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Europeans' Digital Cultural Participation: Diversification, Democratization, Barriers, and Affordances

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Research on digital cultural participation has focused chiefly on single-country studies and specific activities, hampering generalization. Using representative 2021 survey data from nine European countries, we analyzed Europeans' digital cultural participation, identifying three key dimensions: cultural information and access, audiovisual entertainment, and content creation and sharing. Our analysis examined sociodemographic, attitudinal, and behavioral predictors to understand the participation patterns, barriers, and affordances associated with various types of digital cultural participation. The findings support the "cultural democracy" model over the "democratization of culture" model, highlighting the diversification of cultural participation alongside persistent barriers and inequalities. Sociocultural affordances and offline cultural participation strongly influence digital activities, with individual traits being more influential than national factors.

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Cultural participation studies have long distinguished between the *engaged* and the *disengaged*: those who actively participate in many cultural activities and those who rarely do (Bennett et al., 2009; Roose, Van Eijk, & Lievens, 2012). This distinction is problematic for several reasons. First, existing research often overlooks everyday forms of cultural participation, underestimating how active people are (Heikkilä, 2021; Miles & Gibson, 2016) and misrecognizing the diverse cultural activities of underprivileged groups (Flemmen, Jarness, & Rosenlund, 2018; Ollivier, 2008; Savage et al., 2015). Second, while digital technologies have expanded cultural participation and made culture more accessible (Casemajor, Bellavance, & Sirois, 2021; Weingartner, 2021), these forms are rarely considered in assessments of cultural participation. Consequently, we know little about the factors shaping individuals' cultural practices online beyond the concept of the digital divide (Mihelj, Leguina, & Downey, 2019; Ragnedda & Muschert, 2013; Rogers, 2001; Van Deursen & Helsper, 2018).

Digital communication and media infrastructures have reshaped and expanded cultural participation opportunities (Jenkins, Ito, & Boyd, 2015; Potts, 2014), yet inequalities may persist (Mihelj et al., 2019). This article aims to analyze the impact of digitalization on democratizing cultural access by uncovering individuals' digital cultural repertoires while acknowledging the diversity of cultural participation. We focus on individuals' self-reported participation patterns; in practice, their participation both *in and through* media (Jenkins & Carpentier, 2013) may be constrained by platform policies and algorithmic influences (Aral, 2020), which are beyond this study's scope.

Theoretically, we compare the relevance of the democratization of culture model with the cultural democracy model (e.g., Bonet & Négrier, 2018; Coulangeon, 2013) for the digital realm by examining to what extent cultural participation is shaped by (perceived) barriers or sociocultural affordances. This adds a new dimension to the study of inequalities in digital cultural participation, which has mainly considered the role of social background characteristics in exploring the digital divide in the cultural realm. Furthermore, previous studies have focused on a narrow set of cultural practices and national perspectives (De la Vega, Suarez-Fernández, Boto-García, & Prieto-Rodríguez, 2020; Mihelj et al., 2019; Panarese & Azzarita, 2020; Weingartner, 2021), failing to capture the multidimensionality of digital cultural participation and social divisions and limiting broader conclusions about the impact of digitalization on cultural participation across countries. Additionally, while there is extensive data on offline cultural activities, comparable information for digital realms is scarce. This study addresses these gaps by analyzing digital cultural participation using representative survey data that encompass Croatia, Denmark, Finland, France, the Netherlands, Serbia, Spain, Switzerland, and the United Kingdom.

Literature Review: Digital Cultural Participation Research

Conceptual and empirical discussions of participation have a long and diverse research history in political science, (cultural) sociology (Prieur & Savage, 2011; Stevenson, Balling, & Kahn-Rasmussen, 2017), and media and communication research (Bakker & De Vreese, 2011; Jenkins & Carpentier, 2013;

Livingstone, Bober, & Helsper, 2005). While many studies have focused on online *political* participation and the impact of digital networked media in the political domain (Boulianne, 2020), this article examines the intersection of *cultural* participation and digital media use, which has received less attention thus far.

Cultural Participation: From Offline to Digital

Cultural participation studies in the social sciences and humanities have traditionally focused on receptive and productive cultural practices like attending performances and creating art (Bourdieu, 1979/1984; Falk & Katz-Gerro, 2016). However, this emphasis on narrow interpretations of culture as *arts* has faced criticism for misrecognizing the cultural lives of many (Ebrey, 2016; Miles & Gibson, 2016) and dismissing everyday forms of cultural participation as passive or unimportant (Flemmen et al., 2018; Ollivier, 2008; Savage et al., 2015). Recent research broadens the cope to include a wider repertoire of indicators, including everyday cultural activities, highlighting their role in identity formation, social cohesion, and empowerment, particularly for marginalized groups (Heikkilä, 2021; Miles & Gibson, 2016; Stevenson et al., 2017; Taylor, 2016).

In the digital age, *participation* has also become prominent in media scholarship with the rise of user-generated content (Carpentier, 2011; Livingstone, 2013). While there is debate about its definition and the level of political and civic engagement required for participation (Jenkins & Carpentier, 2013), scholars generally agree that the Internet has expanded audiences' participation across various activities (Bakker & De Vreese, 2011; Kelty & Erickson, 2018; Livingstone et al., 2005).

In the cultural realm, individuals may use the Internet to search for information on new cultural products, visit virtual museums, galleries, or libraries, attend online performances and concerts, join fan communities, follow influencers, engage in online cultural discussions, create and publish digital content, or consume audiovisual content via social media and streaming platforms (Turner, 2019). These instances encompass both the *democratization of culture* model in cultural policy—which seeks to improve access to "high" culture for underrepresented groups by removing participation barriers—and the *cultural democracy* approach, which acknowledges the value of diverse forms of culture, creativity, and cultural participation, including those of marginalized groups (Belfiore, Hadley, Heidelberg, & Rosenstein, 2023; Bonet & Négrier, 2018; Coulangeon, 2013; Evrard, 1997).

The civic or political dimensions of these cultural activities are often not immediately evident. However, a vast body of research demonstrates how individuals may employ popular media content to explore and discuss social and political issues and their society's moral underpinnings (Couldry, Livingstone, & Markham, 2007; Inthorn, Street, & Scott, 2013). Cultural citizenship theory emphasizes the crucial role of media content in fostering interactions and discussions among diverse interests and identities, thereby bolstering individuals' ability to acknowledge cultural diversity and equipping them with essential resources to engage in the public sphere (Hermes, 2023).

Given these considerations, we adopted the United Nations Educational, Scientific and Cultural Organization's (UNESCO, 2012) definition of *cultural participation* as activities that enhance cultural and informational capacity, define identity, and enable personal expression (p. 51). This broad definition reflects

the increasing complexity of cultural participation in the digital age (Casemajor et al., 2021), blurring the lines between receptive and productive forms and highlighting the social significance of everyday cultural practices, both online and offline.

Digital Cultural Participation: Opportunities, Barriers, and Affordances

Cultural participation—in the traditional sense—is highly socially stratified, with sociodemographic factors like age, education, gender, income, and ethnicity influencing participation, particularly in highbrow activities (DiMaggio & Mukhtar, 2004; Falk & Katz-Gerro, 2016; Roose & Daenekindt, 2015). The availability (or lack) of resources such as time, money, cultural capital, and proximity to cultural offerings affects participation (De La Vega et al., 2020; Roose & Daenekindt, 2015).

Scholars have examined whether digital technologies can diminish inequalities in cultural participation (Casemajor et al., 2021; Weingartner, 2021). Some argue that the Internet has significantly enhanced the accessibility, availability, and affordability of cultural offerings, thereby facilitating citizens' cultural participation and eliminating specific barriers such as supply or price (Chen, 2015; De la Vega et al., 2020; Roose & Daenekindt, 2015). Moreover, digital platforms and modes of communication have made cultural information more readily available (Kristensen, From, & Haastrup, 2021; Verboord & Janssen, 2015), enabling individuals to follow their cultural preferences and interact with like-minded people in what Jenkins et al. (2015) termed a *participatory culture.*

These developments indicate both the democratization of culture—by lowering specific barriers to cultural participation—and cultural democracy—by offering space for a diverse range of cultural practices and tastes, including marginalized or mundane ones that fall outside traditional cultural policy frameworks. However, empirical studies largely challenge the idea that digital media democratize cultural consumption (Panarese & Azzarita, 2020). High costs and limited availability typically mean that online cultural activities are accessed mainly by those already interested rather than attracting new audiences (De La Vega et al., 2020). Similarly, disparities in online access to museums and galleries tend to be greater than in physical visits (Mihelj et al., 2019), while digital inequalities hinder the democratization of film consumption through digital platforms (Weingartner, 2021). Conversely, Chen (2015) observed that mobile cultural participation could help bridge educational and urban-rural participation gaps.

The scope of these studies is limited. First, they focus on specific cultural activities, such as attending performances or watching movies (De la Vega et al., 2020; Mihelj et al., 2019; Weingartner, 2021). Second, they typically compare the sociodemographic characteristics of online and offline participants and address only some traditional barriers to cultural participation, often neglecting barriers pertinent to the digital age, such as digital skills (Van Deursen & Helsper, 2018; Van Deursen & Van Dijk, 2014) and distrust in the Internet and social media (Hsieh-Yee, 2021; Nicholls & Yitbarek, 2022). Third, these studies frequently overlook the sociocultural affordances associated with digital cultural activities, such as connecting with others with shared cultural interests (Bennett, 2014) or learning about foreign cultures (Verboord, 2017), which are important motivators for specific forms of (digital) cultural participation (Janssen, Kristensen, Verboord, & Lopez, forthcoming). The concept of affordances is pivotal in digital media studies (Ronzhyn, Cardenal, & Batlle Rubio, 2023) but has broader applications in other fields, including

psychology, sociology, cultural studies, and design. Here, we use *sociocultural affordances* to refer to opportunities and benefits about social interaction, learning, personal growth, and belonging that individuals associate with (digital) cultural activities. These perceptions or imagined affordances (Nagy & Neff, 2015) influence their likelihood of participation, signaling a more varied and inclusive take on culture and, consequently, increased cultural democracy.

Research Questions

Since previous studies on digital cultural participation have concentrated on specific activities and individual European countries, we lack insight into the prevalence of different *types* of digital cultural participation across Europe. Therefore, before examining our central research question (RQ2), we mapped the extent of Europeans' involvement in a range of digital cultural activities to answer the following question:

RQ1: What are the main types of digital cultural participation in which Europeans engage?

Our investigation of this question enhances the literature by uncovering the underlying dimensions of digital cultural participation. Next, we turn to our central question:

RQ2: To what extent do sociodemographic characteristics, (perceived) barriers, social-cultural affordances, and offline cultural participation explain Europeans' engagement in various types of digital cultural participation?

Addressing this question allows us to achieve a more nuanced and comprehensive understanding of the social stratification of digital cultural participation compared with previous studies. Moreover, it contributes novel insights by determining whether perceived barriers and affordances further explain inequalities in digital cultural participation, thereby providing deeper insight into the "democratization of culture" versus "cultural democracy" debate. Our final research question explores the impact of country differences:

RQ3: What role do country contexts play in the extent of citizens' participation in various types of digital cultural activities?

Method and Data

Data Collection

We selected the nine countries in our study to cover various European countries, which differ in various dimensions likely to affect digital cultural participation, notably cultural policy models (Rius-Ulldemolins, Pizzi, & Rubio Arosteguiet, 2019), digital mediascapes (Peruško, Vozab, & Čuvalo, 2015), and levels of digitalization, prosperity, and inequality. Appendix A1[2] highlights the similarities and differences between the nine countries about these characteristics.

[2]The online appendix can be retrieved from https://inventculture.eu/ijoc-article-supplementary-materials/

Data collection occurred in April–July 2021 during a large international research project[3], spanning Croatia, Denmark, Finland, France, the Netherlands, Serbia, Spain, Switzerland, and the United Kingdom. Each country's survey agency targeted a representative adult population (age ≥ 18–80), aiming for at least 1,200 respondents. Despite the sample aligning closely with national demographics, women, seniors, and highly educated citizens are overrepresented in some countries (cf. Appendix A2). Therefore, we control for education, age, and gender as applicable.

The survey included questions on cultural attitudes and participation, media usage, life satisfaction, Europeanization, cosmopolitanism, and sociodemographics. Here, we focus on pertinent variables for cultural digital participation. Internet use was a qualifying criterion: Only respondents using the Internet at least once a month were surveyed about digital cultural activities. Our sample comprised 13,522 respondents (94% of the total sample). The fieldwork occurred during (partial) COVID-19 lockdowns in the surveyed countries, which may have influenced the frequency of reported digital cultural activities, such as online museum visits, concerts, or streaming television. As a result, these activities may appear more prevalent in our data set than under normal circumstances (but see Blaabæk & Jæger, 2024).

Analytical Approach

To identify the underlying dimensions of digital cultural participation (RQ1), we applied principal components analysis (PCA; Dunteman, 1989). This method inductively identifies patterns within the data by transforming the original variables into a set of uncorrelated principal components that capture the maximum variance in the data. The first part of the results section reports the findings, which serve as inputs for subsequent analyses.

Next, we present the results of the multilevel analyses conducted to explain variations in participation levels (RQ2) and assess the effects of sociodemographic predictors, perceived barriers, social-cultural affordances, and offline cultural participation on the level of engagement across the three types of digital cultural participation identified with the principal components analysis. Multilevel analysis accounts for the nested structure of the data, where individuals (level 1) are grouped within nine countries (level 2). Unlike regular regression, multilevel analysis avoids underestimating coefficients and overstating their significance, providing reliable fixed regression coefficients and level-1 variance components (Maas & Hox, 2005). Although our nine-country sample is too small to reliably assess the impact of any specific country-level features (Maas & Hox, 2005), the multilevel models offer tentative insights into the variance in outcome variables attributable to country differences (RQ3).

[3] See footnote 1.

Measures

Digital Cultural Participation

The survey asked respondents how often they participated in 11 digital cultural activities (see Table 1). Response options ranged from 0 (almost never) to 4 (almost daily). Appendix A3 provides more details.

Table 1. Participation in Digital Cultural Activities and Overall Cultural Participation.

Rank no. item	Wording of answer items to question: *How often do you do the following things on the Internet (either on a computer, laptop, tablet, smartphone, or smart television?**	*M*	SE	Percentage respondents that at least occasionally do activity**
1	Watch short entertainment videos (e.g., YouTube, TikTok)	1.97	.012	71.2%
2	Search information on arts, culture, or entertainment (e.g., music, movies, museums)	1.94	.011	83.0%
3	Watch films or television series on streaming services (e.g., Netflix, HBO, Disney+)	1.91	.013	64.6%
4	Listen to music via streaming services (e.g., Spotify, Deezer)	1.68	.013	57.1%
5	Publish or post photographs that you took yourself	1.38	.011	62.0%
6	Buy cultural products or services (e.g., books, tickets, works of art)	1.15	.008	69.1%
7	Follow celebrities or influencers (e.g., on Facebook, Instagram, YouTube)	1.06	.011	41.2%
8	Play video or computer games online	1.06	.013	39.9%
9	Share your opinions about arts, culture, or entertainment (e.g., via posts, ratings, reviews)	0.83	.010	41.9%
10	Visit online concerts, museums, or performances	0.74	.009	43.3%
11	Publish or post other creative content that you produced yourself (e.g., blog posts, videos, podcasts, webzines)	0.64	.009	30.5%
Overall digital cultural participation (mean score of 11 items)		1.31	.006	

Note. Reported coefficients are adjusted mean and standard error (SE), controlled for education level, age, and gender. *Response options 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*); ** less than once a month or more often. *N* = 13,522.

Our approach to digital cultural participation included both platform-specific activities, such as following online influencers (Bennett, 2014), and traditional cultural consumption enhanced by technology, such as streaming films on platforms like Netflix (Blank & Groselj, 2014; Eurostat, 2022; Panarese & Azzarita, 2020; Turner, 2019). The survey covered state-supported highbrow cultural activities like online concerts and museums (Mihelj et al., 2019; Stevenson et al., 2017; Taylor, 2016) alongside popular everyday activities like music streaming and gaming (Blank & Groselj, 2014; Eurostat, 2022; Lüders, 2021). We also included creative modes of participation, such as expressing opinions about arts and culture

(Verboord, Koreman, & Janssen, 2021) or creating blogs and videos (Blank, 2013; Eurostat, 2019; Hargittai & Walejko, 2008), differentiating these from simpler tasks like photo sharing (Blank, 2013). Finally, respondents were asked about searching for cultural information and purchasing cultural products online (Mihelj et al., 2019).

Explanatory Variables

To explain variations in digital cultural participation, we analyzed the impact of barriers, affordances, offline cultural participation (cf. Appendix A3-a and A3-b), and sociodemographic factors such as age, gender, urban-rural status, education, and migration background (cf. Appendix A3-a). Previous surveys have rarely considered migration background, but broader studies on migrants' digital media use highlight its significance (Andersson, 2019; Marquart, Heikkilä, Janssen, & Lamberti, forthcoming).

Barriers to Digital Cultural Participation

We first assessed whether traditional obstacles like time and financial constraints remain significant in the digital realm (De La Vega et al., 2020; Weingartner, 2021), using self-reported data on individuals' spare time and income. Second, we examined digital-specific barriers, assessing (self-perceived) "digital skills" (with the statement "I often lack the skills to find the information I need on the Internet"), a critical factor since its deficiency hampers online activities (Van Deursen & Helsper, 2018). We also examined individuals' trust in digital technologies as a crucial determinant of online attitudes and behaviors (Hsieh-Yee, 2021; Nicholls & Yitbarek, 2022). We measured "distrust in social media," and we assessed "digital skepticism" with the statement "The increased use of the Internet has created more problems than solutions in [my country]."

Sociocultural Affordances

The Internet enables users interested in broadening their cultural horizons to explore and engage with other cultures, and research shows a positive association between cultural openness and digital participation (Katz-Gerro, Janssen, Yodovich, Verboord, & Llonch-Andreu, 2023). We assessed cultural openness using two indicators: "Learning about/connecting with other cultures," a four-time scale (Cronbach's alpha = .92), and the statement "I enjoy cultural products from all over the world." We also looked at the social affordances of cultural participation, as social capital is pertinent for participation and online cultural behaviors (McLean, 2017; Verboord, 2021). To assess respondents' appreciation for connecting with others, we used two indicators: "Socializing with diverse others at cultural events," a four-item scale (Cronbach's alpha = .82), and the item "The Internet has enabled me to make contact with people who share the same cultural interests as me."

Offline Cultural Participation

Digital cultural participation is likely influenced by individuals' participation in related cultural activities outside the digital realm (Mihelj et al., 2019). Hence, we included measures of "participation in popular cultural activities" and "classical cultural activities" as predictors. The first measure comprised five

items: visiting a popular music concert or festival; visiting a local fair with food and music; dining out in a restaurant, going to a pub, café, or bar; and visiting a second-hand market, flea market, or collectors' fair. The second measure consisted of two items: (a) visiting a classical music concert, opera, ballet performance, or theater performance, and (b) visiting a museum, monument, or historical place.

Results

Mapping Dimensions of Digital Cultural Participation

Table 1 (see Methods section) shows how often respondents, on average, participated in each activity, listing activities from most common to least common. The final row includes the mean score of the 11 items as a proxy for overall digital cultural participation. Overall, the frequency of participation in digital cultural activities (mean score of 1.31) appears quite low (somewhere between less than once a month and once a month; cf. Appendix A4). The five lowest-ranking activities were (almost) never done by most respondents. Whereas respondents, on average, use the Internet (M = 3.72; SE = .007) almost daily and use social media at least once a week (M = 2.99; SE = .011), they participate less often in digital *cultural* activities. Europeans most frequently use the Internet to watch short entertainment videos, search for information on arts, culture, and entertainment, and watch TV and films (Eurostat, 2022). Conversely, consistent with previous UK studies, we observe that sharing self-created content beyond photographs (Blank, 2013) and attending online cultural events, such as concerts and museums, are uncommon (Mihelj et al., 2019).

Table 2 summarizes the results of the principal component analysis (PCA) we conducted to explore whether the 11 digital cultural activities can be grouped into broader constructs. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy had a suitable value (.838), while Bartlett's test of sphericity was significant (p < 0.001), indicating that factor analysis is appropriate with our data. We used an oblique rotation method (direct oblimin), since we assumed dimensions are correlated (Child, 2006). We retained three theoretically meaningful factors with an eigenvalue of 1 or higher, at least three salient pattern coefficients (>.50), and adequate internal consistency. The resulting three-factor solution explained 56.86% of the variance, which is considered acceptable in the social sciences (Field, 2017). Since we used oblique rotation, we also inspected the interfactor correlations (cf. Appendix A5-b). The result proved satisfactory, with the average between-factor correlation being considerably lower (.245) than the average within-factor correlation (.397).

The values in boldface in Table 2 indicate the component to which we assigned each activity based on its pattern coefficients (>.50). We found three clear activity clusters, which we labeled content creation and sharing, audiovisual entertainment, and cultural information and access. The coefficient alphas (Table 2) reveal a reliable factor solution. For the third factor, Cronbach's alpha is slightly below the standard threshold of 0.70 but is still acceptable considering the within-factor correlations (see Appendix A5-a).

Table 2. Principal Components Analysis (PCA) of Digital Cultural Participation: Pattern Matrix.

Activity	Components		
	Content Creation and Sharing	Audiovisual Entertainment	Cultural Information and Access
Publish/post other creative content	**.788**	.035	.092
Publish or post photographs	**.738**	.110	−.013
Share opinions on arts and culture	**.600**	.001	.381
Watch films/TV series	−.211	**.762**	.192
Listen to music	−.195	**.719**	.248
Watch short videos	.183	**.678**	−.102
Follow celebrities/influencers	.316	**.547**	−.050
Play video or computer games	.132	**.527**	−.108
Buy cultural products/services	.042	.011	**.792**
Search information on arts, culture, and entertainment	−.041	.090	**.779**
Visit online concerts, museums, performances	.323	−.021	**.589**
Reliability (internal consistency) Cronbach's α	.72	.70	.68
Eigenvalue	3.734	1.332	1.189
Explained variance before rotation (%)	33.94%	12.11%	10.81%
Cumulative explained variance	33.94%	46.06%	56.86%

Note. Oblimin rotation with Kaiser normalization (missing values excluded listwise). Values in boldface indicate the factor to which each item was assigned. *N* = 13,522. The analysis was conducted with IBM SPSS version 28.0.1.0.

In answering RQ1, we identified three overarching types of digital cultural participation that European citizens engage in. Based on the PCA results, we constructed three new variables (indices) to capture the multidimensionality of digital cultural participation. Appendix A6-a shows the mean values of these three variables, controlling for education, gender, and age, for the entire data set and per country. Audiovisual entertainment was the most frequent form of digital cultural participation (*M* = 1.536; SE = .008), while content creation and sharing was the least frequent (*M* = .950; SE = .008). This finding accords with previous research on the purposes of Internet use more broadly (Blank & Groselj, 2014). Cultural information and access held an in-between position (*M* = 1.277; SE = .007).

Cross-National Differences and Similarities

The overall pattern we observed was consistent across all countries (Appendix A6-a) except for Serbia, where content creation and sharing was the most prevalent type of digital cultural participation. This may be due to the high costs and advanced digital infrastructures required for some entertainment items (e.g., streaming TV, movies, and music, playing games), making them less accessible in Eastern European countries like Serbia, which have lower prosperity levels (Appendix A1) and less developed digital media markets (Peruško et al., 2015).

Pairwise comparisons of the country means—controlled for education, gender, and age—revealed that Spain scores significantly higher than other countries on all three dimensions (Appendix A6-b-A6-d), possibly reflecting Spain's high degree of digital readiness (Appendix A1). Otherwise, different patterns emerged for each dimension. On the audiovisual entertainment dimension, the Netherlands, the United Kingdom, and Denmark rank highest after Spain, showing no significant differences, followed by Finland and France with similar scores, and Switzerland, Croatia, and Serbia with significant differences. For content creation and sharing, all countries except France and Finland differ significantly in their mean scores, with Spain, Serbia, and Croatia scoring the highest. This may be due to the lower financial threshold for these activities compared with other digital or offline activities, making them more relevant in less prosperous countries with higher inequality (Appendix A1). About cultural information and access, Spain, France, and the Netherlands rank highest, followed by Switzerland, Denmark, Serbia, and Finland, which show no significant differences. The United Kingdom and Croatia have the lowest scores, possibly due to their relatively low public expenditure on cultural services (Rius-Ulldemolins et al., 2019; Appendix A1), resulting in fewer affordable digital cultural offerings, such as online concerts or exhibitions.

Understanding Varying Levels of Participation in Three Types of Digital Cultural Activities

To answer RQ2, we regressed the three types of digital cultural participation identified by PCA analysis (see Table 2) onto the predictor variables (see Appendix A3-b in three multilevel regressions). To operationalize the three types of digital cultural participation, we used the participants' scores on the three variables constructed based on the outcomes of the PCA. For comparative purposes, we also related predictors to the overall measure of digital cultural participation (cf. Table 1).

First, we estimated the null models (not displayed) with only a random intercept but no independent variables. Based on variances at the individual and country levels, this allowed us to tentatively assess how much of the explained variance is situated at each level by calculating the intraclass correlation coefficient (ICC). The ICCs for the dependent variables ranged from 4.2% to 9.6%, indicating that the differences between countries were relatively small. The ICC in the null model was highest for content creation and sharing (9.6%) and lowest for the audiovisual entertainment dimension (4.2%), implying that irrespective of how many country-level variables are included in the model, these can together explain at most 9.6% of the variance in the content creation and sharing dimension and at most 4.2% of the variance in the audiovisual entertainment dimension. We note that these ICCs should be interpreted with caution because a small level 2 sample size (i.e., nine countries) might lead to an overestimation of the level 2 variance components (Maas & Hox, 2005), which would imply that the between-country variances might be (even) lower than the mentioned ICC percentages. The estimated coefficients in Table 3 show the distinct effects of some predictors for the three types of digital cultural participation, but we also note similarities.

Table 3. Multilevel Analysis of Three Dimensions of Digital Cultural Participation and Overall Digital Cultural Participation.

Variable	Audiovisual Entertainment	Content Creation and Sharing	Cultural Information and Access	Overall Digital Cultural participation
SOCIODEMOGRAPHICS				
- Age	−.032***	−.008***	−.004***	−.018***
- Gender (Female = 1)	−.117***	−.014	−.027*	−.064***
- Place of residence: rural–urban (0–9)	.019***	−.001	.009***	.011***
- Level of education (1–6)	−.018***	.001	.032***	.000
- Migration background (yes = 1)	.042*	.054**	−.001	.034*
Δ Pseudo (marginal) R2 % at the individual level	32.6%	4.5%	6.5%	22.3%
BARRIERS TO (DIGITAL) CULTURAL PARTICIPATION				
- Cultural activities often too expensive	.030***	.021**	.002	.020***
- No time for cultural activities	−.020**	−.010	−.042***	−.023***
- Lack of digital skills	−.028***	.031***	−.014*	−.008
- Distrust of social media	−.063***	−.114***	−.012**	−.063***
- Internet skepticism	−.040***	.015*	−.012*	−.017***
Δ Pseudo (marginal) R2 % at the individual level	2.1%	7.0%	2.7%	4.5%
SOCIOCULTURAL AFFORDANCES				
- Learning about other cultures	.036**	−.017	.049***	.025**
- Socializing with diverse others	.000	.022	.058***	.022*
- Enjoying cultural products from all over the world	.024**	−.017*	.040***	.018**
- Connecting with people with shared cultural interests	.122***	.173***	.091***	.128***
Δ Pseudo (marginal) R2 % at the individual level	3.5%	8.1%	11.8%	9.7%
OFFLINE PARTICIPATION IN CULTURE				
- Classical (highbrow) cultural activities	−.007	.078***	.239***	.074***
- Popular cultural activities	.076***	.102***	.067***	.090***
Δ Pseudo (marginal) R2 % at the individual level	2.0%	5.6%	18.2%	7.9%

Variable	Audiovisual Entertainment	Content Creation and Sharing	Cultural Information and Access	Overall Digital Cultural participation
Intercept	2.818***	1.029***	.295***	1.641***
Variance country level	.074*	.035*	.017*	.028*
Variance individual level	.617***	.645***	.410***	.305***
−2 restricted log likelihood	28,051.817	28,691.219	23,228.797	19,607.720
Pseudo R^2 (marginal)	.404	.252	.392	.444
Pseudo R^2 (conditional)	.468	.291	.415	.491

Note. These are random-intercept models with maximum likelihood estimates and unstandardized coefficients. The results are unweighted. N = 13,522. The analyses were conducted with IBM SPSS version 28.0.1.0. *p < .05. **p < .01. ***p < .001. N = 13,522

Impact of Sociodemographic Variables

Sociodemographic variables explain differences in participation best for audiovisual entertainment: Here, more than 32% of the variance is captured by social background (against only 4.5% for dimension 2 and 6.5% for dimension 3). Across all three dimensions, younger citizens participated significantly more often in digital culture, highlighting the age gap commonly found in digital participation studies (Blank, 2013; Hunsaker & Hargittai, 2018; Panarese & Azzarita, 2020); the effect appeared more substantial for the audiovisual entertainment component (B = −.32) than for content sharing and creation (B = −.008) or cultural information and access (B = −.004).

Men more often participated in audiovisual entertainment (B = −.117) and were somewhat more likely to use the Internet for cultural information and access purposes (B = −.027). For content creation and sharing, we found no gender differences. Individuals living in urban environments used digital opportunities for audiovisual entertainment (B = .019) and cultural information and access (B = .009) more frequently than those in rural areas, mirroring the urban-rural gap observed in offline cultural participation (Eurostat, 2019). A higher education level was associated with higher levels of Internet use for cultural information and access purposes (B = .032). In contrast, it had a negative effect on the respondents' involvement in audiovisual entertainment (B = −.018). We found no effect of education on how often people used the Internet to create and share content. Respondents with a migration background more frequently engaged in content creation and sharing (B = .054) and audiovisual entertainment (B = .042).

Impact of Barriers

The results relating to barriers revealed differences in the various types of digital cultural participation but explained variances are modest (varying between 2.1% for audiovisual entertainment to 7.0% for content creation and sharing). Respondents who considered cultural activities too expensive were more likely to use online opportunities for audiovisual entertainment (B = .030) and the sharing of self-created content (B = .021). Time constraints made it less likely that respondents used the digital environment for audiovisual entertainment (B = −.020) or cultural information and access (B = −.042) but played no role in creating and sharing content.

Low levels of self-reported digital skills negatively affected the frequency with which respondents used the Internet for audiovisual entertainment (B = −.028) and information and accessing purposes (B = −.014) but were positively associated with how often they shared self-created content (B = .031). A high distrust of social media negatively affected people's participation in all three forms. Internet skepticism had a similar negative effect, except for sharing self-produced digital content, for which we observed a (modest) positive relationship (B = .015). Possibly, people who share self-created content online put their trust in (and are dependent on) their social network online, but that does not necessarily translate to positive attitudes toward digital environments at large.

Impact of Sociocultural Affordances

Sociocultural affordances show higher levels of explained variance than barriers: predicting cultural information and access best (11.8%), followed by content creation and sharing (8.1%) and audiovisual entertainment (3.5%). We observed higher levels for the cultural information and access dimension for respondents who took an interest in other cultures (B = .049), liked to socialize with diverse others (B = .058), enjoyed cultural products from across the globe (B = .040), and were keen on connecting with people with shared cultural interests (B = .091). Participation in audiovisual entertainment was also positively related to respondents' interest in other cultures (B = .036), foreign cultural products (B = .024), and people with similar tastes (B = .122). For content creation and sharing, we found a modest negative effect for respondents who enjoyed cultural products from all over the world (B = −.017) and a strong positive relationship with people's interest in connecting with people with shared interests (B = .173).

Our findings suggest that social and cultural openness are important drivers of digital cultural participation. High interest in connecting with others with shared cultural interests strongly predicts all types of digital cultural activity. Additionally, respondents interested in other cultures, foreign products, and diverse others used the Internet more frequently for both audiovisual entertainment and cultural information and access.

Relation to Offline Cultural Participation

Lastly, offline cultural participation is particularly relevant for predicting cultural information and access (18.2% explained variance) but less so for the other two dimensions (2% and 5.6%). There is a strong positive relationship between offline participation in popular cultural activities and all three forms of digital cultural participation. Offline participation in classical culture is not associated with participation in digital audiovisual entertainment but positively correlates with the frequency of using digital platforms for sharing self-created content (B = .078) and, particularly, for cultural information and access (B = .239). These findings indicate that digital cultural participation supplements, rather than substitutes, offline cultural participation, and classical activities like attending theater performances, concerts, or museums do not attract a new audience online.

Country Contexts

Turning to RQ3, the ICC scores suggest that the country context plays a modest role compared with individual-level variables in predicting participation in digital cultural activities. Country-level factors appear most important for content creation and sharing, where we observed notable differences between countries (see Appendix A6-a). This variation may stem from country differences in digital infrastructure, the costs of participating in digital and offline cultural activities, and the available opportunities (or lack thereof) for creating and sharing content outside the digital environment. However, the small number of countries (N = 9) preclude testing the impact of specific country-level features (Maas & Hox, 2005).

Similar patterns emerged across the nine countries studied when comparing the total variances explained by the three models for each country (cf. Appendix A7), indicating the robustness of the models

presented in Table 3. Generally, the explained variances are higher for audiovisual entertainment and cultural information and access than for content creation and sharing. Sociodemographic variables consistently emerged as key predictors of audiovisual entertainment in each country. For cultural information and access, affordances and offline participation are the main predictors for all countries except Serbia, where sociodemographic predictors play a slightly more significant role than affordances. The effects of the various predictors for content creation and sharing are less differentiated in most countries and vary from country to country.

Conclusion

In this study, we analyzed Europeans' digital cultural participation using original survey data to evaluate how digitalization has democratized access to cultural offerings and diversified opportunities for cultural participation across nine European countries. Our research expands on previous studies of digital cultural inequalities by examining a broader range of digital cultural activities and national contexts. Unlike prior research, which primarily focused on sociodemographic variables to explain differences in digital cultural participation, this study investigated how perceived barriers and sociocultural affordances influence individuals' participation levels in various digital cultural activities.

Our findings reveal that different people use the Internet for various cultural purposes, which supports the notion that the digital environment enables democratized and diversified cultural participation. This outcome also underlines the importance of examining mundane and entertainment-based forms of digital culture in addition to highbrow or institutionalized forms of digital cultural participation (Heikkilä, 2021; Mihelj et al., 2019).

Our analysis indicates that three distinct dimensions can capture digital cultural participation. The first dimension is audiovisual entertainment: Europeans frequently use the Internet to watch short entertainment videos, view TV and films, listen to music, or play games. Second, content creation and sharing—publishing or posting photographs or other self-created cultural content—constitutes a relevant dimension of digital cultural participation. The third factor is cultural information and access. More than 80% of the respondents regularly search for information on arts and culture, and buying cultural products is similarly widespread. Importantly, in contrast, visits to online museums, concerts, or performances are not very common; they primarily supplement physical attendance at traditional cultural events and institutions among those already participating rather than serving as a means of democratization or including non-visitors (cf. De La Vega et al., 2020; Mihelj et al., 2019).

Our explanatory analyses provide more evidence for the cultural democracy model than for the democratization of culture model (Belfiore et al., 2023). For all three types of digital cultural participation, sociocultural affordances appear to be more influential than barriers. This suggests that the opportunities individuals perceive in digital cultural activities—such as learning about different cultural realms or connecting with others—are crucial to understanding how participation in digital culture unfolds.

One of the most surprising findings is the reversal of social stratification effects. Whereas offline cultural participation studies reveal the sharpest sociodemographic distinctions in highbrow culture

(Flemmen et al., 2018), our study finds that sociodemographic predictors explain only 6.5% of the variance in cultural information and access against more than 30% for audiovisual entertainment (which is arguably closer to the popular culture axis of the spectrum). Younger, male, lower-educated individuals in urban areas are more likely to engage in digital entertainment despite the traditional female dominance in domestic forms of cultural participation (Bennett et al., 2009; Lagaert, Van Houtte, & Roos, 2017), the more advanced digital skills of the higher educated (Van Deursen & Helsper, 2018), and the competition that urban settings arguably give to mediated entertainment. In sum, we find little highbrow snobbism in the use of digital media for cultural information and access purposes or in creating and sharing cultural content, but we observe significant social divisions in digital entertainment consumption. Another way of interpreting these results is that for audiovisual entertainment, barriers and affordances matter little—social groups behave relatively uniformly—while they *do* matter for the other forms of digital cultural participation.

Content creation and sharing exhibit the least social stratification, but here, skepticism toward the Internet and lack of skills correlate with higher, rather than lower, levels of participation. This finding highlights a critical aspect of online cultural participation: the widespread and often uncritical usage of social media, driven by platform algorithms designed to prioritize user retention and advertising revenue (Aral, 2020). While distrust of social media negatively impacts all forms of digital cultural activities in our study, we lack data to analyze individuals' susceptibility to algorithmic influence and other online social pressures. However, the potential effects of "surveillance capitalism" (Zuboff, 2019) for digital cultural participation are foreseeable, as much of the content consumption and sharing occurs on highly commercialized platforms like Netflix, Spotify, YouTube, TikTok, and Facebook.

This study also explored the role of the country context in Europeans' digital cultural participation. While our goal was not to compare specific national cultures or practices, our data provided some preliminary insights into cross-national variations. We found significant country differences in the frequency of various types of digital cultural participation, potentially linked to differences in cultural policies (Rius-Ulldemolins et al., 2019), digital mediascapes (Peruško et al., 2015), and levels of digitalization, prosperity, and inequality (cf. Appendix A1). Still, the impact of the country context appeared limited compared with individual-level factors, particularly for more entertainment-based practices, likely because our sample—though diverse—included countries that were relatively similar on a global scale. The Netherlands, the United Kingdom, France, Spain, and Switzerland, for instance, belong to the same Western-European digital mediascape cluster (Peruško et al., 2015) and also resemble the two Nordic countries on indices of digitalization (see Appendix A1). Future research should expand beyond Europe to more fully explore digital cultural participation and the role of country-level factors.

We signal several important limitations to our study. First, our data lack information on the nature of the cultural content consumed or created and the effects of frequent engagement in specific types of digital cultural participation on individuals. Consequently, we refrain from making unsubstantiated claims about the benefits of digital cultural participation for individuals and societies. Digital cultural activities may not always enhance "individuals' cultural and informational capacity and capital, define identity, and allow personal expression" (UNESCO, 2012, p. 51) but may also involve undemocratic or socially harmful content (Keipi, Näsi, Oksanen, & Räsänen, 2016) or have adverse effects on mental health or subjective well-being (Zhao, 2021). Second, our analyses do not allow for establishing

causal relationships between predictors and dependent variables since we employ cross-sectional survey data. Third, our study is constrained by the timing of the COVID-19 pandemic, potentially inflated participation in certain digital activities compared with non-pandemic conditions. Fourth, our suggested battery of digital cultural participation activities was inspired by various previous studies but has not been tested before. Replication within and beyond the European context is needed to test the validity of our three-factor solution, and more items should be included.

We departed from the observation that conventional notions of cultural participation often overlook social-mundane activities, particularly in the digital realm (Heikkilä, 2021). Our study shows that digital forms of cultural participation may not necessarily democratize culture in the traditional sense, but they expand the diversity of practices that citizens engage in, creating a more heterogeneous cultural landscape. It will be crucial to analyze in-depth what these cultural activities entail in an increasingly digitalized and globalized society. The increasing importance of digital cultural participation necessitates a more profound understanding of who participates and does not in which activities, the reasons behind these patterns, and their effects.

References

Andersson, K. (2019). Digital diaspora: An overview of the research areas of migration and new media through a narrative literature review. *Human Technology, 15*(2), 142–180. doi:10.17011/ht/urn.201906123154

Aral, S. (2020). *The hype machine. How social media disrupts our elections, our economy, our health—And how we must adapt*. New York, NY: Currency.

Bakker, T. P., & De Vreese, C. H. (2011). Good news for the future? Young people, Internet use, and political participation. *Communication Research, 38*(4), 451–470. doi:10.1177/0093650210381738

Belfiore, E., Hadley, S., Heidelberg, B. M., & Rosenstein, C. (2023). Cultural democracy, cultural equity, and cultural policy: Perspectives from the UK and USA. *The Journal of Arts Management, Law, and Society, 53*(3), 157–168. doi:10.1080/10632921.2023.2223537

Bennett, L. (2014). Fan/celebrity interactions and social media: Connectivity and engagement in Lady Gaga fandom. In L. Duits, K. Zwaan, & S. Reijnders (Eds.), *The Ashgate research companion to fan cultures* (pp. 109–120). Farnham, UK: Ashgate.

Bennett, T., Savage, M., Silva, E. B., Warde, A., Gayo-Cal, M., & Wright, D. (2009). *Culture, class, distinction*. London, UK: Routledge.

Blaabæk, E. H., & Jæger, M. M. (2024). No substitute for the real thing? Physical and digital cultural participation in Denmark during the COVID-19 pandemic. *Acta Sociologica, 67*(1), 20–31. doi:10.31235/osf.io/ksy9w

Blank, G. (2013). Who creates content? Stratification and content creation on the Internet. *Information, Communication & Society, 16*(4), 590–612. doi:10.1080/1369118X.2013.777758

Blank, G., & Groselj, D. (2014). Dimensions of Internet use: Amount, variety, and types. *Information, Communication & Society, 17*(4), 417–435. doi:10.1080/1369118X.2014.889189

Bonet, L., & Négrier, E. (2018). The participative turn in cultural policy: Paradigms, models, contexts. *Poetics, 66*(1), 64–73. doi:10.1016/J.POETIC.2018.02.006

Boulianne, S. (2020). Twenty years of digital media effects in civic and political participation. *Communication Research, 47*(7), 947–966. doi:10.1177/0093650218808186

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste* (R. Nice, Trans.). London, UK: Routledge & Kegan Paul. (Original work published 1979)

Carpentier, N. (2011). New configurations of the audience? The challenges of user-generated content for audience theory and media participation. In V. Nightingale (Ed.), *The handbook of media audiences* (pp. 161–172). Oxford, UK: Blackwell.

Casemajor, N., Bellavance, G., & Sirois, G. (2021). Cultural participation in digital environments: Goals and stakes for Quebec cultural policies. *International Journal of Cultural Policy, 27*(5), 650–666. doi:10.1080/10286632.2020.1825403

Chen, W. (2015). A moveable feast: Do mobile media technologies mobilize or normalize cultural participation? *Human Communication Research, 41*(1), 82–101. doi:10.1111/hcre.12041

Child, D. (2006). *The essentials of factor analysis* (3rd ed.). London, UK: Continuum.

Coulangeon, P. (2013). Changing policies, challenging theories and persisting inequalities: Social disparities in cultural participation in France from 1981 to 2008. *Poetics, 41*(2), 177–209. doi:10.1016/J.POETIC.2012.12.003

Couldry, N., Livingstone, S., & Markham, T. (2007). *Media consumption and public engagement: Beyond the presumption of attention*. Houndmills, UK: Palgrave.

De la Vega, P., Suarez-Fernández, S., Boto-García, D., & Prieto-Rodríguez, J. (2020). Playing a play: Online and live performing arts consumers profiles and the role of supply constraints. *Journal of Cultural Economics, 44*(3), 425–450. doi:10.1007/s10824-019-09367-y

DiMaggio, P., & Mukhtar, T. (2004). Arts participation as cultural capital in the United States, 1982–2002: Signs of decline? *Poetics, 32*(2), 169–194. doi:10.1016/j.poetic.2004.02.005

Dunteman, G. H. (1989). *Principal components analysis*. Thousand Oaks, CA: Sage Publications.

Ebrey, J. (2016). The mundane and insignificant, the ordinary and the extraordinary: Understanding everyday participation and theories of everyday life. *Cultural Trends, 25*(3), 158–168. doi:10.1080/09548963.2016.1204044

Eurostat. (2019). *Culture statistics: 2019 edition*. Retrieved from https://data.europa.eu/doi/10.2785/118217

Eurostat. (2022). *Culture statistics—Use of ICT for cultural purposes*. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=574961

Evrard, Y. (1997). Democratizing culture or cultural democracy? *The Journal of Arts Management, Law, and Society, 27*(3), 167–175. doi:10.1080/10632929709596961

Falk, M., & Katz-Gerro, T. (2016). Cultural participation in Europe: Can we identify common determinants? *Journal of Cultural Economics, 40*(2), 127–162. doi:10.1007/s10824-015-9242-9

Field, A. (2017). *Discovering statistics using SPSS* (5th ed.). Thousand Oaks, CA: Sage Publications.

Flemmen, M., Jarness, V., & 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. doi:10.1111/1468-4446.12295

Hargittai, E., & Walejko, G. (2008). The participation divide: Content creation and sharing in the digital age. *Information, Community and Society, 11*(2), 239–256. doi:10.1080/13691180801946150

Heikkilä, R. (2021). The slippery slope of cultural non-participation: Orientations of participation among the potentially passive. *European Journal of Cultural Studies, 24*(1), 202–219. doi:10.1177/1367549420902802

Hermes, J. (2023). *Cultural citizenship and popular culture: The art of listening*. Abingdon, UK: Routledge.

Hsieh-Yee, I. (2021). Can we trust social media? *Internet Reference Services Quarterly, 25*(1–2), 9–23. doi:10.1080/10875301.2021.1947433

Hunsaker, A., & Hargittai, E. (2018). A review of Internet use among older adults. *New Media & Society, 20*(10), 3937–3954. doi:10.1177/1461444818787348

Inthorn, S., Street, J., & Scott, M. (2013). Popular culture as a resource for political engagement. *Cultural Sociology, 7*(3), 336–351. doi:10.1177/1749975512457141

Janssen, S., Kristensen, N. N., Verboord, M., & Lopez, P. (forthcoming). What drives people to engage in cultural activities? Europeans' motivations for cultural participation. In S. Janssen, N. N. Kristensen, & M. Verboord (Eds.), *Engagement with culture in transformative times*. London, UK: Routledge.

Jenkins, H., Ito, M., & Boyd, D. (2015). *Participatory culture in a networked era*. Cambridge, UK: Polity.

Jenkins, H., & Carpentier, N. (2013). Theorizing participatory intensities: A conversation about participation and politics. *Convergence, 19*(3), 265–286. doi:10.1177/1354856513482090

Katz-Gerro, T., Janssen, S., Yodovich, N., Verboord, M., & Llonch-Andreu, J. (2023). Cosmopolitanism in contemporary European societies: Mapping and comparing different types of openness across Europe. *Journal of Contemporary European Studies, 32*(1), 187–202. doi:10.1080/14782804.2023.2211531

Keipi, T., Näsi, M., Oksanen, A., & Räsänen, P. (2016). *Online hate and harmful content: Cross-national perspectives*. London, UK: Routledge.

Kelty, C., & Erickson, S. (2018). Two modes of participation: A conceptual analysis of 102 cases of Internet and social media participation from 2005–2015. *The Information Society, 34*(2), 71–87. doi:10.1080/01972243.2017.1414092

Kristensen, N. N., From, U., & Haastrup, H. K. (Eds.). (2021). *Rethinking cultural criticism: New voices in the digital age*. Singapore: Palgrave Macmillan.

Lagaert, S., Van Houtte, M., & Roose, H. (2017). Engendering culture: The relationship of gender identity and pressure for gender conformity with adolescents' interests in the arts and literature. *Sex Roles, 77*(7–8), 482–495. doi:10.1007/s11199-017-0738-y

Livingstone, S. (2013). The participation paradigm in audience research. *The Communication Review, 16*(1–2), 21–30. doi:10.1080/10714421.2013.757174

Livingstone, S., Bober, M., & Helsper, E. J. (2005). Active participation or just more information? Young people's take-up of opportunities to act and interact on the Internet. *Information, Community & Society, 8*(3), 287–314. doi:10.1080/13691180500259103

Lüders, M. (2021). Ubiquitous tunes, virtuous archiving and catering for algorithms: The tethered affairs of people and music streaming services. *Information, Communication & Society, 24*(15), 2342–2358. doi:10.1080/1369118X.2020.1758742

Maas, C. J. M., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences, 1*(3), 86–92. doi:10.1027/1614-2241.1.3.86

Marquart, F., Heikkilä, R., Janssen, S., & Lamberti, G. (forthcoming). Migrants' engagement with digital culture: Active two-way use, Internet enthusiasm, digital dislike, and social media sociability. In S. Janssen, N. N. Kristensen, & M. Verboord (Eds.), *Engagement with culture in transformative times*. London, UK: Routledge.

McLean, P. (2017). *Culture in networks*. Cambridge, UK: Polity.

Mihelj, S., Leguina, A., & Downey, J. (2019). Culture is digital: Cultural participation, diversity and the digital divide. *New Media & Society, 21*(7), 1465–1485. doi:10.1177/1461444818822816

Miles, A., & Gibson, L. (2016). Everyday participation and cultural value. *Cultural Trends, 25*(3), 151–157. doi:10.1080/09548963.2016.1204043

Nagy, P., & Neff, G. (2015). Imagined affordance: Reconstructing a keyword for communication theory. *Social Media+ Society, 1*(2), 1–9. doi:10.1177/2056305115603385

Nicholls, N., & Yitbarek, E. (2022). Trust in social media and COVID-19 beliefs and behaviors. *PLoS One, 17*(10), 1–14. doi:10.1371/journal.pone.0275969

Ollivier, M. (2008). Modes of openness to cultural diversity. Humanist, populist, practical, and indifferent. *Poetics, 36*(2–3), 120–147. doi:10.1016/J.POETIC.2008.02.005

Panarese, P., & Azzarita, V. (2020). Online cultural participation in Italy: The role of digital media across generations. In Q. Ghao & J. Zhou (Eds.), *Human aspects of IT for the aged population: Healthy and active ageing* (pp. 643–660). Cham, Switzerland: Springer.

Peruško, Z., Vozab, D., & Čuvalo, A. (2015). Digital mediascapes, institutional frameworks, and audience practices across Europe. *International Journal of Communication, 9*, 342–364. Retrieved from https://ijoc.org/index.php/ijoc/article/view/3447

Potts, J. (2014). New technological and cultural consumption. In V. B. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of arts and culture* (pp. 215–231). Amsterdam, The Netherlands: Elsevier.

Prieur, A., & Savage, M. (2011). Updating cultural capital theory: A discussion based on studies in Denmark and in Britain. *Poetics, 39*(6), 566–580. doi:10.1016/j.poetic.2011.09.002

Ragnedda, M., & Muschert, G. W. (Eds.). (2013). *The digital divide: The Internet and social inequality in international perspective*. Abingdon, UK: Routledge.

Rius-Ulldemolins, J., Pizzi, A., & Rubio Arostegui, J. A. (2019). European models of cultural policy: Towards European convergence in public spending and cultural participation? *Journal of European Integration, 41*(8), 1045–1067. doi:10.1080/07036337.2019.1645844

Rogers, E. M. (2001). The digital divide. *Convergence, 7*(4), 96–111. doi:10.1177/135485650100700406

Ronzhyn, A., Cardenal, A. S., & Batlle Rubio, A. (2023). Defining affordances in social media research: A literature review. *New Media & Society, 25*(11), 3165–3188. doi:10.1177/14614448221135187

Roose, H., & Daenekindt, S. (2015). Trends in cultural participation. In J. D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences 5* (pp. 447–452). Amsterdam, The Netherlands: Elsevier.

Roose, H., Van Eijck, K., & Lievens, J. (2012). Culture of distinction or culture of openness? Using a social space approach to analyze the social structuring of lifestyles. *Poetics, 40*(6), 491–513. doi:10.1016/J.POETIC.2012.08.001

Savage, M., Cunningham, N., Devine, F., Friedman, S., Laurison, D., McKenzie, L., . . . Wakeling, P. (2015). *Social class in the 21st century*. London, UK: Pelican.

Stevenson, D., Balling, G., & Kann-Rasmussen, N. (2017). Cultural participation in Europe: Shared problem or shared problematisation? *International Journal of Cultural Policy, 23*(1), 89–106. doi:10.1080/10286632.2015.1043290

Taylor, M. R. (2016). Nonparticipation or different styles of participation? Alternative interpretations from Taking Part. *Cultural Trends, 25*(3), 169–181. doi:10.1080/09548963.2016.1204051

Turner, G. (2019). Approaching the cultures of use: Netflix, disruption and the audience. *Critical Studies in Television, 14*(2), 222–232. doi:10.1177/1749602019834554

United Nations Educational, Scientific and Cultural Organization. (2012). *Measuring cultural participation*. Retrieved from http://uis.unesco.org/sites/default/files/documents/measuring-cultural-participation-2009-unesco-framework-for-cultural-statistics-handbook-2-2012-en.pdf

Van Deursen, A. J. A. M., & Helsper, E. J. (2018). Collateral benefits of Internet use: Explaining the diverse outcomes of engaging with the Internet. *New Media & Society, 20*(7), 2333–2351. doi:10.1177/1461444817715282

Van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2014). *Digital skills: Unlocking the information society*. New York, NY: Palgrave Macmillan.

Verboord, M. (2017). Internet usage and cosmopolitanism in Europe: A multilevel analysis. *Information, Communication & Society, 20*(3), 460–481. doi:10.1080/1369118X.2016.1187193

Verboord, M. (2021). Music mavens revisited: Comparing the impact of connectivity and dispositions in the digital age. *Journal of Consumer Culture, 21*(3), 618–637. doi:10.1177/1469540519846203

Verboord, M., & Janssen, S. (2015). Internet and culture. In J. D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences 5* (pp. 587–592). Amsterdam, The Netherlands: Elsevier. doi:10.1016/B978-0-08-097086-8.10439-8

Verboord, M., Koreman, R., & Janssen, S. (2021). Where to look next for a shot of culture? Repertoires of cultural information production and consumption on the Internet. In N. N. Kristensen, U. From, & H. K. Haastrup (Eds), *Rethinking cultural criticism* (pp. 235–259). Singapore: Palgrave Macmillan. doi:10.1007/978-981-15-7474-0_11

Weingartner, S. (2021). Digital omnivores? How digital media reinforce social inequalities in cultural consumption. *New Media & Society, 23*(11), 3370–3390. doi:10.1177/1461444820957635

Zhao, L. (2021). The impact of social media use types and social media addiction on subjective well-being of college students: A comparative analysis of addicted and non-addicted students. *Computers in Human Behavior Reports, 4*, 1–7. doi:10.1016/j.chbr.2021.100122

Zuboff, S. (2019). *The age of surveillance capitalism*. London, UK: Profile Books.