermore, Heritage Malta has also introduced a year family pass to access all historical sites at minimal cost and it holds regular open days in various museums and historical sites. Free events and reduced ticket prices for students and senior citizen are also frequently offered by cultural institutions. Additionally, students also have a €15 credit, funded by the state, for three years to spend in cultural events. Finally, Heritage Malta also runs a comprehensive education programme for school children.

Monaco

The government introduced an artistic education policy in schools and colleges.

The Museums in the Principality provide preferential rates for the young and the elderly (youth card and pensioners' card). Furthermore, admission is free to all art exhibitions organized by the Department of Cultural Affairs and every summer there is a season of open-air theatre and an international organ festival free of charge.

The government has supported the improvement of the cultural infrastructure by funding the construction and renovation of cultural locations.

Norway

The Cultural Rucksack (*Den kulturelle Skolesekken*) promotes participation of school children and high school students in cultural life, for instance through arts and culture education.

Poland

Free admission at museums is guaranteed one day per week and some reduced tickets are available, as stipulated by the 1996 Law on Museums.

Museums and, more rarely, public theatres have developed cultural education agendas for children and youth. Furthermore, cultural centres cooperate with schools as part of a cultural education programme. Cultural centres also play a role in providing facilities for amateur art activities and helping to organise different events.

The Ministry of Culture and National Heritage runs the Accessible Culture programme to support activities aimed at favouring social integration and eliminating access barriers, with a particular emphasis on people living in deprived localities.

The Ministry also runs the Digital Culture programme, to develop and digitise cultural heritage resources, as well as to make them available and enable their re-use for popularisation, educational and scientific purposes.

Portugal

Efforts to encourage cultural participation focused on the supply side include increasing the number of touring cultural projects, launching new programmes for amateur and university theatre and promoting cultural activities addressed to young people.

Museums and other cultural institutions work with schools and municipalities to promote cultural education.⁴⁹

National museums have reduced tariffs for students, teachers, researchers, museology professionals, adults over 65 years and sponsors. On Sunday mornings, entrances are free for all visitors. Furthermore, book loans in Portuguese public libraries have no costs for users.

Romania

The programme *Investete in Tine*⁵⁰ (Invest in yourself) is a governmental demand side scheme that grants a credit to individuals aged between 16 and 55 years old within the education system or who are attending professional reconversion or specialisation courses, authorised by the Ministry of National Education and the Ministry of Labour and Social Justice, for a maximum period of 10 years. The destination of the credit is to cover needs in terms of education, health and culture.

The programme *Școala altfel*⁵¹ (Alternative School) supports culture in education. During each school year, a week is planned for extra-curricular educational activities, that may be organised as workshops of theatre, dance, music, plastic arts, media and cinema, competitions, volunteering, community activities, among others.

Russia

Support for participation is most successfully realized through the organization of special cultural events, festivals and regional projects. There are also programmes aimed at developing particular types of cultural activities, such as the National Programme for

⁴⁹ Furthermore, targeting children and young people from disadvantaged social and economic backgrounds, the Choices Programme, funded by the Ministry of Labour and Social Solidarity and the Ministry of Education, Science, Technology and Higher Education, promotes social inclusion through various activities, including cultural and artistic ones.

⁵⁰ See <https://www.fngcimm.ro/investeste-in-tine>

⁵¹ See <https://www.edu.ro/sites/default/files/Metodologie%20Școala%20Altfel.pdf>

Support and Development of Reading, which proposes the promotion of reading in the mass media, competitions and festivals all over the country. Furthermore, special screenings devoted to film history are popular in big cities, where cinemas work in co-operation with archives, but also exist in the regions. For instance, in Moscow, the "Illusion" cinema theatre organizes annual festivals of archive films and, in Perm, the media socio-educational project 'Perm Cinemathèque'⁵² is organized mainly for educational purposes.

San Marino

The main instrument used in San Marino is the reduction of prices. For instance, performance and concert tickets did not considerably increase from 1999 to 2003, except for some downward or upward adjustments due to the introduction of the Euro. Furthermore, subscription systems have been applied in the theatre and music performance sectors. Moreover, the San Marino citizens have free access to State Museums and discount packages are available to foreign visitors. Special events, such as the European Heritage Day, are also organized every year. The use of digitalization is applied to the museum sector through the introduction of multimedia tools to attract specially young visitors.

Serbia

Public authorities have focused on fostering popular and outdoor cultural events. Other initiatives are also carried out by the cultural institutions through the use of technology, e.g., using websites, social networks and new online payment solutions. Also, museums have increased the number of programmes directed towards specific audiences, such as families and children. For instance, the Museum Night⁵³ is a festival run as a civil society initiative.

Slovakia

Since 2006, the Ministry of Culture launched the cultural vouchers, distributed to students and teachers of elementary and secondary schools for attending registered cultural events, organizations or heritage sites (museums, galleries, libraries, theaters, cultural centres). These vouchers are issued in sets worth four euros (four vouchers of one euro each).

⁵² See <http://www.permcinema.ru>

⁵³ See <http://muzejisrbije.rs>

Every year the Ministry of Culture of the Slovak Republic issues around 740,000 sets of vouchers. Most culture vouchers are used for theatre performances (25.7%) followed by educational concerts (18.9%) and library membership (10.8%)⁵⁴.

Furthermore, cultural institutions frequently offer reduced entry prices for frequent visitors or for other target groups (students, pensioners, disabled people), advantageous group tickets, special seasonal offers, etc.

The project “Digitisation of the content of repository institutions” covers the preservation and digitization of cultural heritage from local, regional and national repository institutions, which can be accessed through the web portal www.slovakiana.sk⁵⁵.

Spain

The main activities carried out by the Ministry and at the regional level are supply side initiatives, such as the modernisation and restoration of institutions (archives, libraries, museums, theatres, concert halls, etc.). To inform audiences about cultural activities, the Ministry's online portal and channel *Cultura* (Culture) allows access to audiovisual content on the cultural activity carried out by the Ministry and its institutions. At the regional level, the establishment of networks for the performing arts and music circulation also occurs.

Furthermore, various regional programmes aim at attracting students, young generations and other targeted groups to participate in cultural life, for instance by offering tickets at low prices. One example is the initiative Valencian Cultural Bonus⁵⁶ of the Department of Culture of the Valencian Community, which provides 21% tax deductions in the amount spent on culture by people with an annual income of less than € 50.000. Similar initiatives were also launched in different regions: in the Basque Country⁵⁷, where the Provincial Council of Bizkaia sells cultural bonus of €40 euros for reduced prices of €25 or €15, depending on the type of cultural product or event to be consumed; and in Madrid,

⁵⁴ See <https://www.coe.int/en/web/culture-and-heritage/-/culture-vouchers>

⁵⁵ See <https://www.coe.int/en/web/culture-and-heritage/-/digitisation-of-the-content-of-repository-institutions>

⁵⁶ See <https://ivc.gva.es/es/ivc/proyectos/abono-cultural-valenciano>

⁵⁷ See https://www.bizkaia.eus/Kultura/BonoKultura/bono_kultura.asp?Idioma=CA&Tem_Codigo=8223

where the JOBO⁵⁸ programme offers free entrance to different cultural institutions, including cinema and performing arts for young people between 16 and 26 years old. Moreover, the Youth Institute or similar institutes at the regional level distribute the “Euro<26 Card”, which gives to young people discounts between 10% and 100% on tickets for museums, theatres, cinemas and music festivals.

Moreover, the most representative associations of the film industry have launched initiatives to attract people to the cinema. For instance, the campaign “Wednesdays at Cinema”, launched in 2014, allows the public to watch films for reduced ticket prices every Wednesday during a certain period of the year. cinema visitors could watch a film for a reduced ticket price every Wednesday.

Sweden

Within various cultural sectors, there are organisations specifically supported by the government for increasing cultural participation. For instance, Skådebanan (theatre and music) provides information and tickets and Konstfrämjandet (mainly visual arts and literature) reach people in their working environment to promote purchasing of graphic art and literature at reduced prices. Furthermore, every year a free catalogue (Barnbokskatalogen) is distributed to libraries, bookstores, and schools by the Swedish Arts Council listing all newly published children's literature.

Some policies focus on arts education. Near 34% of the total budget for cultural policy is allocated to *folkbildning* (popular adult education). The major recipients of government grants for cultural activities are study associations, which organize activities that range from lectures and study circles on cultural subjects to rock music and theatre groups rehearsing.

Switzerland

The “Museum Night” offers free admission to all museums for one night and is organized at different times of the year in various cities in Switzerland. Moreover, the Swiss-wide programme “museum passport” offers, for a fixed fee, admission to 500 museums all over

⁵⁸ See <https://www.madrid-destino.com/cultura/jobo>

Switzerland. Switzerland also takes part in international programmes such as the “European Heritage Days”.

Furthermore, the Federal government supports projects dedicated to social issues and, it funds 50% of the Bibliomedia Schweiz (the other 50% is funded by the cantons), a public foundation committed to library development and reading promotion. In the rural regions, local cultural associations play an important role, and participation in cultural life is linked to living traditions.

The Netherlands

Cultural participation is mainly supported and funded at the local level. Many municipalities subsidise amateur arts associations, like choirs, theatre clubs, orchestras and the facilities they use. There are also local funds for cultural activities and sports aimed at children and teenagers who grow up in poverty. Some larger municipalities stimulate receptive cultural participation by means of a City Pass (*Stadspas*) delivered to people with a low-income, offering discount on admission fees.

At the national level, the Ministry of Education, Culture and Science have been mainly investing in cultural education programmes for schools. The Ministry has also launched a new ambitious cultural participation programme in 2019-2024, with a broader scope than only school-related activities, and almost multiplying by three its budget for fostering cultural participation. This programme contemplates mainly funds and subsidies for active cultural participation. Concerning receptive forms of participation, the national government has invested in initiatives such as: The National Digital Heritage Strategy to improve the digital accessibility of heritage; a Culture Card for secondary school students (in 2019, more than 750.000 received it), which makes €5 available for each student to pay for cultural activities, frequently complemented by additional €10 afforded by the school on a voluntary basis (89% of the schools do it)⁵⁹; and the MBO Card for students in intermediate vocational education to have discount on tickets for museums, musicals, theatres and festivals.

⁵⁹ See https://en.unesco.org/creativity/policy-monitoring-platform/culture-card-cultuurkaart-mbo#_ftn1

Furthermore, a museum pass introduced by the Netherlands Museums Association at the annual cost of €64.90 for adults and €32.45 for children enables subscribers to visit unlimitedly more than 400 museums in the Netherlands. In 2005, 31.5000 people possessed a Museum Pass, a number that increased, in 2018, to almost 1.4 million people who visited a museum 8.9 million times.

Ukraine

Local authorities and the federal government support special programmes, e.g., book fairs. Additionally, the National Museum of History of Ukraine has developed a set of special programmes (interactive tours, quests, games, and excursions) for children and adults.

Concerning digital culture, the National Parliament Library of Ukraine created the electronic library "Culture of Ukraine", with the support of the Ministry of Culture, to provide access to the Ukrainian culture and art through the Internet.

United Kingdom

In 2001, the Labour Government ensured free access for all to museums and galleries. This resulted in significant increases in attendance (on average, visits by children under 16 increased by 80% and visits from adults increased by 70%). However, whereas free admission increases visitor numbers, it causes little changes to the demographics of visitors, which is an indication that attendance barriers are not solely monetary in nature.

A series of cultural education programmes exist in the UK, for instance to foster the relation between schools and arts organisations. Furthermore, the 'Music Education' Hubs offers children the opportunity to learn to sing and play a musical instrument and the 'Take it away' is a scheme which aims to make musical instruments more accessible to children and young people by providing interest-free loans of up to GB£ 5,000.

Some policy actions have also been implemented to foster cultural participation among vulnerable people and those affected by economic deprivation. The Arts Council England (ACE) makes it a requirement for its funded institutions to devise ways to reach the groups of the population that are least likely to engage in the arts. There are also strategic

funds that support audience development and organisations that offer training and resources for arts institutions and to help them increase and diversify their audiences.

Another recent initiative are the Social Prescribing schemes, launched by the UK's National Health Service (NHS), which enable primary care practitioners to refer patients to a range of non-clinical services aiming at improving their health outcomes, including a range of arts activities. While the primary objectives of the Social Prescribing programme are the improvement of patients' quality of life and a reduction of demand on NHS services, the programme is expected give arts participation a boost.

Furthermore, "Art UK" is an online platform supported by the ACE' public funding, which makes digital arts available for enjoyment, research and learning purposes.

Chapter 7. General conclusion

7.1 Final remarks and policy implications

Tackling inequalities in cultural participation has been a primary research and policy focus for practitioners in the field of culture. With positive effects to the individual wellbeing, the community welfare, and spill overs across other economic sectors, it is clear the importance of giving each individual the appropriate conditions and opportunities to engage in cultural activities and consume cultural content. However, inequalities in cultural participation persist and affect mainly the most vulnerable individuals.

Most of the existing research have focused on socioeconomic and demographic individual characteristics to explain inequalities in cultural participation, including factors such as age, gender, education, income, occupation, race, and the household structure. The location where individuals live are usually superficially considered, typically using aggregate measures indicating for instance if it is an urban or rural area. A review of the literature focusing on the determinants of cultural participation in general (chapter 2) and on online/digital cultural participation (chapter 3) showed that the different realities of people living in diverse geographical contexts are neither comprehensively approached by theoretical approaches, nor appropriately incorporated into empirical analysis.

The primary assumption of this thesis was that geographical/territorial/spatial aspects are at the origin of several sources of unequal conditions and opportunities for cultural participation. Considering this, its main objective was to explore theoretically and empirically how these aspects shape cultural participation.

To achieve this, the thesis departed from a mobilization of relevant contributions of the literature to build a theoretical framework proposal to explain the mechanisms through which territorial aspects shape cultural participation behaviour. The proposed framework comprehended the role of three types of factors: type 1 are territorial characteristics endogenous to the cultural sector (e.g., cultural supply and policies); type 2 refers to the socioeconomic and demographic environment; and type 3 are non-socioeconomic factors exogenous to the cultural sector (such as urban violence).

Noteworthy, the theoretical framework acknowledged the correlation of each factor with the socioeconomic and demographic characteristics of residents in the locality. While factors of type 3 were only (limitedly) examined by previous literature as determinants of leisure activities in general (and not cultural activities in particular), factors of type 1 and 2 were tested by a few empirical studies as determinants of cultural participation, although with non-negligible methodological limitations and without considering cultural participation by online/digital means.

Based on the theoretical framework and given the gaps in the literature, two empirical studies were carried out to illustrate and verify the role played by territories on cultural participation. The first (chapter 4) looked at the way that violence (type 3 factor) influences an individual's decision between going out of the home to consume culture or consuming it at home. Using cross-cutting data from 16 favelas in Rio de Janeiro, the findings showed that individuals fearing violence prefer to consume culture at home. This indicates that security issues in the territory limit the cultural choices that an individual has and represent an obstacle for urban regeneration through the stimulus of a cultural environment in unsafe areas.

The second study (chapter 5) observed how the accessibility to cultural facilities (type 1 factor) and the socioeconomic environment (type 2 factor) influence the consumption of online/digital culture. Based on data from the 2018 French Cultural Practices Survey, the study revealed that while the socioeconomic environment is always positively associated with online/digital cultural participation, the accessibility to cultural facilities has a U-shaped relationship with online/digital cultural participation. In other words, digitization and the Internet do not help reducing the negative impact of living in an underprivileged socioeconomic environment, but it seems to support the cultural participation of individuals living in very remote areas, with very low (or no) accessibility to cultural facilities. This suggests that technology can help mitigating the negative impact of physical distance to culture on cultural participation, but not the negative impact of the social distance to culture when living in an underprivileged socioeconomic environment.

A follow-up objective of the thesis aimed at examining to what extent have cultural policies and programmes accounted for geographical aspects in their design and implementation. To answer this question, this thesis examined the main international principles and fundamentals that guide policies for cultural participation and critically

reviewed policies and programmes focusing on cultural participation across 38 countries (chapter 6). A review of key documents indicated, on the one hand, that international principles and public discourse orienting cultural policies emphasise the importance of correcting inequalities and considering territorial aspects; and on the other hand, that cultural policies are strongly influenced by economic fundamentals that put creative industries as drivers of socioeconomic development but overlooks the obstacles for cultural equity, particularly in respect to territorial disparities. Furthermore, the examination of cultural policies employed across several countries indicated that geographical aspects are not tackled by policy programmes aiming at addressing cultural inequalities. Instead, cultural policies are usually untargeted to the local needs, that is, they are either broadly designed or do not consider geographic aspects when defining a target group. It is argued that this negligence challenges the effectiveness of policies and programmes to foster equity in cultural participation.

Henceforth, this work has developed a set of policy recommendations that can be used to inform the design of policies and programmes aiming at improving equity in cultural participation:

- (i) First, the results of the empirical study presented in chapter 4 suggest that cultural policies should be designed in coordination with wider social policies, including security and urban policies. It indicates that the employment of supply side policies alone is not effective to tackle inequalities in cultural participation.
- (ii) Second, the empirical study developed in chapter 5 suggests that the opportunities of accessing culture from anywhere through new technologies are constrained by the unequal distribution of cultural capital and of digital literacy. In this sense, policies to foster digital cultural participation in unfavoured areas should stimulate the development of creative environments to fight symbolic obstacles constraining cultural participation. Demand-side instruments can be used, for instance, by offering, in these areas, cultural vouchers for the consumption of online/digital culture. Additionally, cultural policies need to be coordinated with digital policies that support high-quality Internet dissemination in remote areas, where digital/online cultural consumption can work as substitute to other modes of cultural participation.
- (iii) Overall, broadly designed untargeted cultural policies should be replaced by structured programmes targeted to specific groups and considering the limitations

imposed by geographical aspects. It is also suggested that programmes can better account for local specificities when following a bottom-up demand-driven approach.

7.2 Limitations and avenues for future research

This thesis has added value to the limited literature studying the association between territorial differences and cultural participation inequalities. It has extended the topic theoretically, empirically, methodologically and in policy approaches. The analysis has offered several insights about the way that geographic aspects influence cultural participation, and it opened avenues for future research.

First, prospective studies can examine the influence of other territorial features exogenous to the cultural sector over choices of cultural participation. For instance, the influence of the quality of public transportation or of climate characteristics can be empirically verified. Also, more research is needed to analyse how zones affected by detrimental geographical aspects, especially those exogenous to the cultural sector, can benefit from the technological developments and the possibility of consuming culture by digital/online means. Given the restrictions that violence, public transportation, the weather or other spatial aspects may cause to mobility, Internet could be used as compensation tool for certain activities. However, the study developed in chapter 4 of this thesis and other previous research show that digital/online culture is not a perfect substitute for traditional cultural participation modalities and that it does not necessary reach a more diverse audience. Further analysis is needed to unravel the benefits that cultural participation by digital/online means may provide and to analyse how these benefits can be better distributed across different groups of people.

Furthermore, the findings of this thesis can be used to inspire studies in other sectors. For instance, the non-linear association between the accessibility to physical facilities and digital/online participation is a finding that could be verified for other items that are consumed online or other activities done by digital means. Moreover, the constraint that violence imposes to urban mobility might similarly affect other sectors, which could also benefit from the use of technology to deal with the spatial avoidance behaviour of consumers. The examination of these topics is especially relevant in a context in which technological advances allow more and more the substitution of

activities that traditionally require going out for Internet-based alternatives, a trend that has been accentuated by the social distancing imposed by the Covid-19 pandemic.

Noteworthy, this thesis is not without limitations, and future studies can help improving, extending and reinforcing the reliability of the results. For instance, the surveys' range were of limited scope in terms of geographical reach, which raises a question about the external validity of the findings. Forthcoming research can examine to which extent the empirical findings of chapters 3 and 4 hold for the other contexts (countries or cities) and time periods (considering the evolution of technology dissemination). Also, the two empirical analyses developed in this work were based on cross-sectional surveys and did not capture any temporal variation, which may result in measurement errors and omitted variable biases. Future research could instead, if available, use time series data.

Another limitation of this thesis is the fact that chapters 3 and 4 have been based solely on quantitative investigation, using econometrics. While this is the typical methodology used in research on the determinants of cultural participation, given the social and psychological nature of the topic, it is recommended to use also qualitative analysis to qualify the findings. The use of interviews and focus group would surely improve the examination by complementing the results with subjective nuances and people's perceptions that could further explain the role played by geographical differences at shaping cultural participation behaviour and by offering new insights on how to address inequalities. Whenever possible, forthcoming studies should use mixed methods to address the topic of cultural participation inequalities.

Finally, the overview of policies and programmes done in chapter 6 is a static picture and does not reflect the whole world. It would be helpful to complement the analysis with information about other countries and to better qualify the findings by conducting in-depth interviews with policymakers. The qualitative analysis would help further exploring the way that cultural policies are designed and implemented when attempting to tackle inequalities in cultural participation.

"To finish a work? [...] What nonsense! To finish it means to be through with it, to kill it, to rid it of its soul." (Pablo Picasso, quoted by Jaime Sabartés in Picasso: portraits et souvenirs, 1946)

“Terminer une œuvre ? Achever un tableau ? Quelle bêtise ! Terminer veut dire en finir avec un objet, le tuer, lui enlever son âme.” (Pablo Picasso, cité par Jaime Sabartés in Picasso: portraits et souvenirs, 1946)

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