SPORT AND SOCIAL MEDIA: ANALYSIS OF THE BRAZILIAN GYMNASTICS FEDERATION’S INSTAGRAM

ESPORTE E MÍDIA SOCIAL: ANÁLISE DO INSTAGRAM DA CONFEDERAÇÃO BRASILEIRA DE GINÁSTICA

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RESUMO
Dentre as possíveis linguagens das mídias sociais contemporânea, a onipresença das imagens elevou o sentido da comunicação on-line, e tem sido utilizada para moldar tanto identidades pessoais como de diversas instituições. Tais conteúdos visuais não são apenas artefatos de mídias sociais isolados e individuais, mas se cercam de debates e discussões que envolvem ideologias políticas, legais, dimensões econômicas, tecnológicas e socioculturais. Baseados na Análise de Imagem do Instagram e utilização do Cohen’s kappa para confiabilidade e validade dos dados, esta pesquisa analisou 2679 fotos postadas no Instagram da Confederação Brasileira de Ginástica (CBG). Como resultados, notamos a prevalência de postagens sobre ginástica artística (54,1%), seguida pela ginástica rítmica (31%), com foco na prática do alto rendimento (97%), divulgação de campeonatos internacionais (59,6%) e, cujo atleta (66%) foi protagonista. Esses achados apontam a necessidade de revisar o uso das mídias sociais no intuito de contempulhar as amplas ações da instituição, como a difusão de todas as modalidades ginásticas e seus diferentes eventos; nos diversos níveis de prática, sejam de alto rendimento ou de formação, assim como dando visibilidade a todos os atores do esporte.


ABSTRACT
Among the possible languages of contemporary social media, the ubiquity of images has heightened the sense of on-line communication, and has been used to shape both personal identities and institutions’ recognition. Such visual content is not only an artefact of social media isolated and individual, but surrounds itself with debates and discussions that involve political, legal, economic, technological and sociocultural ideologies. Based on Instagram Image and use of Cohen’s kappa for reliability and validity of data, this study analyzed 2679 photos that were posted on Instagram of the Brazilian Gymnastics Federation (CBG). As a result, we noticed the prevalence of artistic gymnastics (54,1%), followed by rhythmic gymnastics (31%), both within elite level focus (97%) specially on international events (59,6%) with greater appearance of athletes (66%). These findings reflect the need to review the use of social media in order to contemplate the broad actions of CBG, such as the diffusion of all gymnastics disciplines, as well as their different events at various levels of practice, giving visibility to all sports persons.

Keywords: Internet. Social media. Gymnastics. Information services.

Introduction

Technological innovations have always followed the development of humanity, however, with the appearance of computers, there was a vigorous remodeling of the media and communication¹ that led to what Santaella² called hybrid media ecology, that is, the formulation of new possibilities to produce, store and convey information in society that led to changes in the behavior of access and knowledge consumption. Traditionally, there was a hierarchy concerning the sender and receiver relationship. Nowadays, news has become a social welfare, since production and dissemination do not belong only to media companies and their journalists³.

Therefore, the social media (SM) is an important channel of communication and it significantly reaches the population. SM influences information and knowledge about an event and performs functions that expand the interaction among subjects who belong to
groups with common interests. Nevertheless, this language has been used, for example, to leverage the image of presidential candidates, influence political reforms, influence demonstrations and protests through mass communication, as well as reinterpret the traditionalisms of monarchies.

Among the existing languages of contemporary SM, the omnipresence of images has increased the sense of on-line communication and has been used to adapt both, personal identities and the ones of several institutions. Such visual content is not only an isolated and individual artifact, but it is surrounded by debates and discussions that involve political, legal, economic, technological and sociocultural ideologies. Therefore, the systematic and rigorous analysis on science in its use is imminent.

Brazil is a major consumer of these virtual environments, and it is considered one of the countries with the largest population in SM worldwide, since 85% of the 66.3 million Brazilians who access the internet use these networks. Data released by the website referred to as ‘Brasil Link US Media Consulting’, validated by the Brazilian Internet Steering Committee, highlight that young Brazilian internet users are leaders in the use of social media. In this sense, Facebook, Youtube, Whatsapp, Messenger and Instagram are the most accessed ones. Recognized as one of the most relevant media environments by a large portion of Brazilian youth nowadays, these spaces have signs of these young people’s sports culture, manifested with the logic and format of cybertulture.

The relationship between sport and the media has existed since the creation of both, and its approach was strengthened when sport events began to be broadcasted on television, accentuated with the popularization and democratization of the internet and the use of social media, which changed and created new communicative interactions among social actors.

Considering the sports field, its characters started using these instruments to propagate their actions with different purposes, such as speeches given in specialized programs or by spectators in general, the possibility of exchanging agents of certain body practices with the dissemination of images, training and meetings in general, and, finally, dissemination of activities and actions of those who regulate sports, such as national and international federations.

The characteristics related to socialization and communication among the participants of these virtual environments leverage communication projects and digital marketing campaigns, with a lower cost than traditional media. Such environments work in the sense of disseminating information, which is free, fluent, besides having informal language.

The issue related to low cost shows that the SM enable the massive reproduction of information in the form of digital files in different ways (audio, text, image and video). In addition to the economic issue, effective dialogue, plurality of actors and possibilities for collaboration in the construction of content, SM makes virtual environments important parts for the field of organizational communication and for sports marketing.

Therefore, the development of the SM has created new relationship dynamics in society; and sport, as a social phenomenon, has made regular use of this new technology precisely because it has an instant impact and allows the immediate contact of network users with new information about sport worldwide. Different sport actors, such as athletes, teams, managers, institutions, among others, began to massively use these new instruments as a means of propagating actions, tasks and negotiations.

Under this point of view, sports institutions make use of Instagram as one of their means of dissemination. There are currently 159 official accounts of sports confederations in the country on social networks, including Facebook, Twitter, Instagram and YouTube.

The Brazilian Gymnastics Confederation (Confederação Brasileira de Ginástica - CBG) is one of the institutions that most use the SM (10th place), with a total of 120,920 followers including all their accounts, especially Instagram with the largest number of...
followers. In addition to its official website, CBG makes use of three social networks, that is, Facebook, with about 53,000 followers, Twitter, with just over 3,000 followers, and Instagram, the most popular one among the institution's social networks, with approximately 64,000 followers. Instagram has the specificity of being focused on the capture and publication of images, in which photography is the principle of network interaction. It is possible to follow and be followed by other users, exchange likes, comment and share the photographs, which sets it apart from other networks. The application was created in 2010, and in the first months it had already reached the mark of one million users, having more than 50 million users nowadays.

CBG's Instagram account has existed since May 2013 and it is currently fed with almost daily posts. Through them people keep up to date on Brazilian gymnastics, its events and the main news related to the athletes. This network popularity in particular contributed to the selection of CBG's Instagram as the object of investigation of the present study in order to identify the dissemination of gymnastic modalities, actors and the events recommended in the media by this institution.

Methods

This is a descriptive quantitative research based on the Visual Social Media Method aimed at assessing the content (image and text) of the publications published on the Instagram social network of the Brazilian Gymnastics Confederation (@cbginastica).

All the posts made from May 2013 (top of page) to December 2016 were verified, that is, an Olympic cycle with a total of 2679 publications. In order to take the images as the theme of discussion and encode them, the Image Analysis methodological approach on Instagram was used. A detailed description of each photograph was organized in a Microsoft Office - Excel spreadsheet according to criteria and standards so as to elucidate what CBG points out in its statute, that is, CBG is a sports non-profit or economic association, with national and regional scope. In addition, this institution is responsible for directing, disseminating, promoting, organizing and improving Artistic Gymnastics, Rhythmic Gymnastics, Gymnastics for All, Aerobic Gymnastics, Trampoline Gymnastics and Acrobatic Gymnastics. Therefore, the present study aimed at assessing the images according to the modality, type of event, subject and practice level, as follows:

- Modality: regarding the gymnastic modalities portrayed on the publication - Men’s Artistic Gymnastics (MAG), Women’s Artistic Gymnastics (WAG), MAG/WAG (when the post was about both gymnastics at the same time), Rhythmic Gymnastics (RG), Trampoline Gymnastics (TG), Acrobatic Gymnastics (ACROG), Aerobic Gymnastics (AEG), Gymnastics for All (GFA), GYMNASTICS (all types of gymnastics and/or gymnastics in general and also when the post referred to two or more modalities together); others (for any other topic addressed besides gymnastics). It is emphasized that, in spite of the fact that the International Gymnastics Federation (IGF) includes the Parkour modality, such a modality was not considered in the research for two reasons: a. The inclusion of Parkour occurred after the Olympic cycle assessed in the present study, and b. CBG has not included it in its statute yet;

- Type of event: the type of event which the publication referred to - National Championship (any national competition, including National Tournament, Brazilian Championship, etc.), International Championship (any international competition, including World Championships, South American Championships, Pan-American Championships, Olympic Games, etc.), Festival (different national or international gymnastics festivals), Training (training given in clubs and training centers, internships, interchanges, etc.), Selective (events conducted to select gymnasts to be part of teams), Course (courses offered...
by the CBG or IGF, as well as courses which coaches, athletes, and managers have attended and/or have given as ministrants), Interview (interviews with athletes, coaches, managers in different media), Visit (the visits made to CBG headquarters, training centers, politicians, officials, etc.), Others (any post that does not fit in the previous ones);

Subject: the person the publication referred to - Athlete (an athlete, or different athletes gathered), Coach (coach or technical team), Manager (leader, head of delegation, president of Confederation, president of Federation, etc.), Referee (referee or arbitration panel), Public (crowd, fans etc.), Multiple (two or more subjects already mentioned, for example, the athlete, manager and coach), Others (when the subject who has posted something does not fit in any of the previous ones, for example, the photo is of a championship summary);

- Practice level: the practice level the post referred to - High performance (posts on competition events, trainings and high-level courses), Formative (posts on events, trainings and courses aimed at promoting the sport base, both on basic categories and non-competitive modality – GFA is considered as the base of gymnastics), Others (posts not related to the practice or when not applicable);

The data validity and reliability were obtained through Cohen’s kappa statistical analysis based on a sample of reliability and reproducibility of 250 images. The results showed the congruence of $k = 0.959$ for the modality; $k = 0.901$ for the type of event; $k = 0.889$ for subject and $k = 0.858$ for practice level. Such data confirm a significant consonance among coders$^{22}$.

After being collected, the data were grouped per year in the spreadsheets, and then a general spreadsheet was created, prioritizing the analysis of both, the main author of work done and the complete cycle in order to obtain a better visualization. Thus, they were accounted and treated using descriptive statistics.

### Results

Based on the data assessed, the results obtained are shown according to the criteria previously established. Modality was the first aspect. Out of the 2679 posts, the artistic gymnastics was highlighted, followed by rhythmic gymnastics. The trampoline gymnastics appeared as the third most posted one, although with a great difference from the first ones, as it can be seen in the graph below:

**Figure 1.** Distribution of posts on CBG’s *Instagram* per modality

*Source:* The authors
Another aspect assessed by this study concerns the type of event mentioned by CBG on its Instagram. Most of the posts showed the participation of the Brazilian teams in international and national championships, whereas events such as festivals and courses were rarely mentioned, as it can be seen in the graph below:

![Figure 2. Distribution of posts on CBG’s Instagram per type of event](image)

**Source:** The authors

This result is in accordance with the analysis carried out on the practice level of the photos posted. In 97%, that is, in 2598 out of the 2679 posts, the images on high performance were displayed, 2.3% corresponded to photos on other subjects, whereas only 0.7% of the photos showed the formative or massification level. For example, the festivals and training held at the Centers of Excellence, which are training centers for athletes financed by one of the main sponsors of Brazilian gymnastics from several regions of the country, in partnership with the state federations. It is understood that the feedback to investors can also happen with greater visibility of the social actions carried out in projects like this one, since effective contribution to the wide development of gymnastics in the country occurs due to the promotion of the sport base, beyond high performance.

Finally, regarding the subject criterion, the analysis pointed out the prevalence of posts related to the athlete, as it can be seen in the graph below:

![Figure 3. The protagonists on CBG’s Instagram](image)

**Source:** The authors
During the analysis it was seen that when two subjects appeared in the photo, the number of posts was only significant when they were the athlete and the coach, however, when they were other subjects, for example, an athlete and manager, the numbers represented less than 1% and were included in the multiple category. Thus, there was a great emphasis on the athlete and little enhancement of the other actors who contribute to the role of the athlete, such as the coach.

Discussion

The results shown mainly highlight the three Olympic modalities, that is, AG, RG and TG, with an emphasis on artistic gymnastics, thus, it means 54% that represents 1449 CBG’s Instagram posts in the period assessed, in contrast to the five posts of acrobatic gymnastics (0.2%), the least represented modality.

Some aspects can be considered to justify this disparity: some investigations point to artistic gymnastics as one of the most traditional sports in the international scenario, having been the first gymnastic modality included in the Olympic competitions of the modern era, besides having been on the scene since the first edition in 1896. In addition, Brazilian AG teams, especially men’s, have achieved important results in major international events, such as in Pan American Games, World Cups, World Championships and Olympic Games, and it is the only CBG sports event to have Olympic medalists. This greatly increases the national popularity of such a modality and might be one of the factors that lead to the large number of posts on Instagram.

Another significant aspect of this analysis is the fact that AG is divided into men’s and women’s modalities, having different punctuation codes and trials. Thus, they can be considered as two different modalities, that is, Women's Artistic Gymnastics (WAG) and Men's Artistic Gymnastics (MAG), just as the International Gymnastics Federation itself does. Considering this scenario, the results of the present analysis would bring a slightly different overview: RG would appear as the most posted modality with 31%, followed by MAG with 27.1% and WAG with 17.7%. Even so, AG and RG would continue as the modalities that have mostly been on the scene, an expected result, considering the significance given to them in terms of incentive and investment by CBG.

Rhythmic gymnastics, which has been on the scene in our country since the 1950s, can also be regarded as a very popular modality in Brazil. Included in the Olympic program in 1984 as individual trials, and in 1996 as group trials, RG has had great national prestige since the title obtained by the Brazilian group in the 1999 Pan American Games in Winnipeg, when they first won a place to compete in the Sydney Olympic Games in 2000. This aroused the interest of a large number of children to practice RG. Since then, the Brazilian team has won in the Americas and represented Brazil in editions of the Olympic Games (2004, 2008, 2016). Therefore, there was a great investment in the modality, including the creation of the National Rhythmic Gymnastics Training Centre in the city of Aracaju-SE, where CBG has its headquarters, in order to maintain the permanent selection of teams and raise the modality technical level.

In spite of also being an Olympic sport, trampoline gymnastics still does not have great national popularity. TG is more recent than AG and RG; it was institutionalized in 1964 with the creation of the International Trampoline Federation (ITF) and held its first world championship in the same year. Only in 1999 it was incorporated into the International Gymnastics Federation and CBG, becoming an Olympic sport in 2000. TG arrived in Brazil in 1975 and the country had its first participation in the World Championship in 1990, thus, very recent compared to RG and AG, which may justify its low popularity. Since its inclusion in the CBG, there has been slow and punctual progress in the modality, including material
investments and compliance with the international calendar. However, technical and arbitration courses have been scarce, both on the part of CBG and the state federations\textsuperscript{26}. The treatment of CBG in relation to the trampoline gymnastics and other modalities has also been questioned, when compared to RG and AG with regard to visibility, which corroborates with the results found in the present study.

Other gymnastics, such as aerobic gymnastics (AEG) and gymnastics for all (GFA), despite showing an excellent international performance, they are rarely among the modalities mentioned on CBG’s Instagram.

Awarded with several world titles, Brazilian AEG stands out in this modality international ranking, having been in first place in the ranking over a period of 10 years, until 1999\textsuperscript{30}. Despite the fact that the technical level of Brazilian athletes is very high, it is essential to form a base for the sport to progress in the country, since the number of athletes affiliated to CBG is still very small\textsuperscript{27}. However, aerobics is seen in the country with great potential to grow in number of practitioners because it is an accessible practice that does not demand the use of materials.

Gymnastics for all, a modality considered the basis for all gymnastics according to International Gymnastics Federation, has non-competitiveness as its main characteristics, thus, it does not have strict rules as the competitive gymnastics. In this sense, GFA provides a democratic practice that might contribute to the massification of gymnastics practice\textsuperscript{28}. In addition, GFA has a history of participation in Brazil with a large number of gymnasts in the World Gymnaestrada (WG) since its second edition in 1957, which is the largest GFA event in the world.

In comparison with the International Trampoline Federation’s profile on Instagram in July 2015, which was the month of the last World Gymnaestrada, CBG made seven posts about the event, the only ones during the four years of the Olympic cycle, whereas ITF showed World Gymnaestrada in photos 43 times that month. A manifestation by the gymnastics for all, with the potential to form and consolidate a gymnastic culture in the country, and capable of bringing together different practitioners regardless of age, sex or technical level, should be more disseminated and valued by the institution that promotes it.

Obviously, part of financial subsidies of the Brazilian Gymnastics Confederation, such as sponsors, comes from these modalities, mainly from AG and RG; however, social media posts are free and do not require high financial investments. It is possible to make as many posts as necessary daily. Efforts to disseminate the already consolidated gymnastics in order to maintain those who already admire these modalities should also be transferred to other modalities, since they are still rather unknown by the public due to fact that the sports media itself often ignores them. This imbalance regarding the promotion and development of gymnastics by CBG also exists in state federations, which are members affiliated to the Confederation. RG is on scene in 90\% of the federations, whereas AG appears in 76\%; TG and AEG appear with 23.8\%, and GFA and ACROG figure only in 19\% of state federations\textsuperscript{29}.

The Brazilian Gymnastics Confederation fulfills its role of organizing and regulating all modalities by holding different events and appointing its technical committees. In addition to these roles, it is believed that disseminating the modalities for the general public should also be a purpose so as to appear globally, and one of the ways for this to happen is through social media.

The focus on disseminating international and national championships suggests that the logic of the social media use by the institution is showing the results of the competitive participation of the modalities, mainly AG and RG. This is understandable, since it is essential to give feedback to sponsors in order to maintain investments to increasingly encourage Brazilian participation in competitions and other events.
The issue raised is that, as a non-profit sports organization, whose purpose is to develop the practice of Gymnastics throughout the national territory\textsuperscript{21} by organizing events, such as training, technical courses and festivals for the base category, CBG should also be widely disseminated as a portrait on the policy of diffusion and development of different gymnastics in the country. For example, the training of professionals should be provided in the fitness centers of the International Gymnastics Federation (Fundamentals of Gymnastics), whose participation in 2013-2016 has considerably increased\textsuperscript{30}.

The low representation of coaches suggests that the visibility given to them is not consistent with the importance of their role in the training and performance of gymnasts, which goes beyond the technical aspects. Regarding the discourse of the sports press about coaches, considering all the complexity of knowledge, skills and preparation required for the coaches to succeed in their career, it would be reasonable that the media analyzed their work in depth; however, a significant part of the news published about coaches does not have technical criteria for analyzing the performance of these professionals\textsuperscript{31}.

The scenario on depreciation regarding the gym coach in Brazil goes beyond visibility, and it is reported in investigations on women's artistic gymnastics and centers of excellence. When interviewed, some coaches pointed out their discouragement with lack of space to grow as trainers and depreciation related to low wages and poor infrastructure\textsuperscript{32}. These data were confirmed in a survey with technicians of excellence from the Brazilian women’s artistic gymnastics\textsuperscript{33}. This depreciation also affects the referees of the modality who, sometimes, do not receive wage, but only daily payment to cover costs. Despite dedicating several weekends of the year to attend the events of the modality, the referees still suffer pressure and stress regarding their performance\textsuperscript{34,35}.

Furthermore, it should be emphasized that it is common for managers involved in CBG, such as presidents of state federations, representatives of the technical committees of state and national modalities, to develop their work on a voluntary basis. Therefore, having their work highlighted on the entity's social media would be a way of recognition and motivation for them to continue working with gymnastics. Sometimes, studies recognize not only amateurism, but also the lack of interest of specialists in following sports management, also due to the little (if any) emphasis on the actions carried out in different fronts\textsuperscript{36,37}.

Finally, the volunteers who work at the events, whether regional or national ones, practically do not exist in the posts, which reflects the difficulty in implementing the culture of volunteering and highlights the intrinsic motivation of those involved in this type of work\textsuperscript{38}.

Considering the social significance of the media in the sports environment, regardless of the criteria analyzed in the present study, the role of any communication vehicle that intends to portray the reality of a sport is rather important, especially when it is linked to the institution that organizes the modality itself. This is due to the fact that, despite apparently only narrating events, the media actually builds opinions and values, and can even manipulate people\textsuperscript{31}.

Conclusions

The present study showed that the use of Instagram social media by the Brazilian Gymnastics Confederation, during the period investigated, gave priority to the gymnastics already consolidated and popularized (artistic and rhythmic gymnastics), as well as to international championships, focusing on the image of the athlete.

Nowadays, it seems essential to consider the influence of the mass media, such as the internet, when investigating the sports phenomenon\textsuperscript{1}. The professionalization of an athlete is influenced by individual predisposition and external aspects, one of which is the systematic exposure by the media of careers and victorious results. The current world sport culture
scenario disseminated through the media has increasingly been valuing victory, the record-breaking athlete and the human being with the best performance\textsuperscript{39}. Therefore, rethinking this scenario is necessary!

It is worth mentioning that, even though the sports federations need money for the commercialization of their products, they must seek a balance with the group of companies that sponsor and disseminate the modalities in order to maintain the sports memory and identity, besides preserving traditions, the institution fundamental principles, and not completely complying with the rules of a globalized market economy\textsuperscript{40}.

Therefore, it is believed that one of the fundamental principles regarding the role of the Brazilian Gymnastics Confederation is the dissemination of all gymnastics modalities that comprise it, as well as its various events (championships, tournaments, festivals, courses) and actors (athletes, coaches, referees, managers). Furthermore, the use of Instagram by the institution with all its social media potential in the sense of greatly reach the public should be rethought, so as to expand the dissemination of the different actions that CBG has already performed.

Although the data collected in the present study refer to a complete Olympic cycle, it is understood that the social media is highly dynamic and can undertake different profiles over time. Thus, further studies related to Instagram, other networks and entities should be carried out with the purpose of comparing and establishing a broader view on the sports dissemination on the social media in Brazil.

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