EXPLORING THE USES OF MOBILE APPS BY PORTUGUESE STUDENTS DURING COVID-19 PANDEMIC

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Abstract

The Covid-19 pandemic has been a real-time laboratory for a technological future that Anderson, Rainie and Vogels (2021) describe as “tele-everything”. Among other mediated practices, online shopping, virtual schooling, teleworking, telehealth, online workout, and even virtual parties were adopted in unprecedented ways to avoid physical contact during the outbreak. The pandemic has pushed people into new socially mediated practices and posed demanding challenges to those who had difficulties dealing with internet addiction or separating work time from leisure. Despite the surge of various studies about Covid-19 tracing apps, there is a lack of studies regarding students’ use of mobile apps during the lockdown. Considering the ubiquitous presence of smartphones in the students’ lives (Silver et al., 2019), mobile apps have been the proxy for reconfiguring the relationships between students, their families and teachers, studying routines and other social practices. This exploratory study seeks to understand the role of mobile apps in the lives of Portuguese higher education students during the period of social isolation caused by the Covid-19 pandemic. The empirical research draws on a quantitative methodology through an online questionnaire applied during the first state of emergency declared by the Portuguese Government in early 2020. A snowball process was used to gather a non-probabilistic sample (N=88), and data were analysed using descriptive statistical analysis. The results indicate that most respondents (77.2%) intensified the use of mobile apps in this period. Nevertheless, there is a considerable perception (59%) that these patterns of use of mobile apps are a waste of time.

Keywords: higher education students, Portugal, mobile apps, Covid-19.

1 INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared Covid-19 a pandemic and six months later, the disease had already spread and affected more than two hundred countries [1]. To reduce the risks of transmission among the populations during the pandemic, several governments have introduced social distancing measures worldwide [2]. For example, in Portugal, the first cases of the disease were announced on March 2 by the Portuguese Health Minister. As a result, the state of emergency was declared on March 18 by the President of the Republic, with mandatory confinement and other restrictions [3](DN., 2020). Strict implementation of public health measures such as quarantines and physical distancing was critical to reducing the global spread of Covid-19 in the absence of vaccines and antivirals [4].

The internet played an essential role in maintaining work and study activities during Covid-19’s isolation periods [5]. The pandemic was the first to occur in a fully globalised network society [6], serving as a real-time laboratory for a technological future that Anderson, Rainie and Vogels [7] describe as “tele-everything”: practically all social and material life has been transposed to the virtual, with infinite possibilities. The pandemic has led people to new practices of social mediation. However, it also presents demanding challenges for those dealing with Internet addiction or separate work and leisure time. Students are a particular group with specific technosocial idiosyncrasies that are worth analysing.

Despite the considerable amount of research on Covid-19 tracking apps published in the last months, there is a lack of studies on students’ use of mobile apps during the lockdown. By mainly being millennials and zoomers (Z generation), students have been socialised quite early in a digital environment [8], [9]. Smartphones have a ubiquitous presence in their lives [10]. Mobile applications have been the proxy for reconfiguring relationships between students, their families and teachers, study routines and other social practices.

The most prolific area of research regarding the use of technologies by students is education. In recent years, mobile technologies have become one of the most powerful tools in the teaching and learning
process [11], especially in higher education [12], [13]. The reduced cost of using mobile networks and the availability of mobile applications for educational uses made the era of the mobile learning revolution possible [14].

The effects of the confinement measures were felt by students, who had to access classes and lectures with the help of smartphones because conferences, seminars, workshops and other academic activities were either cancelled or turned into webinars [15]. However, research shows that times of crisis increase social and personal needs to communicate [16], [17]. Students used mobile applications during the pandemic for teaching and work purposes and as a way to communicate with friends and family and for entertainment. This last use was fundamental to overcome difficulties these students face during social isolation: health reports have shown that one of the effects of the pandemic on young adults concerns mental health, with increased rates of depression, anxiety and self-harm [18]. Social isolation made university students spend more time sitting, receiving fewer visits and having less human contact, with increased rates of depression [19]. The use of social networks and the internet for entertainment purposes can help people deal with isolation and negative thoughts, working as an emotional strategy [20]. One of the trends perceived among young people in the use of mobile apps during social isolation was the increasing amount of time spent for entertainment purposes [21].

This exploratory study aims to understand the role of mobile applications in the lives of Portuguese higher education students during the period of social isolation caused by the Covid-19 pandemic. The results contribute to a deeper understanding of the role of mobile technologies in reshaping social and work practices within this group.

2 METHODOLOGY

This paper presents an exploratory and descriptive study that was part of a more extensive study. It aims to contribute to a more profound knowledge about the uses of mobile applications by higher education students during lockdown periods. Data was collected through a questionnaire designed to answer two main research questions: RQ1: what do higher education students use apps for during pandemic lockdowns?; RQ2: what are their perceptions regarding the use of mobile apps during these periods? The survey was conducted in Portugal using an online questionnaire on Google Forms disseminated through the internet between the 29th of March and the end of May 2020. These dates coincided with the first lockdown period, which the Portuguese government decreed on the 18th of March. The sample was formed through a non-probabilistic convenience sampling method (N=88 valid respondents over 18 years old, who were enrolled in a higher education degree and were in social isolation during this period). The methodology is quantitative, recurring to SPSS 27 software.

3 RESULTS

The sample was composed of 88 valid respondents, most female (87.5%). Only 22.5% of the respondents were male. It was composed mainly of individuals living in urban areas (75.5%) that were either full-time students (77.2%) or who divided their time between studying and working (22.8%). They were all in mandatory confinement due to COVID-19 sanitary restrictions.

During confinement, the routine was composed of several activities at home. Being on social media was referred to as frequent or very frequent by 86.6% of the respondents, while 84% referred to communicating via mobile apps with friends and relatives. Other frequent or very frequent activities were: checking the news media to get information about the pandemic (80.6%); leisure activities like watching movies and series, hearing to music, reading or playing games (79.5%), studying (71.5%), performing household chores (52.2%), some form of remote work (48.8%), or physical exercise (38.6%).

<table>
<thead>
<tr>
<th>Being on social media</th>
<th>Communicating to friends/relatives via mobile apps</th>
<th>looking for information on the news media</th>
<th>leisure (movies, books, music)</th>
<th>studying</th>
<th>house chores</th>
</tr>
</thead>
<tbody>
<tr>
<td>86.6%</td>
<td>84%</td>
<td>80.6%</td>
<td>79.5%</td>
<td>71.5%</td>
<td>52.2%</td>
</tr>
</tbody>
</table>
This group of students uses free apps (only 14.7% have bought them). However, about half (53.4%) has some subscription running. When asked about a comparison, 77.2% of the respondents considered that their use of mobile apps had increased during confinement.

The National Health Service app has relatively low use rates (only 27.7%) as a source of information, while the media outlets are referred to as being frequent or very frequent sources by 64.7% of the respondents.

Only a residual number of students has installed apps to control health (5.6%). However, that percentage increases to 23.8% when referring to apps that allow for quantifying physical indicators, like weight, sleep or menstruation. A small percentage (14.7%) has installed meditation apps that allow the respondents to deal with their fears and anxieties.

Respondents are using more apps than they did before the lockdown. However, if we narrow it down to social media apps, the percentage of respondents that confirm this augment is 87.5%. A similar number of individuals (86.3%) agree that specific apps for communicating with relatives also increased. The majority of the sample (71.5%) considers that apps can maintain relatives and friends closer.

Only 15.9% of the sample has installed an app that allows for screen time control. However, nearly half of the respondents (48.8%) agree that apps have helped them overcome such a difficult period. More than half of the sample (56.8%) acknowledges that boredom is a motive for using apps, and 27.2% refer that app overuse is causing them some distress. However, a significant number of subjects (59%) acknowledge the feeling of wasting time while using apps.

Apps are seen by 30.6% as a way to maintain some of the routines that respondents had before the pandemic. Specifically, regarding their occupation, 73.3% of the respondents consider apps indispensable for their work or study, but only 23.8% associate apps with improved performance.

Music and video consumption are two of the most appropriate uses for mobile apps, as shown in table 2.

<table>
<thead>
<tr>
<th>Listening to music</th>
<th>Learning a language</th>
<th>Physical exercise</th>
<th>Watching movies/series</th>
<th>To cook</th>
</tr>
</thead>
<tbody>
<tr>
<td>77.2%</td>
<td>17%</td>
<td>43.1%</td>
<td>76.1%</td>
<td>15.9%</td>
</tr>
</tbody>
</table>

Globally, most of the respondents did not start to use new apps during this period; 81.8% say that they were generally using the same apps but more time.

4 CONCLUSIONS

Lockdown measures caught higher education students in different situations; some were isolated and distant from their homes; others were sharing the usual spaces with their families. Following the closing of higher education institutions, remote learning entered their lives. Whether for continuing their studies or social activities, the use of mobile apps by higher education students increased during the pandemic, particularly during the lockdowns. Considering the adoption rate of mobile technologies in these generations, it seems plausible to consider that the use of mobile apps for remote communication has been swift and smooth. In fact, the results of this study suggest that the most significant change occurred in the amount of time spent with apps and not on the type of apps that were being used.

From our point of view, the most salient results in the study are related to the perceptions of usage. Students know that the use of apps has increased. However, there is some questioning about the utility of their uses: nearly 60% fear wasting their time when using apps during confinement, which can be related to the increased time spent on social media.

Mobile apps have gained a novel role in the students’ lives; they became necessary for their studies. However, there is no general association of their use to increased performance. Apps are also recognized as being able to maintain friends and family close. Their use reflects patterns of sociability that are not novel. However, despite not being the result of confinement restrictions, mobile applications have increased significantly and for somewhat different uses than usual, such as communicating more frequently with family and not only friends. The use of apps to search for information about the pandemic shows a more significant demand for news by young adults. The use of apps for household chores and physical exercise also deserves to be highlighted as they stand out from the traditional uses of social media platforms, messaging and videoconferencing.
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REFERENCES


