



Cultural Practices and Socio-Digital Inequalities in Europe: Towards a Unified Research Framework in Cultural Participation Studies

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Abstract

In this article, we propose a unified research framework for studying the impact of social and digital inequalities on four types of cultural practices: offline art-related practices, offline everyday cultural practices, online art-related practices, and online everyday cultural practices. In contrast to the research traditions that study them separately, we argue that the subject of further research should be the interplay between cultural practices in offline and online domains and that the impact of social and digital inequalities on cultural participation should be studied jointly. Based on empirical evidence from a large-scale research project carried out in nine European countries, we demonstrate the benefits of sidestepping what we see as a strange disconnect

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between the research traditions studying cultural practices and inequalities in the offline and online spheres separately. The results of our research show that only the inclusion of online and everyday cultural practices in the analysis does justice to the complexity of contemporary cultural participation and its relation to what we refer to as socio-digital inequalities.

Keywords

embodied digital capital, European space of cultural practices, everyday cultural practices, offline and online cultural participation, socio-digital inequalities

Introduction

In this article, we propose a unified research framework for studying the impact of inequalities on cultural practices. This is partly a reaction to a strange disconnect between the research traditions that deal with social inequalities and their impact on cultural practices and those focusing on digital inequalities. In the social context in which the division between offline and online domains of life has become increasingly blurred, we argue that it is necessary to study the joint impact of what we call socio-digital inequalities¹ on all types of cultural practices. Furthermore, we argue that the conceptualisation of cultural participation needs to be broader than is usually the case. Namely, cultural participation studies have so far rarely included indicators of everyday cultural practices, which led to their failing to register the cultural activity of large parts of the population. That is why, in our research, we study offline art-related practices, offline everyday cultural practices, online art-related practices, and online everyday cultural practices.

In the text that follows, we apply the proposed unified framework for studying the impact of socio-digital inequalities on all types of cultural practices, using primary survey data from nine European countries (the Netherlands, France, Spain, Great Britain, Denmark, Finland, Switzerland, Croatia and Serbia). Our results, presented in the text, demonstrate that the proposed approach yields a picture of cultural participation in Europe that is radically different from the one obtained using a limited scope of indicators of inequality and cultural participation.

In what follows, we first discuss the different trajectories and gradual convergence of the research traditions dealing with social and digital inequalities. We also explain why we consider it necessary to broaden the conceptualisation of cultural participation. We then provide information on the survey data on which we conducted our analyses and the methods used in this process. In the results section, we first construct a European map of cultural practices using Multiple Correspondence Analysis of survey data on participation in art-related and everyday culture (both in the offline and online spheres). In the next step, we identify the principal dimensions of this map and, as supplementary variables, project indicators of respondents' cultural, economic and embodied digital capital. Following that, using linear and multi-level regression analysis, we examine the level of impact on cultural practices of these types of capital, as well as the influence of the differences between respondents in terms of gender, age, place of residence, and citizen/migrant status. In the final part of the article, we answer the research questions based on the insights obtained by the proposed unified framework for studying cultural participation.

Social and Digital Inequality Research: Reviewing Two Separate Traditions

In the final decade of the 20th century, studies of social inequalities and digital divide studies became established as two parallel research traditions with very little mutual contact, little information exchange and little collaboration (Halford and Savage, 2010: 938).² Only over the last 10 years has there been a very gradual convergence between the two, as can be seen in the conceptions of the ‘third digital divide’.

On the one hand, the main traditions in social inequality research have not given much acknowledgment to the importance of inequality in the digital sphere. Within social inequalities research conducted from the 1990s onwards, the central topic was whether the notion of class was still a relevant category for the analysis of social relations (Clark and Lipset, 1991; Pakulski and Waters, 1996) and whether it should be studied from a Weberian (Goldthorpe and Marshall, 1992), Marxist (Wright, 1997), or neo-Durkheimian tradition (Grusky and Sørensen, 1998). The ‘culturalist class analysis’, working within a Bourdieusian framework, is especially relevant for cultural participation studies because its extended concept of class includes symbolic aspects and views culture as one of the central mechanisms through which class positions are constituted (Bennett et al., 2009; Savage, 1994, 2015). However, even in this line of research, the study of the impact of digital inequalities has been very limited.

On the other hand, digital inequalities were taken as a separate subject of analysis by an emerging tradition that lacked a more comprehensive theory of social inequality³ (Kennedy et al., 2003; Van Dijk, 2005). The study of digital inequalities developed in three phases, referred to as the first, second and third levels of the digital divide.

At the dawn of the digital age in the 1990s, studies of digital inequality referred to a dichotomic division between those who had access to the internet and those who did not (DiMaggio et al., 2001, 2004). As internet access expanded over time, research focus shifted to the different ways in which digital technologies were used, taking into account motivations, interests and digital skills, as well as people’s social, cultural and economic backgrounds (Hargittai, 2002; Zillien and Hargittai, 2009). Finally, ‘the third-level digital divide’ concerns inequalities in terms of offline outcomes and benefits that people get from using digital technologies: better education, better jobs, better salaries and bigger social networks. During this phase, the focus shifted towards the ways in which differences in access, skills and uses of digital technologies become a significant source of social inequalities (Helsper, 2012; Ragnedda, 2017; Van Deursen and Helsper, 2015; Van Deursen and Van Dijk, 2014; Van Dijk, 2017). Consequently, in the discussions of the third-level digital divide, we find the first indications of a more substantial connection between the two previously largely separate traditions.

A central theme regarding the relationship between digital inequalities and cultural practices has been whether and to what extent digital media contribute to increasing participation and diversity in the arts and culture and how this relates to changes in taste formation (e.g. DCMS, 2018; Marcella and Chowdhury, 2020; Yeo, 2020). The results obtained by most studies show that, rather than helping to reduce inequalities and increase the diversity of audiences, the use of ICT seems to reproduce and even amplify

the existing inequalities in the cultural field (; Leguina et al., 2021; Mihelj et al., 2019; Purhonen et al., 2021).

Broadening the Conceptualisation of Cultural Participation

Even in the most accomplished studies of the relationship between cultural participation and social inequalities in the last 20 years, one rarely comes across indicators of online cultural participation and everyday cultural practices. For example, in the study *Culture, Class, Distinction* (Bennett et al., 2009), survey questions were related to watching television, movies, reading books, listening to music, participation and taste in the field of visual arts, while only five questions were reserved for everyday cultural activities like eating out and sports. There were no questions about online cultural practices in the survey, but they were discussed in a few interviews.⁴ Similarly, in the second major project on cultural participation at the beginning of the 2000s, in a series of texts written by Chan and Goldthorpe (2005, 2007a, 2007b), respondents were asked whether or not, in the year before the survey, they had attended musical, theatrical, dance, cinema, or visual art events or listened to classical music, opera or operetta, jazz, pop, or rock music. Neither online cultural participation nor offline everyday cultural practices were even mentioned. The same goes for the collection *Social Status and Cultural Consumption* (Chan, 2010), in which cultural participation was analysed in six countries (the UK, the US, France, the Netherlands, Hungary and Chile).⁵

The situation has not been significantly different in the last 10 years, when the third-level digital divide was already widely discussed. In the article ‘Social space and cultural class divisions: The forms of capital and contemporary lifestyle differentiation’ (Flemmen et al., 2018), nine domains of lifestyle were examined: music, reading, newspaper topics, films, holidays, physical activities, cooking, gambling practices and household equipment. Here, several everyday cultural practices were included, but online activities were largely ignored. In the articles ‘The Swedish space of lifestyles and symbolic domination’ (Atkinson, 2021) and ‘The German space of lifestyles: A multidetermined structure’ (Atkinson and Marzec, 2023), lifestyle indicators included the frequency of listening to classical music, hours of television watched, favourite cultural activity, favourite type of restaurant, number/value of cars owned, preferred clothing style, ideal home decor, number of luxury items owned and number of artists known from a given list. Some everyday cultural practices (such as DIY, eating out and bowling) were analysed as part of the answers about favourite activities, while online cultural practices were completely neglected.

A slightly better example is the study ‘A new model of social class? Findings from the BBC’s Great British Class Survey experiment’ (Savage et al., 2013), in which respondents’ engagement with video games, social network sites, the internet, playing sport, watching sport, spending time with friends and going to the gym were analysed as forms of ‘emerging cultural capital’.

The problem with excluding everyday cultural practices and online practices from the analysis is that it results in a large number of so-called ‘cultural inactives’, although many of them are engaged in cultural activities not covered by the surveys. Also, the interplay between online and offline cultural practices, as well as art-related and

everyday cultural practices, produces cultural profiles radically different from those in which many cultural practices are eliminated. That is why we argue that the conceptualisation of cultural participation needs to be broadened to include its currently neglected forms, and we do so in the analysis that follows.

Data and Methods

This article is based on data from a survey study conducted in nine European countries between 15 April and 4 July 2021. The realised sample included 14,384 respondents (out of which 1596 in the Netherlands; 1398 in Spain; 2411 in the United Kingdom; 1666 in Denmark; 1247 in Finland; 1370 in Switzerland; 1200 in Croatia; 1237 in Serbia and 2259 in France). Different surveying techniques were used, which was necessitated by COVID-19 restrictions during the administration period and, in some countries, also by financial limitations.

The realisation of the EU Horizon 2020 project ‘European Inventory of Societal Values of Culture as a Basis for Inclusive Cultural Policies in the Globalizing World’, of which the survey was a part, began in February 2020, one month before the outbreak of the COVID-19 pandemic. The survey was originally planned for the autumn of 2020; however, since the pandemic resurged at that time, it was moved to the spring/summer of 2021. Unfortunately, the situation had not improved much in the period between April and July 2021, when the survey was conducted. Nonetheless, face-to-face (F2F) surveying was realised in Croatia and Serbia. In the remaining seven countries, to ensure sample representativeness, a combination of push-to-web,⁶ computer-assisted web interviewing (CAWI) and the CAWI online panel were used, or the CAWI online panel, computer-assisted telephone interviewing (CATI) and paper-and-pencil interviewing (PAPI).

The survey was administered by specialised survey agencies in each country. Table 1 provides some key figures at the whole sample level.⁷

The most significant limitation of our data is the use of different techniques of survey data collection. However, as can be seen from Tables 1–9 in the Online appendix, all samples are nationally proportional, except for Spain.⁹ An additional limitation is that most of the data collection techniques were online-based. The limitations of online surveying are well known: they include the limited nature of the sample (namely, certain populations are less likely to have internet access and to respond to online questionnaires); lower response rates than for F2F surveys; people often start but abandon completing the survey questionnaire; if the survey is long, the chances of people just hitting buttons to finish are high; and the lack of trained interviewers to clarify and probe can lead to less reliable data.

What we were able to do in the circumstances was the following: when the response rate lagged behind expectations in the main CAWI method used, and when certain categories of respondents (older people, lower-educated people, people who live in rural areas and people with a migrant background) were underrepresented in the realised sample, we tried to rectify this by using additional sampling methods: telephone interviewing and sending questionnaires via postal services.

Attention also needs to be paid to the fact that in the regression models (both cross-national and multilevel), the sample was reduced by one-third due to the missing values

Table 1. Collection of survey data per country: Key figures.

Country	Survey agency	Realised sample	Response rate	Main method(s)
The Netherlands	I & O Research	1596	CAWI 17.5%	CAWI: Push-to-web (72%) CAWI: Online panel (28%)
Spain	Ipsos Spain	1398	CATI 14.2%	CAWI: Online panel (81%) CATI: (19%)
United Kingdom	YouGov	2411	–	CAWI: Online panel (100%)
Denmark	Epinion	1666	19%	CAWI: Push-to-web (> 99%)
Finland	Taloustutkimus	1247	19.2%	CAWI: Push-to-web (33%) PAPI: (67%)
Switzerland	DemoSCOPE	1370	23.3%	CAWI: Push-to-web (90%) CATI: (10%)
Croatia	Ipsos Adria	1200	53.98% ⁸	F2F Face-to-face
Serbia	Ipsos Adria	1237	24.9%	F2F Face-to-face
France	IFOP	2259	CATI 6.4%	CAWI: Online panel (58%) CATI: (42%)

for income and possessions. Likewise, as is well known, the implementation of a cross-national survey is subject to the difficulties of adapting the questionnaire to different national contexts, despite all the precautions taken.

To gain insights into different aspects of the studied phenomena, we used two types of analyses: Multiple Correspondence Analysis (MCA) and multi-level regression analysis. To construct a map of the European space of cultural practices, determine its basic dimensions and explore the relationship with social and digital inequalities, we used MCA (Hjellbrekke, 2019; Le Roux and Rouanet, 2010). This is an exploratory technique with the main goal of identifying hidden structures within the data. However, with the introduction of so-called supplementary variables, it can be used for explanatory purposes as well.

For regression-based analyses, we used a multi-level (or hierarchical) model, which allows us to separate what is related to individuals' features from what is related to the national context (Bressoux, 2008; de Leeuw and Meijer, 2008; Snijders and Bosker, 2003). The characteristic of a multilevel model is that it estimates parameters at several levels in such a way that coefficients (constants and/or slopes) can vary from one level to another.

Variables and Research Questions

In studying the joint effect of inequalities (social and digital) on cultural practices, we used data on four different types of respondents' cultural practices: (1) offline art-related cultural practices, (2) offline everyday cultural practices, (3) online art-related cultural practices, and (4) online everyday cultural practices.

Offline art-related cultural practices are usually used in research on cultural participation. They most frequently include three different types of practices: cultural participation in the public sphere, cultural participation in the private sphere and amateur

cultural production. In our survey, as indicators of cultural participation in the public sphere, we used frequency of attendance at highbrow cultural events (classical music concerts, opera, ballet and theatre performances) and visiting art institutions and heritage sites (museums, monuments and historical places). We also used popular culture indicators (attendance of popular music concerts or festivals). As indicators of cultural participation in the private sphere, we used reading books. And, finally, indicators of amateur cultural production included making artistic photos, paintings, and amateur theatre performances.

In research on cultural participation, indicators of offline cultural practices are usually used independently from the indicators of online cultural practices. However, cultural participation does not consist of separate offline and online activities but of their inseparable mixture. In our research, we analyse them jointly to study their interaction.

We used the following indicators of online cultural practices: listening to music via streaming services (e.g. Spotify, Deezer); watching films or television series on streaming services (e.g. Netflix, HBO, Disney+); visiting online concerts, museums, or performances; buying cultural products or services (e.g. books, tickets, art works); publishing or posting photographs that respondents took themselves.

To broaden the conceptualisation of cultural participation, we also included usually missing indicators relating to everyday cultural practices. In our survey, indicators of offline everyday cultural practices were as follows: visiting local fairs with food and music; visiting a second-hand market, flea market or collectors' fair; visiting a recreational area (e.g. park, beach, forest or lake); doing handicraft or handwork (e.g. knitting, quilting, making pottery or jewellery); doing Do-It-Yourself work and/or making/mending objects around the house (e.g. furniture, cars, computers).

Indicators of online everyday cultural practices were also included in our survey: playing video or computer games online; following celebrities or influencers (e.g. on Facebook, Instagram or YouTube); watching short entertainment videos (e.g. on YouTube and TikTok); using sharing or service platforms (e.g. E-bay, Uber, Airbnb); and online communicating or sharing things with friends or family.

To get a grasp of respondents' conceptions of culture, we also used answers to the question asking them to indicate what belongs and what does not belong to culture in their opinion. Out of 20 indicators in this question, we chose the following as the most discriminating for different conceptions of culture: historical monuments (legitimate culture conception), blockbusters (popular culture conception), hip-hop (alternative popular culture conception) and food festivals (everyday culture conception).

Following the Bourdieusian tradition, as supplementary variables in Multiple Correspondence Analysis, we used indicators of economic and cultural capital. We also used these indicators as predictors in linear and multilevel regressions. Indicators of economic capital included average total monthly income from all sources and estimates of all the possessions respondents and their household members have (house, flat, cottage house, cars, land, savings) minus any outstanding debts (e.g. mortgages, loans).¹⁰ Indicators of cultural capital related to the highest educational diploma respondents and their parents have¹¹ and to the ability, frequency, and variety of use of digital technolo-

gies. As supplementary variables, we also used respondents' gender, age, place of residence and migratory background of respondents.¹²

Research Questions

Once we have proposed to study the joint impact of social and digital inequalities and broadened the conceptualisation of cultural participation, we wanted to establish what kind of transformations this brings to the cultural field and its social determinants. Using the variables outlined in the previous section, we tried to provide answers to the following research questions:

RQ1: What are the basic dimensions of a map of the European space of cultural practices and what is the relation of these dimensions to social–digital inequalities?

RQ2: Which aspects of inequalities (economic capital, cultural capital, digital competencies, gender, age, place of residence, citizen/migrant status) influence different types of cultural practices (offline art-related, online art-related, offline everyday, online everyday)?

Results

The Results of the Multiple Correspondence Analysis

In the results section, we first constructed a European map of cultural practices, using MCA of survey data on participation in elite, popular and everyday culture (both in the offline and online spheres). In the next step, we identified the principal dimensions of this map and, as supplementary variables, projected indicators of respondents' cultural, economic and digital capital. Following that, we also performed a hierarchical agglomerative cluster analysis (HCA) based on Ward's method and identified four clusters based on the similarity of cultural repertoires.

We performed the specific MCA using answers to 24 questions, resulting in 84 active categories. The chosen questions reflect a balance between offline and online, art-related and everyday cultural practices (see Online appendix Table 11).

For the interpretation of the European space of cultural practices, we kept three axes, with a cumulative Benzecri's modified rate of 79.5%. Axis 1 is very strong (with a modified rate of 57.6%), leaving axes 2 and 3 far below, with 12.6% and 9.3% of Benzecri's modified rate, respectively (see Online appendix Table 12).

Axis 1 in Figure 1 received the highest contributions from answers to the questions asking how often respondents buy cultural products or services online (IA: buying culture),¹³ how often they go to popular music concerts and/or festivals (OffA_Popular music), how often they visit museums, monuments or historical places (OffA_Museums), how often they visit online concerts, museums or performances (IA: online concerts) and listen to music via streaming services (e.g. Spotify, Deezer) (IA: listening to music).

As can be seen on the right-hand side of the map in Figure 1, there are indicators of very intensive participation in the activities marked by the following labels: IA: buying

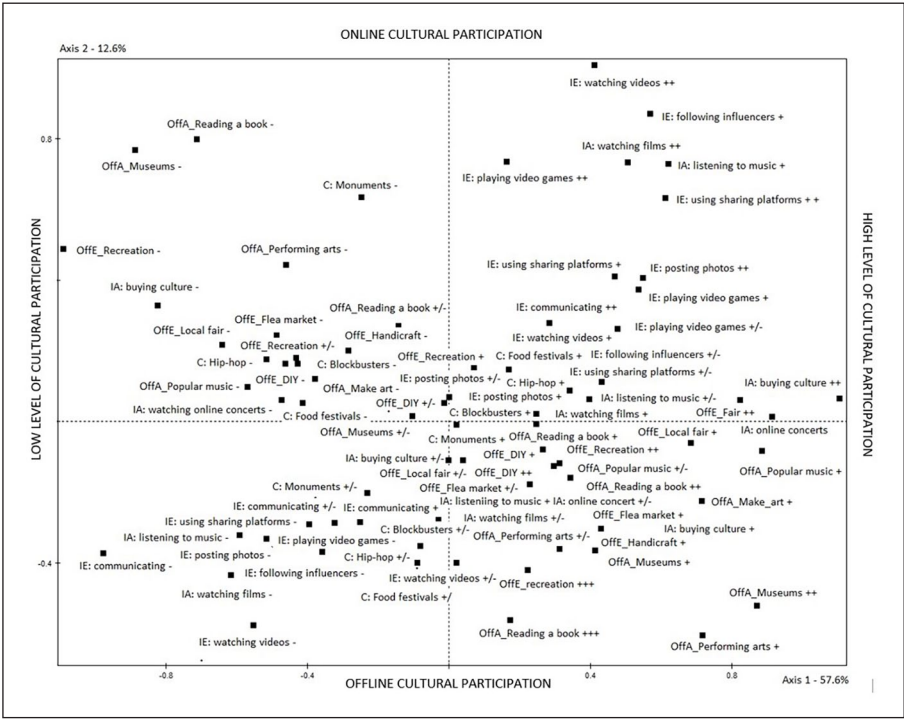


Figure 1. European space of cultural practices, Axes 1–2.

culture++ (in the upper right quadrant), OffA_Popular music + (in the lower right quadrant), OffA_Museums++ (at the bottom of the lower right quadrant), IA: online concerts+ (in the lower right quadrant) and IA: listening to music++ (in the middle of the upper right quadrant). In contrast, on the left-hand side of the map, there are indicators showing low participation or non-participation in the following activities: IA: buying culture- (in the middle of the upper left quadrant), OffA_Popular music - (in the upper left quadrant), OffA_Museums- (at the top of the upper left quadrant), IA: online concerts- (in the upper left quadrant) and IA: listening to music- (in the middle of the lower left quadrant).

This points to an opposition between active cultural participation (both offline, online, art-related and everyday), indicated on the right-hand side of the map, and a low level of cultural participation (in all the mentioned types of practices). Therefore, Axis 1 can be described as an axis of the *intensity of cultural participation*.

Axis 2 in Figure 1 receives the highest contribution from the answers to the questions about whether respondents watch short entertainment videos (IE: watching videos++, at the top of the upper right-hand quadrant, and IE: watching videos-, at the bottom of the lower left quadrant); follow celebrities or influencers on Facebook, Instagram or YouTube (IE: influencers+, in the right hand upper quadrant, and IE: influencers-, in the

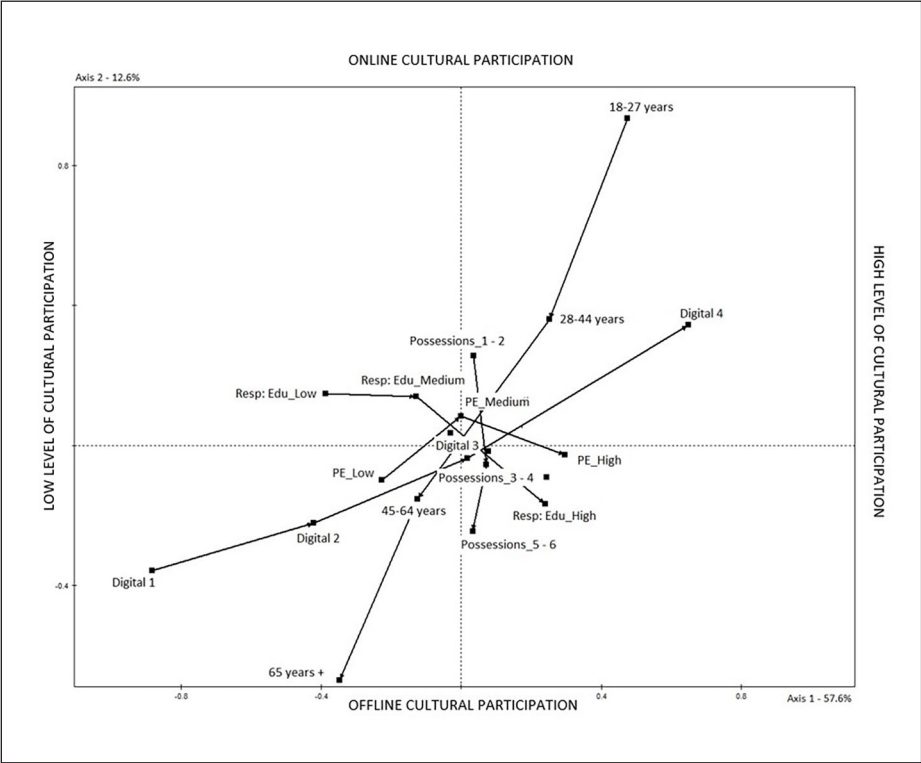


Figure 2. Projection of supplementary variables in the European space of cultural practices.

lower left hand quadrant); read a book (OffA_Reading a book + + +, at the bottom of the right hand quadrant, and OffA_Reading a book -, at the top of the upper left quadrant); attend classical music concerts, opera, ballet or theatre performances (OffA_Performing arts +, at the very bottom of the right hand quadrant, and OffA_Performing arts -, in the middle of the upper left quadrant); and visit museums, monuments or historical places (OffA_Museums + +, at the bottom of the right hand quadrant, and OffA_Museums -, in the upper left hand quadrant).

Axis 2 shows an opposition between a very high level of all online practices (at the top of the map) and a very high level of offline, but only art-related, practices (at the bottom of the map). Therefore, Axis 2 can be described as an axis showing *opposition between online and offline cultural participation*.

Axis 3 in Figure 1 receives the highest contributions from answers to the questions asking how often respondents buy cultural products or services online (IA: buying culture), visit online concerts, museums or performances (IA: online concerts), visit museums, monuments or historical places (OffA_Museums), attend classical music concerts, opera, ballet or theatre performances (OffA_Performing arts) and attend popular music concerts or popular music festivals (OffA_Popular music).

In sum, Axis 3 opposes *moderate* participation in the mentioned offline and online practices (at the bottom of the map) and *voracious* participation in the same practices (at the top of the map) (see Figure 4 in the Online appendix).

Supplementary Elements of the MCA

Axis 1 shows an opposition between intensive cultural participation (on the right-hand side of the map) and a low level of cultural participation (on the left-hand side of the map) in all the analysed practices. It is very strongly related to cultural capital (in its educational and digital forms) as well as to age (with a deviation between extreme categories above 0.5 SD for the two variables). Income is also moderately related to Axis 1 – around 0.4 SD between the two extreme categories (please see Figure 2).

Axis 2 clearly divides the sample into two types of cultural practices: there are more online and everyday cultural practices at the top of the map, and offline art-related practices at the very bottom of the map. Axis 2 is very strongly related to age as well as to possessions (wealth), which is expected given the accumulation of wealth during the life course (see Figure 2).

Axis 3 opposes voracious and moderate participation in both offline and online practices and is related to differences between the countries in our sample. It also relates to age, with younger respondents' practices tending to be more intensive and older respondents' more moderate (see Figure 2).

The next task in our analysis of the European space of cultural practices was to identify the aggregates of respondents with similar cultural repertoires. To do this, we applied hierarchical agglomerative cluster analysis (HCA) based on Ward's method. As variables in this cluster analysis, the first five-factor coordinates extracted from MCA were used. Four-cluster solutions indicate an optimal combination of homogeneity within clusters and heterogeneity between clusters (see Figure 3).

Cluster 1 comprises 31.4% of respondents most *intensively engaging in offline art-related practices* such as reading books, attending classical music concerts, opera, ballet or theatre performances and visiting museums. A characteristic of this cluster is also *the absence of online everyday practices*, such as following influencers or playing online video games. The only online practices more represented in the cultural repertoires of respondents from this cluster are occasionally watching videos and listening to music on the internet. When it comes to offline everyday cultural practices, visiting recreational areas as well as engaging in DIY and handicraft activities are represented more. Bearing all this in mind, we have labelled this cluster *offline art enthusiasts*. Here we find an overrepresentation of older persons, high levels of possessions, women and respondents from Switzerland, Denmark and Finland.

Cluster 2, comprising 26% of respondents, is defined by *an overrepresentation of negative values for all types of cultural practices*. Respondents from this cluster neither visit museums, performing arts, or popular culture events, nor do they buy cultural products via the internet. They sometimes visit recreational areas (parks, beaches, forests or lakes), sometimes communicate or share things with friends or family online, and sometimes read books. In this cluster, labelled as *culturally disengaged*, there is an

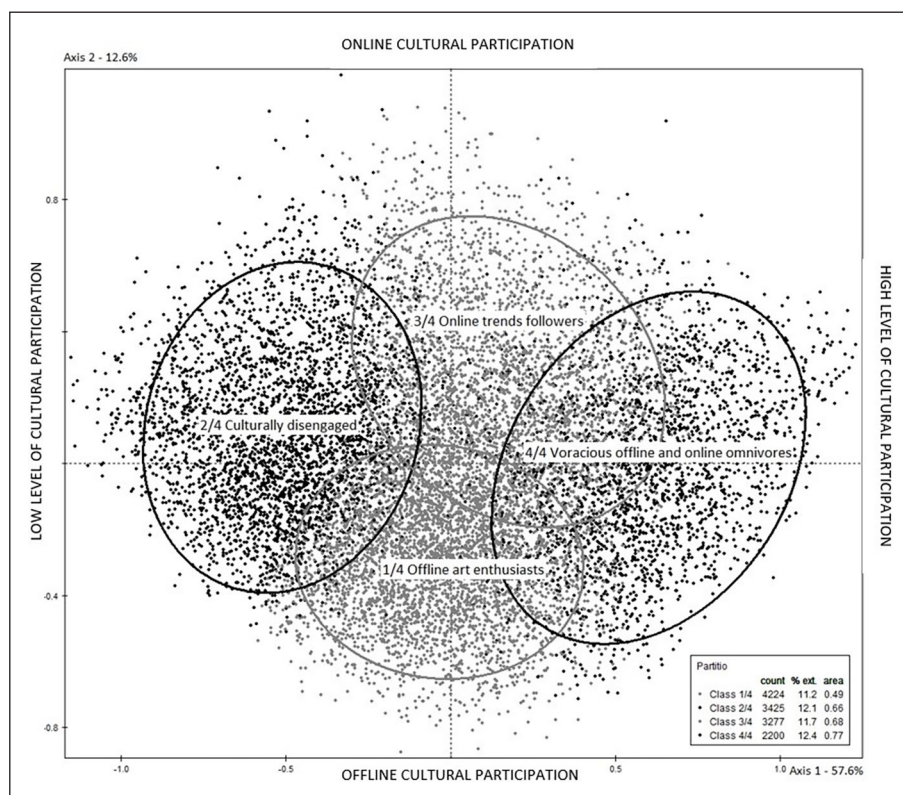


Figure 3. HAC clusters in the European space of cultural practices.

overrepresentation of low levels of cultural capital (in educational and digital form), people living in villages, and respondents from Croatia and Serbia.

Cluster 3 comprises 16.6% of respondents *engaging intensively in online cultural practices* such as listening to music, watching videos and movies via the internet, and following influencers. They also intensively communicate and share things with friends or family online. Their offline art-related practices include sometimes visiting museums, occasionally attending popular culture events, and sometimes reading books. Respondents from this cluster, labelled as *online trends followers*, are highly engaged in digital practices, more often young and highly educated, and live in urban areas. Spain is overrepresented in this cluster.

Cluster 4, labelled as *voracious online and offline omnivores*, comprises 26% of respondents *participating intensively in online, offline, art-related and everyday cultural practices*. Respondents from this cluster intensively watch online concerts, often attend popular music concerts or festivals, often go to local fairs, regularly attend various performing arts events and visit museums, make art (amateur theatre plays, paintings, artistic photos) and do handicraft work. They also publish or post photographs they took themselves and often buy cultural products or services (e.g. books, tickets, art works) on the internet. This cluster is composed of younger, highly educated respondents, coming from highly educated families, often with a higher income but a lower level of possessions.

The Results of the Multilevel Regression Analysis

Following Multiple Correspondence Analysis, which made it possible to construct a European map of cultural practices, it was necessary to analyse the effects of national contexts on different cultural practices (as in, e.g. Katz-Gerro, 2011; Van Hek and Kraaykamp, 2013). For this purpose, we used a multi-level (or hierarchical) model, which allows us to separate features related to individuals from those related to national contexts. The analyses were conducted in R, using the packages lme4 (Bates et al., 2022) and lmerTest (Kuznetsova et al., 2020).

To construct dependent variables for this regression analysis, we used answers on participation in all previously studied cultural practices. Respondents were asked how often they typically engage in them. Possible answers for most of the questions were: (0) almost never, (1) less than once a month, (2) at least once a month, (3) at least once a week, and (4) (almost) daily. For four questions related to attending performing arts, popular music events, food festivals, and visiting museums and historical places, possible answers were: (0) almost never, (1) at least once a year, (2) 4 to 6 times a year, (3) (almost) every month, and (4) (almost) every week. Based on this, we constructed additive scores for offline art-related practices, offline everyday cultural practices, online art-related practices, and online everyday cultural practices (see Online appendix Figure 8).

These four additive scores express the intensity of respondents' engagement in different types of cultural practices. To correct the distances between the intensity levels of different analysed practices and reduce the impact of outliers, each of the four types of practices was first analysed according to the principles of Geometric Data Analysis (GDA). We performed an MCA for each type of practices, followed by a Hierarchical Cluster Analysis (HAC), and then recoded the intensity levels of each of them according to their cluster assignment. This resulted in the corrected scores for offline art-related practices ($\bar{x} = 11.5$, $se = 3.3$), offline everyday cultural practices ($\bar{x} = 14.4$, $se = 3.5$), online art-related practices ($\bar{x} = 12.5$, $se = 4$) and online everyday cultural practices ($\bar{x} = 12.6$, $se = 3.9$).

As independent variables, we used a set of categorical variables: country, gender, age, migration background, size of the place of residence, educational attainment, parents' education, income (in deciles), possessions (national parameter; see Online appendix Table 15) and, finally, respondents' digital competencies (see Online appendix Table 10).

Two of these indicators deserve a more detailed comment. For parents' education, we used the response for the parent with the higher educational level. For respondents' digital competencies, we constructed a synthetic indicator that measures the *ability* to use digital technologies, the *variety* of this use and its *frequency* (see Online appendix Figure 1).

To evaluate the relevance of using a multilevel model, we compared the log likelihood of our model with both a multilevel null model (i.e. one in which the only explanatory variable is the country) and a null model (i.e. a linear model without predictors and the slope equals 1). Each of the four multilevel models had a significantly lower log likelihood than both the null model and the multilevel null model. This shows that *context effects are important for the analysed practices* (see Tables 2 and 3).

The first thing to note in Tables 2 and 3 is the inter-country variance. It varies between 5.77% and 11.26% of the total variance for the online everyday cultural practices score and the online art-related score, respectively. This means that national contexts have an

Table 2. Results of multilevel linear regression modelling on online art-related practices and online everyday cultural practices.

	Online			
	Art-related practices		Everyday cultural practices	
	Coefficients	SE	Coefficients	SE
(Intercept)	10.68***	0.430	12.65***	0.311
Gender Female (Ref.)	—	—	—	—
Gender Male	−0.06	0.069	−0.08	0.064
Age 18–27 (Ref.)	—	—	—	—
Age 28–44	−1.11***	0.131	−1.38***	0.121
Age 45–64	−1.82***	0.130	−2.97***	0.120
Age 65 plus	−2.23***	0.144	−3.88***	0.133
Migration Migrant (Ref.)	—	—	—	—
Migration Native	−0.04	0.107	−0.02	0.099
Education Low (Ref.)	—	—	—	—
Education Medium	0.28*	0.114	−0.09	0.105
Education High	0.84***	0.114	−0.38***	0.105
Edu._parents Low (Ref.)	—	—	—	—
Edu._parents Medium	0.41***	0.092	0.15.	0.085
Edu._parents High	0.69***	0.097	0.16.	0.089
Edu._parents No answer	−0.1	0.205	0.35.	0.190
Income 1–3 (Ref.)	—	—	—	—
Income 4–5	0.1	0.103	−0.05	0.095
Income 6–7	0.21	0.107	−0.15	0.099
Income 8–10	0.62***	0.115	−0.09	0.106
Possessions 1–2 (Ref.)	—	—	—	—
Possessions 3–4	−0.22*	0.094	−0.08	0.086
Possessions 5–6	−0.2*	0.101	−0.26**	0.093
Place_residence Capital (Ref.)	—	—	—	—
Place_residence City	−0.33**	0.120	0.02	0.111
Place_residence Town	−0.56***	0.118	−0.03	0.109
Place_residence Village	−0.86***	0.122	−0.22*	0.112
Digital_index Digital 1 (Ref.)	—	—	—	—
Digital_index Digital 2	1.35***	0.123	1.29***	0.114
Digital_index Digital 3	2.71***	0.120	2.7***	0.111
Digital_index Digital 4	5.1***	0.126	5.05***	0.116
Log likelihood (null multilevel model)	−36,394.38		−36,036.98	
Log likelihood	−21,696.20		−21,021.09	
Inter-countries variance (%)	11.26		5.77	
Total variance	11.07		8.90	
Pseudo R ² (%)	31.60		41.46	

*** < 0.001; ** < 0.01; * < 0.05. Ref. indicates the Reference category.

Table 3. Results of multilevel linear regression modelling on offline art-related practices and offline everyday cultural practices.

	Offline			
	Art-related practices		Everyday cultural practices	
	Coefficients	SE	Coefficients	SE
(Intercept)	9.87***	0.320	12.01***	0.415
Gender Female (Ref.)	—	—	—	—
Gender Male	−0.84***	0.065	−0.58***	0.071
Age 18–27 (Ref.)	—	—	—	—
Age 28–44	−0.61***	0.124	0.18	0.135
Age 45–64	−0.51***	0.123	0.05	0.134
Age 65 plus	0.31*	0.136	0.41**	0.148
Migration Migrant (Ref.)	—	—	—	—
Migration Native	−0.08	0.101	−0.16	0.110
Education Low (Ref.)	—	—	—	—
Education Medium	0.34**	0.108	0.3*	0.117
Education High	1.21***	0.108	0.49***	0.117
Edu._parents Low (Ref.)	—	—	—	—
Edu._parents Medium	0.59***	0.087	0.23*	0.095
Edu._parents High	0.99***	0.092	0.32**	0.100
Edu._parents No answer	−0.28	0.194	−0.45*	0.212
Income 1–3 (Ref.)	—	—	—	—
Income 4–5	−0.04	0.097	0.05	0.106
Income 6–7	−0.1	0.102	0.03	0.111
Income 8–10	−0.04	0.108	−0.12	0.118
Possessions 1–2 (Ref.)	—	—	—	—
Possessions 3–4	0.26**	0.089	0.37***	0.096
Possessions 5–6	0.28**	0.095	0.41***	0.104
Place_residence Capital (Ref.)	—	—	—	—
Place_residence City	−0.34**	0.114	0.13	0.124
Place_residence Town	−0.28*	0.112	0.34**	0.122
Place_residence Village	−0.48***	0.115	0.53***	0.125
Digital_index Digital 1 (Ref.)	—	—	—	—
Digital_index Digital 2	0.44***	0.117	0.84***	0.127
Digital_index Digital 3	1.13***	0.114	1.34***	0.124
Digital_index Digital 4	2.33***	0.119	2.44***	0.130
Log likelihood (null multilevel model)	−34,073.30		−34,693.39	
Log likelihood	−21,226.58		−21,955.44	
Inter-countries variance (%)	5.82		9.53	
Total variance	9.34		11.55	
Pseudo R ² (%)	15.35		8.48	

*** < 0.001; ** < 0.01; * <0.05. Ref. indicates the Reference category.

impact (but not a very strong one) on all types of analysed practices. However, the direction of this impact is the opposite for online and offline practices. In the case of offline practices, the analysis shows that everyday cultural practices are highly dependent on the national context. In the case of online cultural practices, art-related practices are more dependent on the national context than everyday practices. The remaining two types of cultural practices (offline art-related practices and online everyday cultural practices) are also context-dependent but to a lower extent, with a little less than 6% of their variance explained by national characteristics.¹⁴

The multilevel regression models present a much higher predictive capacity (measured by a higher pseudo- R^2) for online practices than for offline practices.¹⁵ In the case of online art-related practices, 31.6% of the variance can be predicted by the model, and 41.46% for online everyday cultural practices. These values are much lower for offline practices (15.35% for art-related practices and 8.48% for everyday cultural practices).

Discussion

Several global trends emerge from our analysis. The first one refers to the impact of different forms of cultural capital. As already shown in MCA, digital competencies are the factor that impacts the analysed practices most, regardless of whether they are online or offline, art-related or belong to everyday culture. The higher the digital competencies, the broader and more intensive the cultural practices. More precisely, our results show that having a high level of digital competencies affects offline art-related practices twice as much as having a university degree and six times more in the case of online art-related practices.

The question now is how to interpret the role of digital competencies in cultural participation. So far, to better understand the social reproduction of inequalities in a digitally mediated reality, numerous authors have used concepts such as ‘information capital’ (Van Dijk, 2005), ‘techno-capital’ (Straubhaar et al., 2012), ‘technical capital’ (Yardi, 2010), ‘technological capital’ (Gonzales, 2016) and ‘digital capital’ (Gómez, 2021).¹⁶

The best-developed conception and operationalisation of digital capital can be found in the studies led by Ragnedda, who defines it as “a set of internalized ability and aptitude” (digital competencies) as well as “externalized resources” (digital technology) that can be historically accumulated and transferred from one arena to another’ (Ragnedda, 2018: 2367). In his view, digital capital is a new form of capital, functioning as a ‘bridge capital’ between ‘online and offline life chances’. Namely, digital capital allows efficient exploitation of ‘other capitals’ (economic, social, cultural, personal and political) in the digital realm, helping to increase them and consequently derive profits in the offline realm as well.

However, while the definition (Ragnedda, 2018) and operationalisation (Ragnedda et al., 2020) of digital capital are useful, it is hard to find convincing reasons to view it as a new form of capital, distinct from cultural capital. Namely, as argued by Prieur and Savage (2013), the concept of cultural capital is changing according to historical circumstances and should be analysed in its historical context. In other words, the relational nature of Bourdieu’s conception calls for an approach that adopts a ‘relative’ (or

floating) concept of cultural capital, continually re-examining which cultural competencies bring advantage in social fields. At any rate, it is evident that digital capital can be easily placed into the three forms in which, according to Bourdieu (1986), only cultural capital can exist: its embodied state (digital competencies),¹⁷ its objectified state (digital technology) and its institutionalised state (IT educational degrees). Bearing all this in mind, we argue that, in the current context, what Ragnedda refers to as 'digital capital' should be viewed as a new component of cultural capital rather than a capital in its own right.

When it comes to other forms of cultural capital, our results indicate that respondents' education and parents' education strongly influence both offline and online art-related practices, as well as offline everyday cultural practices. The predictive power of education is strong, especially for art-related practices: the higher the level of education, the higher the level of art-related practices (both online and offline). On the other hand, people with higher educational levels tend to be less involved in online everyday cultural practices.

Inherited cultural capital (parents' education) and acquired cultural capital (respondents' education) do not have identical effects on all types of cultural practices. In the case of art-related practices, respondents' education has a greater impact than parents' education. However, when it comes to everyday cultural practices, these two forms of cultural capital have effects of the same magnitude.

Finally, the results show that the effect of education is not linear. In the case of art-related practices, there is a huge difference between the practices of respondents with a university degree and those with secondary education. More precisely, respondents' university education affects art-related practices (both online and offline) three times more than secondary education. Parents' university education affects offline art-related practices almost twice as much as parents' secondary education.

The second trend refers to economic capital. Overall, its effect is less prominent than that of cultural capital. The results show that total household income does not play an important role, except for online art-related practices (which are positively impacted only by the highest levels of income). This suggests that the cost of cultural participation in public (offline) spaces is not the main factor preventing it. When it comes to possessions, they have a significant and strong effect on offline everyday cultural practices. We would like to put forward a hypothesis that should be tested in future studies, according to which the impact of economic capital on cultural practices is manifested primarily through the availability of leisure time.

The third global trend refers to age. One of the interesting findings of our research is that the intensity of cultural participation is at its highest level among the youngest and oldest respondents, while members of the middle-aged generation participate significantly less. This could be connected to available leisure time, which proves to be a very important structuring factor of cultural participation. The members of the 65+ generation, who have more available leisure time, participate mostly in offline cultural practices, both art-related and everyday. When it comes to online practices, like in many other studies, our results indicate that the younger the individuals, the more they are involved in online practices.¹⁸ This tendency is even stronger in the case of online everyday cultural practices.

The fourth trend refers to place of residence. It plays a role in the prediction of both online and offline practices, but the magnitude and direction of its impact vary by type of activity. People in villages participate less online but are much more involved in offline everyday cultural practices than people living in larger cities.

Regarding other control variables, we identified a strong effect of gender on offline practices, in which women participate more. In contrast, there was no effect of gender on online cultural practices. The analysis also shows that citizen/migrant status has no significant effect on the type and intensity of cultural practices.

Our aim in broadening the conceptualisation of cultural participation by adding indicators of everyday cultural practices (such as visiting flea markets, fairs and cafes) was to try to include in the analysis those respondents who are usually excluded from research on cultural participation, which has traditionally been more arts-related and was the domain of the highly educated and well-off. However, it turned out that even in the case of everyday cultural practices, respondents rich in cultural and economic capital participated much more. This suggests that participation in all types of cultural practices depends on favourable social circumstances, indirectly showing that possibilities of cultural participation are increasingly limited for an ever-wider share of the population.¹⁹

In terms of methodology, despite the different epistemological presuppositions of the two analytical strategies we applied, the analyses presented in this article suggest that their complementary use can be fruitful when studying the impact of socio-digital inequalities on cultural practices. Multiple Correspondence Analysis offered insights into the interplay of different types of cultural practices and their interrelations with different types of inequalities. On the other hand, multilevel regressions enabled us to identify the strength of different aspects of inequalities and to disentangle the impact of individual characteristics of respondents and their social contexts.

Finally, we should mention that we also made a detailed analysis of cultural participation without using the indicators of online cultural practices. As can be seen in the Online appendix (Figures 9, 10 and 11), in that case, the European space of cultural practices looks completely different. In addition to different dimensions of space as well as different clusters of respondents' cultural repertoires, the most significant differences appear in the relationship between cultural practices and social inequalities. Such results, obtained without including the digital dimension, resemble the findings of the research carried out in the last quarter of the 20th century. This points again to the necessity of including indicators of digital practices and digital inequalities in the analysis in order to avoid getting a distorted picture of what respondents' cultural repertoires consist of.

Concluding Remarks

All the types of analysis we conducted – Multiple Correspondence Analysis, multilevel regression and linear regression – point in the same direction. Based on their results, we are now in a position to answer the research questions and relate them to our research framework.

Regarding RQ1, we identified three main dimensions of the European space of cultural practices. The first one shows an opposition between high and low levels of cultural participation in all the analysed types of cultural practices; it is very strongly related to embodied digital capital (i.e. digital competencies), level of education (both respondents'

and parents') and age. The second dimension opposes offline and online cultural practices; it is strongly related to age and possessions (wealth). And, finally, the third dimension points to an opposition between voracious and moderate cultural participation (in both offline and online practices). This dimension is related to differences between countries and age.

Regarding RQ2, our results indicate that embodied digital capital impacts the analysed cultural practices most, regardless of whether they are online or offline, art-related or belong to everyday culture. However, it is worth pointing out that it is always interrelated with respondents' education, income, wealth, age, gender, and place of residence. The strength of this form of cultural capital makes it obvious that it cannot be neglected in future studies of cultural participation. At the same time, one should bear in mind that it cannot be removed from the network of interrelated influences on cultural participation that it is a part of.


Our results testify to the fruitfulness of the Bourdieusian approach to researching the relation of cultural practices to social inequalities. However, given the prominence of digital practices in the new social context, we argue that this approach should be expanded with a new form of cultural capital, which we refer to as embodied digital capital. That is why, bearing in mind the interrelation of this form of capital with other Bourdieusian forms of capital, we speak about socio-digital inequalities. Furthermore, the results of our research have also shown that it is necessary to broaden the conceptualisation of cultural participation by including both online and everyday cultural practices in the analysis. We suggest that only such a broadened conceptualisation and operationalisation of contemporary cultural participation can do justice to its complexity.

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Supplemental material

Supplemental material for this article is available online in the Online appendix. See https://figshare.com/articles/online_resource/APPENDIX_CULTURAL_PRACTICES_AND_SOCIO-DIGITAL_INEQUALITIES_IN_EUROPE_TOWARDS_A_UNIFIED_RESEARCH_FRAMEWORK_IN_CULTURAL_PARTICIPATION_STUDIES/24175473.

Notes

1. In the Bourdieusian tradition, social inequalities are defined as inequalities in the volume and composition of economic, social and cultural capital. In the contemporary context, the interplay of capitals producing social inequalities needs to include the digital component. We refer to their joint impact as socio-digital inequalities.

2. In the cited article, entitled 'Reconceptualizing digital social inequality', Halford and Savage (2010: 938) note that 'there has been a serious disconnection – and even some outright hostility – between forms of analysis which surely need to be in dialogue if we are to grasp the nature of relations between ICT and inequality'. This divide is also evident in the journals where the relevant articles are published. Articles on digital inequalities are usually published in journals such as *New Media & Society* and *Information, Communication & Society*, while for articles on social inequalities, the most frequent vehicles are *Sociology*, *The British Journal of Sociology*, *European Sociological Review*, *American Journal of Sociology* and *American Sociological Review*.
3. However, see Gurstein (2007).
4. In a 310-page study dealing with contemporary cultural participation in the UK, the word internet is mentioned 19 times and the term online twice (both in the bibliography).
5. In this volume, the internet is mentioned seven times and the term online once (in the bibliography).
6. A push-to-web survey is a quantitative data collection method in which offline contact is used to encourage sample members to go online and complete a web questionnaire. Push-to-web methods are typically used for web surveys that demand a random probability sample.
7. Detailed sample characteristics for each of the countries included in the research are provided in the Online appendix (see Supplemental Material section).
8. A high response rate in F2F survey interviews in Croatia is not unusual. In our previous surveys, carried out between 2015 and 2018, it was between 40% and 50%. Our assumption is that, in this case, it was even higher because the interviews were carried out immediately after lockdown ended.
9. In Spain, there is a higher percentage of university-educated respondents in the sample than in the population.
10. For total household income from all sources, we used the official country statistics of income deciles for households. For possessions, we used a scale from one to six, where one denotes the lowest and six the highest level of possessions.
11. As an indicator of parents' education, we used the level of education of the parent with higher educational attainment.
12. All survey questions we used as variables had closed-ended answers. However, within the project, we conducted 226 semi-structured interviews, which were useful in the interpretation of MCA analysis results.
13. To facilitate the reading of maps, we have labelled the variables, showing four different types of cultural practices. The label 'OffA' stands for offline art-related practices, 'OffE' for offline everyday cultural practices, 'IA' for internet art-related practices, and 'IE' for internet everyday cultural practices. The label 'C' denotes the conception of culture.
14. The results of multilevel analysis were compared to a series of country-specific linear models to assess whether the results of these two types of analytic strategies were consistent. Despite some national specificities, the outcomes were largely convergent (see Online appendix Tables 16–19).
15. Bearing in mind that most of our data collection techniques were online based, we had reservations regarding the identified strength of digital competencies. However, in the two countries (Croatia and Serbia) in which the survey was administered face-to-face (F2F), the influence of digital competencies proved to be equally strong (see Online appendix Tables 16–19). We should mention that our survey was administered during the COVID-19 pandemic, when the majority of cultural participation took place in the digital sphere. This certainly has a bearing on our findings, although it is also likely that the pandemic conditions will have a lasting effect on future cultural participation.

16. It is worth noting that, in contemporary inequality studies, there is a tendency towards seemingly endless multiplication of the notion of capital. One thus finds conceptions discussing 'emotional capital' (Cottingham, 2016; Froyum, 2010), 'sexual' or 'erotic capital' (Hakim, 2011), and 'ethnic capital' (Kim, 2019). This resembles what Wacquant (2019) criticises as the 'meaningless multiplication of fields', such as 'sexual field' (Green, 2013) or 'racial field' (Desmond and Emirbayer, 2015).
17. According to Bourdieu (1984, 1986), embodied cultural capital refers to the knowledge and skills that individuals acquire through socialisation, both consciously and unconsciously. This type of cultural capital is accumulated through a process of embodiment and incorporation, which requires a personal investment of time and effort. Thus, it cannot be transmitted to others, as it involves a laborious process of inculcation and assimilation. Since Ragnedda (2018), as mentioned earlier, defines digital capital as 'a set of internalized ability and aptitude' (digital competencies) as well as 'externalized resources' (digital technology) that can be historically accumulated, it is clear that – in Bourdieusian terms – digital competencies represent an embodied form of cultural capital. Likewise, digital technology refers to an objectified form of cultural capital.
18. Such an interrelation between age and digital competencies has been well researched in the discussion on 'digital natives' (Hargittai, 2010; Prensky, 2001).
19. The results of our research project, especially those from 226 interviews (Petric et al., forthcoming), indicate that interviewees from less privileged social positions describe numerous barriers to their cultural participation, such as the lack of time and money, as well as the lack of transport infrastructure and geographical barriers.

References

- Atkinson W (2021) The Swedish space of lifestyles and symbolic domination. *Social Science Information* 60(1): 63–85.
- Atkinson W and Marzec P (2023) The German space of lifestyles: A multidetermined structure. *Journal of Consumer Culture* 23(4): Published online first 5 January 2023. DOI: <https://doi.org/10.1177/14695405221149117>.
- Bates D, Maechler M, Bolker B, et al. (2022) *Lme4: Linear Mixed-Effects Models Using Eigen and S4*. Available at: <https://github.com/lme4/lme4/> (accessed 5 April 2023).
- Bennett T, Savage M, Silva E, et al. (2009) *Culture, Class, Distinction*. London: Routledge.
- Bourdieu P (1984) *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge & Kegan Paul.
- Bourdieu P (1986) The forms of capital. In: Richardson JG (ed.) *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood Press, 241–258.
- Bressoux P (2008) *Modélisation statistique appliquée aux sciences humaines*. Bruxelles: De Boeck.
- Chan TW (ed.) (2010) *Social Status and Cultural Consumption*. Cambridge: Cambridge University Press.
- Chan TW and Goldthorpe JH (2005) The social stratification of theatre, dance and cinema attendance. *Cultural Trends* 14(3): 193–212.
- Chan TW and Goldthorpe JH (2007a) Social stratification and cultural consumption: Music in England. *European Sociological Review* 23(1): 1–19.
- Chan TW and Goldthorpe JH (2007b) Social stratification and cultural consumption: The visual arts in England. *Poetics* 35: 168–190.
- Clark T and Lipset SM (1991) Are social classes dying? *International Sociology* 6(4): 397–410.
- Cottingham MD (2016) Theorising emotional capital. *Theory and Society* 45: 451–470.

- DCMS (2018) *Culture is Digital*. London: Department for Culture, Media and Sport and Department for Digital, Culture, Media and Sport.
- De Leeuw J and Meijer E (2008) Introduction to multilevel analysis. In: de Leeuw J and Meijer E (eds) *Handbook of Multilevel Analysis*. New York: Springer, 1–75.
- Desmond M and Emirbayer M (2015) *The Racial Order*. Chicago, IL: University of Chicago Press.
- DiMaggio P, Hargittai E, Celeste C, et al. (2004) Digital inequality: From unequal access to differentiated use. In: Neckerman K (ed.) *Social Inequality*. New York: Russell Sage Foundation, 355–400.
- DiMaggio P, Hargittai E, Neuman RW, et al. (2001) Social implications of the Internet. *Annual Review of Sociology* 27: 307–336.
- Flemmen M, Jarness V and Rosenlund L (2018) Social space and cultural class divisions: The forms of capital and contemporary lifestyle differentiation. *The British Journal of Sociology* 69(1): 124–153.
- Froyum CM (2010) The reproduction of inequalities through emotional capital: The case of socializing low-income black girls. *Qualitative Sociology* 33: 37–54.
- Goldthorpe JH and Marshall G (1992) The promising future of class analysis: A response to recent critiques. *Sociology* 26(3): 381–440.
- Gómez DC (2021) The third digital divide and Bourdieu: Bidirectional conversion of economic, cultural, and social capital to (and from) digital capital among young people in Madrid. *New Media & Society* 23(9): 2534–2553.
- Gonzales A (2016) The contemporary US digital divide: From initial access to technology maintenance. *Information, Communication & Society* 19(2): 234–248.
- Green IA (ed.) (2013) *Sexual Fields: Toward a Sociology of Collective Sexual Life*. Chicago, IL: University of Chicago Press.
- Grusky DB and Sorensen JB (1998) Can class analysis be salvaged? *American Journal of Sociology* 103(5): 1187–1234.
- Gurstein M (2007) *What is Community Informatics (and Why Does it Matter)?* Milano: Polimetrica.
- Hakim C (2011) Erotic capital. *European Sociological Review* 26(5): 499–518.
- Halford S and Savage M (2010) Reconceptualizing digital social inequality. *Information, Communication & Society* 13(7): 937–955.
- Hargittai E (2002) Second-level digital divide: Differences in people's online skills. *First Monday* 7(4). Available at: <https://firstmonday.org/ojs/index.php/fm/article/view/942> (accessed 5 April 2023).
- Hargittai E (2010) Digital na(t)ives? Variation in Internet skills and uses among members of the 'net generation'. *Sociological Inquiry* 80(1): 92–113.
- Helsper EJ (2012) A corresponding fields model for the links between social and digital exclusion. *Communication Theory* 22(4): 403–426.
- Hjellbrekke J (2019) *Multiple Correspondence Analysis for the Social Sciences*. Abingdon: Routledge.
- Katz-Gerro T (2011) Cross-national cultural consumption research: Inspirations and disillusion. *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 51: 339–360.
- Kennedy T, Wellman B and Klement K (2003) Gendering the digital divide. *IT & Society* 1(5): 72–96.
- Kim J (2019) Ethnic capital, migration, and citizenship: A Bourdieusian perspective. *Ethnic and Racial Studies* 42(3): 357–385.
- Kuznetsova A, Brockhoff PB, Christensen RHB, et al. (2020) *lmerTest: Tests in Linear Mixed Effects Models*. Available at: <https://github.com/runehaubo/lmerTestR> (accessed 5 April 2023).

- Leguina A, Mihelj S and Downey J (2021) Public libraries as reserves of cultural and digital capital: Addressing inequality through digitalization. *Library and Information Science Research* 43(3): 101103.
- Le Roux B and Rouanet H (2010) *Multiple Correspondence Analysis*. Thousand Oaks, CA: Sage.
- Marcella R and Chowdhury G (2020) Eradicating information poverty: An agenda for research. *Journal of Librarianship and Information Science* 52(2): 366–381.
- Mihelj S, Leguina A and Downey J (2019) Culture is digital: Cultural participation, diversity and the digital divide. *New Media & Society* 21(7): 1465–1485.
- Pakulski J and Waters M (1996) *The Death of Class*. London: Sage.
- Petrić M, Cvetičanin P, Tomić-Koludrović I, et al. (forthcoming) Citizens' perspectives on the impact of social inequalities on cultural participation. In: Janssen S, Kristensen NN and Verboord M (eds) *Engagement with Culture in Transformative Times: Mapping the Societal Drivers and Impacts of Cultural Understandings, Practices, Perceptions and Values across Europe*. London: Routledge.
- Prensky M (2001) Digital natives, digital immigrants Part 1. *On the Horizon* 9(5): 1–6.
- Prieur A and Savage M (2013) Emerging forms of cultural capital. *European Societies* 15(2): 246–267.
- Purhonen S, Leguina A and Heikkilä R (2021) The space of media usage in Finland, 2007 and 2018: The impact of online activities on its structure and its association with sociopolitical divisions. *Nordicom Review* 42(3): 111–128.
- Ragnedda M (2017) *The Third Digital Divide. A Weberian Approach to Digital Inequalities*. Abingdon: Routledge.
- Ragnedda M (2018) Conceptualizing digital capital. *Telematics and Informatics* 35(8): 2366–2375.
- Ragnedda M, Ruiu ML and Addeo F (2020) Measuring digital capital: An empirical investigation. *New Media & Society* 22(5): 793–816.
- Savage M (1994) Class analysis and its futures. *Sociological Review* 42(3): 531–548.
- Savage M (2015) *Social Class in the 21st Century*. London: Pelican.
- Savage M, Devine F, Cunningham N, et al. (2013) A new model of social class? Findings from the BBC's Great British Class Survey experiment. *Sociology* 47(2): 219–250.
- Snijders TAB and Bosker RJ (2003). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage.
- Straubhaar J, Tufekci Z, Spence J, et al. (2012) Digital inequity in the Austin technopolis: An introduction. In: Straubhaar J, Spence J, Tufekci Z, et al. (eds) *Inequity in the Technopolis: Race, Class, Gender, and the Digital Divide in Austin*. Austin: University of Texas, 1–32.
- Van Deursen AJAM and Helsper EJ (2015) The third-level digital divide: Who benefits most from being online? *Communication and Information Technologies Annual* 10: 29–52.
- Van Deursen AJAM and Van Dijk JAGM (2014) The digital divide shifts to differences in usage. *New Media & Society* 16(3): 507–526.
- Van Dijk JAGM (2005) *The Deepening Divide. Inequality in the Information Society*. London: Sage.
- Van Dijk JAGM (2017) Digital divide: Impact of access. In: Rössler P (ed.) *The International Encyclopedia of Media Effects*. London: Wiley, 1–11.
- Van Hek M and Kraaykamp G (2013) Cultural consumption across countries: A multi-level analysis of social inequality in highbrow culture in Europe. *Poetics* 41(4): 323–341.
- Wacquant L (2019) Bourdieu's dyad: On the primacy of social space and symbolic power. In: Blasius J, Lebaron F, Le Roux B, et al. (eds), *Empirical Investigations of Social Space*. Cham: Springer, 15–21.
- Wright EO (1997) *Class Counts: Comparative Studies in Class Analysis*. Cambridge: Cambridge University Press.

- Yardi S (2010) A theory of technical capital. [White Paper]. School of Interactive Computing Georgia Institute of Technology. Available at: <http://tmisp.umd.edu/position%20papers/Yardi-SocialMediatingTech.pdf> (accessed 5 April 2023).
- Yeo S (2020) Access now, but for whom and at what cost? *Information, Communication & Society* 23(4): 588–604.
- Zillien N and Hargittai E (2009) Digital distinction: Status-specific types of internet usage. *Social Science Quarterly* 90(2): 274–291.

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