



HAL
open science

Streaming physical activity via social networks in times of lockdown: Between a desire to share and a search for visibility

Bernard Massiera, Imed Ben-Mahmoud, Valérie Morales-Gonzales

► To cite this version:

Bernard Massiera, Imed Ben-Mahmoud, Valérie Morales-Gonzales. Streaming physical activity via social networks in times of lockdown: Between a desire to share and a search for visibility. *Loisir et Société / Society and Leisure*, 2021, The inclusive leisure experience beyond the adapted or inclusive leisure dichotomy/ L'expérience inclusive de loisir au-delà de la dichotomie loisir adapté ou inclusif, 44 (2), pp.266 - 277. 10.1080/07053436.2021.1935428 . hal-03601621

HAL Id: hal-03601621

<https://hal.univ-cotedazur.fr/hal-03601621>

Submitted on 14 Mar 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Streaming physical activity via social networks in times of lockdown: Between a desire to share and a search for visibility

Bernard Massiera, Imed Ben-Mahmoud & Valérie Morales-Gonzales

Introduction

Sport displays and conveys values of courage, self-surpassing, excellence and respect and the social function that generally accompanies it, is to contribute positively to the personal improvement of individuals in terms of self-discipline, living hygiene and well-being. Engaging in a physical practice, implies to internalize moral and corporal norms generally acquired during physical education in school, training sessions in associative environment or through a service in fitness center. But when an epidemic period compels the practitioners to confine themselves to their homes by strongly limiting their possibilities of physical proximity, the social process which is in the center of the sport practice takes a different way.

While people are self-confined at home, a large offer of physical activities, intended to initiate or maintain a physical practice, emerges on social networks. This offer, very diverse in its shapes, takes form as online coaching that seems to be driven by a vocation both hygienic and social and that proposes, by allowing to soften the confinement of fellow citizens, to improve their physical health and to stimulate their morale to better face the lockdown. Long before the Covid-19 context, sports coaching was in a developmental phase (Williams, 2009) and online practices seemed to follow the same growth (Neumann and Krzytaniak, 2007). The formal prohibition on gathering during epidemics seems to have stimulated the streaming of training videos. Indeed, individuals who used to gather to engage in physical activities collectively, become the target of different organizations, fashionable people, sports professionals and experienced practitioners who broadcast numerous sports programs to them via the Internet. We question the processes that lead these different actors to conceive and streams online a physical activity offer in a period of lockdown. Our research question explores the processes of the deployment of these offers; between will of sharing, search of popularity and mercantile stakes.

Theoretical background

Throughout our study, we talk about virtual communities grouped around videos that emerge within cyberspace (Rheingold, 1995). We will use the term community in its postmodern sense, which allows us to decipher the logics of collective affiliation in a specific time and environment. These communities are characterized by the extreme fluidity of their functioning, made up of occasional gatherings, scattering and multiple affiliations (Maffesoli, 2000: 137). In our case, these communities gather online around physical activity practices that are staged through videos broadcast on social networks (Wenger, 1999). These online videos are audiovisual content of the same type as television shows, music videos, and home videos available on the Internet "through content providers linking and on several media accessible via computer, cell phones, tablets" (Crespel, 2012, p. 135). Within these content providers, the most famous, YouTube, would seem as community on its own (Rotman et al., 2009; Rotman & Preece, 2010). These gatherings are based on the participation of their members as viewers of the videos posted online (Burgess and Green, 2009b). The pandemic period, which imposes confinement at home, leads not only to a growth in the usage of social media for simple entertainment purposes, but also for learning or even socialization. In the communities of

practice of interest to our study, physical activity is approaching a lifestyle (Louveau, 2007; Stover, 2014; Jarthon & Durand, 2015). The extension of the habits of engaging in physical activities collectively through the use of social networks seems to play a role in this as social glue due to the fact that they allow "maintaining these connections between individuals and groups of people on a social network" (Lange, 2009, p. 83). In connection with lifestyles and as a cultural element, videos then play the role of glue against the backdrop of spectacle.

The interaction, built by the streamer who broadcasts videos and with the members of the community of practitioners who view them, takes the form of a performance in the sense of a show played before an audience. However, performances take place in front of an audience and interactions occur when the members of a social group are in the presence of each other (Goffman, 1973). In the case of our study, the broadcasting of sports videos takes place without a physically present audience, which limits the representations in the exchanges and the possibilities of appearing. A sports entertainer, in order to act on the impression he or she gives when broadcasting a video online, requires interaction with the members of a community who view his or her performance. The definition of performance is described as "the totality of an actor's activity that takes place in a period of time characterized by the actor's continued presence before a specified set of observers influenced by that activity" (Goffman, 1973, p. 29). We can consider the animators of these videos as actors conducting a performance (Nizet and Rigaux, 2005). Thus, the situation of lockdown strongly limits interactions since the participants are not physically present during the sports sessions. However, we note that there may be some snippets of interaction in different forms and accordingly to the categories of communities. In rare situations, the participants can observe the entertainer as well as the participants and directly talk with all the members. More generally, the exchange takes place in a restricted way by writing notices and comments, inserted before, during or after the session (Caillat, 2015). Finally, in the most reduced interaction situations, only the viewing of videos is possible with a simple posting of opinions and messages within a user forum. The content of this type of video, presenting an individual staged in physical activity sessions, broadcasted online to the attention of the members of a virtual community of practitioners, and without any real social interaction, is similar to the sociological concept of "staging" that we retain as a fundamental framework of investigation (Goffman, 1973). The general form of the performance is distant and it is the unidirectional staging that prevails.

Questioning of the aims of commitment of these contributors highlights that online publishing activity is dependent on signs of recognition from the audience (Huberman et al., 2008). Individuals who put themselves on display in these online videos seem motivated by the sustained attention and recognition they receive (Lange, 2009, p. 71). The Internet leads to rapid notoriety when the physical activity video session allows community members to identify with it (Carré & Panico, 2012). This phenomenon is multiplied by members who practiced a sport before the epidemic period and encourage their acquaintances ("friends") to join the virtual community. The first reason for the emergence of online sports videos is the desire to express oneself freely. The ability to broadcast online facilitates self-expression by allowing users to generate video content that they have created themselves (Kruitbosch & Nack, 2008). It is true that the internet and social networks represent spaces that promote identity expression

and self-staging (Georges, 2007; Granjon, 2010). The digital medium makes it possible to generate content that corresponds to an idealized and publicly acceptable self-image (Coutant and Stenger, 2010). This self-staging depends on the nature of the public to which the Internet user actor exposes himself, since the image is constructed by taking into account the situation and the group (Coutant and Stenger, 2010, p. 10). The adhesion enrollment registration of the public composing the virtual community of practitioners is generally dependent on the type of technology used (Kilb et al., 2001), the characteristics of the entertainer (gender, coaching style) and the typology (gender and personality) of the community members (Payne et al., 2003).

We will retain for our investigative work that the fact of broadcasting a physical activity session online is a performance that allows its author to be visible in the public space thanks to the possibilities of self-staging (Carré and Panico, 2012). This self-display in return leads to a phenomenon of audience which is exacerbated by the lockdown imposed on followers of physical activity. The practitioners refer to the person who leads the sessions in the videos: teacher, educator, instructor, coach, student or public figure. The goal pursued by the authors of these videos is to be seen by the public and to (re) constitute around them a virtual community of practitioners who used to collectively engage in physical activities indoors or in the gym or outdoor before the pandemic situation.

The fact that these videos appear very different in their content as well as in their form leads us to question the motivation of their authors. They generally consist of a coach who stages himself through physical exercises that the participants reproduce, motivated by the different instructions and encouragements. The simplest ones are improvised with the help of a cell phone that films balanced on a table, while others are highly professional and are filmed in a studio. The sessions do not require any specific knowledge or equipment for the participants. These sessions offer physical preparation, improvement of body aesthetics or performance research, while avoiding possible injuries. Sometimes it is the atmosphere and the exchanges with the members that are at the heart of the sessions while others highlight either a model entertainer with an advantageous aesthetic or focus on the technical exemplarity of proven physical exercises. We search for an explanation to the fact that these actors put themselves forward to deliver messages to a community of people living in a lockdown, with the aim of bringing behavioral changes (Payne et al., 2003). The motivation for these individuals to post physical activity videos online, would seem to be in accordance with the role of mentor, role model (Armour & Duncombe, 2012) and this is what we will investigate further.

Tools and methods of investigation

The operational research phase proceeds through a series of case studies and uses video content analysis. We start by defining a field investigation methodology that allows us to identify, distinguish and model the processes that lead some Internet users to produce and stream videos of physical activities online. The subject of the study requires to limit the field investigation to the period of lockdown experienced in France, i.e. between March 17 and May 11, 2020. The choice of videos for the investigation is the result of a stratified "cluster" sampling methodology that consists of selecting and analyzing typical cases based on the lessons learned from the bibliographic investigation and the rational point of view of the researcher (Beaud,

2010, p. 265). The reason for this type of sampling is to focus on the characteristics of a population and not the entire elusive population of online physical activity video producers.

For the selection of video sources, we proceed by approximating the matching methodology (Désoyer et al., 2016). We manually browsed, in the most exhaustive way, the video media available on social networks, considering their semantic and temporal aspects. Our first selection consists of videos presenting physical activities intended for fitness and health of a home-confined audience. The relevance of the videos is defined using two indexes, one concerning the similarity of the content, which had to consist of several sessions of physical activities for fitness and health purposes broadcasted freely, the other is the proximity of the date of edition of the video to that of March 17th, which is the beginning of the period of lockdown related to Covid 19 in France. Thus, at the beginning of the lockdown phase, the research team carried out a real-time survey of the main online sharing sites offering live or delayed broadcasting of videos containing physical activity sessions for health purposes, such as fitness and physical preparation (social media: Facebook, YouTube, Instagram).

From this first viewing, the researchers manually select a series of videos relevant by their content for the physical conditioning of a home-confined public. In a second step, the set of physical activity sessions selected is viewed in its entirety. An inductive analysis looks for recurrences in their contents to create a cataloguing and classify them in categories. The exploratory approach is based on the theatrical metaphor and focuses particularly on what underlies the behavioral practices (Marcellini and Miliari, 1999). The contents of the videos are explored by comparing them to a theater scene (content of the script and dialogues, staging of the action, relations with the audience, type of costumes and sets...). The analysis of their content is done via a film analysis grid (Bourgatte and Thabourey, 2018). The research team formalized a descriptive grid (Figure No. 1) that breaks down the videos into different elements: the synopsis (theme/story), the staging (acting, location/setting/costumes, equipment/accessories), and the soundtrack (dialogue content, interactions with the audience, types of music). The content of the videos is also positioned with respect to the physical activity recommendations formulated by the World Health Organization (WHO, 2010). We want to know how close the contents are to what is prescribed in the fight against sedentary lifestyle and the prevention of non-transmissible diseases (Praznoczy et al, 2017). The observational work notes the targeted physical qualities, intensity, duration, and frequency of the sessions broadcasted online.

Figure n°1 : Descriptive analysis grid for videos

Synopsis	General theme
	Vidéo course
Staging	Acting
	Location/setting/costumes
	Equipment/accessories
Soundtrack	Dialogue content
	Interactions with the audience
	Type of music
Content	Targeted physical qualities
	Intensity of activities
	Duration and frequency

Source : Adapted from the work of Michaël Bourgatte and Vincent Thabourey

Results and discussions

A large number of videos (n: 200) are concerned by the first viewing by the research team. Only a small selection (n: 29) is retained for the relevance of their contents and their temporality. All the selected videos are then transcribed in the observation tables (Appendix 1). These descriptions are analyzed with reference to the initial theoretical framework to define the categories of videos that follow. The cataloguing is done according to the typology of interactions between the entertainer and the participants (Lange, 2009). Each category is then discussed to insert it within a general schema that models the emergence process of physical activity videos broadcasted online (Figure No. 2).

The category of coaches and mentors

This first category of videos seems to simply promote the practice of physical exercise in a seemingly disinterested manner (Appendix 1: observations 1, 9, 11, 12, 19, 21, 23, 24, 27, 28, 29).

- The synopsis of this first category of videos consists of a coach who builds and animates a series of exercises to be done at home. The sessions are often built from the opinions and suggestions of the participants.
- The staging is composed of a fixed shot of the front and sometimes of the profile by a presenter who explains and illustrates a succession of techniques. The entertainer wears sports clothes with no particular aesthetic aim. He animates the session without any specific equipment except for a floor mat and some elastics of traction and sometimes light dumbbells. We note that the setting is very personal because the sessions generally take place at home.
- The soundtrack consists of a succession of different music without mixing, of the variety style and the instructions are given in a friendly tone. There are many messages of encouragement

and motivation, personal messages and interactions throughout the session with the audience through written messages before, during and after the session.

- The content corresponds relatively well to the recommendations in terms of programming physical activity for all (endurance, strength, flexibility...) but does not fit for the category of physical activity adapted to specific audiences (seniors, disability, long-term illness...).

In terms of social interaction, the entertainer takes care of his members by including them in the implementation of exercise programs. He seeks to create bonds of trust with the members of the community that follows him. He or she seeks to build a two-way relationship and tries to be of service to the listeners in order to help them achieve the goals of keeping up with all the exercises during the sessions. We note that the relationship is above all a guidance that is as personalized as much as possible within the limits of the Internet tool. The purpose is to accompany the members of the community in their quest for well-being. The themes of self-confidence, stress and anxiety management and weight loss are omnipresent. The communication is based on a certain spirituality. It looks like an art of living and a way of being composed of behavioral rules that he shares with the members of his virtual community. We observe that in this category the authors of the videos resemble their practitioners the most and maintain a rather intense communication with them. This could explain why they collect a high result in terms of participation. It seems that the identification process works well because of the typology of the social relations centered on the social relation and the high level of interactivity with the audience (figure n°2: category entertainer, coach, mentor).

The category of models and public figures

This second category seems to place aesthetics and celebrity at the heart of the content (Appendix 1: observations 5, 7, 8, 10, 17).

- The synopsis of this second series of videos focuses on a public figure who stages itself through physical exercises.

- The staging magnifies the body. The setting is neat, the make-up is omnipresent. The costumes bring a sexualization of the appearance with clothes close to the body with graphics and assorted or fluorescent colors (tight, indented low-cut or open on the back clothes, bras, headband in the hair...).

- The soundtrack essentially illustrates the musical tastes of the speaker, who gives little attention to the description and detailed explanation of the exercises. We note that the music and the interaction with the virtual community are mainly based on the number of members online during the sessions and the reviews posted on the entertainer's profile page following the sessions.

- Content is disparate toward physical activity recommendations. The relevance of the video is often supported by the evidence provided by the entertainer's body (abdominal muscles, buttocks, chest).

The interactions in this category are characterized by social relations centered on the entertainer who presents these videos based on his or her personal experiences. The communication is based on a logic of celebrification where a public figure already known by the public seeks to reinforce its notoriety. The purpose of this idealized staging of a physical activity session is to

influence the way of being and thinking of the members of the community through a process of identification with the public figure and its speech. We note that famous individuals (public personalities from the world of fashion, sport...) proclaim themselves as coaches and invade social networks during this period of lockdown. They offer contents of fitness programs the most often approximate. The level of physical commitment (intensity, frequency, amplitude) is often disproportionate with the average physical qualities of the population that watches these films. Consequently, the contributions of these sessions evolve between physical preparation inspired by fitness sessions and unsuitable exercises which could even prove to be harmful if they are practiced by fragile people (overweight, high blood pressure...).

We distinguish the role model in this category, which refers to a relationship of an individual to a group, from the role of mentor in the previous category, which refers to a relationship of an individual to another person (Boulard, 2000; Armour & Duncombe, 2012). While celebrities state that they want to inspire others through their personal accomplishments by acting on the desire to imitate (Almour and Duncombe, 2012), it can be seen that these role models essentially put their image forward, particularly through their body aesthetics. As soon as the search for public notoriety becomes central, the process is a form of "celebrification" (Aubert and Haroche, 2011; Hénaff, 2011; Carré and Panico, 2012). However, even though an aesthetic physique, sculpted musculature, or slim waist could correspond to a certain representation of being fit; this does not seem to be central to the motivation of participants who avoid comparing themselves to the model (Fleming and Ginis, 2004). The authors of this category of videos have little relationship with the members of their communities, except through the possibility of posting reactions on their virtual page (likes, reviews, comments...). This second category seems to be essentially motivated by social relationships that are vectors of notoriety but without interactivity (figure n°2: celebrity category, model, public figure).

The category of the commercial and institutional organizations

This last category proposes a much more technical content in the physical preparation brought to the practitioners (appendix n°1 : observations n°2, 3, 4, 6, 13, 14, 15, 16, 18, 20, 22, 25).

- The synopsis of each session is articulated within a global program. The entertainers present precise, highly technical and strongly decomposed movements supplemented with precise instructions with an educational aim.

- The staging is scripted in multiple shots with editing. The setting is sober and focuses the attention on the training presented (light parquet floor, mirrors). The set is professional and we note the presence of specific equipment (press, fitness equipment). The actor wears covering clothes and adapted to the sports practice, often of sober color (tank tops, shorts, leggings...).

- The soundtrack essentially conveys the sustained explanation of the techniques to be performed and for what purpose they are performed. When music is present, it is only secondary and appears to give rhythm to the movement in the absence of instructions. Interactions are absent for most of this category of videos.

- The content presents a double logic. Either it sticks as closely as possible to the recommendations stated in terms of health prevention through physical activity, or it moves away from them to beautify itself with a more festive and choreographic dimension.

This last observation leads us to split the category into two sub-categories.

A first sub-category concerns the commercial offer

These are the sports providers (appendix n°1: observations n°3, 6, 15, 18, 22). The technical gestures and the commercial promotion are at the center of the videos broadcasted by the commercial sector organizations. The demonstration of professionalism characterizes the content of these videos and their broadcasting is based on a product placement logic, with many references to the company in charge of developing the different elements of the physical activity offer. Even if the content of the physical activity sessions follows globally the recommendations of the World Health Organization in terms of physical activities, this is wiped out by the communication of the commercial structures.

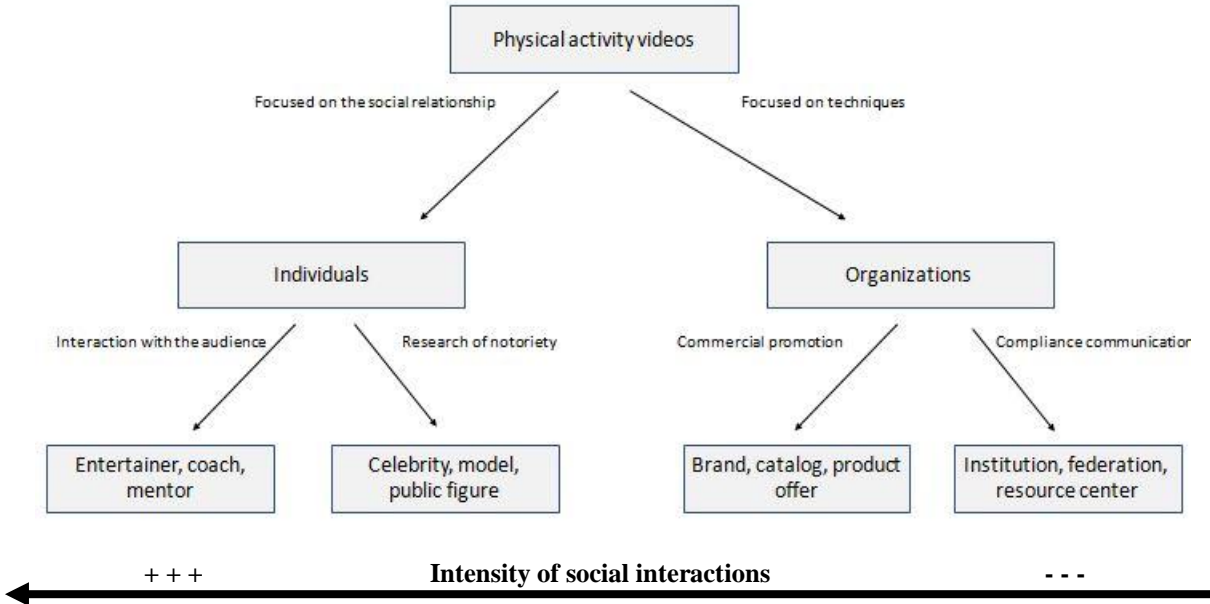
The involvement of coaches, i.e., professionals living from physical activities, in this action of online videocasting, seems to be more of an identity communication with a technical dimension, built around athletic excellence (Bernardeau, 2011). These professionals broadcast content online to develop their visibility for profit (Chatzopoulou et al., 2010). As soon as the search for visibility becomes the central element, the process is a form of commercial promotion (Toison, 2010). The streaming of these videos, initially carried out in the form of an expression, evolves towards a commercial logic (Burgess and Green, 2009a). The creation of virtual communities of online physical activity practitioners may be seen as an interesting possibility for the commercial sector. Communicating with communities of practitioners is promising in terms of consumption and promotion of the company's services. The logic of broadcasting these videos focused on the techniques, is a relational marketing action that contributes to the promotion of the company's image and to the reinforcement of the relationship with its customers (figure n°2: brand, catalog, product offer).

A second sub-category represents the institutional offer

These are structures for the promotion of physical activity (Appendix 1, observations n° 2, 4, 13, 14, 16, 20, 25). The technicality of physical activity also characterizes the videos broadcasted by the institutions but with the aim of promoting physical activity for health purposes. The communication is based on a logic of compliance, identical to the one which links the medical world to the patients. The sessions are offered under the authority of a recognized institutions (World Health Organization, Regional Health Agency, National Observatory of Physical Activity and Health...). The videos then follow in an exemplary way the recommendations in terms of physical activity which are very often stated in the sessions. Even if the exercises of the sessions are fully explained, we notice that they are often supplemented by a scientific justification which seems at first sight useless to the practitioners. We can imagine that these institutions use the new online technologies to provide practitioners with the most precise information and with the purpose of guidance and enrollment to the activity program in the image of a therapeutic education program. The relative austerity of the content (absence of music, very decomposed and repetitive techniques, messages of an educational nature, health advice...) appears to be an underlying desire to distinguish itself from the previous service providers based on a commercial logic. Techniques and compliance, as well as the total absence of interactivity, seem to be central in the videos broadcasted by institutional structures (figure n°2: institutional category, federation, resource center).

The highlight of all these elements allows us to propose a synthetic model of the social interactions related to the emergence process of physical activity videos broadcasted on the Internet during a period of lockdown.

Figure 2: Modeling of the emergence process of physical activity videos broadcasted online during a period of confinement



Source : Modeling performed by the authors based on descriptive observations.

This model will be completed by a discussion of additional observations made opportunistically before, during and at the end of the live sessions. These observations confirms the positioning of the categories that follow the level of social interactions within the categories of practitioners and lead us to restrain the controversial term "virtual community", used at the beginning of the article, to the participants concerned by the category of "entertainer, coach and mentors". Indeed, it is essentially in this category that we have observed processes of socialization in physical activity, even though it is practiced online. It is also in this specific category that fragmentary extensions to reality were observed depending on the epidemic situation. In a temporal way, we noticed that the interactions evolve clearly from the 5th session. The participants, who observe each other simultaneously in the virtual live sessions , greet the coach

and each other in a less formal way, the use of first names becomes widespread, the exchanges approach the register of intimacy until they include private stories. Nicknames emerge to designate the participants according to their way of approaching the physical activity sessions and of facing the difficulties of the work of flexibility, strength and endurance (the machine, the warrior, the thigh, the dry, the boss...) and jokes regularly punctuate the sessions. All these interactions seem to materialize the elements of a community of interests and practices that share the same relationship to physical activities, common sports practices, inter-individual relationships and build a feeling of belonging and loyalty.

Conclusion

This research allowed us to explore the process of broadcasting videos containing physical activity sessions to communities of practitioners in a situation of lockdown due to the Covid-19 epidemic. For this exploration, a set of videos is viewed and a part of them is then selected with respect to their content and broadcast dates. A thematic analysis is carried out using a descriptive observation grid that characterizes the specificity of the interactions with users. The results show that the process that concerns the individual authors of these videos follows a logic that evolves from a desire to participate in the health of the participants, with whom communication is very present, to a show designed to increase the notoriety of celebrities in search of followers. As far as the organizations involved in this movement are concerned, the broadcast of videos seems to obey a commercial logic intended to attract new customers for the commercial offer or to an action of health promotion by physical activity in period of lockdown for the institutions linked to the sport and health sector.

The limitations of this study are related to the fact that we could not further explore the users who are the recipients of these videos, which limits our understanding of the process of emergence, development of social interactions and creation of communities. Further work, exploring the typology of social interactions from the users' perspective and outside of the lockdown period, will need to be pursued to confirm these initial hypotheses. This research also leads us to wonder about the transposition that could be established between these results and the global realities of the offer of physical activity for fitness and health purposes generally present on the Internet outside this period of lockdown. Hopefully, the similarity in our study is not too true with respect to "self-proclaimed coaches." If celebrities, models and public figures fascinate with their advantageous physique the sports sessions broadcasted online, we remain reserved on the benefits brought to the health and well-being of their followers.

Bibliography

Annour, K., Duneombe, R. (2012). Changing lives ? Critical evaluation of a school based athlete role model intervention. *Sport, Education and Society*, 17(3), p.381-403

Aubert, N., Haroche, C. (2011). *Les tyrannies de la visibilité. Être visible pour exister ?* Paris : Editions ERES

Beaud, J.-P. (2010). L'échantillonnage. *in* Recherche sociale : de la problématique à la collecte des données, Québec : PUQ, p. 251-284.

Bernardeau-Moreau D. (2011). Les identités professionnelles des agents de la filière sportive territoriale. *Entre référence technique et modèle gestionnaire*, *Revue Staps* 2 (92), p. 43-51.

- Boulard, D. (2000). Les dimensions communicationnelles d'une relation mentorale, Mémoire de maîtrise en communication, Montréal : Université du Québec à Montréal.
- Bourgatte M., Thabourey V. (2016). Le cinéma à l'heure du numérique, pratiques et publics, Paris : MkF Éd., coll. Les Essais numériques.
- Caillat, R. (2015). La transformation de la mise en scène des modèles d'entraînement physique, Mémoire de Maîtrise en Communication, Montréal : Université du Québec à Montréal.
- Carré, D., Panico, R. (2012). L'affichage de soi comme puissance d'agir. Contrôle social et enjeux éthiques à l'heure de l'hyper connectivité. *in* Proulx, S., Millette, M. et Heaton, L. (dir.), Médias sociaux : enjeux pour la communication, Montréal : PUQ, p. 61-80.
- Chatzopoulou, G., Sheng, C., Faloutsos, M. (2010). A first step towards understanding popularity in YouTube, Conference on Computer Communications, San Diego, USA.
- Coutant, A., Stenger, T. (2010). Processus identitaire et ordre de l'interaction sur les réseaux socio numériques. Les enjeux de l'information et de la communication, vol.(1), p. 45-64.
- Crespel, É. (2012). Les enjeux des conversations sur les réseaux socio numériques. *in* Proulx, S., Millette, M. et Heaton, L. (dir.), Médias sociaux: enjeux pour la communication, Montréal : Presses Universitaires du Québec, p. 133-152.
- Désoyer A., Battistelli D., Minel J-L. (2016), Appariement d'articles en ligne et de vidéos : stratégies de sélection et méthodes d'évaluation, Paris : Taln, ffhalshs-01384606
- Fleming, J., Ginis, K. (2004). The effects of commercial exercise video models on women's self-presentational efficacy and exercise task self-efficacy. *Journal of Applied Sport Psychology*, 16(1), p.92-102.
- Georges, F. (2007). Sémiotique de la représentation de soi dans les dispositifs interactifs, l'Hexis numérique. Thèse de doctorat. Paris : Université Panthéon-Sorbonne-Paris I.
- Goffman, E. (1973). La mise en scène de la vie quotidienne. Tome 1. La présentation de soi, Paris : Les Éditions de Minuit.
- Goffman, E. (1991). Les Cadres de l'expérience, Paris : Les Éditions de Minuit.
- Granjon, F. (2010). Exposition de soi et reconnaissance de singularités subjectives sur les sites de réseaux sociaux. *Sociologie*, vol. 2010 (1), 25-43.
- Hénaff, N. (2011). Blog : un journal intime pour exister, voir et être vu. *in* Les tyrannies de la visibilité, Paris : Editions ERES, p. 145-170.
- Huberman B., Romero D., Wu F. (2008), Social networks that matter: Twitter under the microscope, Cornell: Arxiv Preprint, p. 812-1045.
- Jarthon, J.-M., Durand, C. (2015). Faire du fitness pour construire du féminin., *Science & Motricité*, 88(2), 65-72.
- Kilb, B., Raz-Liebermann, T., Katz, L. (2001). The role of technology in coaching: Enhancing the practice through education, drills databases, and practice planning, 5th World Congress, Cardiff, Wales, p. 26-29.
- Kruitbosch, G., Nack, F. (2008). Broadcast yourself on You Tube: really? Proceeding of the 3rd ACM international workshop on Human-centered computing, New York: Association for Computing Machinery, p. 7-10.

- L'Écuyer, R. (1990). *Méthodologie de l'analyse développementale de contenu : méthode GPS et concept de soi*. Québec: PUQ.
- Lange, P.G. (2009). Videos of affinity on YouTube. *in The YouTube Reader*, Stockholm: National Library of Sweden, p.70-88.
- Louveau, C. (2007). Le corps sportif : un capital rentable pour tous, *Actuel Marx*, 41(1), 55-70.
- Maffesoli M. (2000), *Le temps des tribus. Le déclin de l'individualisme dans les sociétés postmodernes*, Paris : La Table Ronde.
- Marcellini, A., Miliani, M. (1999). Lecture de Goffman. L'homme comme objet rituel. *Corps et culture* (4), <http://corpsetculture.revues.org/641>
- Neumann, G., Krzyzaniak, S. (2007). E-Coaching-an efficient measure of professional development for SCM solutions. *Log Forum*, 3(1), <http://www.logforum.net/vol3/issue1/no2>
- Payne, W.R., Reynolds, M., Brown, S., Fleming, A. (2003). Sports role models and their impact on participation in physical activity: a literature review, Victoria B.C.: University of Ballarat. <http://www.sportdevelopment.org.uk/index.php/subjects/55-researchsurveys/195>
- Praznocy C., Lambert C., Pascal C. (2017). *État des lieux de l'activité physique et de la sédentarité en France*, Paris : Observatoire National de l'Activité Physique et de la Sédentarité.
- Rheingold, H. (1995). *Les communautés virtuelles*, Paris : Reading, Mass.
- Recommandations mondiales sur l'activité physique pour la santé (2010), Organisation mondiale de la Santé, Genève: Editions de l'OMS.
- Rotman, D., Golbeck, J., Preece, J. (2009). The community is where the rapport is on sense and structure in the youtube community. *Proceedings of the fourth international conference on Communities and technologies*, University Park Pennsylvania: ACM Press, p. 41-50.
- Rotman, D., Preece, J. (2010). The WeTube in YouTube: creating an online community through video sharing, *International Journal of Web Based Communities*, 6(3), 317-333.
- Stover, C.M. (2014). *Elements of a sensibility: fitness blogs and postfeminist media culture*, Mémoire de maîtrise en communication, Austin: University of Texas.
- Wenger, E. (1999). *Communities of practice learning, meaning, and identity*. Cambridge : Cambridge University Press.
- Williams, J.M. (2009). *Applied sport psychology: Personal growth to peak performance*. (6th Revised edition éd.). London: McGraw-Hill Higher Education.

