# REMOTE LEARNING UNDER COVID-19 SOCIAL DISTANCING: Discussion, Resources, Implications for Accounting Faculty and Students, and a Netnography Study

**Abstract**

The purpose of this work was to promote discussions and reflections upon remote learning in accounting education in Brazil during the quarantine period because of the novel coronavirus (SARS-CoV-2, COVID-19) pandemic. Additionally, a study based on the netnography approach was developed to deepen the debate on how COVID-19 has been affecting graduate programs and students. In section 2, I intended to bring the role of digital videos and webinars to help with the face-to-face education to remote learning transition. Accounting faculty can benefit from the American Accounting Association webinars and other instructional materials, besides other types of interactive technology. In section 3, I debated some of the implications for accounting faculty and students. Many of them had considerable changes in their daily personal and academic routines. They had to take care of themselves at the same time they needed to keep their commitment to their education lives. I hope I have raised some useful points and insights into the present scenario and how we should act while this pandemic lasts. Finally, a netnography study was developed with the purpose of strengthening the discussion about how the COVID-19 crisis is affecting a graduate student community. Results showed that more than one-third of the total posts on April 30, 2020, were associated with COVID-19, which is an indication that this theme has been a concerning topic among graduate students in an online environment. At least, graduate students have one another to provide supportive debates that can help them stay strong during this crisis period. Hopefully, the reflections of this work will reach those who need help with technology-instructional materials and those who are interested in what is going on with an online academic community.

**Keywords:** COVID-19, Remote learning, Accounting faculty and students.

**Resumo**

O objetivo deste trabalho foi promover discussões e reflexões sobre o ensino remoto na educação contábil no Brasil durante o período de quarentena em decorrência da nova pandemia do coronavírus (SARS-CoV-2, COVID-19). Além disso, um estudo baseado na abordagem da netnografia foi desenvolvido para aprofundar o debate sobre como o COVID-19 vem afetando programas de pós-graduação e estudantes. Na seção 2, pretendi trazer o papel dos vídeos digitais e webinars para ajudar na transição da educação presencial para a aprendizagem remota. O corpo docente de contabilidade pode se beneficiar dos webinars da American Accounting Association e outros materiais de instrução, além de outros tipos de tecnologia interativa. Na seção 3, debati algumas das implicações para professores e alunos de contabilidade. Muitos deles tiveram mudanças consideráveis em suas rotinas pessoais e acadêmicas diárias. Eles tinham que cuidar de si mesmos ao mesmo tempo em que precisavam manter o compromisso com a vida educativa. Espero ter levantado alguns pontos úteis e percepções sobre o cenário atual e como devemos agir enquanto durar esta pandemia. Por fim, foi desenvolvido um estudo de netnografia com o objetivo de fortalecer a discussão sobre como a crise do COVID-19 está afetando uma comunidade de estudantes de graduação. Os resultados mostraram que mais de um terço do total de postagens em 30 de abril de 2020 estavam associadas ao COVID-19, o que indica que esse tema tem sido um assunto preocupante entre os alunos de pós-graduação em ambiente online. Pelo menos, os alunos de pós-graduação têm uns aos outros para oferecer debates de apoio que

podem ajudá-los a permanecer fortes durante este período de crise. Esperançosamente, as reflexões deste trabalho alcançarão aqueles que precisam de ajuda com materiais de instrução de tecnologia e aqueles que estão interessados no que está acontecendo com uma comunidade acadêmica online.

**Palavras-chave:** COVID-19, Aprendizagem à distância, Distanciamento social, Contabilidade, Netnografia.

## 1. INTRODUCTION

The purpose of this work is to promote discussions and reflections upon remote learning in accounting education in Brazil during the validity of social distancing and quarantine period due to the novel coronavirus (SARS-CoV-2) pandemic. Additionally, a study based on the netnography approach was developed. The novel coronavirus causes COVID-19, which is a pathology in which symptoms are similar to the regular flu, but can cause, in addition, chronic respiratory conditions that may lead people to death, especially those who are 60 years old or more and with pre-existing diseases (e.g., asthma). Coronavirus has a high potential of transmission among human beings and extreme measures are needed to constrain its spreading. It was considered by the World Health Organization (WHO) a pandemic on March 11, 2020. In Brazil, the first case of COVID-19 was detected at the end of February 2020 in a person who was returning from Italy. Since then, COVID-19 has spread to many Brazilian states and cities and making thousands of victims.

COVID-19 has brought many significant changes to people's lives. More than never, individuals need to use masks, wash their hands frequently, use alcohol gel to disinfect hands and surfaces, stay at and work from home, maintain a minimum of two meters from other people and keep informed about other forms of preventions and potential treatments. It also has brought fundamental changes in the way we work, commercialize, interact with one another, and transmit knowledge. Focusing on this last point, schools have suspended their academic calendar and closed their doors. Other schools have transitioned their face-to-face classes to the virtual environment. And this is the point that I wanted to reach: the implications for instructors and students, with a particular look at the undergraduate accounting programs in Brazil.

To change from face-to-face classes to remote education due to one of the measures to restrict the spread of COVID-19 – that is the social distancing –, accounting instructors need to use technology. However, not every accounting educator had had the opportunity to work with distance education or had used some kind of technological resource in his/her classes. Therefore, the COVID-19 pandemic took away some accounting instructors from their comfort zone by making them use technology for the first time in their careers. From where I am viewing the implications of COVID-19, this is the primary one for the accounting instructors. They needed to transition to remote learning in an emergency fashion with no or little knowledge on how to deal with modern educational technologies. More of this topic will be discussed in section 2.

The change in the class format in consequence of COVID-19 also impacted how students learn, especially for those who had always taken face-to-face courses. Students are accustomed to lecturing-based classes where they act passively most of the time. However, transitioning to the virtual environment enables the instructor to use multiple tools to interact with students and register their participation. If video conferencing-based classes are adopted, students must be alert as the technology tools can measure pretty accurately how much time the

students stayed in the class, how much time students took to complete the activities, and whether or not the student was attending the virtual class because of the on-or-off camera status. More student issues will be debated in the next sections.

This work contributes to prior literature by informing accounting professors and students about some educational resources that can be useful to transit from face-to-face education to screen-to-screen education on time. Besides, it highlights the implications of COVID-19 for accounting faculty and students. And finally, I conducted a netnography study to better understand the students' feelings about the quarantine period and what actions have been taken by them to overcome this challenging scenario.

The remainder of the paper is structured as follows. Section 2 debates the emergency transition from onsite education to remote learning, as well as the tools that can assist in delivering content without significant losses of quality. Section 3 discusses the main implications that COVID-19 brought to accounting professors and students. In section 4, I present the results of a netnography-based study from which we can learn how to prevent or reduce mental issues as a consequence of the social distancing. And finally, section 5 brings the conclusion and future points that deserve attention by both accounting academic and non-academic communities.

## 2. TRANSITION TO REMOTE LEARNING AND PEDAGOGICAL RESOURCES

Every formal education process, at some moment and level, resorts to an exposition/lecture format to transmit knowledge. In a conventional face-to-face class, the instructor is literally and physically in front of the students exposing a certain subject matter. However, the COVID-19 pandemic "gave" basically two options for higher education institutions (HEIs) that offer undergraduate accounting programs only in a face-to-face modality. First, onsite classes were suspended and will return after a more controlled scenario of the pandemic. Or second, onsite classes were transitioned to the virtual environment through the use of technology.

For those HEIs that have chosen for suspending their classes or academic calendar, both their accounting instructors and students are at home developing some activities that are not necessarily linked to the accounting program. They might be reading some non-academic books, doing physical exercises, watching television, and so forth. On the other hand, for those HEIs that decided to transfer their onsite classes to the remote ones are employing significant efforts to make it happen without loss of educational process quality. This section is about them. I precisely present some resources that accounting educators can use in their remote learning classes or learn how to use new tools to teach, interact, or assess the students. These technologies are discussed below.

### 2.1. Digital video

The first of them is those tools that make viable the exposition/lecture of a determined subject matter. Screen-to-screen learning in times of COVID-19 quarantine is one of the few approaches that accounting educators have to deliver content at the moment and some studies can guide accounting professors to better serve their students (D'Aquila, Wang, & Mattia, 2019; Holtzblatt & Tschakert, 2011). For example, D'Aquila et al. (2019) developed YouTube videos about accounting topics for students to learn and practice exercises for exams. They found

evidence that the videos created enhanced student performance, as well as students thought that they should be used in class, although it does not necessarily mean that traditional classes should be replaced by the video ones.

Videoconferencing has become an essential technology resource that can be employed to communicate with students orally and visually in both synchronous and asynchronous activities. In the past, Holtzblatt and Tschakert (2011) point out the accounting students were physically attending accounting courses, but with the advent of internet and videoconference, a notable advantage is that students can be anywhere while the instructor explains accounting topics. Students can be on the other side of the world. There is no physical barrier when it comes to screen-to-screen classes. The only concern is access to the internet. But even the internet nowadays is more popularized and mobile phone as well.

The camera of mobile phones is being used to record any sort of videos, from funny videos to the academic ones. Accounting instructors and students can take advantage of them too. A lot of accounting content videos exist on YouTube®, for example. Zoom®, Skype®, Google Hangouts®, and other screen-to-screen tools must be used as a communication tool between students and professors in these times of quarantine when accounting education must not be interrupted. And the results of D'Aquila et al. (2019) are promising. Digital videos can improve student learning. Based on this context, I do not expect a loss of quality in lectures and student performance when the onsite classes were transitioned to screen-to-screen ones.

## 2.2. Interactive tools to manage assignments and real-time exercises

A class is not only composed of the lecturing part but also by theoretical and practical activities. The instructor, then, must use, in combination with screen-to-screen technology, some tools to interact with his/her audience. This is the case of clicker systems (Carnaghan, Edmonds, Lechner, & Olds, 2011; Fan & Song, 2020; Nasu & Nogueira, 2020), virtual learning environment and virtual office hours (Lillie & Wygal, 2011; Nogueira, 2014), plickers (Krause, O'Neil, & Dauenhauer, 2017; Nasu, 2019), digital storytelling (Taylor, Marrone, Tayar, & Mueller, 2017), gamification (Bell, 2018; Buckley & Doyle, 2016; Durso, Reginato, & Cornacchione Jr, 2019), games (Azriel, Erthal, & Starr, 2005; Calabor, Mora, & Moya, 2019; Carenys & Moya, 2016), business simulation (Levant, Coulmont, & Sandu, 2016; Riley, Cadotte, Bonney, & MacGuire, 2013), business cases (Calderon, Hesford, Mangin, & Pizzini, 2018; Hoelscher & Mortimer, 2018; Mintz & Nourayi, 2005), among other resources.

Clicker systems, such as Kahoot®, Socrative®, and iClicker®, are appropriate to promote active learning and student participation through questions and answers in an online platform. There are many types of clickers (Carnaghan et al., 2011), and each one of them can address better a necessity. In a comparative study, Nasu and Nogueira (2020) found that the preferred system by the students is Kahoot®, rather than plickers or paper-based quizzes. The instructor needs to assess the best clicker system that will help him/her reach the educational goals.

Virtual learning environments, such as Moodle®, and virtual office hours are educational management software packages that accounting professors can use to post materials, exercises, and send messages to students. They also can use to encourage student participation through discussion forums and chat rooms. Virtual learning environments are appropriate for both synchronous and asynchronous activities. Instructors can set day and time limits for students to post their exercises done. It can help accounting educators to go digital.

Digital storytelling is "a multimodal instructional design framework that helps to explain complex concepts using narrative and metaphor" (Taylor et al., 2017, p. 1). There is evidence that digital storytelling improves student motivation, memory, and to make connections between theory and real-world aspects, as well as engagement and understanding of the course material (Taylor et al., 2017). Digital storytelling involves many modes of representations, such as linguistic, gestural, visual, auditory, and spatial (Istenic Starčič, Cotic, Solomonides, & Volk, 2016). Accounting faculty can record videos to tell stories and narratives in ways that students get engaged and learn how those stories and narratives are connected with accounting concepts.

Gamification and games are also interesting tools to involve students to learn accounting, especially because the new generation of students are more familiarized with modern technology resources and enjoy playing virtual games. Since students are already in the virtual environment while in the classes, accounting instructors can take advantage of digital video games that suit the course. In a teaching and learning process mediated by serious games in an accounting course, Durso et al. (2019) found that students reported that their skills had improved, such as curiosity, leadership, persistence, and adaptability. Gamification and games, thus, represent key alternatives for accounting educators to utilize in their online classes during this quarantine.

Similarly, business simulation and business cases are another two pedagogical strategies at the disposal of accounting educators to provide effective leaning of both accounting concepts and technical skills, besides other competencies. Business simulations fit screen-to-screen classes because they are run in the virtual environment already. Business cases can be employed in distinct ways. Accounting instructors can provide the case in advance for students to read them. Then, during the screen-to-screen classes, business cases are discussed. And after the classes, students are submitted to a series of questions related to the cases. Additionally, business cases can be used to teach how to use a specific software package. For instance, Hoelscher and Mortimer (2018) designed a case to be utilized with the Tableau software. Thus, besides the accounting content, students also learn how to use this data analysis software.

Other pedagogical strategies do exist and can also help assist accounting instructors and students. In this work, I highlight some of the most important teaching methods that I believe are effective to be used in a screen-to-screen format class. Accounting educators need to take into account what strategy best suits their classes and educational goals. Because remote learning due to COVID-19 is something that hopefully will end shortly, easier teaching methods and more user-friendly resources may be prioritized because of the emergency to transition from onsite classes to remote ones.

## 2.3. Webinars

Another technology resource from which accounting faculty can learn how to transition to remote learning is the webinar. American Accounting Association (AAA), on its website (https://aaahq.org/Education/Resources/Online), is recording and providing important webinars that can be accessed to assist accounting instructors on how to make the transition from onsite classes to online ones. In particular, I recommend the following two: (i) "Transition to Remote Learning," hosted by Jill Mitchell and DeAnna Martin (https://aaahq.org/Education/Resources/Online/Transition-to-Remote-Learning); and (ii) Tips and Tools for Organizing Your Online Course in a Hurry," hosted by Wendy Tietz, Jennifer Cainas,

and Tracie Miller-Nobles ([https://aaahq.org/Education/Resources/Online/Tips-and-Tools-for-Organizing-Your-Online-Course-in-a-Hurry](https://aaahq.org/Education/Resources/Online/Tips-and-Tools-for-Organizing-Your-Online-Course-in-a-Hurry)). Another two institutions that have been providing teaching materials and webinars for online classes is the Harvard Business Publishing – Education ([https://hbsp.harvard.edu/teaching-online-resources/](https://hbsp.harvard.edu/teaching-online-resources/)) and Delloite in Brazil through its immediate responses to the crises programs ("Covid-19 – Plano de 100 dias") ([https://eventos.lp.deloittecomunicacao.com.br/covid19-100dias?origin=covid19-plano100-anefac](https://eventos.lp.deloittecomunicacao.com.br/covid19-100dias?origin=covid19-plano100-anefac)).

In these emergency times to go online, accounting faculty can make the most of webinars and other explanatory resources to better prepare themselves and their classes. Especially for those who have never worked with technology tools or in distance education, this is a great opportunity to get out of their comfort zone and experience something different that can help them even after the COVID-19 crises. Webinars and YouTube videos are useful resources to get information and learn how to teach at distance. It is not easy, so accounting instructors have to explore and test how to deal with new tools and imagine how they will make students learn better.

Time to learn new teaching methods and modification of the class design to accommodate the usage of new pedagogical tools has been seen as two of the main barriers to avoid technology use by accounting academics (Watty, McKay, & Ngo, 2016). Indeed, learning how to utilize new tools do take a significant amount of time and class redesign. But in a pandemic scenario where social distancing is necessary, there is no other way to keep teaching without the usage of technology resources. Then, it is an extraordinary circumstance that we are living in. But, from a positive perspective, once an accounting instructor learns how to manage these new materials and technology resources, they will be better prepared to address their students' needs after as this crisis passes.

## 3. IMPLICATIONS FOR ACCOUNTING INSTRUCTORS AND STUDENTS

This section debates the implications that the measures adopted to restrict COVID-19 brought to accounting faculty and students. While the use of masks, sanitizers, and washing hands are essential measures to prevent COVID-19 to spread, the social distancing is the one that made more impact on how we socially interact, commercialize, and transmit knowledge.

### 3.1. Accounting faculty

There is much debate on whether accounting undergraduate programs should focus more on accounting technical skills or soft (generic) skills (Douglas & Gammie, 2019; St. Pierre & Rebele, 2014; Watty, 2014). Whilst generic skills are important for accounting professionals, accounting undergraduate programs cannot ignore the specific technical skills involved in the accounting profession. This debate will not be the focus of this study. The objective of this session is to discuss the consequences of social distancing for accounting faculty and how they can prepare their classes to develop both students' technical and generic skills.

The quarantine due to COVID-19 "forced" accounting professors who had taught only in face-to-face education to learn how to utilize technology tools that they had not used yet. It was a big step for those accounting professors who had never used digital video or webinar technology tools to deliver content. Especially for older faculty, they might have felt challenged when using these types of technology resources. Besides that, accounting professors may have

made some adjustments in their home office to accommodate screen-to-screen classes, such as illumination, volume and microphone, distance from the camera, possibly some small changes in the layout of their desk office, and so on. Although these changes appear to be insignificant, one might argue that, in a screen-to-screen education format setting, every detail counts to provide better classes.

Additionally, these modifications made by accounting faculty might have occasioned anxiety, stress, or another type of preoccupation. Many accounting professors do not belong to new generations and, therefore, have bigger barriers to overcome when it comes to technology usage. Because onsite education is not recommended due to social distancing, older educators might not feel comfortable using modern tools. There is a series of implications that COVID-19 has brought to them and I think that, in many times, students need to be patient with them, particularly in their first classes, which is more likely to things go wrong.

However, as shown in section 2, there are some helpful materials for accounting educators to transitioning to remote learning. First, I suggest that accounting educators watch some webinars that teach them how to use technology appropriately. Next, they must select the best digital video tool after exploring and testing some of them for their screen-to-screen learning. Then, try to incorporate some interactive tools, such as games and electronic quizzes. It might modify the dynamic of the classes and gets students more interested in accounting content. And finally, put into practice and repeat prior steps if necessary. They will also be able to use such technology resources even after the crisis of COVID-19.

As previously discussed, Hoelscher and Mortimer's (2018) educational case can be used to teach both accounting topics and also soft skills, such as teamwork, data analysis, and software management. Games can have similar effects on student learning. Likewise, business simulations are important because accounting can be considered and applied discipline in which managers and accountants must work together to construct a successful company. Thus, business simulation as a pedagogical strategy can develop both technical and specific accounting skills as well as provide students a holistic view of the business. Together with lecture-type screen-to-screen classes, interactive tools play an essential role to transmit knowledge and work student's competencies.

## 3.2. Accounting students

New generations of students are now entering the higher education world. Accounting students can expect teaching methods that make them think and apply the theory through practical exercises. With the COVID-19 quarantine, onsite students had to transit to screen-to-screen education. Because they are familiar with modern technology tools, this change might have not impacted significantly their routine. After all, I presume that, in general, students like to explore new technology tools or have the ability to learn fast how to deal with them, even if they were used for educational purposes.

For students who had already remote classes before the COVID-19 crisis, they are, presumably, more adapted to this type of learning style and might have felt less impacted by social distancing, academically speaking. Of course, they felt changes in their social and personal lives, but in terms of education, they kept studying from home. A higher impact was felt by those students who had only studied in face-to-face education.

A central point of the COVID-19 pandemic is adaptation. Prior literature suggests that students must develop adaptation skills since the workplace is a dynamic and changing

environment (Douglas & Gammie, 2019; Natoli, Jackling, & Jones, 2017; Viviers, Fouché, & Reitsma, 2016). This pandemic came to support such a claim. Companies' employees are also transitioning from onsite work to home office. Likewise, students must be prepared to modify their academic and professional routines as the reality demands it from them.

Specifically for graduate students, their routine was affected in meaningful ways. For example, graduate students who work in labs with biological or chemical instruments and products are not allowed to be there under the quarantine and, thus, their research is stagnated. COVID-19 crisis has been challenging graduate students to continue to develop their research. I also cannot forget about the limited financial amount of their scholarship, especially for those who live alone or away from their parents. For these students, the COVID-19 pandemic may be causing stronger impacts both in their academic and personal lives. In Brazil, graduate students who receive scholarships from government agencies (e.g., Capes) are required to live in the same city as their graduate program as one of the requirements of the scholarship policy. And this might make students travel to other cities or states to get a higher degree and pursue their professional careers in the academy. With this context in mind, I chose to carry out a netnography study with graduate students to observe their feelings and behaviors reported through their writing comments in an online community.

## 4. NETNOGRAPHY STUDY

This fourth section of the study aims to provide some notion for accounting academy through the presentation of the results obtained from the utilization of a netnography approach as a research strategy regarding the consequences of the social distancing due to COVID-19 for graduate students. Despite that, some of the results may be helpful for other audiences besides the community under investigation here.

### 4.1. General characteristics

Netnography is considered a research strategy and consists of conducting an ethnography study with online (internet) cultures or communities (Kozinets, 2002, 2010). "Netnography adapts common participant – observation ethnographic procedures – such as making cultural entrée, gathering data carefully analysing and interpreting those data, writing a research report and conducting ethical research – to the contingencies of online community manifesting through computer-mediated communications" (Kozinets, 2010, p. 18). Comparatively to the traditional ethnography method, nethnography is simpler, faster, and less expensive as a research and data collection approach (Kozinets, 2002, 2010).

Consistent with the objective of providing a more in-depth discussion of the implications of the quarantine period for graduate students, I have tracked the Facebook "Bolsistas Capes" group over the February 26th - April 30th, 2020 period, because 26th February was the first day that a COVID-19 case was confirmed in Brazil. This group has more than 67,000 members (as of May 6th, 2020) and is a private one[i]. I am a member of this group since March 2017 and, therefore, I live the good and bad news related to graduate education in Brazil like any other member. Thus, I feel that I am inserted and belong to this online community. This community intends to keep its members informed about the scholarships provided by Capes among graduate students from distinct universities. It was created on November 30, 2011.

Every member of this online community can create a post on some topic, even if it is not directly related to graduate programs and students. But, in general, they are related and some are more polemic than others. In my experience with this community thus far, I have never seen the amount of content that is posted per day in any other group that I participated in. There is too much raw data to be collected and analyzed. It becomes quite a challenge to map all the posting messages and their types. Although I have been tracking this community with more attention since February 26, 2020, I will report the results of only one day to give the reader a notion on the main topics that are discussed and how its members receive, daily, too much information from this Facebook group.

## 4.2. Data collection and analysis

There are many topics from multiple and distinct natures that were discussed from February 26 to April 30, 2020. I have collected the posts on May 11, 2020, and organized them into categories to better understand and visualize the posting messages. To give the reader a notion of what types of messages are posted, I chose the last day of April because it had a higher number of posts compared to prior days. Table 1 describes the categories and the frequencies of posts on April 30, 2020.

Table 1 - Post type, description, and frequencies (April 30, 2020)

| Post type | Description | Frequency | % |
|---|---|---|---|
| Deleted | Deleted messages ("This content ins't available right now"). | 2 | 1.9 |
| Education | Posts that involve only the education field (like offering courses). | 8 | 7.8 |
| Education & government | Posts that involve both Education and Government aspects (such as changes in norms that regulate graduate students' scholarship). | 23 | 22.3 |
| Education & health | Posts that involve both Education and Health aspects (such as reports that show how universities are combatting COVID-19). | 2 | 1.9 |
| Graduate education | Posts related to graduate education aspects (such as formatting and translating work, an indication of journals, plagiarism questions. etc.) | 24 | 23.3 |
| Health | Posts related to both graduate students' and society's health. | 3 | 2.9 |
| Health & politics | Posts that involve both Health and Politics aspects (such as the COVID-19 graphic and the comments by the Brazilian president Jair Bolsonaro). | 2 | 1.9 |
| Meme & sarcasm | Posts that. at some level. involves sarcasm through the use of memes. Most of them are related to politicians. | 14 | 13.6 |
| Other | Posts that do not fit in the created categories. | 13 | 12.7 |
| Politics & government | Posts that involve both Politics and Government aspects (such as those that discuss polemic media reports involving politicians and regulation. not necessarily related to graduate programs or students). | 8 | 7.8 |
| Politics & indignation | Aggressive posts on politicians and/or Politics. | 2 | 1.9 |
| Research questionnaire | Posts that ask graduate students to participate in studies. | 2 | 1.9 |
| **Total** | **Total number of posts** | **103** | **100.0** |

In one day (April 30, 2020), a total of 103 posts were created by Bolsistas Capes members. These posts were structured into 12 categories (first column of Table 1). As expected, the "graduate education" category was the most frequent (24 posts, 23.3%). This category involves posts that are directly related to graduate programs and students, such as formatting academic papers, translating work, the indication of journals, questions regarding tools to collect and analyze data, the announcement of qualification and defense processes, and so forth. Many of these topics are related to COVID-19 because it affected graduate students and program in unexpected ways. Graduate schools are having to adjust their rules and make exceptions due to the consequences of social distancing and other consequences of the COVID-19 pandemic scenario.

The "education & government" category was the second most frequent, with 23 posts (22.3%). The members of the Bolsista Capes community often discuss aspects related to their scholarships and their regulation. Also, they raise questions concerning graduate programs of other members and how they can help each other to make decisions. Because each graduate program has its own rules, they are not comparable in some aspects, but there are common points that can be asked. It can be related to due dates and deadlines for depositing the dissertation, as well as the modifications to the norms of scholarships, especially because of COVID-19.

A significant part of the number of posts in the "memes & sarcasm" category has to do with politicians or the Politics field. Together with "politics & government" posts, they reach 22 posts (21.4%). In COVID-19 times, much is demanded from the federal government. Every step the Brazilian president Jair Bolsonaro takes may influence the humor and the field of the Bolsista Capes community. For this reason, Jair Bolsonaro is often the target of many meme-type posts. Other politicians, such as Ciro Gomes, also receive significant attention from the community and its sarcasm. Other categories were less discussed, but some of them were too related to COVID-19. For instance, the two posts of research questionnaires were related to the students' physical and mental health in social distancing times.

Next, Table 2 presents the number of reactions and comments per post type. The "meme & sarcasm" category received thousands of comments. This result suggests that meme & sarcasm-type posts are more polemic and, therefore, receive more attention from the members of the Bolsista Capes community. "Education & government," "Politics & government," and "Graduate education" posts also received considerable attention based on their numbers of reactions and comments. People are more interested in what influences their academic life and Politics. Then, it is natural for these categories to call for more attention. On the other hand, the two posts of "Politics & indignation" category did not receive any reaction or comment.

Table 2 - Number of reactions and number of comments per post type (April 30, 2020)

| Post type | # of reactions | % | # of comments | % |
| --- | --- | --- | --- | --- |
| Deleted | 1 | 0.0 | 1 | 0.1 |
| Education | 63 | 1.1 | 0 | 0.0 |
| Education & government | 695 | 12.1 | 137 | 18.7 |
| Education & health | 6 | 0.1 | 0 | 0.0 |
| Graduate education | 492 | 8.6 | 168 | 23.0 |
| Health | 104 | 1.8 | 7 | 1.0 |
| Health & politics | 314 | 5.5 | 138 | 18.9 |
| Meme & sarcasm | 3,491 | 60.9 | 208 | 28.5 |
| Other | 65 | 1.1 | 42 | 5.7 |

| | | | | |
|---|---|---|---|---|
| Politics & government | 502 | 8.8 | 30 | 4.1 |
| Politics & indignation | 0 | 0.0 | 0 | 0.0 |
| Research questionnaire | 1 | 0.0 | 0 | 0.0 |
| **Total** | **5,734** | **100.0** | **731** | **100.0** |

Finally, Table 3 reports the representativeness of COVID-19-related posts in comparison to the total number of posts per post type. The posts from the category "Deleted" were excluded in this part of the analysis because they did not allow me to know whether they were related or not to COVID-19.

Table 3 - Representativeness of COVID-19-related posts per post type (April 30, 2020)

| Post type | # of COVID-19-related posts | % | Total # of posts |
|---|---|---|---|
| Education | 3 | 37.5% | 8 |
| Education & government | 15 | 65.2% | 23 |
| Education & health | 2 | 100.0% | 2 |
| Graduate education | 1 | 4.2% | 24 |
| Health | 3 | 100.0% | 3 |
| Health & politics | 2 | 100.0% | 2 |
| Meme & sarcasm | 6 | 42.9% | 14 |
| Other | 3 | 23.0% | 13 |
| Politics & government | 2 | 25.0% | 8 |
| Politics & indignation | 0 | 0.0% | 2 |
| Research questionnaire | 1 | 50.0% | 2 |
| **Total** | **38** | **37.6%** | **101** |

I observe that 37.6% (38 out of 101) of the total number of posts were related to COVID-19. More than one-third of the posts on April 30, 2020, posted on the Bolsista Capes community webpage, were about COVID-19 and involved a series of topics and knowledge fields. Due to the low number of posts, some categories reached 100.0% of representativeness of COVID-19-related posts (i.e., "Education & health," "Education & indignation," "Health," and "Health and politics"). These are associated with health aspects and, thus, are expected to be connected to the novel coronavirus, a contemporary topic for everyone, including the graduate student audience.

On the other hand, 62.4% are not COVID-19-related posts. I highlight the representativeness of the "graduate education" category (4.2%). Only one post regards COVID-19. It suggests that graduate students' issues not necessarily involve the novel coronavirus and its implications. It is essential to consider that some categories have a low number of posts. Consequently, the relative frequency is more sensitive. Then, these results should be observed cautiously. Despite that, they provide an outlook about how much debate exists in academic communities similar to the Bolsista Capes group in only one day of analysis. Because the Bolsista Capes group has more than 67,000 members, there are too many posts to track every day. Hand-collecting these 103 posts were difficult and took a significant part of my time on a regular day. For this netnography study, though, I think I provided some notion about COVID-19 discussion on an online community, which was the objective of this section.

## 5. CLOSING THOUGHTS

The purpose of this work was to promote discussions and reflections upon remote learning in accounting education in Brazil during the quarantine period due to the novel coronavirus (SARS-CoV-2, COVID-19) pandemic. Additionally, a study based on the netnography approach was developed to deepen the debate on how COVID-19 has been affecting graduate programs and students.

Many accounting instructors had to move from onsite education to remote learning out of the blue, without proper skills and training. For this reason, in section 2, I intended to bring the role of digital videos and webinars to help with this transition. Accounting faculty can benefit from AAA webinars and its instructional materials, besides other types of technology. In section 3, I debated some of the implications for accounting faculty and students. Many of them had considerable changes in their daily personal and academic routines. They had to take care of themselves without forgetting their commitment to their education life. I hope I have raised some useful points and insights into the present scenario and how we should act while this pandemic lasts.

Additionally, a netnography study was developed with the purpose of strengthening the discussion about how the COVID-19 crisis is affecting a graduate student community. Results showed that more than one-third of the total posts on April 31, 2020, were associated with COVID-19, which is an indication that this theme has been a concerning topic among graduate students in an online environment. At least, graduate students have one another to provide supportive debates that can help them stay strong during this crisis period. Hopefully, the reflections of this work will reach those who need help with technology-instructional materials and those who are interested in what is going on with an online academic community.

Finally, despite the unfortunate scenario brought by COVID-19, I could see commitment and solidarity by and among human beings to find a vaccine and specific treatment for this disease. In COVID-19 times, I also could note the importance of the professions in combatting it and cooperating to find ways to deaccelerate its spreading. The accounting field and its professionals are also relevant agents to continue to serve the society with their financial services. In particular, accountants can be of assistance to the owners of small enterprises when it comes to cash flow management and help save them from bankruptcy. This is an opportunity to show the value of the accounting profession, as well as its commitment to society and the public interest.

**REFERENCES**

Azriel, J. a., Erthal, M. J., & Starr, E. (2005). Answers, Questions, and Deceptions: What Is the Role of Games in Business Education? *Journal of Education for Business*, *81*(1), 9–13. https://doi.org/10.3200/JOEB.81.1.9-14

Bell, K. (2018). *Game on! Gamification, gameful design, and the rise of the gamer educator*. Baltimore: John Hopkins University Press.

Buckley, P., & Doyle, E. (2016). Gamification and student motivation. *Interactive Learning Environments*, *24*(6), 1162–1175. https://doi.org/10.1080/10494820.2014.964263

Calabor, M. S., Mora, A., & Moya, S. (2019). The future of "serious games" in accounting education: A Delphi study. *Journal of Accounting Education*, *46*(April 2017), 43–52. https://doi.org/10.1016/j.jaccedu.2018.12.004

Calderon, T., Hesford, J. W., Mangin, N., & Pizzini, M. (2018). Sunrise Hotels: An integrated managerial accounting teaching case. *Journal of Accounting Education*, *44*(July), 60–72.

https://doi.org/10.1016/j.jaccedu.2018.06.001

Carenys, J., & Moya, S. (2016). Digital game-based learning in accounting and business education. *Accounting Education*, *25*(6), 598–651. https://doi.org/10.1080/09639284.2016.1241951

Carnaghan, C., Edmonds, T. P., Lechner, T. A., & Olds, P. R. (2011). Using student response systems in the accounting classroom: Strengths, strategies and limitations. *Journal of Accounting Education*, *29*(4), 265–283. https://doi.org/10.1016/j.jaccedu.2012.05.002

D'Aquila, J. M., Wang, D., & Mattia, A. (2019). Are instructor generated YouTube videos effective in accounting classes? A study of student performance, engagement, motivation, and perception. *Journal of Accounting Education*, *47*(3), 63–74. https://doi.org/10.1016/j.jaccedu.2019.02.002

Douglas, S., & Gammie, E. (2019). An investigation into the development of non-technical skills by undergraduate accounting programmes. *Accounting Education*, *28*(3), 304–332. https://doi.org/10.1080/09639284.2019.1605532

Durso, S. de O., Reginato, L., & Cornacchione Jr, E. B. (2019). Gamification in accounting and students' skillset. *Advances in Scientific and Applied Accounting*, *12*(3), 079–100. https://doi.org/10.14392/ASAA.2019120305

Fan, H., & Song, X. (2020). The advantages of combining mobile technology and audience response systems. *Journal of Accounting Education*, *50*, 100657. https://doi.org/10.1016/j.jaccedu.2020.100657

Hoelscher, J., & Mortimer, A. (2018). Using Tableau to visualize data and drive decision-making. *Journal of Accounting Education*, *44*(October 2017), 49–59. https://doi.org/10.1016/j.jaccedu.2018.05.002

Holtzblatt, M., & Tschakert, N. (2011). Expanding your accounting classroom with digital video technology. *Journal of Accounting Education*, *29*(2–3), 100–121. https://doi.org/10.1016/j.jaccedu.2011.10.003

Istenic Starčič, A., Cotic, M., Solomonides, I., & Volk, M. (2016). Engaging preservice primary and preprimary school teachers in digital storytelling for the teaching and learning of mathematics. *British Journal of Educational Technology*, *47*(1), 29–50. https://doi.org/10.1111/bjet.12253

Kozinets, R. V. (2002). The Field Behind The Screen: Using Netnography Marketing Communities. *Journal of Marketing*, *39*(1), 61–72. Retrieved from http://www.jstor.org/stable/1558584

Kozinets, R. V. (2010). *Netnography: Doing ethnographic research online*. London: Sage.

Krause, J. M., O'Neil, K., & Dauenhauer, B. (2017). Plickers: A Formative Assessment Tool for K–12 and PETE Professionals. *Strategies*, *30*(3), 30–36. https://doi.org/10.1080/08924562.2017.1297751

Levant, Y., Coulmont, M., & Sandu, R. (2016). Business simulation as an active learning activity for developing soft skills. *Accounting Education*, *25*(4), 368–395. https://doi.org/10.1080/09639284.2016.1191272

Lillie, R. E., & Wygal, D. E. (2011). Virtual Office Hours (VOH) in accounting coursework: Leveraging technology to enhance an integrative learning environment. *Journal of Accounting Education*, *29*(1), 1–13. https://doi.org/10.1016/j.jaccedu.2011.10.002

Mintz, S. M., & Nourayi, M. M. (2005). An instructional case in using receivables as collateral for a loan: Harrison Chemical Corporation. In *Research on Professional Responsibility and Ethics in Accounting* (Vol. 10, pp. 195–209).

https://doi.org/10.1016/S1574-0765(05)10008-9

Nasu, V. H. (2019). Why is plickers a relevant pedagogy alternative for accounting educators? A reflection on distinct types of student response systems (SRS). *Revista Mineira de Contabilidade*, *20*(3), 34–46. https://doi.org/10.21714/2446-9114RMC2019v20net03

Nasu, V. H., & Nogueira, D. R. (2020). Celulares a postos? Estudo sobre a percepção de alunos de ciências contábeis acerca do sistema de resposta de audiência (SRA). *Enfoque: Reflexão Contábil*, *39*(1), 01–19. https://doi.org/10.4025/enfoque.v39i1.45319

Natoli, R., Jackling, B., & Jones, A. (2017). Examining the usefulness of an accounting work-readiness program as perceived by employed program graduates. *Australian Accounting Review*, (April), 1–11. https://doi.org/10.1111/auar.12188

Nogueira, D. R. (2014). *Vento da mudança: estudo de caso sobre a adoção de ambientes virtuais no ensino presencial em contabilidade* (Tese de Doutorado, Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo). https://doi.org/10.11606/T.12.2014.tde-05112014-161527

Riley, R. A. (Dick), Cadotte, E. R., Bonney, L., & MacGuire, C. (2013). Using a Business Simulation to Enhance Accounting Education. *Issues in Accounting Education*, *28*(4), 801–822. https://doi.org/10.2308/iace-50512

St. Pierre, K., & Rebele, J. E. (2014). Chapter 5 - An agenda for improving accounting education. In R. M. S. Wilson (Ed.), *The Routledge Companion to Accounting Education2*. London and New York: Taylor & Francis Group.

Taylor, M., Marrone, M., Tayar, M., & Mueller, B. (2017). Digital storytelling and visual metaphor in lectures: a study of student engagement. *Accounting Education*, *0*(0), 1–18. https://doi.org/10.1080/09639284.2017.1361848

Viviers, H. A., Fouché, J. P., & Reitsma, G. M. (2016). Developing soft skills (also known as pervasive skills). *Meditari Accountancy Research*, *24*(3), 368–389. https://doi.org/10.1108/MEDAR-07-2015-0045

Watty, K. (2014). Chapter 13 - Generic skills within the accounting curriculum. In R. M. S. Wilson (Ed.), *The Routledge Companion to Accounting Education*. London and New York: Taylor & Francis Group.

Watty, K., McKay, J., & Ngo, L. (2016). Innovators or inhibitors? Accounting faculty resistance to new educational technologies in higher education. *Journal of Accounting Education*, *36*, 1–15. https://doi.org/10.1016/j.jaccedu.2016.03.003

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[i] For confidentiality purposes, none of the members of the "Bolsista Capes" group will be named, as well as the data collected will be disclosed in an aggregated form.