



RESEARCH

## Civil Liability For The Use Of Data In The Fashion Industry

A Responsabilidade Civil Pelo Uso de Dados na Indústria da Moda

Responsabilidad Civil Por el Uso de Datos en la Industria de la Moda

*Aline Ferreira Pedro<sup>1</sup>, Yann Paranaguá Selle<sup>2</sup>, Patricia Ribeiro Serra Vieira<sup>3\*</sup>*

### How to quote this article:

Pedro AF, Selle YP, Vieira PRS. Civil Liability For The Use Of Data In The Fashion Industry. Rev Prop. Intelec. Online. 2019/2020 Sep./Feb.; 2(2):111-116.

### ABSTRACT

The article characterizes the emergence and massification of the use of Artificial Intelligence (AI) and examples of software applications are used that employ AI in the fashion industry and identify the applicable jurisprudence and legal provisions for data protection regarding the consumption of textile products through digital applications. The Constitution of the Federative Republic of Brazil, the current Civil Code, the Consumer Defense Code, the Brazilian Civil Framework of Internet and the General Data Protection Law ensure that human dignity cannot be violated. Those who violate this guarantee are held responsible for the use of data collected using AI.

**Keywords:** Artificial intelligence, Brazilian civil rights framework for the internet, Human dignity, Consumer relationship.

<sup>1</sup> MSc student in Intellectual Property and Innovation at the Academy of the *Instituto Nacional da Propriedade Intelectual (INPI)* [National Institute of Industrial Property], member of the Intellectual Property Research Group at the *Universidade Federal do Estado do Rio de Janeiro (UNIRIO)* and technician in Industrial Property at *INPI*.

<sup>2</sup> Law undergraduate student and member of the Intellectual Property Research Group at the *Universidade Federal do Estado do Rio de Janeiro (UNIRIO)*.

<sup>3</sup> MSc in Constitutional Law and Theory of the State from the *Pontifícia Universidade Católica do Rio de Janeiro (PUC/RJ)*, PhD in Civil Law from the *Universidade do Estado do Rio de Janeiro (UERJ)*, Judge of the *Rio de Janeiro State Court of Justice (TJERJ)* and full professor at the *Universidade Federal do Estado do Rio de Janeiro (UNIRIO)*, where she develops teaching and research projects, respectively, on the themes Constitutional civil liability: the objectification of civil liability in Brazilian Law and Intellectual Property, acting in graduation and master courses, Founding member of the *Academia Brasileira de Direito Civil (ABDC)* [Brazilian Academy of Civil Law] and honorary member of the *Instituto de Advogados do Brasil (AIB)* [Brazilian Lawyers Institute], Vice-president of the *Comissão de Formação e Aperfeiçoamento de Magistrados (COMAM)* [Commission for the Training and Improvement of Magistrates] and responsible for the discipline General Part of Civil Law of the Specialization Course in Public and Private Law, both at the *Rio de Janeiro State Magistracy School (EMERJ)*, Vice-president of the Study Group on Civil Law of the Institute of Magistrates of Brazil (IMB - triennium 2019-22).

## RESUMO

Este artigo trata do surgimento e da massificação do uso da inteligência artificial (IA), recorrendo a aplicações de softwares que utilizam IA na indústria da moda e identificando os dispositivos legais e a jurisprudência aplicável para a proteção de dados, quando do consumo de produtos têxteis por meio de aplicações digitais. A Constituição da República Federativa Brasileira, o Código Civil vigente, o Código de Defesa do Consumidor, o Marco Civil da Internet e a Lei Geral de Proteção de Dados garantem a inviolabilidade da dignidade da pessoa humana, responsabilizando aquele que viola essa garantia quando da utilização dos dados coletados por meio de IA.

**Palavras-chave:** Inteligência artificial, Marco civil da internet, Dignidade da pessoa humana, Relação de consumo.

## RESUMEN

Este artículo aborda el surgimiento y el uso generalizado de la Inteligencia Artificial (IA), utilizando aplicaciones de *software* que usan IA en la industria de la moda e identificando dispositivos legales y jurisprudencia aplicable para la protección de datos cuando se consumen productos textiles. a través de aplicaciones digitales. La Constitución de la República Federativa de Brasil, el Código Civil vigente, el Código de Protección al Consumidor, el Marco Civil de Internet y la Ley General de Protección de Datos garantizan la inviolabilidad de la dignidad de la persona humana, responsabilizando a quienes violen esta garantía al usarla. de los datos recopilados a través de IA.

**Palabras clave:** Inteligencia artificial, Marco civil de internet, Dignidad de la persona humana, Ratio de consumo.

## INTRODUCTION

### I. Theoretical framework of Artificial Intelligence (AI)

A term created by John McCarthy in 1956, Artificial Intelligence (AI) seeks to simulate human reasoning ability in machines and can be applied in the most diverse fields, from medicine and the financial market to digital communication and fashion. It is useful, for example, both in targeting personalized advertising and in generating logistical routes.

AI gained popularity with the Defense Advanced Research Projects Agency (DARPA) and, among its scholars, some believe that it can only operate logically and rationally, not being able to reason on its own (commonly called weak AI), and those who believe that the machine acts in a creative way, similar to the human person (the so-called strong AI). This last conception (humanized of the machine) is the one defended by Alan Turing (1950).

The theory about AI is part of the basis for computer science, being used to generate the human-computer interface. AI is the source for studies and applications related to machine learning, in which it can react to external stimuli independently of human action, proposing to solve various problems autonomously, as well as to replace man in some from their usual tasks. It is from the 2000s that AI started to show a growth trend within the field of computer studies.

Computer programs related to AI are protected by

Law No. 9.610/1998 (Copyright Law), in its art. 7, and by Law 9.279/1996 (Industrial Property Law), in its art. 8, the provision of art. 10.

AI also raises great discussions about privacy, because, for it to develop, it is necessary to feed it with relevant data, including access to private data of users of these programs. Privacy is protected by the Constitution of the Federative Republic of Brazil, in its art. 5, item X, and by art. 7 of Law No. 13.709/2018 (General Data Protection Law - GDPR), which takes care of the processing of the personal data provided. Art. 6 of the same law deals with the principles to be followed by those who take care of the processing of people's data.

The right to privacy is also part of the Brazilian legal system in articles 20 and 21 of the Civil Code; it is even certain that any form of injury to the constitutional subjective right to human dignity will result in moral damage.

Programs that use AI fall under art. 5, item VII, of the Civil Framework of Internet. In the understanding of Teffé *et al.* (2017), "internet application providers can be understood as the person who provides a set of functionalities that are accessed through a terminal connected to the internet and appear to encompass traditionally called content providers [...] and hosting".

Therefore, AI guardians assume responsibilities in the form of Articles 19, 20 and 21 of the Civil Framework of Internet. Article 41 of the GDPR deals with the person in charge of processing the data used by the AI; and articles 42 to 45 of the same law deal with civil liability for damages caused by the violation of the GDPR.

### II. Fashionable AI framework and brief usage history

In 2000, International Business Machines (IBM) had four lines of AI study in its research center, including Vision (Apte *et al.*). The researchers were trying to create an AI capable of recognizing visual patterns, with a focus on facial patterns for security systems and video navigation. "Methods to recognize objects even when they were partially covered up" were also developed (Apte *et al.*, 2000, p.54, free translation). Its initial applicability was in the creation of "vision systems for applications ranging from biometrics, moving from video navigation to automatic object recognition in supermarkets" (Apte *et al.*, 2000, p. 54, free translation).

In the fashion industry, all the AIs used need the standard of visual recognition, so AI Vision was fundamental, as it allowed the development of the necessary technology for this sector. With this tool, it became possible to identify the user's body patterns so that the AI system indicates the most suitable clothing for the customer. It is also through it that AI programs recognize and catalog colors, patterns, types of clothing and, in this way, they can set up a scenario of trends for fashion forecasting companies. The relationship between visual artificial intelligence and the world of fashion

is clear, since fashion consists of materializing an ideal of aesthetic beauty, in other words, the beautiful.

It is pointed out that, from the year 2000 until today, the capacity of visual AIs has been improved. And, as a result, several business companies launched their AI solutions in the fashion market from the middle of the decade of 2010.<sup>1</sup>

Some uses of AI in the fashion industry are still being tested, as is the case of the virtual fitting room of the American company Amazon (Hess, 2018). This tool allows you to visualize how the clothes look on the customer's body, without having to go to the store to try on them. Another technology still under development by Amazon is the Generative Adversarial Network (GAN), which allows AI to create garments from the analysis and search for trends most sought after on the internet (Hess, 2018).

However, there are two technologies already available on the market, fashion trends forecasting and analyzing the client's clothing style. The fashion trends forecasting is carried out through the processing of a voluminous image bank and, from there, the AI presents its suggestions of prints, pieces, and cuts of clothes and colors. Tommy Hilfiger is an example of a clothing brand that has used such a service, offered by IBM through its AI called IBM Watson (Cunha, 2018).

As already noted, user-style AI analysis technology is available on the North American market via Amazon's Echo Look device. This device is integrated with a smartphone application and uses the Alexa personal assistant to help choose the best look. The device takes pictures of the user and keeps a record of the clothing combinations the customer wears. Kleina (2017) details its operation:

Echo Look still guesses your clothing with the "Style Check" option. Using machine learning based on the photos you've uploaded and current fashion trends (with expert opinions), it helps you choose between two visual possibilities or recommend new styles or even brands.

It appears from Bruno (2017, p. 87), that the use of AI in the fashion industry is an international and transformative trend that is imposed on the Brazilian clothing industries, including fashion design. Nevertheless, according to Knight (2017, free translation), there is still a long way to go before AI launches consumer trends:

Fashion designers probably shouldn't be worried yet. Oates and others point out that it can take a long time before the machine can invent a fashion trend. "People innovate in areas like music, fashion, and cinema," he says. "What we haven't seen is a genuine new music or fashion style that has been generated by a computer and people have identified themselves".

### III. Relevant aspects of responsibility in the field of AI

Decree No. 8,771/2016 deals with the protection of personal data. In Article 14, it defines that personal data refers to information related to the identified or identifiable natural person, including identification numbers, location data or electronic identifiers.<sup>2</sup>

In the form in which it was instituted, by making the subjective and objective civil liability compatible in itself, the system of civil liability makes us reflect on a more effective application because of legal and theoretical frameworks related to the theme. In this context, Law No. 12,965/2014, known as Civil Framework of Internet, is still relevant.

The law in question brought a list of legal provisions that have a profound impact on virtual relations and within the scope of said Brazilian Digital Law. Its art. 1º, for example, enshrines the functionality of the standard, based on principles, guarantees, rights, and duties for the use of the network, and outlines guidelines for the performance of the Public Power. For its effectiveness, it is based on freedom of expression. It is precisely in this point that civil liability shows its relevant role, as it serves as a limiter to abuses committed in the virtual environment, sometimes impersonally, even though the use of AI.

Take, for example, the case of Hering. In its concept store in São Paulo, the company has a facial recognition system and sensor that captures consumer interest in pieces hanging on the racks. And, because of this handle, it was urged by *Instituto de Defesa do Consumidor (Idec)* [Institute of Consumer Protection] to explain what it does with the client identification data (in particular, facial recognition), since, above all, it fears the practice of targeting offers and the misuse of data, in violation of the right to freedom of choice, clear and adequate information, security and privacy of people circulating in the store.<sup>3</sup>

The prevailing jurisprudential position is that civil

<sup>1</sup> Kaufman (2018) when referring to the use of AI in the market in general says that: "As of 2010, AI invaded our lives in everyday applications."

<sup>2</sup> In Brazilian law, a definition of personal data already existed in Article 4º, item IV, of the Access to Information Law. SOUZA, Carlos Afonso; LEMOS, Ronaldo; BOTTINO, Celina. *Marco Civil da Internet*. Jurisprudência comentada. São Paulo: Thomson Reuters, Revista dos Tribunais, 2017, p. 21.

<sup>3</sup> *O Globo*. Consumer defense. "Hering will have to explain what it does with customer face recognition data. Cameras make consumers' facial recognition and capture their reactions to the pieces exposed on the racks. Meanwhile, sensors identify, through the emission of heatwaves, which are the preferences of customers when traveling through the store. All this technology allows the brand to profile its clientele and personalize the offers. What may seem, at first, science fiction is the technology used by Hering in the concept store inaugurated at Morumbi Shopping, in São Paulo, and the reason for the notification from the *Instituto de Defesa do Consumidor (Idec)* [Institute of Consumer Protection] to the company. The institute's concern is what will be done with the data collected, with whom it will be shared, as there is a great potential risk to the privacy of store customers. The company has ten days to respond. If the return is insufficient or makes it clear that there is no adequate protection for the consumer, Idec will study what measures will be necessary, including the possibility of legal action". Available at: <https://m.oglobo.globo.com/economia/defesa-do-consumidor...com-dados-de-reconhecimento-facial-de-clientes-23482114>. Accessed on Mar. 28<sup>th</sup>, 2019.

liability of any company providing personal data, news, images, among others, is only effective, due to the duty of information, if it is previously notified to withdraw the disappointing content. Or even the irregular use of programs and/or applications, which violate intellectually protected productions. As stated by the minister of the *Superior Tribunal de Justiça (STJ)* [Superior Court of Justice] Nancy Andrighi, in Special Appeal 1,694,405/RJ:

(...)

2. The jurisprudence of this Superior Court of Justice states that, prior to the publication of the Civil Framework of Internet, the unambiguous knowledge of the offensive content, without its withdrawal within a reasonable period, is enough for the provider to become responsible. Precedents.

3. The rule to be used for the resolution of disputes must take into account the moment of occurrence of the harmful act or, in other words, when the infringing contents were published: (i) for facts that occurred before the entry into force of the Civil Framework of Internet, the jurisprudence of this court must be obeyed; (ii) after the entry into force of Law 12,965/2014, the initial term of joint liability of the application provider, according to art. 19 of the Civil Framework of Internet, is the moment of judicial notification that orders the removal of certain content from the internet.

4. The order determining the removal of content from the internet must come from the Judiciary and, as a requirement for validity, it must be clearly identified.

5. The Civil Framework of Internet lists, among the validity requirements of the court order for the removal of infringing content, the “clear and specific identification of the content”, under penalty of nullity, being necessary, therefore, the indication of the URL locator. (REsp 1,694,405/RJ, Rel. Minister NANCY ANDRIGHI, THIRD CLASS, tried on June 19<sup>th</sup>, 2018, DJe June 29<sup>th</sup>, 2018).

Likewise, Minister Luis Felipe Salomão (STJ) understands, when analyzing Special Appeal 1,512,647/MG, when investigating circumstances that are harmful to copyright, highlighted: “In this case, if the internet provider remains inert after being provoked, it cannot be held responsible for damage already done, but exclusively for damage for which it competed with its inertia”.

Considering this framework, it is worth the record regarding differentiated treatment, in the doctrine and civil law, about the subjective and objective responsibilities, as explained. For the characterization of subjective responsibility, it is essential to prove the culprit practice, from the examination of the agent’s behavior, to identify

whether they acted with negligence, imprudence or malpractice, or even with malice, in which there is the intention to cause the damage. As it turns out, the word guilt is used in a broad sense, *lato sensu*, to indicate not only guilt *stricto sensu*, but also malice. In the current Brazilian Civil Code, subjective liability is provided for in article 186.

In the face of classical theory, guilt was the motivator of responsibility. This theory also called the guilt theory, or subjective assumes the qualifier guilt as the foundation of civil liability. In the absence of fault, in the circumstances in which it is applicable, civil liability is not configured. Proof of the agent’s guilt also becomes an essential condition for indemnifiable damage.

Nonetheless, in countless and varied daily situations, the victim is faced with an insurmountable obstacle to the employment of that conduct qualifier, that is, the proof of the agent’s guilt in repairing the damage. This is because industrial development and mass conflicts have given rise to new situations that are not covered by guilty conduct.

In this way, indoctrinators started to develop and support the idea of an objective responsibility, based on the theory of risk. In Brazil, the application of this modality occurs in situations previously defined by law or when an activity whose nature is considered to be at risk for the rights of third parties is involved, as expressly provided for in the sole paragraph of art. 927, of the Civil Code (CC).

It is important to highlight that, to characterize strict liability, a thorough analysis of the concrete situation is required, since there is no exhaustive list of all existing dangerous activities, and it is up to the magistrates, on a case-by-case basis, to infer them.

It is, then, denoted to be the dualistic Brazilian legal system. Despite this observation, there are several legal provisions in which the application of the objective theory is envisaged, namely: in the case of the responsibility of business companies for products put into circulation (article 931, CC); third party liability (article 932, CC); for things launched from a building or resulting from ruined buildings (articles 937 and 938, CC); or because of an animal (article 936, CC). The Consumer Protection Code expressly adopts, in its art. 14, caput, for example, the objective theory to define the responsibility of suppliers of services or products put on the market in cases of consumption accidents due to failure.

From the above, it is undeniable that there is, in the legal system of civil liability, a mechanism for the judicialization of damages resulting from the wrong handling of personal data, images or attacks on people’s privacy.<sup>4</sup>

<sup>4</sup> Law No. 12,965/2014 (MCI) “it is not a law for the protection of personal data. Therefore, it does not deal with the entire group of topics that are usually set out in a law with this claim. (...) At the infraconstitutional level, one can find several laws that deal with the protection of the privacy of the individual. Article 21 of the CC includes the right to privacy in the list of personality rights, while other laws deal more directly with the protection of personal information, as is the case with the [Consumer Protection Commission], the Positive Registration Law, the Access to Information Law and the Civil Framework of Internet”. SOUZA, Carlos Afonso *et al.*, p. 19-20.



## CONCLUSIONS

Freedom of expression on the internet cannot be unlimited. It must coexist with a legal system of civil accountability centered on the preservation of the dignity of the human person and the realization of social solidarity.

As established in the sole paragraph of article 927, of the Brazilian Civil Code, as it is open and operable, in the scope of an occasional demand, the general clause of objective civil liability is a viable instrument to cover cases involving AI. It is obvious, therefore, that anyone who habitually develops activity and considered to be at risk to the rights of third parties will respond regardless of the occurrence of a wrongful act on their part; being certain, in this context, that its mere failure will legitimize the judicial attack.

The importance of the enactment of Law No. 13,709/2018, or General Data Protection Law, is highlighted in the definition of responsibility for the custody and treatment of personal data, having given greater protection to the holder of data made available by providers. The GDPR will come into force in August 2020. The National Data Protection Authority, a public administration body of the federal government responsible for ensuring, implementing and supervising the effective compliance with the GDPR was created by Law No. 13,853/2019.

In this way, Brazilian legislation has advanced to guarantee the protection of the dignity of the person, making those who violate this guarantee responsible when using data collected including through AI.

## REFERENCES

APTE, Chidanand; MORGENSTERN, Leora; HONG, Se June. "AI at IBM Research". *IEEE Intelligent Systems and their Applications*, vol. 15, n. 6, nov/dez, 2000, p. 51-7

ARTIFICIAL Intelligence. In: *The Stanford Encyclopedia of Philosophy*. Disponível em <<https://plato.stanford.edu/entries/artificial-intelligence/>>. Acesso em: 13 nov. 2019.

BRASIL. Lei Nº 9.279, de 14 de maio de 1996. Disponível em: <[http://www.planalto.gov.br/ccivil\\_03/Leis/L9279.htm](http://www.planalto.gov.br/ccivil_03/Leis/L9279.htm)>. Acesso em: 9 dez. 2018.

BRASIL. Constituição da República Federativa do Brasil de 1988. Disponível em: <[http://www.planalto.gov.br/ccivil\\_03/Constituicao/Constituicao.htm](http://www.planalto.gov.br/ccivil_03/Constituicao/Constituicao.htm)>. Acesso em: 9 dez. 2018.

BRASIL. Lei Nº 12.965, de 23 de abril de 2014. Disponível em: <[http://www.planalto.gov.br/ccivil\\_03/\\_ato2011-2014/2014/lei/l12965.htm](http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2014/lei/l12965.htm)>. Acesso em: 9 dez. 2018.

BRASIL. Lei Nº 13.709, de 14 de agosto de 2018. Disponível em: <[http://www.planalto.gov.br/ccivil\\_03/\\_Ato2015-2018/2018/Lei/L13709.htm](http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2018/Lei/L13709.htm)>. Acesso em: 09 Dez. 2018.

BRASIL. Lei Nº 9.610, de 19 de fevereiro de 1998. Disponível em: <[http://www.planalto.gov.br/ccivil\\_03/LEIS/L9610.htm](http://www.planalto.gov.br/ccivil_03/LEIS/L9610.htm)>. Acesso em: 9 dez. 2018.

BRANCO, Sérgio. *Memória e esquecimento na internet*. Rio de Janeiro: Arquipélago Editorial Ltda., 2017.

BRUNO, Flavio da Silveira. *A quarta revolução industrial do setor têxtil e de confecção: a visão de futuro para 2030*. 2 ed. São Paulo: Estação das Letras e Cores, 2017.

CAVALIERI FILHO, Sérgio. *Programa de responsabilidade civil*. 12 ed. São Paulo: Atlas, 2015.

CUNHA, Renato. "Como a inteligência artificial da IBM é aplicada no mundo da moda". In: *Stylo Urbano*, mar. 218. Disponível em:

<<http://www.stylourbano.com.br/como-a-inteligencia-artificial-da-ibm-e-aplicada-no-mundo-da-moda/>>. Acesso em: 14 jun. 2018.

HESS, Francieli. "Inteligência artificial na moda – Tecnologia da Amazon pode revolucionar a forma como criamos, produzimos e compramos roupas". In: *Fashion Bubbles*, jan. 2018. Disponível em:

<<http://www.fashionbubbles.com/tecnologia/inteligencia-artificial-na-moda-tecnologia-da-amazon-pode-revolucionar-a-forma-como-criamos-produzimos-e-compramos-roupas/>>. Acesso em: 14 jun. 2018.

KAUFMAN, Dora. "As tecnologias de inteligência artificial no universo da moda". In: *Sebrae Inteligência Setorial*, maio 2018. Disponível em:

<<https://sebraeinteligenciasetorial.com.br/produtos/noticias-de-impacto/as-tecnologias-de-inteligencia-artificial-no-universo-da-moda/5af2070e0c632319008fa3f0>>. Acesso em: 14 jun. 2018.

KLEINA, Nilton. "Echo Look: novo assistente da Amazon quer ajudar você a se vestir melhor". In: *Tecmundo*, abr. 2017. Disponível em:

<<https://www.tecmundo.com.br/alexa/116129-echo-look-novo-assistente-amazon-quer-ajudar-voce-vestir-melhor.htm>>. Acesso em: 3 jul. 2018.

KNIGHT, Will. "Amazonhasdeveloped na AI fashion designer". In: *MIT Technology Review*, ago. 2017. Disponível em:

<<https://www.technologyreview.com/s/608668/amazon-has-developed-an-ai-fashion-designer/>>. Acesso em: 3 jul. 2018.

LOPES, Giovana Figueiredo Peluso. *Inteligência Artificial e Pessoaalidade*. Trabalho de conclusão de curso - Faculdade de Direito, Universidade Federal de Juiz de Fora. Juiz de Fora, p.30. 2017.

McCARTHY, John et. al. "A Proposal for The Dartmouth Summer Research Project on Artificial Intelligence". 1955. Disponível em:

<<http://www-formal.stanford.edu/jmc/history/dartmouth/dartmouth.html>>. Acesso em: 9 dez. 2018.

RUSSELL, Stuart; NORVIG, Peter. *Inteligência artificial*. Rio de Janeiro: Elsevier, 2013.

SEARLE, John. *Mente, cérebro e ciência*. Lisboa: Biblioteca de Filosofia Contemporânea, 2000.

SOUZA, Carlos Afonso; LEMOS, Ronaldo; BOTTINO, Celina. Marco Civil da Internet. Jurisprudência comentada. São Paulo: Thomson Reuters, Revista dos Tribunais, 2017.

STJ, 2ª Seção, REsp 1.512.647/MG, rel. Min. Luis Felipe Salomão, j. 13.05.2015, DJe 05.08.2015.

STJ, 3ª Turma, REsp 1.694.405/RJ, Rel. Ministra Nancy Andriahi, j. 19.6.2018, DJe 29.6.2018.

TEFFÉ, Chiara et. al. “Bloqueio de Aplicações”. In: Marco Civil da Internet, Jurisprudência comentada. São Paulo: Editora Revista dos Tribunais, 2017.

TURING, Alan. “ComputingMachineryandIntelligence”. Mind, vol. 49, n. 236, 1950, p. 433-60. Disponível em: <<http://phil415.pbworks.com/f/TuringComputing.pdf>>. Acesso em: 9 dez. 2018.

Received on: 09/2019  
Required Reviews: 01/2020  
Approved on: 03/2020  
Published on: 05/2020

**\*Corresponding Author:**

Name: Patricia Ribeiro Serra Vieira  
Avenida Rui Barbosa, nº430, Apt. 1.201  
Flamengo, Rio de Janeiro, Brasil  
E-mail address: serravieira@uol.com.br  
Telephone number: +55 21 99994-2503