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The cost of smartphones among communication professionals: analysis of the social, labor and personal consequences

El coste del smartphone *entre los profesionales de la comunicación: análisis de las consecuencias sociales, laborales y personales*

Abstract

Mobile phones are now part of the everyday lives of communication professionals and have blurred the line between private life and work. From a media literacy perspective, we analyze the need for training in media skills and the implications of using smartphones for work. Professionals in the communication sector evaluate the cost of mass use of these devices and their consequences. Research was carried out on 305 professionals who worked in mass media, advertising, institutional communication and audiovisual creation. A widespread view held throughout the group was that there was a need for training in media skills, and that it was more important to train people at work than the general public. Another opinion was the more mobile devices are used, the greater the need there was for training. Training priorities are not technical skills, but rather, ethical and security issues. The consequences of using them revolve around three areas: professional, commercial and the long-term effects on society and culture. The benefits and drawbacks in each area are evaluated. Finally, conscious disconnection from the devices is put forward as a way of regaining control over technology.

Resumen

Los dispositivos móviles se han incorporado a la rutina diaria de los profesionales de la comunicación integrando la vida privada y la laboral. Desde la perspectiva de la educación mediática se analiza la valoración que hacen los profesionales sobre las necesidades formativas en competencias mediáticas y las implicaciones del uso del smartphone en su actividad profesional. Se plantea una reflexión sobre el coste inherente del uso de estos dispositivos y sus consecuencias para el conjunto de la sociedad. El estudio se realiza a través de una encuesta a 305 profesionales de la comunicación, la publicidad, la comunicación institucional y la creación audiovisual. Los resultados ponen de manifiesto la necesidad prioritaria de formar en competencias mediáticas en todo el colectivo, más que a la ciudadanía. Las áreas de formación prioritarias no se sitúan en aspectos técnicos de los medios, sino en cuestiones éticas, deontológicas y en la prevención de riesgos. La valoración de las consecuencias derivadas de su uso se articulan en torno a tres planos: el profesional, el comercial y los efectos en la sociedad y la cultura a largo plazo. Finalmente se reivindica la desconexión consciente de los dispositivos como un camino para recuperar el control sobre la tecnología.

Keywords

Digital literacy; communication professionals; literacy education; ethics implications; smartphone

Palabras clave

Competencia digital; profesionales de la comunicación; formación en competencias; implicaciones éticas; smartphones

1. Introduction

Nowadays smartphones are used on a daily basis and this way people are permanently connected. According to the latest report drawn up by the consultancy, Digital Marketing Trends, mobile phone market penetration is 66% and in Spain it reached 88% (Ditendria, 2018). The smartphone may be thought of as the upcoming fourth daily use screen, after the cinema, television and computer. So, what exactly is a smartphone? It is a device which combines the qualities of a telephone, and a processor which makes it a GPS, an audiovisual player, email client, camera, browser and toy. It also has endless other potential uses, which has changed the way we see and interact with the environment. It has won society over with features such as portability, ubiquity and immediacy as these give them innumerable benefits. However, it has also brought risks. As stated by Castells, Fernández-Ardèvol, Qiu and Sey (2007) mobile devices have been lauded as a platform for cultural consumerism and as a technology for building relationships. They enable people to interact in order to build a type of augmented society in which what is paramount is the amount and variety of relationships one has (Reig Hernández, 2012), Virtual communities are created with social networks in which contents are shared, in order to build an online identity and reputation and for social and/or professional promotion (Davis, 2014; Manago, 2015). They provide unlimited communication (Mattelart and Vitalis, 2015) but also information overload or intoxication (Cornellá, 2010).

Mobile terminals have merged tasks from the public domain, private life and work (there are no any boundaries between these). Numerous tasks can be carried out with them: reading the news, talking to the family, congratulating friends or making shopping lists; at the same time one can keep on top of work, search for documentation or even watch a tutorial. The traditional separation between the media and the private domain has practically disappeared. Tasks are now performed simultaneously and the real and virtual worlds have become interdependent. The digital revolution has created an environment in which we are permanently online and this has affected our whole life, that is, both our private life and work, and the limits between work and leisure have become blurred. Employees now think nothing of answering emails and messages in leisure time and they maintain continuous communication. We need to deal with great volumes of information which can be overwhelming. Such multi-tasking is very mentally demanding and inappropriate use of the Internet and new technologies when at work may trigger syndromes such as computer fatigue or technostress (Aragüez Valenzuela, 2017), leading to anxiety, tiredness, emotional exhaustion or addiction. We are in a society defined by its frantic pace of life (Rosa 2016), and this prevents us from reflecting on the changes that have taken place. Therefore, the right to digital disconnection, a work-life balance, dignity, equality and compliance with data protection laws must all be reinforced. In Spain, although there have been precedents in joint agreements and case law, these have been amended by Law 3/2018 of the 5th of December, by which the data protection law and guarantee of digital rights were passed, although the right to disconnection is still being negotiated before it can be implemented effectively (Pérez Campos, 2019).

Currently, the presence of media technology in our daily lives is a phenomenon which is ever more important from a *media literacy perspective*. This is a term which encompasses many concepts which cover a range of skills: informational, media and digital ones (Potter, 2010; Koltay, 2011). To be specific, training the public in media and digital skills is something that would be fundamentally beneficial to our society, as Hobbs put it (2010):

> (…) such ubiquitous and easy access to so many information and entertainment choices requires that people acquire new knowledge and skills in order to make wise and responsible decisions. For people to achieve the personal, professional and social benefits of thriving in a digital age, these skills are not just optional or desirable—they are the essential elements of *digital citizenship* (Hobbs, 2010: 16).

The study by Ferrés i Prats, Aguaded Gómez and García Matilla (2012) revealed there was a need to prepare the general public in such a way that when they interact with digital technology it fosters their personal development and it is beneficial to society. Their work shows in Spain there was a fundamental lack of media skills: languages, aesthetics, ideology, values and processes, when producing, sharing, receiving and interacting, although   technology skills were acceptable.

A large part of the bibliography on media skills has been developed in an educational setting. Gutiérrez and Tyner (2012) expound the need to recover more critical and ideological approaches in such a way that media literacy does not just boil down to developing just technological skills and how to use equipment, but which also addresses attitudes and values. Additionally, Ferrés and Piscitelli (2012), in light of the changes that have taken place in communication in recent years, put forward the notion of literacy based on participatory culture, combining criticism and aesthetics with expressive capacity, and

developing personal autonomy with social and cultural commitment. In this way, the technological revolution can be harmonized with neurobiology.

Communication experts, when faced with new communicative situations spread by the Internet and technological devices need to keep up with technological changes in their professions (Jódar Marín, 2010; Núñez, García, and Abuín, 2013; Casero-Ripollés, Ortells-Badenes, and Doménech-Fabregat, 2013; Salaverría, 2016) but also to hone skills which promote reflection, thought, knowledge and the resolution of ethical conflicts caused by their professional and personal relationship with digital media (as expounded by researchers such as Borden and Tew, 2007; Bowen (2012); Peters and Broersma (2013). Without doubt, the daily use of smartphones for work has changed the way these professionals work, not only by providing resources but also by placing demands on them. As Sonnentag (2017) put it, mobile devices enable people to choose when and where they work, to access information in order to solve problems and provide ways of improving communication, performance and response times. *Smartphones enable us to* be permanently present and available, to answer and take decisions in the here and now. However, being permanently available for work, having access to a greater quantity of information or multi-tasking could mean technology has become more demanding. We have developed the ability to manage large quantities of information with certain skill, but our control is quick and superficial. As Carr (2017) stated, the multi-tasking which smartphones enable us to do, results in superficially scanning information and also hinders our ability to concentrate, contemplate and reflect. Authors such as Watson (2011), Lanier (2011), Jackson (2008) or Jantz (2012) warned about these dangers. S*martphones are also thought to* bring about changes in the way we process information when we constantly respond to their demands anytime, anywhere (Klimmt, Hefner, Reinecke, Rieger and Vorderer, 2018; Diehl, Zauberman and Barash, 2016; Reinecke, Klimmt, Meier, Reich, Hefner and Knop-Huelss, 2018). For example, when we make attending to our smartphones a priority whenever we receive an alert, message or anything similar, it not only distracts us, but also provokes in us the sensation that we need to respond immediately. The constant demand for attention, which checking the screen entails to see whether there is any news we haven´t picked up on, is just one example of this phenomenon.

As a premise for evaluating this situation, new proposals have been put forward (Serrano Puche, 2014; Sampedro Blanco, 2018; Freeman, 2009; Victoria, Gómez and Arjona, 2012; Brown, 2012) in which a diet or "digital disconnection" is set out as a counter measure against this situation so that we can regain our ability to focus and reflect. One such proposal concerns critical learning about digital technologies in which technology use goes hand in hand with our social, work or personal needs. As Serrano Puche put it:

> (...) not only are technological skills essential for using the Internet correctly, but also axiological, intellectual and emotional ones which must be channelled towards training in healthy habits for interacting with digital media (Serrano Puche, 2014: 210).

2. Objectives

This research explores how tasks performed with mobile devices have made permanent connection a reality in today´s world. In this paper there is an analysis of how users themselves assess the implications of using smartphones for their private and professional life, and the consequences such use has in their work and for society as a whole. Therefore, how communication professionals use *smartphones* will be analysed as well as the need for further training in media skills. Moreover, there will be an exploration of the relationship between using these devices and the critical evaluation the professionals give about their implications for work and the consequences they foresee for society as a whole. Before testing these objectives two indicators for using the mobile devices will be compared bearing in mind age, sex and profession descriptors as these variables may show differences in the way individuals use these devices.

3. Methodology

Questionnaires were used as the methodology which was set up by means of an online platform. The questions were drawn up *adhoc* for research purposes and were grouped around various issues concerning the use of mobile devices in a professional capacity.

3.1 Measuring variables

The first block of questions focuses on personal and work data, the mobile devices owned and how they are used. In order to measure how mindful the professionals are of their phones and how fast they respond to their demands, four statements were drawn up whose responses were collected on a 4-point Likert scale

and the participants showed the level to which they agreed or disagreed with them. The data was deemed appropriate for carrying out a factor analysis by means of Barlett´s test of sphericity (Chi squared=255,529 d.f.=6 sig.=0,000) and the KMO coefficient KMO = 0.722. The principal components method was used for the factor analysis. All items on the scale were saturated in a single factor which explained 57.6% of the variance. The reliability coefficient was obtained for the scale according to Cronbach´s alpha which was 0.75 which indicated there was high internal consistency. Once the psychometric properties were checked, a single indicator called *permanently* surveillance, was created which was calculated from the average sum of the four questions which the scale was made up of.

Table 1. Variables used in the study about use and training needs

Questions about the use of the mobile devices in a professional setting	Measuring the response
Q.7 How many mobile devices do you use in total (for personal and professional use)?	Total number of devices.
Q.8 Percentage of time spent on professional tasks (daily)	10 points scale. Range from 10 % to 100%
Q.9 Time disconnected (Sum of situations in which mobile is not used)	Summation of situations in which you do not use mobile devices (turned off, airplane mode or you do not respond to it). Maximum score 8 Situations: *Night, meals, meetings, certain moments at work, moments reserved for the family, leisure moments, at any moment, other.*
Q.10 Digital surveillance (average sum of items)	Ordinary 4-points scale. Range of agreement or disagreement, with I don´t know option: • *You are fairly mindful of your mobile devices* • *You must respond immediately to the demands of your mobile devices* • *You interrupt a conversation or whatever you are doing when you receive a call or a message from your mobile devices.* • *You feel obliged to respond immediately to the messages, alerts or comments you receive on your mobile devices.*
Q.**11 Number of tasks you prefer to use your *smartphone for* (Sum of situations)**	Maximum score 7 Activities: *consulting information, designing and creating reports, designing and editing productions, comunicating with work team, communicating with clients, suppliers, etc., participating in social networks, other.*
Q. 12 To what extent do you consider training in digital skills to be important?	Ordinary 5-point scale. Range from not at all to very important: • *For communication professionals* • *For the general public* • *For me.*
Q.13 If promoting digital literacy on different screens, give a value to how important the following contents would be:	Ordinary 5 point scale. Range from not at all to very important. • *Technological knowledge* • *Ethical values* • *Recommendations about health and safety* • *Knowledge about analysis and production languages* • *Information distribution* • *Other*

Below, the questionnaire assesses the need for training in digital skills and the areas in which this is needed according to how important it is on a 5-point Likert scale (see table 1).

The following block of questions gathers opinions about the consequences of using these devices for professional and social use as shown in table 2. A scale was drawn up with 22 statements for finding out

what the professionals thought about different issues. The responses were collected on a five-point Likert scale in which participants showed the level to which they agreed or disagreed with the statements. The data matrix was appropriate for carrying out a factor analysis by means of Barlett´s test of Sphericity (Statistic = 2,238.326 df=276 sig.=0.000) and the KMO Coefficient= 0.753. The principal components method was used to estimate the factors which produced a 6-factor structure which explains 61.1% of the variance. The dimensions were interpreted from the factor analysis.

In the first dimension, the benefits of using mobile devices for professional use were gathered. Statements such as flexibility, reduced response time, streamlined processes, resolved technical issues, contact with clients and suppliers, collaboration and professional possibilities saturated the factor. Cronbach´s alpha, the reliability coefficient for this dimension, was 0.86. The second dimension was made up of the drawbacks of using mobile devices for professional use. The statements about multi-tasking, the difficulty of switching off from work, interruptions, being contactable outside the workplace and working hours received high scores for this factor. Just like the previous dimensions, the reliability coefficient for the items that made up this dimension obtained a Cronbach´s alpha of 0.83. The third factor grouped statements about how such devices promoted a culture of solidarity, gender equality, respect for other cultures, respectful language, and sustainable and restrained use of technology. This factor was termed benefits to society. The elements which made up this dimension had a Cronbach´s alpha of 0.84. The fourth factor gathered statements about drawbacks such as individualistic culture, excessive consumption and health problems. Even though this dimension only had three items, it accounted for 5.7% of the variance and its Cronbach´s alpha coefficient was 0.68. The next factor combined financial benefits and was made up of 3 items: benefits for multinationals in the sector, the possibility of new business opportunities, and guarantee of public safety. The Cronbach´s alpha coefficient for this dimension was 0.50. The last factor, included the drawbacks for the general public of trading with these devices which encompassed 5 issues: loss of privacy, lesser protection, conflicts and the benefits were not passed on to users. The reliability coefficient obtained with Cronbach´s alpha was 0.80.

Once the psychometric properties of the six dimensions were checked , global indicators were created from the average scores obtained from the statements that each factor was made up of.

Table 2. Construction of indicators from the factor analysis dimensions.

Questions 20, 21, 25

Benefits for work (Q.21: 7 items)	*flexibility, reduced response times, streamlined process, resolved technical issues, makes it easier to contact clients, suppliers, etc, collaboration, work opportunities*
Drawbacks for work (Q.21: 6 items)	*multi-tasking, difficulty in disconnecting, increased time dedicated to work, interruptions, contactable outside working hours, contactable outside workplace*
Benefits for business and security (Q25: 3 items)	*for multinationals, for opportunities to use the data created, to guarantee public safety*
Drawbacks for the public (Q25: 5 items)	*Reduced protection, loss of privacy, causes legal disputes, international conflicts, the benefits should be passed on to consumers*
Long-term benefits for society (Q.20: 6 items)	*promotes a culture of solidarity, gender equality, respect for other cultures, respectful language, sustainable use, restrained use of technology*
Long-term drawbacks for society (Q.20: 3 items)	*individualistic culture, excessive consumption, health problems*

3.2 Sample

The study was carried out on a sample of communication professionals made up of 309 people. The snowball extraction method was used. Professionals from communication associations were approached (Federation of Newspaper Associations, Associations of Advertising Agencies, Association of Media Agencies) to disseminate the questionnaire through their colleagues.

The sample was made up of 58.7% women and 41.3% men. There were four age groups from 25 to 64 years old. The four bands were the same size, so responses were considered as being representative of a whole group. The communication professionals were categorized as Media (51.7%), Audiovisual Production (15.7%), Advertising and Public Relations and Institutional Communication (18.1%) and the other
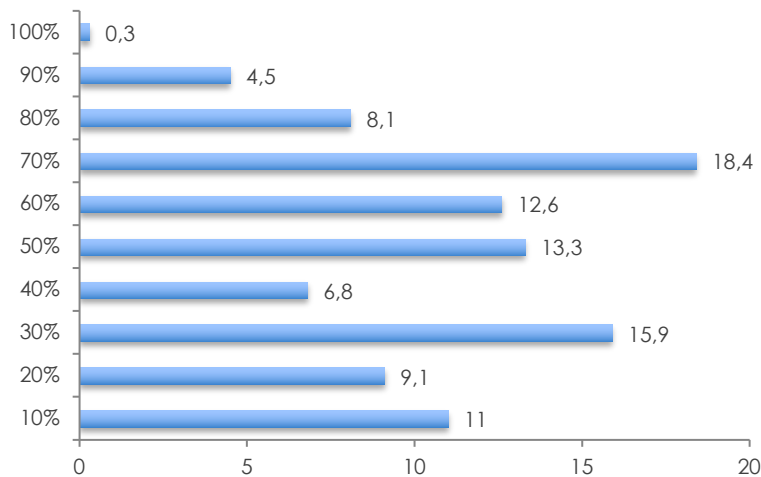
participants were classified as Others, as their professions did not fit any of the previously mentioned profiles. In order to check the professional activity each participant gave was correctly encoded, the description of work tasks was used and this field was filled in for the questionnaires which had not been completed.

4. Results

4.1 Differences in the use of *smartphone*

Firstly, use of the mobile devices in the sample is described and compared with the socio-demographic descriptors. The number of mobile devices the participants owned was on average 2.55 terminals (Standard Deviation = 1.179). There were no differences in the number of terminals between men and women (ANOVA F = 0.375 sig. 0.541). The percentage of time a smartphone was used daily gave an average score of 48.2% (SD = 23.1) and comparisons between men and women did not show any significant statistical differences (ANOVA F = 0.118 sig. 0.731). Although half the time these devices were used for work, according to the sample in graph 1, there was plenty of variation in the responses and an outstanding percentage of people used them for much longer and much less.

Graph 1. Percentage of time smartphone is used for work

Another question that reveals the intensity with which mobile phones were used for work is the number of tasks the respondents preferred to do with their mobile devices. This question reflected the number of tasks performed from a list of seven activities (designing and creating reports, designing and creating productions, communicating with work team, communicating with clients, participating in social networks and other activities) and it obtained an average score of 2.38 (SD =1.19). Gender comparisons were not statistically different according to the sample in table 1 (F =0.745 sig. =0.389).

Additionally, the question concerning the digital surveillance of the professionals obtained an average score of 2.56 on a 5-point scale (SD= 1.26). Although the comparison between men and women was not statistically significant, the group of men scored higher (average = 2.68 SD=1.26) than the women (average = 2.48 SD =1.26) according to the ANOVA (F=2.742 sig. =0.099).

Finally, the disconnection times reflected the extent to which phones were turned off or not responded to while other activities were carried out. The average score was 2.6 (SD=1.6), once again no differences attributable to gender could be found (ANOVA F=0.575 sig. =0.449).

Table 1. Use of smartphone by gender

	Men Average (SD)	Women Average (SD)	Total (SD)	ANOVA F (sig.)
Q.7 How many mobile devices do you use in total (for personal and professional use)?	2.60 1.203	2.52 1.164	2.55 1.179	0.375 (0.541)
Q.8 Percentage of time spent on professional activities (daily)	48.768% (23.473)	47.857% (24.083)	48.234% (23.082)	0.118 (0.731)
Q.9 Time disconnected (Sum of situations in which mobile is not used)	2.471 (1.578)	2.591 (1.546)	2.541 (1.558)	0.479 (0.489)
Q. 10 Digital mindfulness (responses show frequency)	2.676 (1.262)	2.476 (1.258)	2.559 (1.261)	2.742 (0.099)
P.11 Number of activities you prefer to use your *smartphone for*	2.352 (1.272)	2.4056 (1.132)	2.3836 (1.190)	0.745 (0.389)

Age-associated differences in the intensity smartphones are used are contrasted. Younger generations are seen to be more open to using new technologies, so differences in this respect were expected. The variance analysis made on the average number of devices, showed that there were no differences between the four age groups (ANOVA F = 0.2 sig 0.896). The percentage of time of daily use didn´t show statistically different data between the three age groups (ANOVA F = 0.743 sig. 0.527). The number of tasks they preferred to do with a mobile device was not statistically different (ANOVA F = 2.457 sig =0.063), although those in the 35 to 54 age range did perform more tasks. Digital mindfulness didn´t seem to be linked to age groups, (ANOVA F=2.182 sig. =0.09); nor disconnection times (ANOVA F=0.094 sig. =0.963).

Therefore, we cannot say there was a generational gap when using smartphones in a professional communication context since they were used in similar ways by the different age groups analyzed.

Table 2. Use of smartphone by age

	25-34	35-44	45-54	55-64	Total (SD)	ANOVA F (sig.)
Q.7 How many mobile devices do you use in total (for personal and professional use)?	2.58 (1.095)	2.5 (1.187)	2.56 (1.219)	2.67 (1.374)	2.56 (1.198)	0.2 (0.896)
Q.8 Percentage of time spent on professional tasks (daily)	45.35% (24.29)	50.48% (22.38)	49.45% (24.51)	48.13% (24.20)	48.38% (23.81)	0.743 (0.527)
Q.9 Time disconnected (Sum of situations in which mobile is not used)	2.6506 (1.502)	2.542 (1.541)	2.6 (1.741)	2.522 (1.502)	2.586 (1.580)	0.094 (0.963)
Q. 10 Digital mindfulness (responses show frequency)	2.291 (1.256)	2.705 (1.238)	2.728 (1.329)	2.615 (1.194)	2.584 (1.271)	2.182 (0.090)
Q.11 Number of tasks you prefer to use your *smartphone for*	2.191 (1.135)	2.554 (1.202)	2.533 (1.182)	2.146 (1.220)	2.3836 (1.190)	2.457 (0.063)

Smartphone use is compared with the categories of tasks in which communication occurs: media, the audiovisual field and institutional communication and advertising. The variance analysis performed on the average number of devices showed there were differences among the four groups; there was more intensive use in the group for institutional communication and advertising than in the other ones (ANOVA F = 3.037, sig 0.029).

The percentage of time spent daily also showed statistically significant differences when comparing the activities (ANOVA F = 2.876 sig. 0.023). The average time for the whole sample was 48.3%, but in the field of institutional communication and advertising, this percentage rose to 57% (SD = 25.15).

As for the number of tasks they preferred to perform with a mobile device, the contrast was not statistically different (ANOVA F = 1.950 sig =0.102). Regarding disconnection time, there were no differences between the four groups either (ANOVA F=1.29 sig. =0.274). In addition, digital surveillance was linked to the task carried out (ANOVA F=3.39 sig. = 0.01); with the highest score for institutional communication and advertising professionals (average = 13.7 DT= 4.7).

As a whole, certain differences could be seen according to different professions. The group that worked in the advertising and institutional communication sector tended to use smartphones more intensively.

Table 3. Use of smartphones for professional tasks

	Audiovisual communication	Media	Institutional communication and Advertising	Others	Total (N)	ANOVA F (sig.)
Q.7 How many mobile devices do you use in total (for personal and professional use)?	2.35 (1.11)	2.45 (1.089)	2.95 (1.234)	2.56 (1.235)	2.56 (1.198)	3.037 (0.029)
Q.8 Percentage of time spent on professional tasks (daily)	38.64% (22.58)	49.07% (22.89)	57.00% (25.15)	48.00% (24.55)	48.38% (23.81)	3.685 (0.012)
Q.9 Time disconnected (Sum of situations in which mobile is not used)	2.977 (1.683)	2.544 (1.583)	2.2 (1.105)	2.628 (1.732)	2.586 (1.580)	1.71 (0.166)
Q. 10 Digital mindfulness (responses show frequency)	9.409 (5.036)	9.882 (5.095)	13.7 (4.680)	10.778 (4.661)	10.334 (5.085)	3.52 (0.016)
Q.11 Number of tasks you prefer to use your *smartphone for*	2.158 (1.20)	2.363 (1.152)	2.464 (1.235)	2.534 (1.260)	2.3836 (1.190)	0.852 (0.466)

4.2 Training needs for digital skills and their relationship with smartphone use

The participants clearly agreed with the need for professionals to receive training in digital skills, and they gave this statement an average score of 4.8 points out of 5 (SD= 0.582), and a similar one if the question was targeted at themselves (Average= 4.61 SD =0.751). In addition, although, they also considered training the general public in media skills was important; the average score they gave was slightly lower (Average= 3.71 SD =0.759). In order to identify the link between the use of smart terminals and training needs, a Pearson correlation coefficient analysis was carried out. The hypothesis used was estimating training needs may vary according to how terminals are used. In table 4 the correlations are shown between the number of terminals, the percentage of time terminals are dedicated to work, disconnection times and digital surveillance with the importance of receiving training in digital skills. The results showed the number of terminals had a slightly positive correlation, albeit a statistically significant one with the importance of educating the general public (r = 0.146 sig. =0.039). This implies the respondents with most devices were more sensitive to the need to educate the general public. The percentage of time the terminals were used for work tasks had a positive correlation with the importance given to training in digital skills (r = 0.166 sig. =0.004). The respondents who dedicated most time to work with their smartphones showed a greater tendency to agree that training was needed. On this point, a positive relationship between the digital surveillance variable and the importance of training was observed in the answers the professionals gave (r = 0.188 sig. =0.001). The other work-related indicators were not associated with detecting training needs.

Table 4. Importance of training in media skills and their relationship with smartphones

	Importance of skills training Pearson´s correlation coefficient (sig. Bilateral)		
	12.1 For communication professionals	12.2 For the general public	12.3 For you
Q.7 How many mobile devices do you use in total (for personal and professional use)?	0.098 (0.088)	.146* (0.039)	0.049 (0.393)
Q.8 Percentage of time spent on devices for work	0.08 (0.164)	0.092 (0.191)	.166** (0.004)

Q.9 Time disconnected (Sum of situations in which mobile is not used)	-0.002 (0.972)	0.018 (0.804)	-0.029 (0.62)
Q. 10 Digital mindfulness (responses show frequency)	0.109 (0.057)	-0.135 (0.055)	.188** (0,001)
Q.11 No of tasks carried out on mobile device.	0.011 (0.841)	0.086 (0.207)	0.071 (0.202)
Average (Typical Deviation)	4.80 (0.582)	3.71 (0.759)	4.61 (0.751)

Below, there is an analysis of the relationship between the variables which shows the use of mobile terminals with the training contents which should be given according to the results in table 5. The percentage of time in which mobile devices are used for work is associated with the importance given to education in ethical values (r = 0.155 sig. =0.006) and the importance of health and safety training (r = 0.146 sig. =0.01). The professionals who use them the most are also most aware of the need for training on these two issues (ethics and health and safety). The variable that collects disconnection times is inversely related to the need for training (r = -0.126 sig. =0.029). Those who are most aware of the need to prioritize tasks other than those they perform on their smartphones believe training in technological skills is less important. Neither the number of devices, nor the number of activities carried out with the mobiles are associated with important content for media literacy.

Table 5. Relationship between use of smartphones and importance of skills training contents

	Importance for digital literacy Pearson´s correlation coefficient (sig. Bilateral)					
	13.1 Technical knowledge	13.2 Ethical values	13.3 Health and safety recommendations	13.4 knowledge about analysis and production languages	13.5 Information distribution	13.6 Others
Q.7 No of mobile devices used in total (for personal and professional use)	-0.007 (0.909)	0.059 (0.299)	0.056 (0.329)	0.037 (0.518)	0.031 (0.586)	0.086 (0.315)
Q.8 Percentage of time spent on devices for work?	0.076 (0.181)	.155** (0,006)	.146* (0.01)	0.051 (0.379)	0.068 (0.239)	0.134 (0.113)
Q.9 Time disconnected (Sum of situations in which mobile is not used)	-.126* (0.029)	0.065 (0.261)	0.065 (0.26)	-0.018 (0.761)	0.043 (0.458)	0.145 (0.092)
Q. 10 Digital mindfulness (responses show frequency)	0.077 (0.176)	0.036 (0.53)	0.034 (0.551)	0.056 (0.33)	0.011 (0.852)	0.124 (0.142)
Q.11 No of tasks carried out on mobile device.	0.026 (0.638)	0.019 (0.725)	- 0.051 (0.353)	0.073 (0.187)	0.040 (0.475)	0.093 (0.247)
Average (SD)	3.84 (0.989)	4.50 (0.782)	4.27 (0.935)	3.54 (1.067)	4.00 (0.897)	3.35 (1.008)

4.3 Relationship between how intensively smartphone is used and consequences

The professionals talked of how using a smartphone affected their work. From a series of set questions, a dimension was gathered which reflected the benefits of using these devices for work and another factor collected the drawbacks, as described in the methodology section. The average for the benefits (A= 3.850 SD= 0.742) for work was greater than that for the drawbacks A= 3.576 SD= 1.362). However, the results for the drawbacks were more varied as they deviated more which shows there was less consensus when

assessing them. None of the variables assessed in relation to using the mobile terminals showed any relationship with opinions on how using them affected work, except for the number of tasks carried out with the phones, as can be seen in table 6. This question showed there was a direct link with the benefits of using them for work (Pearson´s correlation coefficient = 0.195 sig. =0.000). It could be said that the evaluation of how they affected work was just influenced by the number of tasks carried out with the mobile devices.

The implications of the technologies developed for smartphones means there is a business opportunity for multinationals and other institutions (Average = 3.452 SD = 0.730). At the same time, there is a medium-term cost for the general public, which in the eyes of the professionals is of greater consequence (Average = 3.752 SD = 0.851). Assessing these consequences is not linked to how intensively these devices are used at work, as shown in table 6.

As for the questions about the long-term consequences for society, the average score given to the drawbacks (A= 3.604 SD= 0.982) was greater than that for the benefits (A= 2.344 SD= 0.749). In the view of the professionals, the potential the devices have for improving society must be weighed against the social costs of using them. When these variables were inter-related with the data on mobile device use some interesting results were yielded. The time spent using the mobile terminals for work showed a positive correlation. The more time spent on using them for work, the higher the score was for the benefits (Pearson´s correlation coefficient = 0.136 sig. =0.017). In this respect, the number of tasks which the respondents preferred to carry out with their mobile phones was directly linked to the evaluation of benefits to society (Pearson´s correlation coefficient = 0.143 sig. =0.010).

The relationship of the benefits for society with digital surveillance is just significant in terms of the positive consequences (Pearson´s correlation coefficient = 0.120 sig =0.038). The more the demands of the smartphone are minded, the more perceptible are the benefits to society. However, disconnection times shows the negative sign has a significant relationship with the benefits to society (Pearson´s correlation coefficient = - 0.121 sig. =0.037). The more situations there are in which the smartphones are not minded, the less optimistic is the view about their potential for society.

Regarding the percentage of time the mobiles are used, this also had a positive relationship with drawbacks for society (Pearson´s correlation coefficient = 0.172 sig. =0.002). The more the mobile phone is dedicated to work, the more visible were the drawbacks for society.

Table 6. Relationship between the use of smartphones and opinions about the social implications of using them.

	Opinion about the consequences and implications Pearson´s correlation coefficient (sig. Bilateral)					
	benefits for work (C10a)	drawbacks for work (C10b)	Civic vulnerability (C14)	Business opportunities (C15)	Benefits for society (C9)	Drawbacks for society (C10)
Q.7 No of mobile devices used in total (for personal and professional use)	0.056 (0.329)	0.037 (0.518)	0.031 (0.586)	0.086 (0.315)	-0.007 (0.909)	0.059 (0.299)
Q.8 Percentage of time spent on mobile devices for work?	0.053 (0.351)	0.051 (0.379)	0.068 (0.239)	0.134 (0.113)	0.136* (0.017)	.172** (0.002)
Q.9 Time disconnected (Sum of situations in which mobile is not used)		-0.018 (0.761)	0.043 (0.458)	0.145 (0.092)	-.121* (0.037)	0.043 (0.460)
Q. 10 Digital mindfulness (responses show frequency)	-0.009 (0.875)	0.056 (0.33)	0.011 (0.852)	0.124 (0.142)	0.120* (0.038)	0.046 (0.425)
Q.11 No of tasks carried out on mobile device.	0.195* (0.000)	- 0.013 (0.814)	- 0.046 (.408)	0.060 (0.276)	0.143* (0.010)	0.063 (0.256)
Average (SD)	3.850 (0.742)	3.576 (1.362)	3.752 (0.851)	3.452 (0.730)	2.344 (0.749)	3.604 (0.928)

5. Conclusions

Communication professionals, just like other groups face a challenging professional environment in which mobile devices are an everyday reality. An issue has been considered which has been the springboard to this research and which materialized in the need for training in media skills detected by the communication professionals themselves. There was a widely held view in the group that there is a need for training in media skills, but this opinion was detected to be greater among professionals who used the mobile devices most intensively. In general, all the professionals valued training their own groups as being more important than training the general public. The priority training areas were not technological aspects of media skills, but rather, ethical and health and safety matters. In this way it was re-established that mastering media skills is not so much about technology, but rather how it is used.

The consequences of using these devices are expressed on three levels: professional, which has closer and more immediate consequence; financial, which also affects the general public in a close time frame; and the long-term social effects, distinguishing between the advantages and disadvantages in each instance.

Some work tasks were performed with these devices that provided several instantaneous benefits. A high level of consensus was detected when weighing the benefits for work, which included flexibility, facilitates contact, collaboration and professional opportunities. Likewise, the technology was positively viewed as something that helps business opportunities and ensures civic safety. Conversely, the results of assessing the long-term benefits for the general public became patent with their potential for promoting solidarity, respect for other cultures, respectful language or sustainability, assessments which are less widespread amongst the professionals. It might be said that the notion that mobile devices are really providing these types of benefits to society is treated with great scepticism.

As indicated by Sonnentang (2017), daily use of mobile devices, apart from any immediate benefits, also imposes a series of demands on us for which there is a price to pay. Multi-tasking, the difficulty of disconnecting, the increased time dedicated to work, are just some of the issues which they define and which they give almost as much importance to as the beneficial aspects, although responses vary a lot. The drawbacks for the public in matters such as loss of privacy, reduced protection and legal or international conflicts are views generally held.

Finally, the costs for society as a whole in a longer time frame can be seen in excessive consumption, an individualistic culture and health problems, so there is plenty of consensus on this, as with previous aspects. Nevertheless, all these drawbacks are not tantamount to an outright rejection of these devices, as suggested by the philosopher Markus Gabriel (2019), who dubbed those using multiple screens in today´s world as "the digital proletariat".

Under the hypothesis that an assessment of any consequences is influenced by how intensively a smartphone is used, it is evident that professionals who use mobile terminals more intensively have a clearer notion of their benefits to society as a whole, having verified this relationship in all the questions on their usage. This association does not occur with the other implications, which is a matter for future research.

It has been seen that the use of mobile devices for work was the same for men and women; likewise, there were no differences in the age segments, which belies the generation gap notion, so often linked to ITC. However there are differences in the tasks the professional carried out. It seems that advertising professionals and those who perform tasks in institutional communication used mobile devices more intensively and scored higher in being permanently connected, so it would seem they have accepted they need to be permanently online for purposes of work.

Finally, this research encompasses a recently introduced concept in the bibliography which refers to the changes in the way we process information and behave with mobile devices, which has been referred to as digital surveillance, which is measured along with another supplementary concept, which is voluntary and conscious disconnection of these devices. The measurements for this concept were coherent, and showed satisfactory rates of internal consistency and a relationship which was also consistent with other matters evaluated in this study. This, in particular, is a key concept as it is associated with a more critical assessment of the benefits of technology to society. However, professionals who consciously disconnect are less optimistic about these. In this respect, it would be useful to keep evaluating this phenomenon with other groups as well as its implications for training in digital skills.

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