PLAYING VIDEOGAMES IN FRANCE

Social geography of a cultural practice

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Belin | « L'Espace géographique »

2014/4 Volume 43 | pages 308 - 323

ISSN 0046-2497
ISBN 9782701190686

EG
2014-4
p. 1-15

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ABSTRACT.— **Geographical approaches to leisure and cultural practices are often restricted to sports and outdoor activities. They do not address the micro-scale of individual homes. In our study of the environment and the practice of video gaming in a national population, we aim to shed new light on the spatial analyses of everyday leisure. A survey was conducted in 2012 on a representative sample of the French population aged 11 and over (n = 2,542). It explored the diversity of uses of videogames and contextualized video gaming at the social, cultural, and spatial level. This article shifts the focus from videogames to the players themselves; analyzing gaming as a socially and spatially situated experience. The survey showed that while many inhabitants of France play videogames, their practices are not homogeneous; the diversity in gaming should thus be understood in relation to life cycles and ways of dwelling.**

CULTURAL PRACTICE, LIFE CYCLE, WAY OF DWELLING, VIDEOGAME

RÉSUMÉ.— **Jouer aux jeux vidéo en France. Géographie sociale d'une pratique culturelle.— L'étude de l'environnement et de la pratique du jeu vidéo dans une population nationale permet de repenser les questions spatiales dans l'analyse des loisirs. L'enquête Ludespace, réalisée par questionnaire en 2012, auprès d'un échantillon représentatif de la population française de 11 ans et plus (n = 2 542), explore la diversité des rapports au jeu vidéo et replace ces pratiques dans leur contexte social, spatial et culturel. Il s'agit à la fois de recentrer l'étude des jeux sur les joueurs et de saisir l'expérience vidéoludique comme une expérience située socialement et spatialement. L'enquête montre que si beaucoup de Français jouent aux jeux vidéo, ils ne jouent pas de la même manière, et que les différenciations des pratiques se comprennent à l'aune des cycles de vie et des modes d'habiter.**

CYCLE DE VIE, JEU VIDÉO, MODE D'HABITER, PRATIQUE CULTURELLE

From bathrooms to offices, in buses or trains, videogames are everywhere. Gaming has benefitted from the diffusion of information and communication technologies in our daily lives through cell phones, tablets, computers, and consoles, alongside the development of electronic games. Videogames currently offer a wide variety of uses (recreational, educational), forms of sociability (alone, with other people in the same room or online), and spaces (living room, game centers, online gaming, specialized stores, festivals, and exhibits).

Variations in gaming, both spatially and within a national population, have surprisingly enough been very little studied. The in-game space has been the

focus of much research since the 1990s (Taylor, 1997; Jenkins, Squire, 2002; Walther, 2003; Valentin, 2007; Nitsche, 2008; Rufat, Ter Minassian, 2011). A handful of publications exist on the videogame industry (Izushi, Aoyama, 2006; Johns, 2006; Lusso, 2014). However, the spaces and places of videogame practices have received little consideration, aside from a handful of ethnographic studies (Boutet, 2012; Paberz, 2012). As for research on videogame players themselves, it has been mostly given over to industry insiders, who are concerned with targeting new segments of the population, and applied disciplines, such as marketing (Dyer-Witheford, De Peuter, 2009). The widening of the gaming public beyond its traditional base of young men is currently considered a prime commercial strategy, leading to much debate over the share of female players and the average age of videogame players.

A social sciences approach to gaming in the national population, comparable to the sociology or the geography of cultural practices, has yet to be developed. Such an approach would shed a new light on the connections between spatial issues and leisure studies. Geographical approaches to cultural and leisure practices are often limited to the study of sports and outdoor activities (gardening for example). They often ignore activities that take place inside the home, or at micro-spatial scales. Do rural and urban populations play the same games in the same way? Is gaming comparable in the North and the South? Do people play videogames the same way throughout their different daily spaces? How do the different living practices, in urban hyper-centers and rural territories, influence cultural practices in France? Are there differentiated "ways of gaming", equivalent to "ways of dwelling"[1]?

This article examines the spatial variations of gaming in France, starting with the premise that studying everyday leisure practices also means studying ways of dwelling. From this perspective, we decided to focus on videogame players, using the widest possible acceptation of the term: anyone who currently plays games using an electronic device, even occasionally. This approach is different from most studies on videogames in the social sciences, which tend to focus on games as artefacts rather than practices. Here, we look at gaming as an activity, and not at games as objects; our emphasis is on "play studies" rather than "game studies" (Triclot, 2013).

The first part of the article presents the issues inherent in an analysis of videogame practices in France, in terms of both the study of cultural practices and leisure activities and that of ways of dwelling. Using two surveys, one conducted by the French Ministry of Culture, focusing on broader cultural practices and one we produced targeting gaming practices in France (ANR Ludespace[2]), we demonstrate that neither the region, nor the size of the urban unit influences the absence of practice. However, behind this apparent homogeneity, a micro-geographic approach of everyday spaces allows us to differentiate types of players and indicate a connection between ways of dwelling and videogame practices. We highlight the importance of age and gender in the determination of practices, as well as the connection between these variables and the places and contexts of the gaming practice. Finally we offer a typology of videogame players based on where they usually play. We thus differentiate the sedentary players from those who indulge in different forms of gaming outside the home. This leads us to conclude that this diversity is due to how the players are positioned within their life cycle and social spaces, as well as within their ways of dwelling.

1. We are using Serge Schmitz's translation of "mode d'habiter" as seen in *Habiter. Vers un nouveau concept?*

2. Project carried out by the CITERES laboratory (UMR 7324) of the University of Tours with the support of the National Research Agency (ANR JCJC, edition 2011). The Ludespace project combined a quantitative survey and semi-structured interviews alongside a filmed analysis of practices: http://citeres.univtours.fr/spip.php?article1267

How to study everyday gaming practices?

By associating videogames to popular culture, the social sciences have delayed the study of the players themselves. Because of this status, scholarly debates on videogames are still dominated by normative stakes tied to the artistic and cultural value of the medium (on the difficulty of analyzing popular culture, see Grignon, Passeron, 1989). This internalist approach to videogames is the most frequent and the most visible (Fuller, Jenkins, 1995; Salter, 2011), including in geographical studies (Magnet, 2006; Ter Minassian, Rufat, 2008). Such an approach transposes analytical methods applied to other fictional universes and cultural products, resulting in the glaring absence of players and context from these studies.

The lack of such studies is compounded by the fact that, in the case of a geographical analysis of videogames, gaming is a cultural practice that often takes place within domestic spaces. Geography often stops at the threshold (Staszak, 2001; Segaud, 2010), preferring to study larger spatial categories, such as parks, seaside resorts, or historical centers, which seem better suited to sustain leisure practices. It also has a clear preference for forms of engagement in leisure activities that are easier to identify.

In the 1980s, groundbreaking research appeared in an attempt to go beyond the analysis of spaces dedicated to leisure or tourism and to study on the contrary the projection of cultural or leisure practices on daily life, and thus on everyday spaces[3]. More recent works on domestic spaces invested on a daily basis (by DIY or gardening activities) has revealed the subtle relationship between inhabitants and their home (Morel-Brochet, Ortar, 2012).

Starting with the fact that sociability and lifestyles (in particular linked to transportation) vary according to residential contexts, we hypothesized the existence of a diversity of videogame practices. How they are deployed within the daily spaces of each individual, like any other leisure activity, reveals his or way of dwelling, defined as "all the dispositions and practices that influence the relationship to space, the ways to be mobile, or the afferent spatial identities" (Cailly, Dodier, 2007, p. 68). As such, the way of dwelling allows for a better understanding of the way in which different social groups within a same place create differentiated, individual, everyday spaces. Produced by professional life, family life, and daily trajectories, the relationship to daily space is also shaped by free time and leisure activities An individual's relationship to his or hers everyday space is rooted in the "practice of spaces" (Di Méo, 1999) and strengthened by cultural practices and leisure activities.

We are specifically dealing here with "socio-cultural geography" (Raibaud, 2011), ie the way in which cultural practices – here, videogames – are organized socially, both in the public and private sphere, and how they are engaged in very different ways according to the individual or to social groups in the production of spaces.

The uses of time and space for daily leisure vary according to social groups and territories, as demonstrated in previous studies on music (Guiu, 2006; Raibaud, 2009), sports (Augustin et al., 2008), traditional balls (Crozat, 2000), and traditional games in France (Borzakian, 2010). In his thesis on festive dances in France, Dominique Crozat established several categories (2000). He demonstrated that different forms are based on historical heritage as well as on the leadership of certain individuals, who use the practice to promote a certain model of sociability, more or less open to the community and the neighbourhood. Thus the "suburban shared meal"

3. See the various articles of "*Les géographes et le tiers temps. Approches des loisirs urbains*" no. 30 of *Cahiers de géographie de Besançon* (1989).

would be a new form of selective socialization, which is also spatially defined. In contrast, the rural "village ball and banquet" would tend to connote a withdrawal into a protective community. The spatial differentiation of cultural or leisure practices expresses the way in which social groups build their relationship to their territory and to others. Furthermore, in his work on the federative practices of institutional games in France, Manouk Borzakian pinpointed "game regions", i.e. a differentiated geography according to the games played (2010). *Bridge* is prevalent in the western Parisian area and on the French Riviera; while Go is more likely to be found in large cities; and *Scrabble* has a much more homogeneous presence throughout French territory. The temporal and spatial organization of leisure is also highly dependent on social stratification. Sociological researches have demonstrated that members of the middle and upper-middle classes tend to indulge in irregular, time consuming leisure activities, outside of their homes (cultural outings, vacations), while the working classes generally prefer regular, often daily domestic leisure activities such as television (Coulangeon et al., 2002). For videogames, Larissa Hjorth (2007) suggested that gaming practices on mobile devices differ between South Korea and Japan. In South Korea, they take place in strong socialization and even competitive contexts, whereas in Japan, they can be explained by the convergence of uses on a single device and a tendency towards isolation and withdrawal. At micro scale, the ethnographic literature on gaming practices demonstrated that they are always part of everyday life (Berry, 2012). Thus, major differences are based on an ecology of practices and the material conditions of play (Boutet, 2012). How does this translate at the national scale?

Videogames, a cultural practice?

The first national survey on cultural practices in France that included questions on videogames was conducted in 2008. This face-to-face survey, carried out with a sample of 5,000 people representative of the 15+ age group of the French population, was led by the department of Studies and Prospects of the French Ministry of Culture. It duly recorded the digital turn of cultural practices and included for the first time[4] questions on videogames (Donnat, 2009), asking whether participants had played during the previous 12 months, the frequency of play, the kinds of games played, as well as the amount of time spent playing in a week. Despite their fairly general nature, these questions allowed for associations between the different cultural and leisure practices and especially comparing the distribution of answers on every cultural practice over the demography, the residence, and the lifestyles of the participants, in order to situate them within their environment. This survey's results were the starting point for the working hypotheses of the questionnaire we created for the Ludespace project.

The data from the 2008 "*Pratiques culturelles des Français*" survey established that dance, opera, concerts of classical music or jazz, theatre, and even the cinema appear to be more urban than rural practices. They are also more widespread in the Paris metropolitan area than the rest of the country.[5] The size of the urban unit (the population) notably affects cultural practices linked to intermediary and superior infrastructures.

As for videogames, the 2008 survey revealed that more than 35% of the French population over 15 years old had played at least once during the previous 12 months. However, only 6% had played every day and in all, 18% of the population had played at least once a week. Gaming practices did not seem to be tied to the player's residential

4. The previous survey was carried out ten years earlier, in 1997 (Donnat, 1998).

5. Our analysis of the data from the 2008 survey uncovered a correlation between the act of going to the theatre within the previous 12 months and the type and size of the urban unit (Cramer's V = 0.19), as well as with the region of residence (V = 0.15). This is also the case for the cinema (urban unit 0.15; region 0.11), the opera (urban unit 0.14; region 0.11), dance (urban unit 0.12; region 0.10), and to a lesser degree, concerts.

context, nor to regional specificities, contrary to playing at institutional games in clubs (Borzakian, 2010): urban populations played as much as their rural counterparts, in the North as in the South, in the Paris metropolitan area as in all the other regions. In contrast, gaming practices were linked to age, and to a lesser extent to occupation, education, family status, and finally gender[6]. In other words, it is the individual's position in his life cycle, as well as his generation, that is the foremost explanation of his gaming practices. Playing videogames was also linked to other cultural practices, which are often also age related. Because of their youth, videogame players tend to read more, are more likely to go to the library, to stadiums, to karaoke bars, to nightclubs, and the cinema.

These results confirmed Pierre Bruno's pioneering hypotheses (1993). Access to videogames had become available to all social categories; however the modalities of the practice are still unequal. In the 1990s, the middle and upper-middle classes tended for example to play more on their desktop, whereas the working classes preferred consoles. Age and gender were two other discriminating variables. Women played less than men, particularly those between 15 and 30 years old, and preferred terminals such as their cell phone. Most of these observations still hold true.

The 2008 survey revealed the digital turn in cultural practices; however, it also put into perspective the discourse on "excessive" practices. In France, there were over ten times more people spending over ten hours a week in front of their computers for leisure than people spending over ten hours playing videogames (including on computers). It also underlined the gaps in current studies on videogames. While nearly half of the articles published in the main scientific journals dedicated to game studies focus on online games and virtual worlds, these types of games were in reality the least commonplace. Only 0.16% of the population played on-line multiplayer games (MMO); whereas 3% played games of chance.

The survey's strengths are also its weaknesses. Because it considered videogames within a larger scope, few questions dealt specifically with them. With no previous studies, the questions on the types of games played combined commercial categories that most skilled players would tend to sharply dissociate. This is certainly due to the originality of the subject. Older cultural practices such as outings, television, or music benefitted from the experience accumulated by the six previous ministerial surveys; whereas videogames are still an emerging object of study. Furthermore, the study was aimed at individuals over 15 years old, whereas it has been established that videogames are played more particularly by children and teenagers (Octobre et al., 2012).

Another limit is in fact an important finding of that same survey (Donnat, 2009). Within the digital era, cultural practices are characterized by the dissociation between devices and actual practices. Before, each instance of media or cultural consumption could be associated with a format. Television programs were watched on television and radio programs were listened to with a radio. The place taken by computers, Internet, and mobile devices in cultural consumption has changed the situation. Videogames can now be played on the computer, a console in the living room, or on a cell phone on transportation. They can be pre-installed or downloaded, free or not. This dissociation between the device and the use makes measurements challenging. How can time spent in front of a screen be categorized when it is possible to read the newspaper, watch television, send messages, and play videogames, all at the same time and on the same device? Researchers are not the only ones confused. Players face the same issues when categorizing their own actions and questions such as "Have you

6. Our analyses showed a strong correlation with age (Cramer's V= 0.54), the occupation of the head of household (0.44), degree level (0.35), family status (0.31), and to a lesser extent gender (0.13).

played […] videogames […]?" depends on this very capacity. If players associate, as is often the case, videogames with an activity carried out on a dedicated terminal (i.e. a gaming console) or an associated one (i.e. a computer), it is very likely that they underestimate their less visible practices, such as puzzles completed on their cell phone on public transportation. The Ludespace study was designed taking into consideration these hypotheses and observations.

Methodology of the Ludespace study

We designed the Ludespace study as a more in-depth follow-up to the surveys on cultural practices. It aimed to identify the diversity of practices in France for the first time, by analyzing videogame practices in their social, spatial and cultural contexts. We attempted to refocus game studies back onto the players, avoiding all normative approaches. This required an inclusive approach to videogames and avoiding any preconceived definitions of videogame players, a departure from previous studies. We also sought to grasp the gaming experience as a situated experience within a changing social and geographic context, depending on different life stages.

The telephone survey was carried out in June 2012 and concerned a representative sample of the French population who were at least 18 years old (n = 2,042) and a sub-sample from 11 to 17 years old (n = 500). The sampling followed the method of quotas.[7] Players and non players were asked about their environment, their practices, with an average length of 20 minutes for non-players and of 35 minutes for players.

The questionnaire yielded roughly 200 variables, starting with quota controls and socio-demographic variables (family, home, income, etc.), which, in the case of the minors surveyed, were provided by the parents. In order to include everyone, players and non-players alike, the questionnaire then went on to ask about cultural practices, sports, and leisure activities (cinema, theatre, concerts, sports, DIY, chess, etc.) over the previous 12 months, following the example of the "*Pratiques culturelles des Français*" study, in order to allow for comparison. A second part of the questionnaire assessed all the multimedia equipment in the home, whether in use or not, then the time spent in front of the computer for personal reasons. In the third part, the topic of videogames finally appeared, starting with a fairly general, open question on representations ("What do you think of videogames?"), which was answered by players and non-players alike.

The core of the questionnaire then focused on players' practices by describing their actual activities as precisely as possible using a series of closed questions, without using the term "videogame", in order to learn more about the practices of those participants who might not consider themselves to be videogame players. For a series of questions on types of games, the questionnaire offered examples of each type asking if the participant had played a digital version over the previous 12 months. The list of 19 types was created to encompass practices that are the most commonplace yet hard to qualify as "videogames", the most trivial, and the most easily overlooked ("Over the past 12 months, have you played at least once on a phone, a tablet, a computer or a console, pre-installed games? For example, Minesweeper, Solitary, Flipper, Freecell, Snake, Spades?"). It eventually included more committed practices that involve smaller populations ("Over the past 12 months, have you played at least once on a phone, a tablet, a computer or a console, strategy or war games? For example, Starcraft, Age of Empire, League of Legends?"). This progression from least distinctive types (puzzles, card

7. The sample was stratified according to the quota method for 5 variables: age, gender, socio-professional category (the SPC for head of households for minors), the type of commune of residence (ZAU 2010 division by the INSEE), and the metropolitan region (UDA1 division of the INSEE).

games, word and puzzle games) to the most specific (car racing, shooting, combat, strategy) provided the opportunity to use two filter questions ("Over the course of the past 12 months, have you played other videogames than those I have already mentioned?"), so that non-players would not get bored and in order to ask all the questions only to the respondents most committed to videogame practice. Those who answered "No" to all 19 questions were considered as not having played videogames over the previous 12 months. Thereafter the question "So have you ever played a videogame?" differentiated the "non-players" from "former players" (those who have played in the past but not during the previous 12 months).

In the fourth part, the questionnaire solely addressed players and focused on their gaming contexts in terms of periods and frequency, related practices (taking notes or drawing maps during a game, buying or offering tie-in products, going to festivals, etc.). Questions also addressed gaming spaces that were either outside the home (transportation, educational or professional sites, friends' homes, etc) or inside (living room, kitchen, bathroom, etc). Players were questioned on the intensity of their practices, their devices, and their gaming partners. The players and the former players were also questioned on their gaming history (age when they first started, who introduced them, periods played, and explanations for any interruptions), whether they missed playing, and any possible nostalgia. Open ended questions offered a look at the games that had most affected the respondents and those they were currently playing with at the time of the study.

Finally, the questionnaire ended for all participants with practices concerning toys and games other than videogames ("Over the past 12 months, have you played a card game at least once without using a telephone, a tablet, a computer or a console: poker, gin, solitary, or other?"). This last section of the questionnaire allowed us to situate the practices of all participants – players, former players, and non-players – within their social, spatial, and cultural contexts, thus allowing us to deepen our understanding beyond a mere description of practices.

Who are France's videogame players?

The first results of the Ludespace survey confirm the emergence of videogames as a shared practice by the French population, a trend that had already been suggested by the "*Pratiques culturelles des Français*" study (Donnat, 2009). The proportion of players in the French population has drastically changed between the two surveys: 40% of participants stated they had played a videogame over the previous 12 months in the Ministerial study whereas the rate reaches nearly 2/3 in the Ludespace survey. This proportion peaks at nearly 97% among children and teenagers (11-17 years old), with 90% for girls. The difference could be attributed to the four years that separated the two studies (2008-2012). Gaming, after all, is a constantly mutating practice whose public has expanded to include more adults and women than in the 1990s (Bruno, 1993). However, care is needed in the interpretation because the methodology used to measure players is not the same. The 2008 survey is based on the participants declaring themselves to be videogame players whereas the survey we carried out in 2012 is based on a series of questions dealing with specific practices. It is therefore possible that a large part of the difference is due to the forms of categorizations of the practice rather than to its evolution: 40% of the population spontaneously considered they had played videogames (the players in the "*Pratiques culturelles des Français*"

study); roughly a quarter did not consider themselves players but did declare practices that we could assimilate to videogames (the additional category of occasional players identified in the Ludespace survey); the last third had not played at all during the previous 12 months.

Both the "*Pratiques culturelles des Français*" and the Ludespace surveys agree that videogames have a growing public (within nearly all age groups, as well as all social classes) and that the diversity of the practice has increased. Diversity and frequency are mostly affected by age group, and in a lesser measure by social class, education, and sometimes gender. In short, many people play but few play frequently. The most frequent players are among the youngest age group (fig 1). The youngest (11-17) play everything, on all devices, with everyone, and everywhere, and generally they have a more eclectic practice. The intensity of their practice is linked to the diversity of the forms of its expression (Coavoux et al., 2013). Certain videogames are played differently by each sex. Girls declare fewer types of games than boys. They tend to prefer games that are equally played by both sexes: music and dance games, virtual life-simulators (like *The Sims*). Boys prefer games of dexterity (like Tetris), platform games (Super Mario), or shooting games. Six out of ten boys play shooting games (First Person Shooter), as compared to only one out of ten girls (on videogames and teenage masculine culture, see Pasquier, 2005). Differences can also be found concerning the sociability around these games. Thus, when women play videogames, it is generally within the family circle and in the living room. Men however, have a tendency to diversify gaming sites (at home, at their friends' home, in a gaming centre) and the people they play with. Finally, social inequalities also exist, particularly when it comes to access to equipment. The home console is more widespread in the working classes (employees and workers); whereas the middle classes (skilled employees and intermediate occupations) prefer a handheld console, and the upper-middle classes generally have computer(s). Among players, blue collar workers play more often with car racing and first-person shooters, whereas dexterity games are preferred by those categories with the highest degrees.

Both studies agree that the diffusion is fairly homogeneous throughout the French national territory. Gaming, measured in terms of both frequency and diversity, does not vary either with the region of residence nor the degree of urbanization.

All gaming practices (types, devices, partners, intensity and frequency, etc.) are homogeneous throughout the territory. The Ludespace survey indicates that these variables do not demonstrate a significant connection with regional geographic indicators and urban units.[8] The rare exceptions concern domestic space, lifestyles, and gaming places. Thus, playing on public transportation can be found amongst inhabitants of large cities, especially Parisians. Playing between neighbours is more developed in suburban areas. In a similar fashion, playing in certain rooms of a home, particularly the kitchen and the bathroom, are markedly different

8. However, by combining gaming modalities with age, there is always a strong correlation (Cramer's V between 0.2 and 0.6), a correlation with the socio-professional category (between 0.1 and 0.3), and to a lesser degree with the relationship status (between 0.1 and 0.2) and gender (often higher than 0.1).

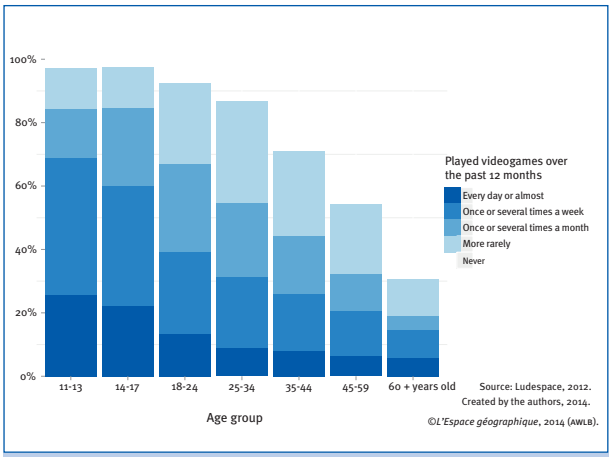


Fig. 1/ Videogames: A more or less intensive practice according to age

between hyper-urban and rural populations. This is most certainly linked to the size of homes. These were some of the facts that led us to change the scale of analysis and deepen the question of gaming spaces within lived-in spaces.

Domestic space is the main space where videogames are played in France; nearly nine out of ten adult players occasionally or often play at home. This is also the case for almost all the younger players. With the spread of mobile devices (hand held consoles, phones, tablets), games now follow players as they move around. More than three out of ten players have played while in transit, including on public transportation.

Generally speaking, the more regular the practice, the more places are concerned, particularly among the youngest players. Conversely, those players who play only at home generally tend to be older and/or those with fewer degrees. This group has more of a tendency to play alone. Within domestic space, practices are also differentiated. On the one hand, the living room is a place of family sociability, also used for the collective practices of videogames. For example, this is the case when an adult plays with his or her partner or when a child plays with a parent or a sibling. On the other hand, more solitary practices tend to take place in the home office, the bedroom, or the bathroom.

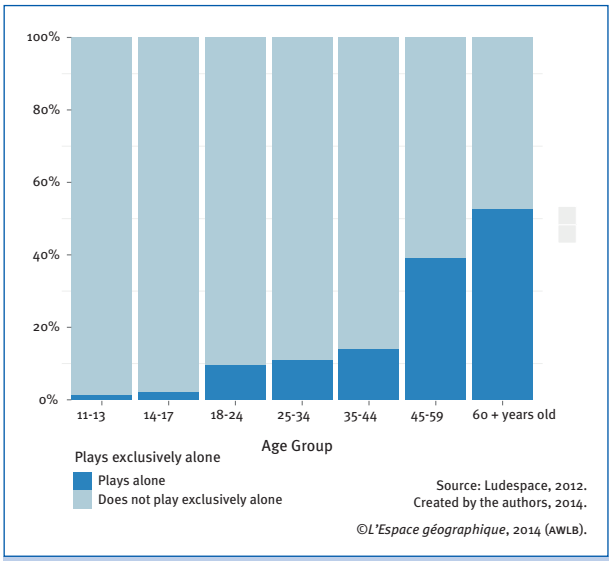


Fig. 2/Videogames: A practice that contributes to the sociability of the younger population

Videogames also allow forms of sociability that extend past the domestic space and encourage connections. This refutes the stereotype of the lonely, withdrawn, introverted player. It is only among the older population – a category with the lowest rate of players – that the trend is towards solitary play (fig. 2).

Over four out of ten players play with friends and this figure increases among the most regular players (over five out of ten). The players who prefer playing near home, with neighbors, are generally young and middle-class. Those who play at work are young adults within the working classes; whereas the upper-middle classes engage in the widest variety of types of games while in transit or in public spaces. Finally, the most committed play a wide variety of games in a wide variety of places with a wide variety of partners. They are the ones who play the most competitive games and are the only ones to go to cybercafés and game centres.

As seen in the results, videogame practices take place in spaces and within forms of socialization that are differentiated according to the individual, indicating diverse degrees of investment. It is thus at the micro scale that a significant spatial differentiation can be found.

Typology of videogame players according to ways of dwelling

To differentiate how games are played within everyday spaces, we established a typology of players according to gaming places based on a multivariate statistical analysis. We performed a hierarchical ascending classification on the first five axes of a

9. Places where participants had played over the course of the previous 12 months (home, at neighbors', in the homes of other members of their family, at work, travelling, in transit, in public spaces, in cyber-cafes, and arcades) were used as active variables, whereas the score representing the diversity of the various gaming places was used as an illustrative variable. The first five dimensions of the PCA represent 82% of the total variance.

principal component analysis dealing with the seven variables of gaming locations[9]; focusing on all the players in the sample group, children and adults (n=1,697). The two best partitions are in three classes (73% of the variance) and in six classes (86% of the variance). We decided to present the six classes as a chart[10] (fig. 3). High results indicate an over-representation of the location in the practice of this group of players. A result close to zero indicates that there is no specificity (the group average is close to the general average). A result close to -1 indicates that nobody – or nearly no one – in the group had declared playing in this type of place during the previous 12 months. Next to the chart of places specific to each of the six classes, another chart illustrates the types of games specific to each class, using the same principle. The data on the different types of games played no role in the construction of a typology, but they facilitate the interpretation of the diversity of practices.

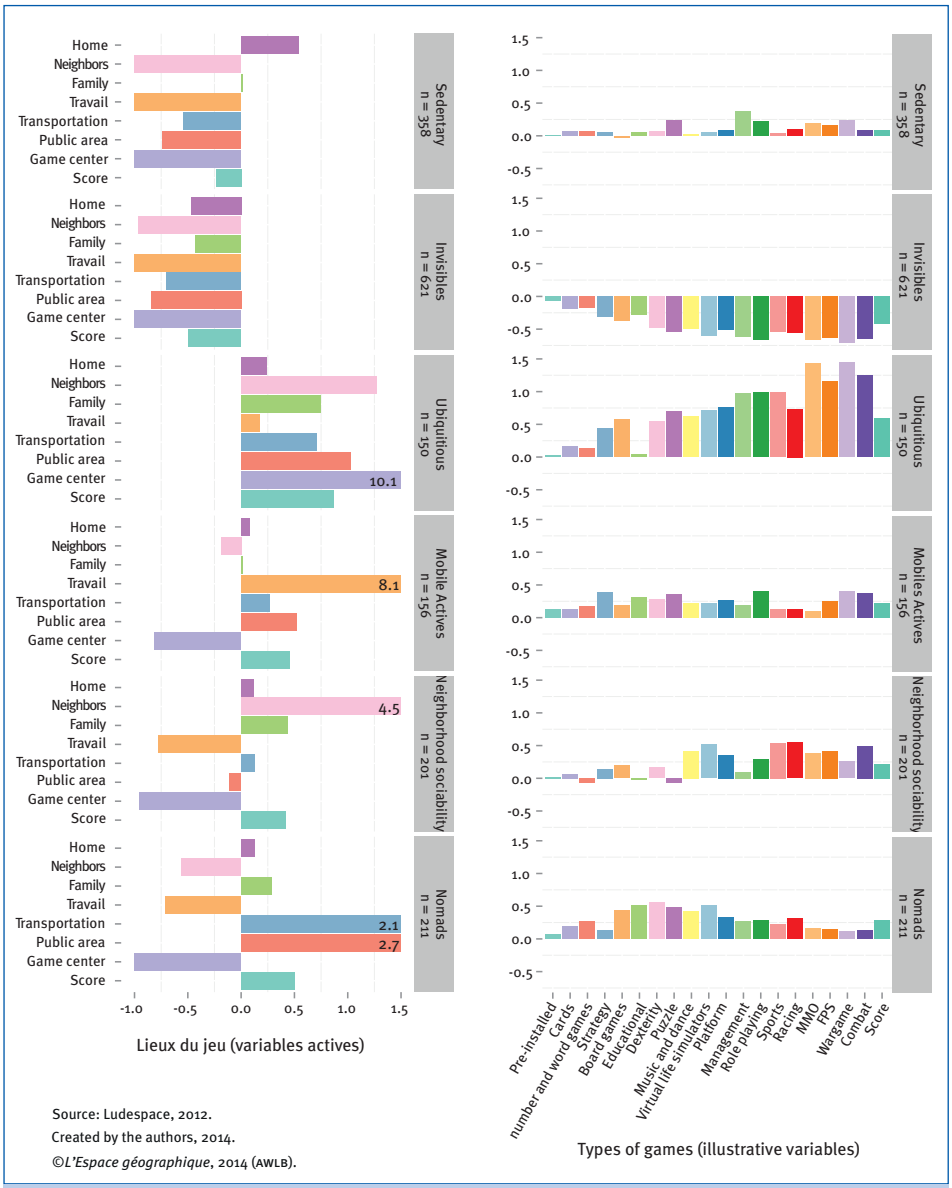
"Sedentary" (1st class, 21% of players) are players with domestic practices, they play as much as the average at home with their family and friends, less than the average in transportation and in public places, and almost never elsewhere. The youngest players (less than 13) and couples over 35, with or without children, are overrepresented. This population generally belongs to a higher socio-professional category; they have higher degrees, or are currently completing their studies. In this class, the games played are slightly more diverse than the average, particularly puzzles, management games, and massively multi-player, online games (MMO), shooting games (FPS – First Person Shooter), and war games.

"Invisibles" (2nd class, 36% of players) played almost nowhere over the previous 12 months other than at home. In this group, economically inactive individuals, retirees, those without higher degrees, as well as women over 35 living in a couple with children are overrepresented. The participants play much fewer types of different games than the average. They generally play pre-installed, default games, card games, number and word games, educational games, and strategy games. This profile corresponds to those with the least spectacular practices and who are never studied in research on videogame players – even though they are the largest group of the sample. We labelled them "invisible" because their practices are confined to domestic spaces, often disconnected from economic circuits, and thus virtually never publicized.

The choices of the Ludespace survey bring to light videogame practices representing over a third of players, which explains the difference with previous studies. The importance of this category of players notably allows us to uncover a paradox. While the media focus on the most committed practices and the risks that videogames pose to social relations, we noticed that the intensity of the practice goes hand in hand with diverse forms of sociability. Playing alone, solely within domestic space is in fact a practice of the least committed and older players.

The "Ubiquitious" (3rd class, 9% of players) played almost everywhere over the last 12 months and are the only ones to have played in cybercafés and game centres. Those investing all spaces and places with their videogame practice are middle class, young men under 18, still in school, and generally living in major metropolitan areas, with their parents. In this class, respondents played a wider range of games than the average, particularly those popular with more expert players (FPS, MMO, etc). They are the group that most resembles the image of the gamer conveyed by the media and the industry, when actually they are a small minority group, less than one out of ten players.

10. For each of the six classes, a chart represents the standard deviations between the class average and the general average for each gaming location (active variables) and the score / number of different gaming location (illustrative variables) over the previous 12 months. To ease the reading of the chart, the bars representing the deviation are sometimes truncated. In this case, we indicate the numeric value. For each class, we have added a chart representing the weight of each type of game in the class's practices (illustrative variables).



Source: Ludespace, 2012.
Created by the authors, 2014.
©*L'Espace géographique*, 2014 (AWLB).

Fig. 3/ Typology of players of videogames according to locations

The "mobile actives" (4th class, 9% of players) are the only ones to declare playing at their workplace. They also played in transportation and in public places. In this group, players play at all sorts of games, particularly the more expert ones such as role play (RPG) and shooting (FPS) games, as well as combat and wargames. Young active adults between 18 and 24, regardless of their gender, from the working classes are over represented in this group. They generally benefit from a spatial autonomy or have more mobility constraints than younger players. Contrary to popular belief, the "mobile active" players are not trendy executives; but rather the younger economically active population of the working classes, living in the outlying suburbs of major cities, often at their parents' homes and with long commutes on public transportation (train, tram, or underground).

Those engaging in "neighborhood sociability" (5th class, 11% of players) play much more than average at their neighbours' and a little more than average in the homes of other members of their family. Young males still in school, workers, employees, and intermediate occupations are over-represented in this group. They generally live in rural areas and the suburbs of small towns, often at their parents' homes in small accommodations, residence halls, or subsidized workers' accommodations, and generally prefer walking to other forms of transportation. Cooperative or competitive games (music and dance, sports, racing, or combat) dominate among this category. This practice includes mostly the youngest players with their friends and neighbours, or adult players who play during family get-togethers or with friends.

Finally, the "nomads" (6th class, 12 % of players) play more than the average when in transit and in public places, and to a lesser extent at their neighbours' or friends' homes. They are also the ones who play in the widest range of different spaces. In this class, respondents played with more types of games than the average, with a preference for board games adaptations, educational games, dexterity games, puzzle games, and music and dance games. Adults under 35, executives, those with the highest degrees, and students are over-represented in this group, with a slight majority of females. Executives and intellectuals thus have a tendency to play in transit and public spaces rather than at the workplace. This group includes inhabitants of large cities, particularly in the Paris area, people living with their parents or another family member, either in small apartments or in very large homes, and who use both public transportation (bus, tram, metro) and non-motorized soft transportation (roller blades, bicycles).

Conclusion

The video game audience is diverse and can be described by their places and spaces of play. However, the source of this diversity cannot be found in whether or not individuals play, or declare themselves players, or in their choice of devices; which was what previous studies attempted to grasp. Though many people play, they do not play in the same way. This is demonstrated by the cross analysis of the various types of games and the everyday spaces where they are played. We can thus detect coherent styles of gaming that can be understood in reference to the individual's position in their life-cycle, their ways of dwelling, their residential trajectories, their status (economically active, retired, students, etc.), the configuration of their home-work or home-studies commutes, and the forms of sociability that their environment offers. These results indicate that cultural and leisure practices allow for variable investments of time and space, according to the individual as well as the territory, which in turn affects the relationship with domestic space, spaces of mobility, and lived social space.

The study shows that videogame practice, as with other cultural and leisure practices, is a situated practice, both spatially and socially. Of course, our findings still do not allow for a deeper analysis of the differences between players living in the same places but presenting differentiated ways of dwelling. However, the capacity to invest different daily spaces with videogames is prevalent among teenagers and young adults, rather than children who generally play at home or at friends', certainly because they do not have the spatial autonomy necessary to extend their activities beyond the domestic space. The older population displays more concentrated spatial practices

(more in domestic spaces or in transit), depending on the profile. Mobile gaming appears to be widespread with both the young, economically active population born in the working classes and with executives with a higher education in large cities. The differences are to be found in the capacity of the different social groups to use other gaming spaces, but also in the types of games played. As for the role of games in building local forms of sociability, it is much more important among children and teenagers, as well as the working and middle classes living in mostly rural spaces. At a more precise scale, that of domestic spaces, the Ludespace study also demonstrates that the different rooms of a home, especially the office and the living room, are used differently for playing videogames depending on the lifestyle and according to the household configuration.

The forms of engagement are thus linked to the opportunities generated by the daily routine to produce moments and spaces dedicated to this cultural practice, routines that in turn depend on the individual's lifestyles, mobility and/or sociability constraints (neighbours, networks, professional, etc.). Examining where and with whom people play thus leads to studying how people, with the means at their disposal, produce their everyday life.

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