Socially patterned strategic complementarity between offline leisure activities and internet practices among young people

Jordi Lopez Sintas (Jordi.Lopez@uab.cat) , Marıa Pilar Lopez Belbeze (Pilar.Lopez@uab.cat) , and Giuseppe Lamberti (Giuseppe.Lamberti@uab.cat)

Department of Business, School of Economics and Business, Universitat Autonoma de Barcelona, Bellaterra, Spain

ABSTRACT While research exists regarding the internet's influence on traditional forms of youth leisure, research based on a comprehensive set of leisure indicators is scattered. We explore how a set of young peoples' in-person leisure activities are complemented by their internet practices, using a canonical correlation framework to estimate the relationship between leisure activities and internet practices. We also measure how internet practices vary depending on the social properties of young people. We find that a strategic complementarity exists between certain offline leisure activities and specific online internet practices, in particular, that in-person social leisure is complemented by social interaction over the internet, that in-person cultural leisure is complemented by online information-seeking and asynchronous communication practices, and that in-home gaming is complemented by software and associated downloads. This strategic complementarity, furthermore, is also socially patterned, primarily by gender.

KEYWORDS: Canonical correlation analysis; Internet; leisure; strategic complementarity; Young people

Socially patterned strategic complementarity between offline leisure activities and internet practices among young people

1. Introduction

The major information communication technology (ICT) inventions of recent decades have rapidly transformed the way we experience life, with access to the internet now encapsulated in the many applications to which we have access through a laptop, tablet or smartphone (Nimrod & Adoni, 2012). The internet not only shares the innovative properties of previous communication inventions – like the telegraph, telephone, radio and television – in reducing distances but also combines and blends these and makes them accessible in a single device (Bargh & McKenna, 2004). The internet has thus transformed how we live and how we work and play. In relation to play, this transformation reflects how we access and perform leisure in traditional as well as digital formats, how we experience leisure, the meanings we attach to leisure, where leisure takes place, and how we interact with our social circle (Bryce, 2001; López-Sintas, Rojas de Francisco, & García-Álvarez, 2015; López-Sintas, Rojas-DeFrancisco, & García-Álvarez, 2017).

Young people today may not only be the first cohort born in the internet era but also born in the smartphone era (Lepp, 2014). In 2018, 95% of US teens (13-17 years old) and young adults (18-29 years old) had access to a smartphone (77% of the US population overall), and 45% acknowledged that they were almost continuously connected (Anderson & Jiang, 2018; Pew Research Center, 2018). Data for Spanish young people are similar: in 2016, 96% of young people aged 16-34 years accessed the internet at least

one time every day (INE, 2018) and in 2019 45% of them were constantly connected to the Internet (Aneimo 2019),; their pattern of use of social network sites is also similar to that of US young people, except for heavier use of Twitter and Google Plus (AdCombo, 2016).

Research into the influence of the ICTs on leisure activities has tended to focus on topics such as the nature of digital leisure (López-Sintas et al., 2015; Nimrod & Adoni, 2012; Sharaievska, 2017; Silk, Millington, Rich, & Bush, 2016), the substitution of traditional for digital leisure (Katz, Rice, & Aspden, 2001; Kraut et al., 2002, 1998; Nie & Erbring, 2002), the transformation of traditional leisure (Francisco, López-Sintas, & García-Álvarez, 2016; Irani, Jeffries, & Knight, 2010; López-Sintas, Rojas-DeFrancisco, et al., 2017; Nimrod, 2009; Nimrod & Adoni, 2012), the interdependence between in-person leisure and internet use (Downs, 2011; Francisco et al., 2016; Grinter & Eldridge, 2003; Lepp, Li, Barkley, & Salehi-Esfahani, 2015; Mokhtarian, Salomon, & Handy, 2006; Sánchez-Navarro & Aranda, 2013; Venkatraman, 2013), and the stratification of leisure (Katz-Gerro & Shavit, 1998; J.-H. Lee, Scott, & Floyd, 2001; Lemel & Katz-Gerro, 2015; Roberts, 2012; Settle, Alreck, & Belch, 1979; Tae, 2007). However, researchers have lately proposed that, rather than view traditional and digital leisure activities as two distinct domains, we should look at leisure as a single set of activities with meanings that vary according to who performs the activities and how (Churchill, Plano Clark, Prochaska-Cue, Creswell, & Ontai-Grzebik, 2007; López-Sintas et al., 2015).

Another issue is that in-person leisure activities frequently involve the use of digital technologies for organization and coordination purposes (Counts, 2007; Francisco et al., 2016; Sánchez-Navarro & Aranda, 2013). Existing research seems to suggest that online interactions among young people are playing a growing role in their offline leisure

activities and that traditional in-person interaction patterns have also started to change (Awan & Gauntlett, 2012; Counts, 2007; Décieux, Heinen, & Willems, 2018; Hwang, Cheong, & Feeley, 2009; Matzat, 2010). For instance, instant group messaging can be used to quickly connect an individual with a group of friends just for going out tonight, but email can be used to maintain relationships with friends and family members that currently live away, and ordinary instant messaging can be used to connect with friends that live nearby.

In sum, despite the growing interlinkage between in-person leisure activities and internet use by young people, to our knowledge, no study has explicitly described how traditional leisure activities are linked to internet practices. Some pieces of research have proposed that we should view traditional in-person leisure activities and online practices within a single context, yet little research has been done in this area. The result is a gap in relating comprehensive sets of in-person leisure activities and online practices as performed by young people. Such research would highlight how young people build a continuum of leisure, with offline activities and online practices at each extreme.

Our aims with this research were as follows: (1) to explore how young people's offline in-person leisure activities and online internet practices are related; (2) to describe how young people strategically manage in-person leisure activities and online practices; and (3) to uncover social patterns in young people's strategic management of the leisure continuum.

2. Theoretical framework

Traditional and online leisure

The fact that the internet has brought leisure out of its usual space and time contexts (López-Sintas et al., 2015) has fueled the interest of researchers in the possible consequences of this decentralization. Some researchers have been concerned that digital

leisure may replace traditional leisure (Katz et al., 2001; Kraut et al., 1998) because it could shrink the strength of individuals' network of friends, reducing the social capital of individuals that are developed interacting in person in traditional leisure, and, in line with this functional equivalence hypothesis (Robinson & Haan, 2006), early research was interested in identifying whether, for instance, individuals replaced in-person meetings with interactions on the internet (Katz et al., 2001; Kraut et al., 1998). While some evidence has been found of a substitution effect (Cole et al., 2001; Kraut et al., 1998; Nie & Erbring, 2002), more recent findings seem to suggest the opposite (Kraut et al., 2002), and, interestingly, also suggests that individuals use online interactions to plan in-person activities (Patulny & Seaman, 2017).

Other lines of research have focused on the properties shared by in-person and online leisure. Traditional leisure has been characterized as having at least these three properties: intrinsic satisfaction, perceived freedom, and involvement (Shaw, 1985; Unger & Kernan, 1983). Recent research suggests that in-person and online leisure share just one property, namely, freedom of choice, specifically, the possibility of choosing the activity and how to perform it (López-Sintas et al., 2015, p. 95). These researchers have proved that the only property of leisure shared by traditional and digital leisure is freedom of making choices, what to do and how to do it, and there is less freedom when conducting family leisure activities with children, for instance, it is less satisfactory for adults, and teenagers are even less involved in conducting the activity in comparison with the leisure activities freely chosen: what to do, how to do and with whom to do it (Shaw & Dowson, 2001). This fact would suggest that the meaning underlying leisure activities, whether in-person (Churchill et al., 2007; S. Dupuis, 2000; S. L. Dupuis & Smale, 2000) or online (Juniu, 2009; López-Sintas et al., 2015; Mokhtarian et al., 2006), depends on the decision to perform it as one wishes.

One particular characteristic of conducting leisure activities in an online context is that the frontiers of the home are crossed and we enter a heterotopic space (Foucault & Miskowiec, 1986) that temporarily juxtaposes home and work/leisure spaces. For that reason, some researchers have interpreted social network sites not only as sociability spaces (Sánchez-Navarro & Aranda, 2013), but also as virtual parks where individuals "idle away their time in diverse and complex ways" (Arora, 2011, p. 114) and also where they construct their identity (Miah, 2000).

Transformation of traditional leisure activities

Radios, television sets and music/video players have transformed young people's leisure, starting mainly in the 1950s and 1960s, when the advent of popular music became possible due to the widespread availability of radios in homes (Dolfsma, 2004a, 2004b). When radios became portable, younger family members gathered less around the family radio and spent more time in their rooms privately listening to their preferred programs; the same happened with television sets when these became smaller (Bovill & Livingstone, 2001; Livingstone, 2007). Yet audiences, young and old, although they could choose when or even not to listen or view, had little choice regarding what broadcasters chose to transmit.

The advent of the internet, however, led not only to technological substitution (from analogue to digital devices) but also to a qualitative change in viewing/listening habits, especially among young people (López-Sintas, Rojas-DeFrancisco, et al., 2017; Nimrod & Adoni, 2012). Cultural experiences were no longer shared, but became temporally fragmented, with the fixed temporal structure of radio and television becoming subverted by the fact that the internet and computer/tablet/smartphone technologies meant that young people could choose what to consume, when, how and

where they wanted. Internet-based digital technologies have resulted in more opportunities to enjoy ordinary leisure moments, and the outcome has been an increase in free-time consumption of audio-visual leisure. Irani, Jeffries and Knight (2010) referred to *plasticity* in viewing habits and the possibility of filling *plastic time*, and the same trend was observed for listening habits by (Bull, 2005).

While the substitution is not total (family members still gather around the television set to watch live sports events, news, etc), the internet has nevertheless created multiple social spaces for enjoying leisure (López-Sintas, García-Álvarez, & Hernández-López, 2017; Mokhtarian et al., 2006). Meanings, however, differ depending on the space where the consumption of leisure takes place. In watching films in a movie theatre compared to at home (Glyptis & Chambers, 1982; López-Sintas, Rojas-DeFrancisco, et al., 2017), the former is interpreted as a true leisure (balance) activity, i.e., a novel experience, while the latter is viewed as a core (ordinary) leisure activity, i.e., frequent, low-cost and accessible (see Churchill et al., 2007 for differences in the interpretation of both types of leisure).

Complementarity between in-person leisure and internet practices

Research has demonstrated that use of social network sites digitally links people to their social world (Downs, 2011; Glyptis & Chambers, 1982). These sites are a form of social voyeurism, a means of acquiring social knowledge, and a way to arrange and coordinate face-to-face encounters and in-person leisure activities. Among teens, examples are social network sites used to monitor peers (to judge them or perhaps to get to know them better) and boys tracking and making contact with girls and vice versa. The social network sites as used for leisure, sociability and knowledge acquisition (Sánchez-Navarro & Aranda, 2013) can be used to advantage in in-person interactions (Downs,

2011, p. 8). Using the internet for interactions also leads to the *privatization of family life* that started with the use of portable technology in the privacy of bedrooms (Bovill & Livingstone, 2001). Social network sites, however, also maintain connections with distant family members and friends, as exemplified by Venkatraman (2013) in regard to the digital structuring of families in which a soldier is deployed in a foreign country: the internet acts as the glue that connects the peripheral home and the central home, making it possible for a family to share ordinary leisure activities and build the experience of a unified home despite the distance.

A growing concern is the possible impact of the heavy use of digital ICTs on the mental and physical health of children and young adults, with smartphones, in particular, offering immediate leisure opportunities and permanent peer contact to young people. Research has concluded that the impact depends not only on the amount of connected time, but also on the individual's personality, resources and other social categories (Hwang et al., 2009; Lepp et al., 2015); for instance, extrovert students who make little use of their smartphones are reported to experience less boredom, have a greater openness to challenges and a greater awareness of leisure opportunities and benefits (Lepp et al., 2015), and depressed Taiwanese teens are reported to make greater use of the internet (Hwang et al., 2009).

Regarding communication uses of the internet, particularly for leisure purposes, messaging, and especially WhatsApp, is especially popular among young people (Grinter & Eldridge, 2003). A differentiated use of messaging has been reported (Counts, 2007), between one-to-one communication and one-to-many-(group) messaging, with the latter being mainly used for fun and for connecting socially with peers. While the feeling of availability and proximity theoretically facilitates the coordination of in-person leisure activities, it has also interconnected and blended traditional and online spaces in such a

way that individuals are always available and continuously socially connected (Francisco et al., 2016; Mokhtarian et al., 2006) – as has been reported for gaming on the internet (García-Álvarez, López-Sintas, & Samper-Martínez, 2017), consumption subcultures (Wilson & Atkinson, 2005), and online teacher communities (Matzat, 2010). This blending, which is very evident in social media and face-to-face interactions among young people, results in a modification of leisure patterns and the merging of analogue and digital contexts (Décieux et al., 2018).

The social structure of leisure

Leisure can be interpreted as a social space where social inequality and stratification is produced and reproduced (Lee, Dunlap, & Edwards, 2014). In his theory of practice, Bourdieu (1984a) has elaborate a sociological theory to explain the origins of, and differences in, social practices, and how they are reproduced and maintained. Bourdieu's theory is based on the proposition that there is homology between the social space and the space of social practices, where leisure is one example of a particular social practice. The homology is based on the concepts of field, habitus, and capital. In the field of leisure practices, social relations are produced and reproduced through interpretations of reality and how they are acted on. This mechanism of behavior and interpretation regarding reality is what Bourdieu called habitus. The social habitus is developed on the basis of everyday experiences, which, in turn, depend on the economic, cultural, social, and symbolic capitals of individuals. Individuals enjoying high and low levels of these capitals will experience ordinary life differently, with the latter developing a habitus of necessity and the former a habitus of distinction (Blasius & Friedrichs, 2008). Bourdieu's theory of practice reconciles the agency-structure dichotomy in sociological analysis; thus, while the individual's position in the social structure (their share of capitals)

influences the development of their habitus, individual agency makes it possible to change a trajectory from what would be predicted from an individual's original social position.

Therefore, and contrasting with some sociologists' beliefs that young people's leisure practices may be blurring traditional social divisions due to greater lower social class participation in secondary and higher education (Roberts, 2012, pp. 329–331), Bourdieu (1984b) argues against the illusion of homogeneity among young people, especially in the transition to adulthood, but maybe even before. Zeijl and coworkers (2001) have provided evidence that, even though social position may not initially appear to be related to leisure habits, their closer look at organized leisure activities revealed differences that were indeed related to social position. Furthermore, as several researchers have found, these social differences seem to endure in the transition to adulthood (Birchwood, Roberts, & Pollock, 2008; López Sintas, Cebollada, & García Álvarez, 2013; Pollock, 2008).

Bourdieu's relational theory of practice reflects a perception of social position that goes beyond traditional socioeconomic status, as it encompasses not only different kinds and levels of capitals and how these are combined but also other social categories, like age and gender. In the research described in this article, we were interested in exploring which indicators of young people's social position may best explain differences found in in-person leisure activities taking into account links with internet practices (Katz-Gerro & Shavit, 1998; López-Sintas et al., 2015; Ron & Nimrod, 2018).

3. Research design

Objective

The purpose of this study is to explore the relationship between young people's face-to-face leisure practices and their uses of the internet. We expect that they will be related in a particular way that needs to be uncovered. We will use Canonical Correlation Analysis to identify the association between both sets of indicators, face-to-face leisure and online leisure practices. Secondarily we will explore the social pattern of the strategic use of the continuum of leisure activities.

Sample

The interdependence between these offline and online contexts was investigated using the 2017 youth survey provided by the official Catalan Youth Observatory. This survey contains data of living conditions amongst young people and on the processes of transition to adult life of 3.423 individuals aged 15 to 34 years old living in Catalonia. The 2017 Youth Survey (EJC17 in Catalan acronym) was collected with the collaboration of the Spanish Institute of Statistics of Catalonia. In January 1st 2017, the population was 1.594.439 Catalans aged 15 to 34 years old living in Catalonia, and the sampling error was ± 1.67% with 95% confidence level (p = q = 0.5). The sample was selected through a two-stage simple random sampling procedure, being the in two-stage by the conglomerates by seven territorial areas and four habitat size categories. The data collection was multimodal (personal, phoned and web interview) from February 2nd to June 30th, 2017. For everyone, information about frequency leisure activities, social position indicators and social categories are available (more detailed description can be found in Eritja, 2017).

The 2017 Youth Survey considers 'young adults' to belong to the 15-34 age group. Before 2007, the Catalan Agency that took care of the youth survey studied young people

up to the age of 29, but it prevented researchers studying in detail the social processes that make up the youth stage. In consequence, after 2007, the Agency decided to enlarge the definition of young people till the age of 34 (Eritja 2017: 6). It should be noted that, because 'youth' is a social construction and as such depends on a particular social context, there is no unanimity regarding the concept of youth, with the upper age limit, in particular, varying between studies.

Measures

The survey contained a total of 32 indicators, 21 of face-to-face leisure and 11 Internet practices, measured with a four-point Likert scale (1= much, 2=quite, 3=little, 4=never). The scale was chosen by the Catalan youth Observatory so that the respondents could easily indicate their opinions avoiding neutral responses. Eleven indicators covering internet practices and 21 indicators, the leisure activities. The most popular in-person leisure activities were being with friends, going for walks, and doing sport, and the most popular internet practices were chatting, emailing, using social media, and watching videos. Figures 1 and 2 show the correlation indexes for in-person leisure activities and internet practices, respectively. See that positive correlation are plotted in blue and negative in red, and their strength is proportional to the intensity of the colour, ranging from dark (the highest correlation) to clear (near to zero).

[**Figure 1:** Correlation matrix for young people's in-person leisure activities]

[**Figure 2:** Correlation matrix for young people's internet practices]

We also considered, in accordance with Bourdieu's theory of practice (Bourdieu, 1984a), five different social position indicators and social categories (income and parental educational level, and gender, age and occupational status, respectively). We categorize income into four groups: no income, low income (less 15.000 Euro), medium-income

(between 15.000 and 30.000 Euro), and high-income (more than 30.000 Euro). These levels were fixed according to the quantile distribution of the variable and are an adequate representation of the young Spanish income.

Regarding the variable 'occupational status', we follow the Catalan Youth Survey classification. The variable includes four categories: studying, working, unemployment and inactive, where studying contains all levels of education: primary, secondary, and tertiary; working includes paid stage, full and partial job, occasional temporary and indefinite positions; unemployment includes people that are looking for a job; and inactive includes status as people caring for children, other family responsibilities, long-term illness or disability. Missing values were deleted as they were randomly distributed. The final sample was 2.763 individuals. A summary of the measures is reported in Table 1.

[**Table 1**: Descriptive statistics: young people's leisure activities (offline), internet practices (online), and sociodemographic indicators (indicators).]

Statistical analysis

Canonical correlation analysis (CCA) (Christensen, 1983) was implemented to explore complementarity between the sets of in-person leisure activities and internet practices. CCA, a multivariate method widely used in human behavior research (Sherry, Lyddon, & Henson, 2007), has been used in different studies of leisure activities (Ewert & Hollenhorst, 1994; Wang, Chen, & Chen, 2015). CCA allowed us to examine all the indicators together, not only in terms of their correlations but also regarding shared correlations within each variable set. The CCA is not a predictive model but we need to fix the predictor set of indicators and predicted set. We have assigned the predictors role to internet use practices (***X***) and the predicted role to face-to-face leisure activities (***Y***).

Given the exploratory nature of this study, this method was considered the most appropriate approach for our research purposes.

Linear regression was used to estimate the predictive role of social position indicators for young people. In this case, we use as dependent variable the canonical correlation score estimated for each canonical function in the set of face to face leisure indicators, and as predictors, we use the canonical correlation score estimated for each canonical function in the set of internet use as well as the indicators of social position and other sociological categories. The significance of the coefficients was evaluated using classical statistical techniques (F-test and t-test). Results were analyzed using R software, in particular, the CCA package (González et al., 2008).

Results

Table 2 shows the results for the 11 canonical functions. While the first ten canonical functions were significant, just the first three (CF1, CF2, and CF3) together explained 77.7% of the variance (35.1%, 24.0%, and 18.6%, respectively). Given these results, we chose to interpret those three canonical functions, which also resulted in the best interpretable functions with the highest correlations among the canonical variates (Rc=0.538, Rc=0.467, and Rc=0.421, respectively). We used Wilk's lambda (λ) to evaluate the shared variance among in-person leisure activities and internet practices across all the canonical functions.

The full model was statistically significant: Wilk's = 0.356, $F(231, 26756.9) = 12.903$, $p<.001$. In consequence, we could reject the null hypothesis of no relationship between in-person leisure activities and internet practices (i.e., Rc = 0). Because Wilks's λ represents the unexplained variance in the model (Field, 2009; Hair, Black, Babin, & Anderson, 2013; Sherry et al., 2007), the value 1 - 0.356 = 0.644 indicates that the full

model explained 64.4% of the shared variance between the sets of in-person leisure activities and internet practices.

[**Table 2**: Correlations and dimension reduction results for 11 canonical functions (CF).]

Table 3 shows the standardized canonical function coefficients (coef. in the table) and the structure coefficients (r_s) for CF1, CF2, and CF3. The squared structure coefficients are also given (r_s^2 (%)), and also the common variance across the three functions for each variable (h^2 %) and the redundancy index.

Interpreting the canonical functions, for CF1, for the set of internet practices the indicators with the highest correlations (in bold) were, in order, *watching videos* (r_s=-0.707), *downloading movies* (r_s=-0.655), *using social media* (r_s=-0.655), *chatting* (r_s=-0.611), *interactions with friends* (r_s=-0.551), and *downloading software* (-0.489) (all with negative signs); and for the set of in-person leisure activities, the indicators with the highest correlations (in bold) were, in order, *going out at night* (r_s=-0.622)*, meeting with friends* (r_s=-0.589), *clubbing* (r_s=-0.587), *staying with friends* (r_s=-0.513), *shopping* (r_s=-0.420) and *studying* (r_s=-0.415) (all with negative signs). We can interpret this function as reflecting in-person leisure activities**,** associated with online synchronous interactions.

CF2 was related to *reading online newspapers* (r_s=0.877), *emailing* (r_s=0.585) and *blogging/web activity* (r_s=0.481 *and reading press* (r_s=0.679), *going to museums* (r_s=0.614), *going to the theatre* (r_s=0.513), *reading books* (r_s=0.512), *travelling* (r_s=0.504), and *attending political events* (r_s=0.427) from the set of in-person leisure activities) with all positive signs in both sets. We can interpret this function as reflecting in-person cultural leisure, complemented by online information seeking and asynchronous social interactions.

CF3 was related principally to *downloading software* (r_s=0.500). In the set of leisure practices, the ones most correlated with the canonical variate were *playing video*

games (r_s=0.724) and with a negative sign *watching TV* (r_s=-0.399). We can interpret this function as in-home gaming, associated with software downloads.

[**Table 3**: Canonical solution for predicted internet practices for canonical functions CF1, CF2, and CF3.]

Table 3 also shows the common variance (h^2) across the three functions for each indicator, as in factorial analysis. Looking at the more prominent indexes, the indicators whose variance was best explained by the three canonical functions were *reading online newspapers* (77.4%), *social media use* (72.4%) and *chatting* (57.2%) for internet practices *and gaming* (82.0%), *reading press* (46.3%) and *meeting with friends* (46.3%) for in-person leisure activities are the indicators whose variance was best explained by the 3 canonical functions. These results support the expected relationship between in-person leisure activities and internet practices by young people.

At last, regarding the redundancy index, we can appreciate in both sets of variables relatively small values (respectively for the first, second, and third canonical function: 0.068, 0.030, 0.017 for internet activities, and 0.034, 0.026, 0.011 for leisure practices). Several reasons can explain these results (see Briggs, Peterson, & Gregory, 2010). First, having considered three canonical functions implies that the amount of variance that can be extracted is relatively small (100/ 3 canonical function=33,33% of the variance at maximum). And second, being our research explorative, we included in the analysis a high number of activities for both sets of variables but we expected that only a few indicators of each set to correlate with each factor. This implies that the number of practices associated with each canonical function that describes a different pattern had to be limited and so the redundancy index.

The social structure of leisure activities

While CCA was able to identify interdependence between in-person leisure and online practices and so depict strategic management of both along a continuum of leisure-related practices, it was unable to address the social distribution of this strategic management. To obtain some insight into the social pattern of leisure activities, we performed a simple linear regression analysis. Following previous findings (Greitemeyer, 2014; Hwang et al., 2009; Kraut et al., 2002; Rojas & Puig-i-Abril, 2009), we used as dependent variables the correlation scores of in-person leisure activities and as independent variables the correlation scores of internet use practices. Then, we added one by one a social indicator: gender, age, work situation, father education and income. Thus, we estimated five models that allow us easily to uncover the effect of each categorical variable.

Furthermore, fitting a different model for each social indicator allows us to interpret the linear regression F statistic as the importance of each categorical variable in explaining the variation in the sample, obtaining an ordered ranking of the importance of the social indicators. In table 4, we present for each canonical function the effects of the predictors (internet practices and social indicators) on the leisure activities: we report the findings ordered according to the value of the F-statistic for each social indicator.

[**Table 4**: Heterogeneity analysis for canonical functions CF1, CF2, and CF3.]

Considering CF1 (in-person leisure activities, associated with online synchronous interactions) for gender, the effect was positive for women (β=0.128, $p<0.001$) and negative for men (β= -0.134, $p<0.001$), indicating that internet use to interact with friends is more common among young women than among young men. As for age, the effect increased with age, reaching a maximum positive effect (β=0.371, $p<0.001$) for young adults (30-34 years), and resulting in a minimum effect for teen. For occupational status, the effect was high and positive for both employed and inactive young people (β=0.176,

p<0.001 and β=0.413, p-<0.001, respectively). For parental education, the effect was positive for primary education (β=0.203, p<0.001), but negative for tertiary education (β=-0.082, p<0.001). As for income, the effect was positive for young people with low incomes (β=0.128, p<0.001).

Regarding CF2 (in-person cultural leisure, complemented by online information seeking and asynchronous social interactions), patterns were similar except for parental education. For gender, the effect was again positive for women (β=0.058, p<0.001) and negative for men (β= -0.060, p<0.001), and for the age, the effect was positive for young adults (25-29 years) (β=0.107, p<0.001) and negative for teenagers (15-19 years) (β=-0.178, <0.001). These results combined indicate that internet use for cultural purposes was more common in young adult women. For occupational status, being employed was positive for young adults (β=0.050, p<0.001). There was no effect for income, but interestingly, regarding parental education, a negative effect was observed for primary education (β=-0.075, p<0.001).

Concerning CF3 (in-home gaming, complemented by software and associated downloads), we observed just three significant effects: a positive versus negative effect of gender for men (β=0.263, p<0.001) versus women (β= -0.252, p<0.001); a positive effect for teens (15-19 years) (β=0.132, p<0.001); and a positive versus negative effect of occupational status for students (β=0.105, p<0.001) versus employed individuals (β= -0.101, p<0.001). Table 4 also reports F-statistic values for the estimated models. This statistic can be used for comparative purposes to determine the most crucial mediator in the relationship between in-person leisure activities and internet practices (the higher the value, the more important the mediator variable). Observing the results for the three canonical functions, we found gender to be the most important mediator variable across

all three functions, followed by age and occupational status for CF1, by parental education and age for CF2, and by parental education and occupational status for CF3.

4. Discussion

The aim of our research was to explore strategic complementarity between in-person leisure activities and internet leisure activities and the underlying sociodemographic patterns. By strategic complementarity we refer to the way certain activities, along a continuum consisting of in-person leisure activities and internet practices located at each extreme, are interdependent. For this purpose we analyzed a larger set of indicators than has been analyzed in previous research on the topic (Décieux et al., 2018; Downs, 2011; García-Álvarez et al., 2017; Grinter & Eldridge, 2003; Katz et al., 2001; Kraut et al., 2002; Matzat, 2010; Nie & Erbring, 2002; Patulny & Seaman, 2017; Sánchez-Navarro & Aranda, 2013; Venkatraman, 2013).

In our analysis, we identified three canonical functions: in-person leisure activities, associated with online synchronous interactions, in-person cultural leisure, complemented by online information seeking and asynchronous social interactions, and in-home gaming, complemented by software and associated downloads.

Concerning the first canonical function, we found that in-person social leisure (e.g., meeting and spending time with friends, going out at night, clubbing) is associated with internet practices that best complement social interactions (e.g., social media exchanges, chatting, watching videos). The in-person–internet continuum in social interaction is, therefore, less a matter of substitution (Cole et al., 2001; Katz et al., 2001; Kraut et al., 1998; Nie & Erbring, 2002; Robinson & Haan, 2006) than it is a matter of opportunity or complementarity (García-Álvarez et al., 2017; Kraut et al., 2002; Patulny & Seaman, 2017). Regarding the freedom of choice property encapsulated in leisure

activities (López-Sintas et al., 2015; Shaw, 1985; Unger & Kernan, 1983), the internet decentralizes social interactions and increases opportunities for both offline and online social interactions (Arora, 2011; Juniu, 2009; Mokhtarian et al., 2006; Sánchez-Navarro & Aranda, 2013). As was expected, the influence of internet interactions on in-person social interactions is positive and higher for young women (López-Sintas, Ghahraman, & Rubiales, 2017). This influence grows as teens transition to adulthood, although the fact of being a student has a dampening effect on interactions. Having an income also seems to increase internet use for social interactions. Interestingly, the higher the parental educational level, the less young people interact socially. We interpret this pattern as evidence that parents in socially privileged families (proxied by parental education) orient their offspring to a differentiated and more limited use of the internet, resulting, in turn, in a reduction in the intensity of social internet use by the offspring; in other words, the opportunity cost of not interacting in person may be greater for these young people. This finding, which appears to converge with previous results (Bucy, 2000; Goldfarb & Prince, 2008), suggests that interdependence between in-person and internet social interactions approaches a limit that is marked by the individual's opportunity cost.

Our interpretation of the second canonical function, reflecting in-person cultural leisure, suggests that some young people are interested in their cultural context (e.g., reading the press, reading books, going to museums, theatre, and concerts, travelling, attending political events), and that their offline cultural activities are related to specific and related online practices (e.g., reading online press, browsing blogs, emailing). It would seem that individuals interested in cultural activities acquire information online and coordinate in-person participation with friends by email. Cultural events are social by nature, as evidenced by research conducted on the social dimension of going to the cinema or opera (Benzecry, 2009; Cuenca, López-Sintas, & García-Álvarez, 2015;

López-Sintas, García-Álvarez, et al., 2017). Research has also shown that the symbolic properties of contexts is such that people differentiate between experiences as novel or ordinary (Churchill et al., 2007); thus, going to the cinema is considered to be a true (novel) leisure experience, whereas watching a film at home is interpreted to be an ordinary leisure experience, with the frame for interpreting the cinema experience characterized by a disconnection from routine, social negotiation and planning, co-produced meaning, and a socially shared experience (López-Sintas, García-Álvarez, et al., 2017). As far as gender and age are concerned, internet practices related to cultural leisure activities reflect a pattern similar to that for in-person social leisure: young women use the internet for cultural leisure more than young men, in particular in the 25-29 age bracket. However, participating in free-time culture activities requires a certain kind of social circle, and this is less easily achieved by individuals in underprivileged social positions as proxied by parental educational level (Benzecry, 2009; Cuenca et al., 2015). As for occupation, young people who are employed use the internet more for cultural activities, while young people's income does not seem to have any significant influence.

The third canonical function reflects in-home gaming, positively correlated with downloading software and associated practices and negatively correlated with watching television, which would suggest that gaming and television compete for the time of young people. Not surprisingly, the influence of internet practices on leisure activities is positive and higher for male teenage (15-19 years) students than for women. Since parental education and the young person's income have no effect, we could reasonably infer that gaming is a universal leisure outcome for male teens.

Limitations

While the results of this study throw new light on our understanding of the relationship between in-person leisure activities and internet practices, it is not without limitations. If the type and number of indicators were to be increased or decreased, we would likely identify different strategic interdependence between in-person leisure activities and internet practices. Furthermore, our findings are specific to the Spanish context, so any generalization of the findings reported here would need to be based on future studies of larger samples taken from the whole population and studies of young people from other countries. Due to the exploratory nature of this research, we think that future research should also focus on analyzing the relationship between internet and leisure practices from a predictive point of view using different statistical techniques, as partial least squares regression or partial least squares structural equation modelling, more adequate for predicting purposes.

5. Conclusions

While there has been an interest in understanding how the internet influences traditional forms of youth leisure, research using a comprehensive set of indicators is scarce. In our study of the relationship between broad sets of in-person leisure activities and internet practices for a sample of young Spaniards, we detected strategic complementarity between certain in-person leisure activities and specific internet practices, leading to the specific outcomes of (a) in-person social leisure complemented online synchronous social interaction, (b) in-person cultural leisure complemented by online information and asynchronous communication, and (c) in-home gaming complemented by software downloads. We also found that this strategic complementarity was socially patterned, mainly by gender.

References

adcombo. (2016, November 30). INTERNET USAGE IN SPAIN. Retrieved 9 April 2019, from AdCombo website: https://blog.adcombo.com/internet-usage-spain/

Anderson, M., & Jiang, J. (2018, May). *Teens, Social Media & Technology 2018*. Pew Research Center.

Arora, P. (2011). Online Social Sites as Virtual Parks: An Investigation into Leisure Online and Offline. *The Information Society*, *27*(2), 113–120. https://doi.org/10.1080/01972243.2011.548702

Awan, F., & Gauntlett, D. (2012). Remote living: Exploring online (and offline) experiences of young people living in rural areas. *European Journal of Cultural Studies*, *16*(1), 3–23. https://doi.org/10.1177/1367549412457476

Bargh, J. A., & McKenna, K. Y. A. (2004). The Internet and Social Life. *Annual Review of Psychology*, *55*(1), 573–590. https://doi.org/10.1146/annurev.psych.55.090902.141922

Benzecry, C. E. (2009). Becoming a Fan: On the Seductions of Opera. *Qualitative Sociology*, *32*(2), 131–151. https://doi.org/10.1007/s11133-009-9123-7

Birchwood, D., Roberts, K., & Pollock, G. (2008). Explaining differences in sport participation rates among young adults: Evidence from the South Caucasus. *European Physical Education Review*, *14*(3), 283–298. https://doi.org/10.1177/1356336X08095667

Blasius, J., & Friedrichs, J. (2008). Lifestyles in distressed neighborhoods: A test of Bourdieu's 'taste of necessity' hypothesis. *Poetics*, *36*(1), 24–44. https://doi.org/10.1016/j.poetic.2007.12.001

Bourdieu, P. (1984a). *Distinction: A Social Critique of the Judgment of Taste*. Cambridge, Mass: Harvard University Press.

Bourdieu, P. (1984b). *Questions de sociologie*. Paris, FR: Editions de Minuit.

Bovill, M., & Livingstone, S. M. (2001). Bedroom and the privatization of media use. In S. Livingstone & M. Bovill (Eds.), *Children and their changing media environment: A European comparative study* (pp. 179–299). Mawah, N.J.: L. Erlbaum Associates.

Briggs, E., Peterson, M., & Gregory, G. (2010). Toward a Better Understanding of Volunteering for Nonprofit Organizations: Explaining Volunteers' Pro-Social Attitudes. *Journal of Macromarketing*, *30*(1), 61–76. https://doi.org/10.1177/0276146709352220

Bryce, J. (2001). Technology and changing leisure practice. In *Leisure, Culture and Commodification* (J. Horne). LSA Publications.

Bucy, E. P. (2000). Social Access to the internet. *The Harvard International Journal of Press/Politics*, *5*(1), 50–61. Retrieved from http://muse.jhu.edu/journals/harvard_international_journal_of_press_politics/v005/5.1bucy.html

Bull, M. (2005). No Dead Air! The iPod and the Culture of Mobile Listening. *Leisure Studies*, *24*(4), 343–355. https://doi.org/10.1080/0261436052000330447

Christensen, J. E. (1983). An exposition of canonical correlation in leisure research. *Journal of Leisure Research*, *15*(4), 311–322. Retrieved from https://www.cabdirect.org/cabdirect/abstract/19841811157

Churchill, S. L., Plano Clark, V. L., Prochaska-Cue, K., Creswell, J. W., & Ontai-Grzebik, L. (2007). How Rural Low-Income Families Have Fun: A Grounded

Theory Study. *Journal of Leisure Research*, *39*(2), 271–294. Retrieved from http://js.sagamorepub.com/jlr/article/view/482

Cole, J. I., Suman, M., Schramm, P., Lunn, R., Coget, J.-F., Firth, D., … Aquino, J.-S. (2001). *Surveying the Digital Future*. Los Alamitos, CA, USA: UC Regents.

Counts, S. (2007). Group-Based Mobile Messaging in Support of the Social Side of Leisure. *Computer Supported Cooperative Work (CSCW)*, *16*(1–2), 75–97. https://doi.org/10.1007/s10606-007-9040-9

Cuenca, M., López-Sintas, J., & García-Álvarez, E. (2015). The Opera Experience: Performing a Vibrato with the Audience. *International Review of Social Research*, *5*(2), 141–151. https://doi.org/10.1515/irsr-2015-0013

Décieux, J. P., Heinen, A., & Willems, H. (2018). Social Media and Its Role in Friendship-driven Interactions among Young People: A Mixed Methods Study. *YOUNG*, 1103308818755516. https://doi.org/10.1177/1103308818755516

Dolfsma, W. (2004a). Consuming pop music/constructing a life world: The advent of pop music. *International Journal of Cultural Studies*, *7*(4), 421–440.

Dolfsma, W. (2004b). *Institutional Economics and the Formation of Preferences–The advent of Pop Music*. Cheltenham, UK: Edward Elgar.

Downs, C. (2011). Playing in a Virtual Bedroom: Youth leisure in the Facebook generation. In R. Jeanes & J. Magee (Eds.), *Children, youth and leisure* (pp. 15–31). Leisure Studies Association.

Dupuis, S. (2000). Institution-Based Caregiving as a Container for Leisure. *Leisure Sciences*, *22*(4), 259–280. https://doi.org/10.1080/01490409950202294

Dupuis, S. L., & Smale, B. J. A. (2000). Bittersweet journeys: Meanings of leisure in the institution-based caregiving context. *Journal of Leisure Research*, *32*(3),

303–340. Retrieved from http://search.proquest.com/docview/201179030?accountid=15292

Ewert, A., & Hollenhorst, S. (1994). Individual and setting attributes of the adventure recreation experience. *Leisure Sciences*, *16*(3), 177–191. https://doi.org/10.1080/01490409409513229

Field, A. P. (2009). *Discovering statistics using SPSS : (and sex and drugs and rock 'n' roll)* (3rd ed.). Los Angeles [etc.] : SAGE Publications.

Foucault, M., & Miskowiec, J. (1986). Of Other Spaces. *Diacritics*, *16*(1), 22–27. https://doi.org/10.2307/464648

Francisco, L. R. de, López-Sintas, J., & García-Álvarez, E. (2016). Social leisure in the digital age. *Loisir et Société / Society and Leisure*, *39*(2), 258–273. https://doi.org/10.1080/07053436.2016.1198598

García-Álvarez, E., López-Sintas, J., & Samper-Martínez, A. (2017). The Social Network Gamer's Experience of Play: A Netnography of Restaurant City on Facebook. *Games and Culture*, *12*(7–8), 650–670. https://doi.org/10.1177/1555412015595924

Glyptis, S. A., & Chambers, D. A. (1982). No place like home. *Leisure Studies*, *1*(3), 247–262. https://doi.org/10.1080/02614368200390211

Goldfarb, A., & Prince, J. (2008). Internet adoption and usage patterns are different: Implications for the digital divide. *Information Economics and Policy*, *20*(1), 2–15. https://doi.org/10.1016/j.infoecopol.2007.05.001

Greitemeyer, T. (2014). Playing Violent Video Games Increases Intergroup Bias. *Personality and Social Psychology Bulletin*, *40*(1), 70–78. https://doi.org/10.1177/0146167213505872

Grinter, R. E., & Eldridge, M. (2003). Wan2tlk?: Everyday Text Messaging. *Proc. CHI 2003*, 441–448. ACM Press.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate Data Analysis: Pearson New International Edition* (7th ed.). Pearson.

Hwang, J. M., Cheong, P. H., & Feeley, T. H. (2009). Being young and feeling blue in Taiwan: Examining adolescent depressive mood and online and offline activities. *New Media & Society*, *11*(7), 1101–1121. https://doi.org/10.1177/1461444809341699

INE. (2018, November). *Encuesta sobre equipoamiento y suo de technologías de Información y comunicación en los hogares, año 2018*. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwj2m4vooMPhAhVSWxoKHZasD-sQFjAAegQIAhAC&url=https%3A%2F%2Fwww.ine.es%2Fprensa%2Ftich_2018.pdf&usg=AOvVaw0hXcDycA5ljyiRYnzjmfum

Irani, L., Jeffries, R., & Knight, A. (2010). Rhythms and plasticity: Television temporality at home. *Personal and Ubiquitous Computing*, *14*(7), 621–632. https://doi.org/10.1007/s00779-009-0280-1

Juniu, S. (2009). The Transformation of Leisure. *Leisure/Loisir*, *33*(2), 17.

Katz, J. E., Rice, R. E., & Aspden, P. (2001). The Internet, 1995-2000 Access, Civic Involvement, and Social Interaction. *American Behavioral Scientist*, *45*(3), 405–419. https://doi.org/10.1177/0002764201045003004

Katz-Gerro, T., & Shavit, Y. (1998). The Stratification of Leisure and Taste: Classes and Lifestyles in Israel. *European Sociological Review*, *14*(4), 369–386. Retrieved from http://esr.oxfordjournals.org/content/14/4/369

Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet Paradox Revisited. *Journal of Social Issues*, *58*(1), 49–74. https://doi.org/10.1111/1540-4560.00248

Kraut, R., Patterson, M., Lundmar, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet Paradox: A Social Technology that Reduces Social Involvement and Psychological Well-Being? *American Psychologist*, *53*(9), 1017–1031. https://doi.org/10.1111/1540-4560.00248

Lee, J.-H., Scott, D., & Floyd, M. F. (2001). Structural Inequalities in Outdoor Recreation Participation: A Multiple Hierarchy Stratification Perspective. *Journal of Leisure Research*, *33*(4), 427–449. https://doi.org/10.1080/00222216.2001.11949953

Lee, K. J., Dunlap, R., & Edwards, M. B. (2014). The Implication of Bourdieu's Theory of Practice for Leisure Studies. *Leisure Sciences*, *36*(3), 314–323. https://doi.org/10.1080/01490400.2013.857622

Lemel, Y., & Katz-Gerro, T. (2015). The stratification of leisure: Variation in the salience of socioeconomic dimensions in shaping leisure participation in two consumer societies. *Loisir et Société / Society and Leisure*, *38*(3), 399–422. https://doi.org/10.1080/07053436.2015.1083761

Lepp, A. (2014). The Intersection of Cell Phone Use and Leisure. *Journal of Leisure Research*, *46*(2), 218–225. https://doi.org/10.1080/00222216.2014.11950321

Lepp, A., Li, J., Barkley, J. E., & Salehi-Esfahani, S. (2015). Exploring the relationships between college students' cell phone use, personality and leisure. *Computers in Human Behavior*, *43*, 210–219. https://doi.org/10.1016/j.chb.2014.11.006

Livingstone, S. (2007). Strategies of parental regulation in the media-rich home [Article]. Retrieved 30 September 2009, from http://eprints.lse.ac.uk/1019/

López Sintas, J., Cebollada, À., & García Álvarez, E. (2013). CULTURA I OCI: Les activitats de lleure de les persones joves. In P. Serracant (Ed.), *Enquesta a la joventut de Catalunya 2012:, vol. 1 Transicions juvenisl i condicions materials d'existència. Col. Estudis nº 34*. Barcelona: Generalitat de Catalunya, Observatori de la Joventut.

López-Sintas, J., García-Álvarez, M. E., & Hernández-López, A. G. (2017). In and out of everyday life through film experiences: An analysis of two social spaces as leisure frames. *Leisure Studies*, *36*(4), 565–578. https://doi.org/10.1080/02614367.2016.1203351

López-Sintas, J., Ghahraman, A., & Rubiales, E. P. (2017). Young people's leisure patterns: Testing social age, social gender, and linguistic capital hypotheses. *Journal of Youth Studies*, *20*(2), 180–199. https://doi.org/10.1080/13676261.2016.1206863

López-Sintas, J., Rojas de Francisco, L., & García-Álvarez, E. (2015). The Nature of Leisure Revisited: An Interpretation of Digital Leisure. *Journal of Leisure Research*, *47*(1), 79–101.

López-Sintas, J., Rojas-DeFrancisco, L., & García-Álvarez, E. (2017). Home-based digital leisure: Doing the same leisure activities, but digital. *Cogent Social Sciences*, *3*(1), 1309741. https://doi.org/10.1080/23311886.2017.1309741

Matzat, U. (2010). Reducing Problems of Sociability in Online Communities: Integrating Online Communication With Offline Interaction. *American Behavioral Scientist*, *53*(8), 1170–1193. https://doi.org/10.1177/0002764209356249

Miah, A. (2000). Virtually nothing: Re-evaluating the significance of cyberspace. *Leisure Studies*, *19*(3), 211–225. https://doi.org/10.1080/02614360050023099

Mokhtarian, P. L., Salomon, I., & Handy, S. L. (2006). The Impacts of Ict on leisure Activities and Travel: A Conceptual Exploration. *Transportation*, *33*(3), 263–289. https://doi.org/10.1007/s11116-005-2305-6

Nie, N. H., & Erbring, L. (2002). Internet and Society: A Preliminary Report. *IT&Society*, *1*(1), 275–283.

Nimrod, G. (2009). The internet as a resource in older adult leisure. *International Journal on Disability and Human Development*, *8*(3), 207–214. https://doi.org/10.1515/IJDHD.2009.8.3.207

Nimrod, G., & Adoni, H. (2012). Conceptualizing E-leisure. *Loisir et Société / Society and Leisure*, *35*(1), 31–56. https://doi.org/10.1080/07053436.2012.10707834

Patulny, R., & Seaman, C. (2017). 'I'll just text you': Is face-to-face social contact declining in a mediated world? *Journal of Sociology*, *53*(2), 285–302. https://doi.org/10.1177/1440783316674358

Pew Research Center. (2018, February 5). Demographics of Mobile Device Ownership and Adoption in the United States. Retrieved 9 April 2019, from Internet & Technology website: https://www.pewinternet.org/fact-sheet/mobile/

Pollock, G. (2008). Youth Transitions: Debates over the Social Context of Becoming an Adult. *Sociology Compass*, *2*(2), 467–484. https://doi.org/10.1111/j.1751-9020.2008.00097.x

Reuters Institute. (2018). Spain. Retrieved 9 April 2019, from Digital News Report website: http://www.digitalnewsreport.org/survey/2018/spain-2018/

Roberts, K. (2012). The Leisure of Young People in Contemporary Society. *Arbor*, *188*(754), 327–337. https://doi.org/10.3989/arbor.2012.754n2006

Robinson, J., & Haan, J. de. (2006). Information Technology and Family Time Displacement. In R. Kraut, M. Brynin, & S. Kiesler (Eds.), *Computers, Phones,*

and the InternetDomesticating Information Technology. https://doi.org/10.1093/acprof:oso/9780195312805.001.0001

Rojas, H., & Puig-i-Abril, E. (2009). Mobilizers Mobilized: Information, Expression, Mobilization and Participation in the Digital Age. *Journal of Computer-Mediated Communication*, *14*(4), 902–927. https://doi.org/10.1111/j.1083-6101.2009.01475.x

Ron, Y., & Nimrod, G. (2018). Digital Negotiation: Online Leisure in Coping with Gender Stereotypes. *Leisure Sciences*, *40*(4), 251–266. https://doi.org/10.1080/01490400.2018.1426506

Sánchez-Navarro, J., & Aranda, D. (2013). Messenger and social network sites as tools for sociability, leisure and informal learning for Spanish young people. *European Journal of Communication*, *28*(1), 67–75. https://doi.org/10.1177/0267323111432411

Settle, R. B., Alreck, P. L., & Belch, M. A. (1979). Social Class Determinants of Leisure Activity. *ACR North American Advances*, *NA-06*. Retrieved from http://acrwebsite.org/volumes/9547/volumes/v06/NA-06

Sharaievska, I. (2017). Updating the Family Operating System: A Literature Review of Information Communication Technology and Family Leisure. *Leisure Sciences*, *39*(5), 400–414. https://doi.org/10.1080/01490400.2017.1333058

Shaw, S. (1985). The meaning of leisure in everyday life. *Leisure Sciences*, *7*(1), 1–24. https://doi.org/10.1080/01490408509512105

Sherry, A., Lyddon, W. J., & Henson, R. K. (2007). Adult attachment and developmental personality styles: An empirical study. *Journal of Counseling & Development*, *85*(2001), 337–348. https://doi.org/10.1002/j.1556-6678.2007.tb00482.x

Silk, M., Millington, B., Rich, E., & Bush, A. (2016). (Re-)thinking digital leisure. *Leisure Studies*, *35*(6), 712–723. https://doi.org/10.1080/02614367.2016.1240223

Tae, Y. (2007). LEISURE CONSTRAINTS: MULTIPLE HILEARARCHY STRATIFICATION PERSPECTIVES. *All Theses*. Retrieved from https://tigerprints.clemson.edu/all_theses/270

Unger, L. S., & Kernan, J. B. (1983). On the Meaning of Leisure: An Investigation of Some Determinants of the Subjective Experience. *Journal of Consumer Research*, *9*(4), 381–392. https://doi.org/10.1086/208932

Venkatraman, M. (2013). Consuming digital technologies and making home. *Journal of Business Research*, *66*(12), 2626–2633. https://doi.org/10.1016/j.jbusres.2012.05.022

Wang, C.-C., Chen, C.-F., & Chen, C.-T. (2015). Exploring the different aspects of Internet leisure use by college students. *Information Development*, *31*(1), 5–12. https://doi.org/10.1177/0266666913494909

Wilson, B., & Atkinson, M. (2005). Rave and Straightedge, the Virtual and the Real: Exploring Online and Offline Experiences in Canadian Youth Subcultures. *Youth & Society*, *36*(3), 276–311. https://doi.org/10.1177/0044118X03260498

Zeijl, E., Bois-Reymond, M. du, & Poel, Y. te. (2001). Young Adolescents' Leisure Patterns. *Loisir et Société*, *24*(2), 379. https://doi.org/10.7202/000188ar