BODYBUILDING APPS AS BIOPOLITICAL DEVICES FOR EDUCATING THE BODY¹

APLICATIVOS DE MUSCULAÇÃO COMO DISPOSITIVOS BIOPOLÍTICOS DE EDUCAÇÃO DO CORPO

APLICATIVOS DE MUSCULACIÓN COMO DISPOSITIVOS BIOPOLÍTICOS PARA LA EDUCACIÓN CORPORAL

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ABSTRACT: This essay aims to question bodybuilding apps as contemporary spaces for body education as far as they act as biopolitical devices for the control and production of standardized bodies. To support this argument, we reflect on two bodybuilding apps that fall into the category called "health and fitness"; they are: "BodBot Personal Trainer" and "Exercícios em Casa – Sem Equipamentos" (Home Exercises - Without Equipment). We conclude that these devices have appealing powers that aim at the homogenization of corporal behaviors, the normalization of the body, and the government of the self. That is, roughly speaking, they are biopolitical devices.

KEYWORDS: Body education. Bodybuilding apps. Biopolitics.

RESUMO: O presente ensaio tem como objetivo interpelar os aplicativos de musculação como espaços contemporâneos de educação do corpo na medida em que atuam como dispositivos biopolíticos de controle e produção de corpos padronizados. Para sustentar tal argumento reflexionamos a partir de dois aplicativos de musculação que se enquadram na categoria denominada "saúde e fitness"; são eles: "BodBot Personal Trainer" e "Exercícios em Casa — Sem Equipamentos". Concluímos que esses dispositivos têm poderes apelativos que visam à homogeneização das condutas corporais, à normalização do corpo e o governo de si. Ou seja, grosso modo, são dispositivos biopolíticos.

PALAVRAS-CHAVE: Educação do corpo. Aplicativos de musculação. Biopolítica.

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RESUMEN: Este ensayo tiene como objetivo cuestionar los aplicativos de musculación como espacios contemporáneos para la educación del cuerpo en la medida en que actúan como dispositivos biopolíticos para el control y producción de cuerpos estandarizados. Para mantener tal argumento reflexionamos desde dos aplicativos de musculación que entran en la categoría denominada "salud y fitness"; son: "BodBot Personal Trainer" y "Ejercicios en casa — Sin equipo". Concluimos que estos dispositivos tienen poderes atractivos que tienen como objetivo homogeneizar la conducta corporal, normalizar el cuerpo y el autogobierno. En otras palabras, hablando a grandes rasgos, son dispositivos biopolíticos.

PALABRAS CLAVE: Educación corporal. Aplicativos de musculación. Biopolítica.

Introduction

The argument we want to make in this essay is that mobile health applications (*mHealth*)⁵ represented here by two bodybuilding apps ("BodBot Personal Trainer – Training instructor" and "*Exercicios em Casa – Sem Equipamentos* / Exercises at Home - Without Equipment") are biopolitical devices of control and production of "standardized" bodies. As Esposito (2017) reminds us, the contemporary political horizon is increasingly marked by biopolitical decisions, which, based on advanced knowledge and technologies, define and shape ways of life, both on an individual and social scale. In this perspective, the two selected body practices applications fit into this field and for this reason we will focus our analysis on them. With this writing, we intend to challenge the education of the body from a perspective focused on the present, aiming to "demystify" the idea of "truth" and concern for the health of the user produced from the discourse about the body in gym applications.

Thus, the present writing assumes that in the human and social sciences – therefore, in Education – bodies are not researched, but the body in the context of its practices, in the context of its social uses. Intending to investigate "bodies" to the detriment of their practices means reducing them to their natural and physical side, it is putting their biology ahead of the embodied social, it is confusing the natural with the naturalized (GALAK, 2014). In other words, the body can only be an object of study in Education from its practices that take it as an empirical field in the form of phenomena cut from these human cultural practices. This writing is also based on the concept of "body practices" with the intention of not reducing the body to a biologicist episteme that targets it solely and exclusively by the natural/biomedical sciences. Therefore, we understand the term from Crisorio (2015, p. 34, our translation) who

⁵ Although, according to the World Health Organization, there is no standardized definition, mHealth can be understood as the provision of medical and/or Public Health services that make use of the technological support of mobile devices, such as cell phones, sensors and other wearable equipment (in other words, devices directly connected to the user).



exposes the following reflection: "[...] we use the term bodily practices to mean a body that can never be separated from its practice, which can never be reduced to a natural substratum or a substantial principle, whether physical or biological".

Thinking about the body under the concept of "education of the body" is central to the approach we will make in this text. To understand the meaning of educating the body, we need to revisit Marcel Mauss' classic concept of body techniques. By "body techniques", Mauss (2015, p. 385, our translation) understands "the ways in which men, from society to society, in a traditional way, know how to use their body". In culturally transmitted body techniques, political discourses and aesthetic meanings are inscribed, thus, "educating a body" is to transmit to it political modes and aesthetic meanings (GALAK, 2014).

Before going into the more specific issues of this essay, it is worth mentioning that in contemporary times there is a growing obsession with shaping the body, with having a "healthy" and "beautiful" body. Thus, there is a huge demand for programs of corporal practices and for an endless number of devices that promise the achievement of this "body". However, all this excessive worry contrasts (almost paradoxically) with the fact that the body remains a devalued object. "Devalued" because the greater attention devoted to it and the countless practices to which it is subjected only solidify and reinforce its control; it seems that the body remains a simple consumer of goods and services, subjected to a regime of power. Thus, in the face of a neoliberal society, we question: What would gym applications be, if not spaces of domination and control, that is, contemporary biopolitical devices?

Here we understand device as "[...] anything that somehow has the ability to capture, guide, determine, intercept, model, control and ensure the gestures, conduct, opinions and speeches of living beings" (AGAMBEN, 2009, p. 40, our translation). Consequently, the author states that, as devices, they are always responsible for producing a subject. The subject would then be the result of the body-to-body relationship between the living and the devices (AGAMBEN, 2009).

The applications of bodybuilding practices - as well as all other applications that generate behaviors in the face of political uses of the body - are strategies that have the body as their object of discipline, government and regulation in the name of health, vitality and life. These applications are increasingly part of people's lives and act in the production and dissemination of regimes of truths about the body and about how to live life, acting both in an individualizing and massifying way (as previously mentioned).

The use of application-type software is a practice that has become very common in recent years. According to eMarketer data⁶, with the COVID-19 pandemic, home fitness companies have gained popularity as individuals have turned to mobile technology to receive health-related assistance. Analyzing the platform, we observe that Brazil occupies the 4th position in the ranking of countries that most use smartphones in the world. Therefore, with the increase in the use of smartphones, we believe that it is necessary to carry out more studies, especially about applications that propose to guide body practices, since it is a way of contributing to dialogue in the field of research not only in Education, but in other areas.

In order to achieve the already announced objective of this essay, we organized it from another three sessions in addition to this introduction that cuts the object and presents some key concepts of our study. In the second part we present the two bodybuilding apps "BodBot Personal Trainer - Training Instructor" and "Exercicios em Casa - Sem Equipamentos" for the third session to question them as biopolitical devices for body education. In the fourth and last part we make our final remarks.

About the "BodBot personal trainer" and "Exercicios em Casa - Sem Equipamentos" apps

Today, there's no denying that application functionality is immeasurable; there are applications for different types of needs and categories such as: games, music, education, health and fitness, among others. Nascimento, Martins and Victer (2013, p. 5, our translation) understand applications for mobile devices as:

> [...] applications, known generically as apps, are software that load specific functionalities on electronic devices to facilitate certain existing or new applications, such as, for example, a cell phone that, in addition to the original functions of making and receiving calls, also displays videos and serves as a book reader.

The advent and increasing profusion of these applications have contributed to the formation of new fields of knowledge, such as, for example, the case of mobile health (mHealth), which consists of the use of mobile computing and communication technologies

⁶ eMarketer is a subscription-based market research firm that provides insights and trends related to digital marketing, media and commerce. For more information access: https://www.emarketer.com/.



such as: cell phones, sensors and wearable equipment⁷ that are used for personal health care, for use by private institutions and for public health programs and actions (WHO, 2011).

In this essay, the selected applications fall into the category called "health and fitness"; they are: "BodBot Personal Trainer" and "Exercícios em Casa – Sem Equipamentos". We emphasize that both applications work as portable tools that provide training collections based on digital data that help users in the reconstruction of the "body" without leaving home. These apps intended for body education are dedicated to extracting and recording information about multiple body aspects of users. Also supported by the discourse of healthy living, knowledge and self-control, these applications present themselves as allies in managing body care, optimizing tasks and expanding perception of habits and patterns of physical activity through algorithmic analysis. Thus, they operate by establishing associations between bodies, algorithms and developers, promising individual guidance and prediction of future scenarios according to bodies of today.

For Sant'anna (2001), among other forms of interference on the body, technologies focused on the idea of health promotion have become trends and currently occupy the media, trivializing human life in a way: From this perspective:

[...] rebuild one's own body with the help of technological and scientific advances – cosmetics, surgeries, use of prostheses, gymnastics, diets, etc. – to gain more health and youth is still a fascinating promise at different times of civilization, but it was in the current one that it managed to conquer an unprecedented space in the media and an important trivialization in everyday life, both in large and small cities (SANT'ANNA, 2001, p. 18, our translation).

That said, we question: What body does a specific spatio-temporal configuration of knowledge and powers need? According to the author, there are different ways of understanding the consolidation of this configuration or tendency, one of which expresses man's ambitions to know, control the body and, at the same time, the limits and fragilities; exercising a kind of political management over it. As the body is captured, through the discourses produced by these applications, it is then a matter of probing the complexity embedded therein.

"BodBot" is an application developed by an American company, it proposes to be a digital personal trainer capable of developing personalized workouts according to the user's capacity and is available for Android and iPhone (iOS). The application also has the

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⁷ Deborah Lupton (2012; 2014) argues in her texts that there is a growing range of wearable objects that increase the monitoring of individuals and use health applications, such as shoes, clothes or devices embedded with sensors and even small cameras equipped to automatically take pictures during the day.

"nutrition" function, which records the user's food preferences and makes nutritional suggestions to reach the registered goal. Google Play⁸ defines it as:

BodBot is a true digital *personal trainer*, which creates tailor-made workouts considering your resources, physical capacity, desired difficulty and many other factors. Each workout is customized for each individual workout, and the schedule changes over time as you complete or skip workouts. Just like a good *personal trainer*, we customize your training program (GOOGLE PLAY, 2021a, author's highlights, our translation).

A fact that caught our attention in the analysis of this application concerns how the speech present in the description is directed. There is a kind of rhetorical force in the writing, capable of strategically inducing the individual to immediate adhesion, that is, the developer strives at the maximum level to capture everyone, from the first contact with the application, given that it promises specific care to each of its users, even those with some kind of "limitation", or those who have never had contact with any practice before. Let's see:

[...] limited movement in the shoulders? We can fix this. Are the back muscles less developed than the chest muscles? We take care of that too. Tight hamstrings too tight? Want to develop your biceps or glutes? Can you only train at short intervals during the week? *BodBot* helps you with all of this, and your workouts will be tailored to suit your needs. We strive to provide you with the best possible training program, and the best exercises. More than that, if you skip a workout or decide to walk, we'll include that information and update your program to accommodate the changes. The program lives and breathes with you and for you (GOOGLE PLAY, 2021a, author's highlights, our translation).

In the case of the application "Exercicios em Casa – Sem Equipamentos", it is developed by an Asian company, it offers mini-gym classes to help the user to practice physical activities without needing conventional gym equipment. The workouts use body movements and are displayed with illustrations and demonstration videos. The app is also available for Android and iPhone (iOS). The workouts provided by the app are separated by muscle groups and are divided into beginner, intermediate and advanced categories, which determines the time and intensity of the exercises. Each option is responsible for showing the user the exercises that must be performed by him through animated illustrations, text description, audio and a link to a demonstration video. These videos are not played within the platform itself – the link directs the "student" to a class produced by a third party in another

Bigital product sales platform. Available in: https://play.google.com/store/apps/details?id=com.bodbot.trainer&hl=pt BR&gl=US. Access: 10 Dec. 2021.



application. The app also has special workouts that can be unlocked by watching advertising videos. About the *Exercícios em Casa – Sem equipamentos* Google Play says:

Home Workout provides daily workout routines for major muscle groups. In just a few minutes a day, you'll be able to define your muscles and stay in shape at home without having to go to the gym. No equipment or trainer is needed, all exercises can be performed with just your body weight (GOOGLE PLAY, 2021b, our translation).

We highlight in the observation of this application, in addition to the appeal in the use of written verbal language, as similar to the previous one, there is a strong use of images. These caught our attention, considering that they are images of bodies that in today's society are considered "good", as the "standard to be achieved". But what is the "good body"? Could it be the ones in the picture? Let's see in figure 1:



Figure 1 – Image of the bodies used as a model in the application

Source: Google play (2021b)

We intend to develop some more in-depth reflections on the topic later. For now, it is worth mentioning that it is relevant to analyze the ways in which these applications for mobile devices have acted in the context of body education in its broad sense (GALAK, 2014; GOMES, 2019), whether in formal spaces (school, hospitals, basic health units) or non-formal spaces, considering that in the contemporary world, as Vaz (2003, p. 7, our translation) argues, "[...] it is important to think about the education of the body in this broader context in which body care is structured in the contemporary world; after all, the body is educated in schools [...] but also in the streets, on TV, in illustrated magazines".

Applications as biopolitical body education devices

In his work "Corpo e Sentido" (Body and Sense) José Bártolo makes an intersemiotic reading of the processes of meaning of the body associated with practices and discourses. In the author's conception, all knowledge is produced within a system of communication, of signs and all power is exercised from the extraction, appropriation, distribution or retention of knowledge. According to him:

A certain regime of signs will always be associated with a certain regime of power, which is, above all, semiotic power: the power to make sense. The power to make sense that is exercised over a given body exerts sense to objectify it, make it an object, model it according to a particular construction of meaning. It is this dynamic of production of sense related to a certain power-to-do and power-to-know that we call production, associating it to the action of a certain semiotic machine (BÁRTOLO, 2007, p. 52, our translation).

Understanding the body as a field of meaning production, as conceived by the above-mentioned author, it seems impossible to project in advance a scheme of recognition, meaning or classification outside the body. In this way, studies that deal with signs in relation to culture show us that it is in the body itself, in what is irreducibly unique, that it is possible to visualize the modes of agency and the singularities that make it signify (BÁRTOLO, 2007).

However, if educating the body is to transmit to it political modes and aesthetic meanings, as suggested by Galak (2017), our intention is to analyze how bodybuilding apps, as biopolitical devices, conceive and signify discourses about the body from their own logic. the way to "educate" these bodies. This leads us to understand that the applications "BodBot Personal Trainer" and "Exercícios em Casa – Sem Equipamentos" take the body as an object and are responsible for the transmission of "body techniques", in the sense used by French sociologist and anthropologist Marcel Mauss. To stress the use of these technological devices, from the perspective of biopolitics, is to try to demobilize some discourses that enclose the body in the mechanistic notion.

Therefore, it would be annoying, or perhaps too "outrageous" to say that they would not be responsible for the political and aesthetic management of the "body to be educated". Or, would it? It is the discourse produced by these applications that interests us. Therefore, it is by carrying out a more detailed observation in the applications themselves, that it may be possible to visualize the modes of agency and the operations carried out on the body, which somehow aim at its instrumentalization, for a certain purpose: adequacy, standardization.

Henceforth, we understand that the body does not exist outside politics, outside the word. That way, "to turn the body into an object of study is to give word to that language, it is to make speak the conjunctural meanings granted to the ways in which subjects and politics are conceived" (GALAK, 2014, p. 357, our translation). Thus, "knowing the body", "about what to educate about the body" beyond the idea that seems to reduce it to the category of organism, is to understand it within the social fabric through which the senses transit, since we deal with the speaking body of speaking beings, of the body "that speaks". As we have seen, it is a matter of knowledge, and this knowledge leads us to reflect on the dimensions of politics and politics related to the education of the body. So, the politics "it is a matter of speaking bodies because they would not speak if they did not have a body. But, in turn, if they only had bodies and did not speak, they would not need politics" (MILNER, 2013, p. 12, our translation).

Continuously, thinking about the policy aimed at the education of the body is to understand it as a maneuver device that uses the teaching/learning processes for the control and formation of specific subjectivities (GALAK, 2017). In this sense, looking at the techniques/technologies and the discourses produced by them, implies considering, first of all, the understanding of the arrangements between different entities, so that the "technical" character reveals itself to be inserted in a political agenda. Thus, we understand that "educating the body" in a biomedical view, which the developers of these applications are guided by, is to understand them as biopolitical control resources.

Furthermore, in a scenario of the rise of new technologies in which the body becomes increasingly manipulable matter, it is necessary to face these "truths" produced by digital platforms to understand the ways in which this knowledge and practices have been building meaning and perpetuating power relations within society, about what the body can do. As Bártolo (2007) reminds us, where a body is found, a network of instrumental relationships must also be found, a series in operation, of epistemic operators, a logic of production of meanings, of a certain legitimizing sense of the network of relationships, of the operation of operators, of the very procedure of productive logics. Although the verb "to educate" is a very present object, body education is not restricted to the school environment with its particularities.

In addition, the idea of control and management of bodies through the establishment of rules gains strength in modernity and is present in the studies of Michel Foucault (2005; 2008a; 2008b; 2013). The analysis that the French philosopher performs about the relations and technologies of power over the body, brings up the concepts of biopower and biopolitics

for debates and discussions on different strategies for the control, regulation and education of the body. In his genealogy, Foucault leads us to the understanding that this historical period in particular was responsible for establishing specific policies for the control and regulation of bodies, including in the sense of creating a dominant disciplinary power. In Foucaultian terms:

A policy of coercion is then formed, which is a work on the body, a calculated manipulation of its elements, its gestures, its behaviors. The human body enters a machinery of power that scrutinizes it, dismantles it and recomposes it. A 'political anatomy', which is also a 'mechanics of power', is being born, it defines how one can have dominion over the bodies of others, not simply to do what one wants, but to operate as one wants, with the techniques, according to the speed and efficiency that is determined. Discipline thus manufactures submissive and exercised bodies, 'docile' bodies. Discipline increases the forces of the body (in economic terms of utility) and diminishes those same forces 'in political terms of obedience' (FOUCAULT, 2005, p. 119, our translation).

In the author's conception, educational institutions – State, school, religion, hospital, prison, family, etc. – do not only function as spaces for the circulation of bodies. All these institutions are structured as spaces/times of (re)production and education of bodies; seeking to maintain a desired order. From what Foucault exposes, we venture to say that the applications would constitute digital spaces, strategically designed for the education and production of bodies. From this perspective, "[...] the Folded Being is not a matter of bodies, but of manufactured places" (ROSE, 2001, p. 50, our trnaslation) and these places act pedagogically and politically for the transmission of a set of body techniques, gestures, habits, cultural ways of behaving and using the body (MAUSS, 2015).

However, from the second half to the end of the 18th century, Foucault pays attention to the emergence of another technology of power, which incorporated into these disciplinary and individualizing techniques the population, the events of people's lives, the biology of these bodies. With the entry of the biological body into the field of politics and the State in the mid-eighteenth century, a series of power techniques centered on the lives of men were then inaugurated, creating strategies that went from individualizing to massifying, thus becoming a biopolitics (FOUCAULT, 2005). In short, biopolitics constitutes a technology aimed at the multiplicity of men insofar as it forms a global mass, impacted by the processes that are characteristic of the lives of individuals, such as birth, death, production and disease.

In view of this, the development of biopolitics aims, as Foucault (2013) pointed out, to intervene in social phenomena in order to control, stimulate or reduce them. As an example, the development of statistical tools that allow the monitoring of birth, mortality and longevity

rates; the expansion of social assistance institutions aimed at the elderly and infirm who are unable to work; the creation of health, life, savings and retirement plans. Thus, biopolitics considers the management of births and deaths; birth rates; monitoring the life expectancy of populations and other forms of social control. In this way, Foucault highlights:

[...] without a doubt, the biological is reflected in the political; the fact of living is no longer this inaccessible support that only emerges from time to time, in the case of death and fatality: it falls, in part, into the field of the control of knowledge and the intervention of power. (FOUCAULT, 2013, p. 155, our translation)

For the author, the biological existence of individuals is cared for and fostered. For this, "[...] power is situated and [is] exercised at the level of life, species, race and massive population phenomena" (FOUCAULT, 2013, p. 149-150, our translation), managing and organizing life and the productive forces of the population: "[...] it is on life and throughout its development that power establishes its fixation points" (FOUCAULT, 2013, p. 151, our translation). Therefore, Foucault (2008; 2013) understands Biopower as a technology of power over the lives of individuals and the population, and this in turn acts on two levels: One centered on the body (individualizing) and the other centered on controlling the lives of individuals, in terms of population.

Now, seen from this angle, the investment in the body values life, which needs to be maintained and prolonged. From the reading of Foucault, this was possible thanks to the implementation of biopower devices.

Nikolas Rose (2013), when reflecting on the present about biopolitics – the politics of life itself in the 21st century – endeavors to analyze the new nuances arising from the way of managing life today, differentiating them from those analyzed by Foucault. For the author, biopolitical strategies through the 20th century started, more specifically in its final part, to acquire different and renewed contours on the population. Nikolas Rose emphasizes that among the themes of this contemporary politics of life, some are already known, while others are new; as an example of this novelty, he cites the changes that have taken place in the rationalities and technologies of government. In his view, "[...] mainly in the transformations in the provision of safety, well-being and health" (ROSE, 2013, p. 16, our translation). According to him, among the other fields, these changes were more eloquent in the field of health:

As human beings come to experience themselves in new ways as biological creatures, as biological selves, their vital existence becomes the focus of

government, the target of new forms of authority and expertise, a highly cathexis for knowledge, an expanding territory for bioeconomic exploration, an organizing principle of ethics and a commitment to a life policy (ROSE, 2013, p. 17, our translation).

Among the processes responsible for instituting the new bases of contemporary biopolitics addressed by Rose, we are interested in quickly punctuating one of the five paths, which for him, are undergoing significant mutations: the economies of vitality. In this regard, the author mentions that:

> [...] Fifth, vitality savings. Strengthened by the search for biovalues, new bonds were formed between truth and capitalization, the search for shareholder value and the human value invested in the hope of cure and optimization. A new economic space was outlined – the bioeconomy – and a new form of capital - biocapital. Former actors, such as pharmaceutical corporations, have been modified in their relationship to science, on the one hand, and to the stock market, on the other. New actors, such as biotechnology start-ups, have emerged, often seeking to emphasize their corporate social responsibility and reconciling themselves, in various ways, with forms of citizenship and expertise. Life itself has become malleable to these new economic relations, while vitality is decomposed into a series of distinct and discrete objects - which can be isolated, delimited, stored, accumulated, mobilized and exchanged, to which discrete valuecan be attributed, traded across time, space, genres, contexts, companies - serving many different goals. In the process, a new geopolitical field took shape, and biopolitics became inextricably intertwined with the bioeconomy. (ROSE, 2013, p. 20, our translation).

As announced by Rose, there is currently an economy that turns and encompasses life, which is responsible for the management and generation of biocapital, the latter coming from technological and biomedical advances. The body, as a territory, is a place of demarcations, a topography (topos) of politics, a space of identification through observable characteristics, as well as through languages that provide a capacity for representation. For this reason, Foucault's studies and Rose's contributions are important for understanding the body as a place where power devices operate.

Mobile bodybuilding applications, as biopolitical devices, are responsible for managing not only the user's body (which remains subordinate to the developer's program, which controls the bodies via reports that are required by the application itself) but also for managing the user's body in the condition of student and apprentice of the practice, who, assuming such a role, seems "obliged to remain passive" and just follow the program. The application is the one who commands, the user/student obeys. It dictates the time, start and end of the activity. Following the orders of the app "Exercícios em Casa – Sem equipamentos", during use:

During classes, the user must reproduce the movements shown on the screen. A countdown shows how long the user should do that exercise, with a text and audio countdown. The app also shows the rest time between one activity and another (GOOGLE PLAY, 2021b, our translation)

The "BodBot" application claims to control the user's routine, including even unexpected changes that may occur and that make it impossible for the student to fulfill the plan for various reasons, such as: having a sleepless night, not fulfilling the activity because of some physical limitation etc. For application developers, the student should not worry about anything, it is up to the application to take care of everything "[...] BodBot takes care of these changes for you" (GOOGLE PLAY, 2021a, our translation).

the assemblage of space will correspond to the problem of organizing a "medium" that allows the circulation of things and people. Normalization, in turn, will refer to the regulatory mechanisms that act on general life processes. And the body to be singled out as the object and subject of the mechanisms of power is the collective body of populations (FONSECA, 2011, p. 242, our translation).

This homogeneity of the action of the devices is even explicit in the arguments used in advertising them on the platforms where they are available. For users, the developers say that it motivates them to achieve their health and fitness goals, "[...] BodBot will use every drop of your sweat to help you get the results you want" (GOOGLE PLAY, 2021a, our translation). In the case of "Exercícios em Casa – Sem Equipamentos", the speech follows the same appealing line, "[...] do our exercises and you will notice a change in your body in just a few weeks" (GOOGLE PLAY, 2021b, our translation). The appeal is: "invest in health", but would the companies that develop the applications be truly concerned about the health of users? It is worth reflecting on what these companies mean by "health/healthy".

Based on this understanding of the political technology of the body, on the analysis of powers and on biopolitics, we ask how the real relationship between exercise and health is established and also how it is possible to understand lifestyles in this process of constitution of subjects, which never ends in completion and which transits through modalities of subjection and resistance (NÓBREGA, 2011, p. 410, our translation)

Regarding the body pattern marketed, it seems to fit what they call a "good body". The application "Exercicios em casa – Sem equipamentos", emphasizes that it is not because the activity lasts only a few minutes that the user will not reach the desired "goals", because following the routine planned in the application, "[...] will help you getting a six-pack at home" (GOOGLE PLAY, 2021b, or translation).

These applications demonstrate control over users' lives and bodies and generate data for the development of new strategies for mastering and maintaining biopower, given that they capture the habits narrated from the testimonies extracted from users.

Therefore, the plurality of agendas and interests that integrate the platforms that promote these education and body monitoring applications is not only related to the data visualization interfaces and the objects they carry with them. Together, applications, data and bodies make up a wide network of entities – companies, algorithms, servers, plans, etc. – that produce bodily experiences as a source of financial value and test bed for the refinement of control systems, that is, act as biopolitical devices. As we stated earlier, these applications, as biopolitical devices, establish specific methods based on digital prescriptions that aim to model behavior through detailed access to information about the habits and physical performance of bodies, with a view to biocapital for maintenance of the control network.

Final considerations

This essay tried to demonstrate how bodybuilding apps, supported by the discourse of "healthy living" and "knowledge and self-control", act as biopolitical devices for the education of the body, disseminating political discourses and aesthetic meanings. To support this assumption, we used as a background two applications⁹ "BodBot Personal Trainer: Training Instructor" and "Exercícios em Casa – Sem Equipamentos". "As said, throughout the essay, we seek to understand the applications as managers of behavior, that is, as an instrument for educating the body. In this sense, we observed that the analyzed applications extract from the body attitude the "doings that produce knowledge" that, in turn, will update the users' ways and bodies. We note that these devices have appealing powers aimed at homogenizing conduct, normalizing and self-government. That is, roughly speaking, they are biopolitical devices.

We also venture to say that applications are experiments, epistemological instruments designed to know through the experience of those who use them. Thus, through experiences and monitoring routines, application developers and users learn about bodies, teaching them to incorporate when "moving". "In the exercise, in bodily practices, subjects can find spaces for the production of technologies of the self that allow work on the body and soul" (NÓBREGA, 2011, p. 412, our translation). In this way, the ways of "acquiring a body" are revealed, while also revealing methodological procedures and alternative ways of incarnating

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⁹ We selected these apps for having the "best rating" according to users on the Google platform – Play Store.

and controlling the body through digital data. It is what Nicolas Rose calls "[...] hybrid assemblies of knowledge, instruments, people, judgment systems, buildings and spaces, guided, at the programmatic level, by certain assumptions and objectives about human beings" (ROSE, 2001, p. 38, our translation).

Falar sobre o corpo "controlado via dispositivos biopolíticos" no atual cenário tecnológico é também tensionar algumas questões que se desdobram num projeto de "exaustão" e "retirada de potência" do corpo. "[...] os corpos não se formam mais, mas cedem progressivamente a toda sorte de deformações.... É como se tocássemos a própria definição do corpo: o corpo é aquele que não aguenta mais, aquele que não se ergue mais" (LAPOUJADE, 2002, p. 82). O autor, fala de um corpo "esmorecido", "prostrado" diante da vida; um corpo diminuído, controlado e preso a amarras que lhes são impostas por modelos estrategicamente desenvolvidos para a manutenção dos poderes através dos mais variados dispositivos biopolíticos.

REFERÊNCIAS

AGAMBEN, G. O que é o contemporâneo? E outros ensaios. Chapecó: ARGOS, 2009.

BÁRTOLO, J. Corpo e sentido: estudos intersemióticos. Portugal/Covilhã: Livros LabCom, 2007.

CRISORIO, R. Actividad física versus prácticas corporales. *In*: E. Galak y E. Gambarotta (Eds.). **Cuerpo, educación y política**: Tensiones epistémicas, históricas y prácticas. Buenos Aires, 2015.

ESPOSITO, R. **Bios**: biopolítica e filosofia. Trad. Wander Melo Miranda. Belo Horizonte: Editora UFMG, 2017.

FONSECA, M. A. Entre a vida governada e o governo de si. *In*: ALBUQUERQUE JÚNIOR, D. M.; VEIGA-NETO, A.; SOUZA FILHO, A. (org.). **Cartografias de Foucault**. 2 ed. Belo Horizonte: Autêntica Editora, 2011. p. 241-252.

FOUCAULT, M. **História da Sexualidade I**: a vontade de saber. 23. ed. Rio de Janeiro: Edições Graal, 2013.

FOUCAULT, M. Segurança, território e população. São Paulo: Martins Fontes, 2008a.

FOUCAULT, M. **Nascimento da biopolítica**. curso dado no Collège de France (1978-1979). Trad. Eduardo Brandão São Paulo: Martins Fontes, 2008b.

FOUCAULT, M. **Vigiar e Punir**: história da violência nas prisões. Petrópolis, RJ: Vozes, 2005.

GALAK, E. Construir el cuerpo: cuatro consideraciones epistemo-metodológicas y tres metáforas para pensar el objeto de estudio 'cuerpo'. **Poiésis: Revista do Programa de Pós-Graduação em Educação da UNIVALI**, Tubarão, v. 8, n. 14, p. 348-364, jul./dez. 2014. Available: http://www.portaldeperiodicos.unisul.br/index.php/poiesis/article/view/2294. Access: 03 Sep. 2021.

GALAK, E. La curricularización del cuerpo. *In*: CRISORIO, R.; ESCUDERO, C. (org.). **Educación del cuerpo**: currículum, sujeto y saber. La Plata, Argentina: Editora da Universidad Nacional de La Plata, 2017. p. 191-198.

GOMES, I. M. Corpo, consumo e bioidentidades: trajetória de pesquisa e perspectivas analíticas na formação do indivíduo saudável. **Revista Tempos e Espaços em Educação**, v. 12, n. 28, p. 127-140, jan. 2019.

LAPOUJADE, D. O corpo que não aguenta mais. *In*: LINS, D.; GADELHA, S. (org.). **Nietzsche e Deleuze**: Que pode o corpo. Rio de Janeiro, 2002. p. 81-90.

LUPTON, D. Apps as Artefacts: Towards a Critical Perspective on Mobile Health and Medical Apps. **Societies**, n. 4, p. 606–622, 2014. Available: https://www.mdpi.com/2075-4698/4/4/606/htm. Access 29 Aug. 2021.

LUPTON, D. M-health and health promotion: The digital cyborg and surveillance society. **Social theory e health**, v. 10, n. 3, p. 229-244, 2012. Available: https://www.researchgate.net/publication/263327941_M-Health_and_Health_Promotion_The_Digital_Cyborg_and_Surveillance_Society. Access: 27 Aug. 2021.

MAUSS, M. As Técnicas Corporais. *In*: MAUSS, M. **Sociologia e Antropologia**. 2. ed. Trad. Paulo Neves. São Paulo: COSAC NAIFY, 2015. p. 397-420.

MILNER, J-C. **Por una política de los seres hablantes**: breve tratado político II. Olivos: Grama Ediciones, 2013.

NASCIMENTO, H. J.; MARTINS, H. G.; VICTER, E. F. Aplicativos para dispositivo móvel: entendendo o conceito de função matemática. *In*: CONGRESSO INTERNACIONAL DA ASSOCIAÇÃO BRASILEIRA DE EDUCAÇÃO A DISTÂNCIA, 19., 2013, Duque de Caxias. **Anais** [...]. Duque de Caxias, 2013.

NÓBREGA, T. P. O exercício dos corpos na cidade: o espaço, o tempo, o gesto. *In*: ALBUQUERQUE JÚNIOR, D. M.; VEIGA-NETO, A.; SOUZA FILHO, A. (org.). **Cartografias de Foucault**. 2. ed. Belo Horizonte: Autêntica Editora, 2011. p. 407-418.

GOOGLE PLAY. **BodBot Personal Trainer**: Instrutor de treinamento. 2021a. Available: https://play.google.com/store/apps/details?id=com.bodbot.trainer&hl=pt_BR&gl=US. Access: 30 Aug. 2021.

GOOGLE PLAY. **Exercícios em casa**: Sem equipamentos. 2021b. Available: https://play.google.com/store/apps/details?id=homeworkout.homeworkouts.noequipment&hl= pt BR&gl=US . Access: 30 Aug. 2021.

ROSE, N. **A política da própria vida**: biomedicina, poder e subjetividade no século XXI. São Paulo: Paulus, 2013.

ROSE, N. Como se deve fazer a história do eu? **Educação e realidade**, vol. 26, n. 1, 2001, p. 33-57. Available: https://seer.ufrgs.br/educacaoerealidade/article/view/41313. Access: 03 Sep. 2021.

SANT'ANNA, D. B. É possível realizar uma história do corpo? *In*: SOARES, C. L. (org). **Corpo e História**. Campinas, SP: Autores Associados, 2001.

VAZ, A. F. Da polifonia do corpo à multiplicidade de sua educação. **Perspectiva – Revista do Centro de Ciências da Educação**, Florianópolis, v. 21, n. 1, p. 7-11, jan./jun. 2003. Available: https://periodicos.ufsc.br/index.php/perspectiva/article/view/10195. Access: 23 Aug. 2021.

WHO. World Health Organization. **mHealth**: new horizons for health through mobile technologies: based on the findings of the second global survey on ehealth. Geneva: 2011. (Global observatory for eHealth series, 3). Available: https://apps.who.int/iris/bitstream/handle/10665/44607/9789241564250_eng.pdf?sequence=1 &isAllowed=y. Access: 30 Aug. 2021.

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