



ITALIAN JOURNAL OF SOCIOLOGY OF EDUCATION

Editor-in-Chief: Silvio Scanagatta | ISSN 2035-4983

# Digital Practices, Communicative Codes and Social Inequalities: a Case Study During the Pandemic in Italy

*Maria Carmela Catone, Fiorenzo Parziale\**

## Author information

\* Department of Sociology, University of Barcelona, Spain. Email: mcatone@ub.edu

\*\* Department of Communication and Social Research, Sapienza University of Rome, Italy.  
Email: fiorenzo.parziale@uniroma1.it

## Article first published online

October 2022

## HOW TO CITE

Catone, M. C., parziale, F. (2022). Digital Practices, Communicative Codes and Social Inequalities: a Case Study During the Pandemic in Italy. Introduction to the Special Section, Italian Journal of Sociology of Education, 14(3), 173-200.

DOI: 10.14658/pupj-ijse-2022-3-8

# Digital Practices, Communicative Codes and Social Inequalities: a Case Study During the Pandemic in Italy

*Maria Carmela Catone, Fiorenzo Parziale*

---

Abstract: this paper analyses the complex relationship between digital practices, communicative codes and social inequalities in the period of the pandemic in Italy, through the analysis of data collected from a broader research project based on a web survey administered to 13,473 Italians. The study examined the use of social media by the respondents to acquire information on the Covid 19 emergency situation. After having carried out a theoretical overview, making reference to the perspective of Mannheim - above all in the direction developed by Bernstein - multiple regression models were constructed; these were aimed at identifying possible relationships between aspects related to the use of social media as an information source and the degree of trust in the information conveyed, and the socio-cultural and occupational conditions of the respondents. The main results showed that disadvantaged groups are more inclined than other groups to find and trust information on social media, as this channel responds to the horizontal mode of communication that is more consistent with the specific code they possess.

*Keywords: social class, social inequality, education, communicative codes, social media trust*

---

## Introduction

In this article we present the results of an analysis carried out on data collected from one of the first research studies conducted on lockdown conditions in Italy.

The research, that involved a web survey administered to 13,473 Italians, demonstrated how the ability to cope with the dramatic situation resulting from the spread of the Covid-19 virus was not equally distributed among the Italian population (Lombardo & Mauceri, 2020). In particular, in this work we focused on the use, made by a sample of Italians, of information channels and especially social media to acquire information on the health emergency.

The spread of Covid-19, which caused an unprecedented global emergency, led - especially in the initial stages - to the primary need for people to be constantly informed about the evolution of the pandemic, the characteristics of the virus, the government guidelines being issued, and ways to deal with this situation. In this context, digital technologies represented a key channel for the search for information, taking on also a central role in the consolidation and creation of new social practices, since these could not be undertaken in the typical physical contexts of everyday life (Addeo et al., 2020). During the lockdown period, i.e. in a critical moment marked by anxiety, fear and insecurity, the data analysed indicated a greater propensity to search for information online through systems that are increasingly disintermediated when compared to traditional communication channels, favouring direct access to new stories - which are, nevertheless, subordinate to the complex mechanisms and operating rules of the digital platforms on which they are published<sup>1</sup>.

The main objective of this research within this multifaceted scenario is to understand whether - beyond the generation gap - there are differences due to occupational status and educational level in the use of digital technologies, particularly when used for information purposes, to cope with a new and high-risk context such as that of the exceptional situation of the first lockdown. More specifically, the aim was to understand whether the link between social status and cognitive style (Mannheim, 1929; Bernstein, 1971, 1975) is also reflected in media consumption, particularly with regard to the use of social media as an information source. Next, we investigated if

---

<sup>1</sup> Disintermediation, while contributing to the de-structuring the traditional hierarchies of the information system, does not necessarily strengthen the power of individuals's self-determination; in fact, the information that is readily available on the Web is influenced by the functioning criteria of computer algorithms controlled by big corporations; in this sense, it can be selected on the basis of its desirability for the public rather than its correctness and truthfulness.

these possible differences are also reflected in a different level of trustworthiness attributed to the information conveyed through social media. The relationship between social media use and social trust is problematic and particularly topical, as highlighted in recent research on social media use and low levels of trust in expert knowledge of a scientific nature (Crawford, 2019; Van Dijck & Alinejad, 2020).

This paper therefore aims to examine how differences in digital use may reflect old and new social inequalities (Couldry, 2015): not only inequalities of access, but also closely related to different levels of digital literacy and broader digital education processes. In particular, in the next section, the research is contextualised by referring to the theory of the restricted and elaborated codes proposed by Bernstein (1971, 1975), adapting this idea to the study of digital inequalities between groups that are socially and culturally more central and those that are more marginal; moreover, starting from these conceptual coordinates, two main hypotheses are developed that guided the analysis. The first hypothesis links a greater propensity of socially and culturally peripheral groups to find information through digital technologies; the second hypothesis associates the greater propensity of these same groups to trust the information of social media. In the Methodology section, the variables analysed, the synthetic indices constructed, and the multiple regression models implemented are illustrated in detail. This is followed by the sections on results ('Communicative codes and social inequalities in digital practices' and 'Social media trust and restricted code'), which focus first on a bivariate descriptive analysis and then on the estimated regression models. Finally, the last paragraph contains a discussion and an in-depth analysis of the main results.

### **Bernstein's theory of codes applied to the use of social media**

To paraphrase Buckingham (2019), if the quality of digital media consumption in work and leisure activities depends on the computer skills a person possesses, it is fundamental not to confuse the dimension of digital literacy with that of the broader area of digital education, which is connected to the issue of the conscious and critical decoding of information conveyed through digital technologies.

While taking into consideration the role of both these dimensions in the analysis of some of the digital practices of Italians during the first lockdown, this paper focuses on the use of social media as an information source. More specifically, through the analysis of the differences in the use of digital technologies by those respondents according to their employment status and education level, it is possible to reflect on the inequalities that exist between

socially central and more peripheral groups, with particular attention to the dimension that is related more explicitly to digital education.

In analysing digital practices, inspiration was drawn first and foremost from the theoretical perspective of Basil Bernstein, including the more recent versions developed by his epigones. Bernstein (1971, 1975) focuses on the inequalities between social classes, arguing that these are shaped not only around specific political-economic power relations, but also through the different ways in which language is used to express a material condition. The British sociologist distinguishes between the 'restricted code', that, in his opinion, is the only one that members of the working class know how to use, and the more 'elaborated code', monopolised by individuals of middle class, who are capable of using both forms of expression<sup>2</sup>.

More generally, for Bernstein, all subordinate groups remain anchored to a more restricted code, consisting of the use of a lexically flexible and syntactically condensed language. This linguistic form is adequate to cope with the anxiety generated by the high level of social insecurity that characterises the subordinate groups.

The condition of social insecurity pushes people to dedicate a lot of time to this way of communicating, hindering the acquisition of a different social use of the language that is more marked by the generalisation of concepts and the consequent development of a rich and precise lexicon, as well as a more complex syntax - all of which are characteristics rewarded by schools and which are aimed at the formation of what could be seen, following Mannheim (1929), as a 'style of thought' that is rational, analytical and systematic.

The situation is different for members of the middle class who, from an early age, learn also the second type of social use of language from their parents, who have a more economically advantageous and socially secure occupational status, and who then find themselves at ease in school and build successful educational pathways. It is, therefore, easier for members of the middle class to reach higher levels of education where, in turn, the elaborated code acquired is even more sophisticated. In this regard, as recent contributions by scholars developing the Bernsteinian perspective have highlighted (Maton, 2009; Young, 2014), school learning at the highest levels of education requires and develops the internalisation of theoretical knowledge that fosters critical sense, the ability to 'think the world otherwise' (McLean et al., 2013).

---

<sup>2</sup> Language can be used in different ways, giving rise to different codes of expression. With the concept of code, the sociologist refers to meta-principles of language organisation that emerge from its concrete use. In doing so, Bernstein also analyses the type of communication that a certain social use of language implies (Bernstein, 1971).

In short, schools not only use a code of expression that ratifies the cultural hegemony of the upper class (Bourdieu, 1984, 1991), but also promote its use among those who are able to access the highest levels of education, preparing them well for more critical modes of knowledge that are typical - as mentioned - of analytical-rational thinking.

Linguistic codes can also be conceived as communicative codes, as they are based on specific modes of communication between ego and alter<sup>3</sup>. In fact, the restricted linguistic code is based on a communicative mode centred on informal, often face-to-face relations, oriented towards mobilising practical knowledge suitable for solving problems related to the satisfaction of basic needs.

Although it is difficult to detect the differences between the codes of expression used by people with different social conditions empirically, the restricted code can be considered as a horizontal mode of communication; in other words, the subject prefers to interact with people who are socially and culturally closer to them, with whom they share a similar level of social insecurity and common beliefs, values and lifestyle. The restricted communicative code reinforces solidarity within the community to which the speaker belongs, with the implication, however, of lesser trust extended to other social environments: this could be called a 'bonding' trust, referring back to the reflections developed in other research contexts by Putnam (2000). This type of communication also reflects how deeply rooted this form of language is with the contextual situation of the speaker, unlike that of the elaborated code, which presupposes a greater capacity for decontextualisation and linguistic generalisation. In these terms, the elaborated code is characterised by a vertical orientation of the discourse (Bernstein, 1999): being centred on the analytical categories typical of academic disciplines and scientific knowledge, communication is organised hierarchically, in the sense that there is a greater predisposition to listen to those who are recognised as bearers of expert knowledge.

However, it is precisely this hierarchical approach that makes the elaborated communicative code less particularistic, fostering a mentality that is in many ways universalistic (Bernstein, 1971): the sharing of concepts aimed at generalisation entails an attitude of complete trust in what Mead (1934) calls the "generalised other", i.e. society as a whole, and therefore also - we might add - in the institutional system that governs it. In other words, the elaborated communicative code is to some extent associated with institutional trust, which we could call 'bridging trust', again recalling Putnam's famous distinction.

---

<sup>3</sup> See footnote 2.

Moreover, globalisation may have accentuated these differences between codes, since the social insecurity of the subordinate classes - starting with the traditional working class - has increased, while the middle class has been able to better exploit the opportunities of the new economic scenario (Brint et al., 2022). The increase in social insecurity may therefore have contributed to a greater closure of the most marginalised groups towards expert knowledge.

This theoretical framework adapts well to the study of digital inequalities between socially and culturally marginal groups, peripheral to the ability to govern the social change inherent in economic globalisation, of which the digital revolution is a central component (Castells, 2011). Indeed, digital technologies tend to undermine institutional mediation and the role of expert knowledge (van Dijck et al., 2018), favouring the glorification of ordinary knowledge, of the common man, and thus challenging institutional trust centred on expert knowledge (Crawford, 2019). However, as van Dijck and colleagues highlight, such exaltation does not take place in a neutral information environment, as news mediated by digital platforms is created and disseminated on the basis of its popularity, and the economic returns associated with it; in other words, the commodification of news prevails over its accuracy and transparency. In this scenario, more peripheral groups may experience difficulty not only in accessing digital technologies, but in using them in an informed way (Lupton, 2015).

On the basis of the framework outlined above, and in relation to the spatio-temporal context investigated, we can then hypothesise that socially and culturally peripheral groups:

1. are more inclined than others to find information through digital technologies, in particular social media, as they respond to horizontal modes of communication that are consistent with the restricted code they possess;
2. are more likely than others to believe that social media information is reliable, since it comes from social networks selected on the basis of cultural affinities that create a form of bonding trust, which is associated with a condition of social insecurity.

As will be seen, the analysis of these two hypotheses allows us to gain an understanding of what is emerging from the most recent research on the relationship between social trust and new media, particularly since the beginning of the Covid-19 pandemic (van Dijck & Alinejad, 2020). The analysis of social inequalities in the use of digital technologies, does indeed open up questions about the future of Western democracies: on the one hand with regard to their ability to guarantee everyone the material and cognitive means for real participation in the public sphere; and on the other hand in the creation of the conditions for the formation of a solid civil society, ori-

ented towards responsibility towards the others, a resource that has become increasingly necessary in recent years.

## **Methodology**

The research presented in this article is an in-depth study of a national online survey on the daily life of Italians during the first lockdown, carried out by the Department of Communication and Social Research of the Sapienza University of Rome (Lombardo & Mauceri, 2020). This is one of the first surveys on the subject, which was realized in the middle of the period of lockdown, during a time of great uncertainty due to the lack of knowledge of the coronavirus and the sudden spread of the pandemic. The survey began on 7 April 2020 and ended on 3 May of the same year, involving 13,473 Italians aged 15 and over. Given the exceptional conditions of the survey, probability sampling was adopted; however, the data were weighted by gender, level of education and age, in order to significantly reduce the bias of a self-selected sample and to preserve proportionality with respect to the population with reference to the three aforementioned variables (Mingo et al., 2020).

Regarding the data analysis presented in this paper, certain variables were chosen related to the use of digital technologies and to the more general area of media consumption in the period considered; these were examined in the light of other socio-demographic variables, from which the social status of the respondents was reconstructed. Following the descriptive analysis, the two hypotheses outlined above were corroborated by the application of hierarchical linear regression (Barbaranelli, 2007), based on the procedure in sequential models. For each of the two hypotheses, two models were built: one with the independent variables alone, accompanied by other variables considered as concomitant, and one characterised also by the inclusion of variables that were considered as intervening.

Specifically, the first hypothesis was analysed by using a model with an index on the information use of social media as the dependent variable. This index reproduces 76.2% of the variance of two variables: the frequency of use (measured on a scale of 0-5) of social networks (Facebook, Twitter, and so on: +.573) and instant messaging services (WhatsApp, Telegram, and so on: +.573) by respondents to acquire information about the exceptional situation they were experiencing with the health emergency and the spread of the virus. Two independent variables were used, the first of which was employment status. In this regard, the respondents were classified into six groups: 1) entrepreneurs, managers and professionals, i.e. those with a high social status, referring to an upper middle class working condition; 2) teachers, medium-high-skilled clerks, medium skilled technicians and the self-employed, i.e. type of occupations typical of the lower middle class; 3) manual work-

ers and low-skilled clerks, i.e. individuals belonging to the working class; 4) students; 5) unemployed; 6) housewives and retirees. Clearly, the last three groups consist of those not currently in employment, and hence it is not possible to identify their social background. This limitation does not present a problem for this research, because the key focus was on employment status rather than social class. This classification allowed us to identify differences between social groups, distinguishing those with an advantageous social position (belonging to the central groups: two middle classes and students) and the others. These last ones assume a greater marginality with respect to social change and the ability to manage lockdown through the mediation of digital technologies: we are referring to unemployed (despite the social heterogeneity of this group) and members of the working class, who tend to have lower digital skills than the others. In this sense also housewives and retirees, grouped together here in a single category for statistical reasons, could be conceived as marginal social groups<sup>4</sup>. In fact, this condition is often also dictated by the generation gap considering that 77.8% of the respondents in this group are at least 55 years old. Three control variables were also considered in the first model: gender; geographical area (North, Centre and South Italy); and, more specifically, age cohort (under 25 years old, 25-34, 35-54, 55-64, over 65 years old). The last variable indirectly gives information precisely on generational differences and helps in the understanding of whether there are differences in the use of social media between social groups. The other independent variable is that of the level of education, a variable that was constructed by classifying respondents into three categories: 1) those without a high school diploma; 2) those who graduated from high school; and 3) university graduates.

Five intervening variables were also included in the second model, three of which are numerical indices obtained with two-stage principal component analysis (Di Franco & Marradi, 2003). The first index regards the level of anxiety about contagion, an aspect that was considered important because it could be associated with the social condition of the interviewees, and in particular with their employment status. In fact, as will be seen, the group with the highest score on this index was the working class: this could depend not only on a more general social insecurity that causes anxiety, but also partly on the greater risk of exposure to the virus that the working class experienced; in fact, during the 2020 lockdown certain workers continued to be physically present at their place of work, since they were engaged in essential economic activities (e.g. supermarket employees, farm workers, etc.) or, in some cases, those working off the books; while other employees stayed

---

<sup>4</sup> For the construction of robust regression models it is required that the data distribution of the variables is not excessively unbalanced (Barbaranelli, 2007).

at home, because businesses had to close down temporarily (self-employed and entrepreneurs) or because they were able to take advantage of working from home (e.g. white collar workers). The anxiety index reproduces 55.3% of the variance of ten variables (each based on a scale 0-5), related to the level of fear of: contracting Covid-19 as a symptomatic (+.136), or asymptomatic (+.123) case; not obtaining adequate treatment in case of infection (+.121) or in case of other illnesses (+.116); infecting friends and colleagues (+.147), family members (+.144), the partner (+.121), acquaintances (+.150), a beloved elderly person (+.131), a person with whom one has had contact (+.149)<sup>5</sup>. Moreover, two additional indices were also examined.

The first refers to the overall rate of increase of digital practices in home life in order to manage the time spent at home during lockdown. This index reproduces 45.5% of the variance of four variables referring to the frequency (measured on a scale of 0-5) of the digital practices that showed the highest increase following the lockdown, namely: following courses (such as cooking, sports, or other hobbies) in live streaming (+.336), using social networks and messaging services (+.423), communicating on mobile phones, including video calls (+.367), searching for information online (+.358)<sup>6</sup>.

The third index concerns the use of traditional media in order to acquire information on the pandemic. This index reproduces 42.4% of five variables concerning the frequency of use (measured on a scale of 0-5) of the following information channels: television news (+.241), radio news (+.370), other television programmes (+.277), other radio programmes (+.377), printed newspapers (+.238). Next, two other variables were also considered. One relates to the frequency (on a scale of 0-5) with which respondents kept up to date about the pandemic through face-to-face or telephone-mediated communication with friends, relatives and acquaintances. This variable was not included in the index on the use of social media in order to understand the role of immediate communication or that mediated only by mobile phone and, above all, aimed at narrow social circuits; following our theoretical framework of reference, they would be used particularly by the

---

<sup>5</sup> The values reported in brackets are componential coefficients, i.e. the measurement of the net contribution of each variable to the overall index. The componential coefficients are the equivalent of the partial regression coefficients resulting from the use of multiple linear regression (Di Franco & Marradi, 2003).

<sup>6</sup> The four variables used in the index derive from closed-ended questions (frequency of practice increased, decreased and remained unchanged), subsequently transformed into dichotomies (frequency of practice increased, not increased), since the decrease in digital practices affected only a few cases (about 2%) and therefore the corresponding mode was combined with that which was inherent in the absence of change in frequency between the pre-lockdown period and the interview period. Once made dichotomous through binary coding (0 = no increase; 1 = present increase), the variables acquired a cardinal nature and therefore the principal component analysis could be adopted.

most disadvantaged social groups, who share the prevalent or exclusive use of the restricted code. The last variable relates to the degree of reliability (again measured on a scale of 0-5) attributed to information on the pandemic conveyed through social media and messaging services.

Finally, the second hypothesis was corroborated using the same regression models described above, with the only exception that the dependent variable of the first model was attributed the role of intervener, while the degree of reliability of information on the pandemic conveyed by social media was used in its place, as dependent variable.

### **Communicative codes and social inequalities in digital practices**

The segregation of households experienced in the first lockdown led to a reformulation not only of family, work and study commitments, but also of the deeper ability to maintain social relations. In this scenario, digital technologies were among the preferred tools for adapting to the emergency situation, as they proved useful in certain ways to replace emotional interactions with family and friends (Addeo et al., 2020). This entailed a radical form of media domestication (Silverstone, 2006), in particular connected to the use of mobile phones, which changed once this means of communication was able to take advantage of the potentialities inherent in Web 2.0 (Jenkins, 2006; Boccia Artieri, 2017). In fact, 61.2% of those interviewed stated that they had intensified their use of social messaging and this figure rises to 72.3% considering the increase in making calls or video calls either from a personal computer or, a mobile phone.

There was also a significant increase in the use of computers, either separately or integrated with the television. In particular, watching TV programmes in streaming was a widespread practice, which increased for about half (51,2%) of the respondents, and a similar growth (55,8%) was registered in the search for information online. As seen in the previous research, young people in particular - who are the main users of digital technologies - intensified the frequency of media consumption, especially those connected to Web 2.0, both because they were engaged in distance learning (Fasanella et al., 2020), and because they are more familiar with the use of the internet for recreational reasons. However, the use of this tool is not so homogeneous among young people, since those from more disadvantaged social backgrounds are the main users (Gui & Gerosa, 2019). Similarly, in the previous analysis (Addeo et al., 2020) the intersectionality between generation and gender emerged<sup>7</sup>, the combination of which was found to vary according to

---

<sup>7</sup> Concerning the broad topic of intersectionality we recall, moreover, the work of McCall (2005). With regard to gender differences in the use of new technologies we suggest the work of Vergés et al. (2021).

employment status: while it is true that digital use is generally more widespread among men (not only younger boys) than among women, it is equally true that this relationship changes in intensity according to labour market placement, as well as generation.

On the basis of these results, we decided to focus on differences due to social status, examining the two key variables of employment status and the educational level of the respondents. This form of analysis then led to the development of the main questions and related hypotheses presented in the previous section. In this regard, the bivariate analysis brings to light first of all a differentiation in digital practices that can be interpreted through the dividing line between the socially better placed groups and those that are more marginal.

*Table 1 – Rate of increase in the frequency of some digital practices by employment status*

Social group	TV streaming	Social messaging	Calls/Video calls	Online information
Upper middle class (972: 7.6%)	50.9	<b>55.6</b>	78.7	54.5
Lower middle class (2,370: 17.6%)	50.0	63.2	<b>81.0</b>	55.1
Working class (3,415: 25.4%)	51.7	58.8	76.8	54.9
Students (2,921: 21.7%)	<b>66.7</b>	<b>67.8</b>	<b>81.7</b>	<b>60.5</b>
Unemployed (1,537: 11.4%)	50.8	60.6	74.0	<b>57.8</b>
Housewives / Retirees (2,257: 16.7%)	<b>32.4</b>	<b>57.2</b>	<b>72.3</b>	<b>51.3</b>
Total (13,473: 100%)	51.3	61.2	77.6	55.8

*Note: the highest values are highlighted in black, the lowest values in grey*

In particular, table 1 shows that respondents from the middle classes were placed alongside students, who for generational reasons are the most accustomed to the use of mobile phones and new media.

A more detailed analysis, however, reveals differences depending on the purpose for which the technologies analysed were used. For example, the increase in the use of mobile phones for ‘more traditional’ communication shows an almost regular gap of about two percentage points between one category and another: ranging from students to the unemployed, preceded only by housewives and retirees. Students are followed by those from the lower middle class, then those from the upper class, while those from the working class are in the middle.

With regard to searching for information online, students are 10 percentage points ahead of housewives and retirees, who are generally older and for only half of whom there was an increase in the frequency of this practice

(table 1). Only small differences are found for all the others, with the unemployed coming closest to the students. Obviously, the increase in practice does not imply a greater familiarity with the complex information world of the web, as will be better understood through the multivariate analysis. Therefore, the poor differentiation also depends on the fact that the frequency in this case refers to very different ways of searching for information: the use of mobile phones has democratised this practice in quantitative terms, without having made the ability to select and decode information on the web more homogeneous.

The inter-group differences are much greater for the two practices that require more digital socialisation, such as watching streaming TV programmes and using social networking and messaging services. In this case, two-thirds of the students showed an increased frequency, which is much higher than in the other groups. Looking at the non-student component, two trends emerge: roughly half of the unemployed and workers of all backgrounds increased their use of streaming TV, while - as might be expected - only a third of retirees and housewives reported this change; in the case of the use of social networks and messaging services, following the student component, those from the lower middle class recorded the greatest increase, confirming a greater propensity to go digital than even those in better employment conditions (table 1). The latter are surprisingly less inclined to use the technologies examined here, perhaps not only for cultural reasons, but also for professional reasons: in many cases they are professionals and managers, i.e. those social categories for whom working from home led to an extension of their working hours, which became more flexible than during the ordinary working day.

On the other hand, traditional white-collar workers - who belong to the lower middle class - were perhaps better able to confine working from home to their normal office hours and use digital technology more for leisure purposes.

This does not exclude a more lifestyle and cultural explanation, for example by hypothesising a greater 'complicity', using the words of Bourdieu (1994), between the intensive use of social media and a more lower middle class rather than upper middle class habitus. In fact, for those interviewed belonging to the upper middle class there was a lower rate of increase in the use of social networks, albeit only slightly, than that found among housewives and retirees, who in turn were fairly similar to those belonging to the working class.

The explanation based on the cultural dimension seems to be reinforced by the clear trend highlighted in table 2, which shows that the increase in digital use was less widespread among university graduates, except with regard to the use of calls and video calls: the use of digital technology for more

traditional communication purposes was, in fact, greater among those with a higher level of education.

At this point it is possible to deepen the analysis, focusing more clearly on the coordinates of the theoretical framework described in the second section. In particular, an analysis can be carried out to identify whether during the first lockdown the digital practices, and more specifically the frequency of use of the web to obtain information on the pandemic, differed among the interviewees according to their socio-cultural condition, and therefore the expressive and communicative code they employed.

*Table 2 – Rate of increase in the frequency of some digital practices by level of education*

Education level	TV streaming	Social. messaging	Calls/Video calls	Online information
Without school diploma (2,478: 18.4%)	<b>56.3</b>	<b>63.0</b>	<b>74.1</b>	<b>57.0</b>
School diploma (8,435: 62.6%)	50.0	60.9	77.4	55.9
University degree (2,560: 19%)	49.4	60.5	<b>81.9</b>	<b>54.4</b>
Total (13,473: 100%)	51.3	61.2	77.6	55.8

*Note: the highest values are highlighted in black, the lowest values in grey.*

In order to achieve this aim, it is useful to reconstruct a synthetic scenario through the analysis of the indexes described in the third section. First of all, a comparison can be done between the average scores of the index of the overall increase in digital practices and of the index related to the level of anxiety about contagion taken by the respondents broken down by employment status (table 3) and level of education (table 4).

*Table 3 – Overall rate of increase in digital practices and level of anxiety about contagion by employment status*

Social group	Overall growth rate of digital practices	Level of anxiety about contagion
Upper middle class (972: 7.6%)	-0.052	<b>-0.120</b>
Lower middle class (2,370: 17.6%)	0.033	0.041
Working class (3,415: 25.4%)	-0.033	<b>0.183</b>
Students (2,921: 21.7%)	<b>0.230</b>	<b>-0.131</b>
Unemployed (1,537: 11.4%)	-0.027	0.007
Housewives / Retirees (2,257: 16.7%)	<b>-0.242</b>	<b>-0.103</b>
Total (13,473)	0	0

*Note: the highest values are highlighted in black, the lowest values in grey.*

Table 4 – Overall rate of increase in digital practices and level of anxiety about contagion by level of education

Education level	Overall growth rate of digital practices	Level of anxiety about contagion
Without school diploma (2,478: 18.4%)	<b>0.028</b>	0.020
School diploma (8,435: 62.6%)	<b>-0.013</b>	0.021
University degree (2,560: 19.0%)	0.017	<b>-0.088</b>
Total (13,473)	0	0

Note: the highest values are highlighted in black, the lowest values in grey.

This analysis leads to an understanding of whether the most disadvantaged groups are indeed those with the highest levels of anxiety, following the assumption of Bernstein's code theory, and whether this was translated into the greatest increase in the use of digital media.

The results show that the working class did not stand out in terms of a particular increase in digital practices, but did represent the group with the greatest anxiety about contagion: as mentioned in the previous section, this group is made up of people who in many cases continued to work during the lockdown period without having more free time at their disposal, which perhaps limited the increase in the frequency of the use of digital technologies. On the contrary, the lowest scores on the index of anxiety about contagion are found among the students and respondents from the upper middle class (table 3). This result cannot be attributed to a situation of greater protection due to the possibility of staying at home, which is an aspect shared by all the other groups except a part of the working class. Rather, the theoretical frame of reference leads us to attribute greater social security to the upper middle class and students, which translates in turn into a more elaborated code that is self-governed (Bernstein, 1971). The explanation for the lower level of anxiety about contagion concerns in particular the upper middle class, which is also quite distant from the lower middle class in this respect, as well as the unemployed and even more so housewives and retirees; while for students the lower level of anxiety is also due to the objectively lower spread of the virus among younger people in the first phase of the pandemic. In any case, the level of anxiety about contagion does not seem to be associated with a more intensive use of digital technology compared to the pre-pandemic period, when analysed by employment status (table 3); this link can be identified considering the level of education, since those without a high school diploma showed a higher level of anxiety and a greater increase in the use of digital technology from the start of the lockdown (table 4). However, these analyses must also be read in relation to the age of the respondents. In fact, what emerges very clearly is the fact that, overall, it is the younger students who have increased their use of

digital technologies to a much greater extent than the others. In other words, they are more familiar with these kinds of technologies and with the advent of the pandemic have further intensified their use. Nevertheless, it does not seem possible to identify a clear connection between the communicative code employed by the respondents according to their social status and the intensity of a phenomenon such as the increase in the frequency of digital practices during the lockdown. Such a relationship, however, seems to emerge by focusing on the frequency with which respondents kept up to date about the pandemic using social media. The descriptive analysis also offers the first clues about the different ways in which the various groups tend to use social media, adopting a specific media diet (table 5).

*Table 5 – Type of information channel on the pandemic by employment status*

Social group	Traditional media	Social media	Conversations with acquaintances, friends, relatives (0-5)	Degree of reliability attributed to social media news (0-5)
Upper middle class (972: 7.6%)	0.030	<b>-0.161</b>	<b>3.2</b>	<b>2.7</b>
Lower middle class (2,370: 17.6%)	<b>0.076</b>	<b>-0.058</b>	3.3	2.8
Working class (3,415: 25.4%)	0.030	-0.037	<b>3.4</b>	<b>3.0</b>
Students (2,921: 21.7%)	<b>-0.174</b>	<b>0.072</b>	<b>3.5</b>	2.9
Unemployed (1,537: 11.4%)	<b>-0.156</b>	0.042	3.3	2.9
Housewives / Retirees (2,257: 16.7%)	<b>0.194</b>	<b>0.064</b>	<b>3.5</b>	<b>3.0</b>
Total (13,473)	0	0	3.4	2.9

*Note: the highest values are highlighted in black, the lowest values in grey.*

In fact, analysing the communication mode adopted by the interviewees to acquire information about the pandemic, we can see that the use of traditional media, characterised by a vertical top-down and one-to-many communication is generally preferred by housewives and retirees, who tend to be older; it is less used by students, who are younger, and also by the unemployed, who prefer social media to traditional media.

Social media are characterised by a horizontal mode of communication of the many-to-many type, in a sense similar to that which can be found in face-to-face conversation circuits with friends, acquaintances and relatives; even when mediated by a mobile phone, communication remains informal, although it can also be limited to one-to-one relationships.

Apparently, there are no great differences due to employment status in the recourse to information through this latter information channel: students,

who are younger, and retirees and housewives, who are generally older, seem to use it only slightly more than the others.

Table 5 also shows a slight relationship between the propensity to find information through informal communication with acquaintances, friends and relatives and the idea that social media news is trustworthy. In a context where the degree of trust in information on platforms such as Facebook and Twitter is on an average level (2.9 out of 5), those most likely to consider social media news reliable are those from the working class, as well as retirees and housewives. These groups are the most likely to use informal information channels, but they are distinct from each other since working class people, unlike retirees and housewives, make little use of new and traditional media to find out about the pandemic.

The exception to this is the students, who are well disposed to informal information exchange, presumably because of their greater frequentation of friendship networks, but are somewhat less convinced of the reliability of social media news, which they use frequently in any case.

The analysis becomes clearer when considering the level of education (table 6). In fact, in this case it appears that those with a lower level of education are more inclined than others to use social media for information and conversations with acquaintances, friends and relatives, while university graduates are less likely to use the internet for information.

The data in the table 6 could be explained in the light of the spread of mobile phones, which we have already mentioned. More specifically, we could hypothesise that those with higher education levels make an integrative use of the information on the internet, which is often accessed with the mobile phone; while those with lower education levels are inclined to a substitutive use of this information with respect to traditional information channels, based on a stronger mediation of the expert knowledge of journalists and therefore on a greater control of the reliability of the information (van Dijck et al., 2018; Crawford, 2019).

*Table 6 – Type of information channel on the pandemic by level of education*

Education level	Traditional media	Social media	Conversations with acquaintances, friends, relatives (0-5)	Degree of reliability of social media news
Without school diploma (2,478: 18.4%)	-0.004	<b>0.204</b>	3.7	<b>3.3</b>
School diploma (8,435: 62.6%)	<b>0.009</b>	-0.024	3.3	2.9
University degree (2,560: 19.0%)	<b>-0.026</b>	<b>-0.117</b>	3.4	<b>2.7</b>
Total (13,473)	0	0	3.4	2.9

*Note: the highest values are highlighted in black, the lowest values in grey.*

Nonetheless, the picture that emerges is that those with a lower level of education frequently use social media to keep up to date, far more often than traditional channels, putting greater trust in the information circulating on these media; graduates show a greater reluctance to use social media to keep informed, attributing a lower average score to the reliability of the news circulating on these channels (table 6).

In order to investigate these aspects, multivariate analysis techniques were used, which, moreover, eliminate the spurious effect deriving from not having taken into account the age of the interviewees, and thus the generational differences in the use of digital technology. The multivariate analysis<sup>8</sup>, with the recourse to the multiple linear regression models described in the previous section, enables a better reading of the information contained in the descriptive analysis carried out so far and at the same time provides corroboration for the hypotheses of this article.

In particular, it was possible to assess whether, depending on the socio-cultural condition, the communicative code adopted and therefore the way in which the first lockdown was handled by Italians changed, particularly with regards to the need to be informed about the spread of the contagion and the fight against the pandemic.

Table 7 shows the first two linear regression models with the index on the use of information on social media as the dependent variable. As can be seen from the reading of the regression coefficients, the propensity to find out about the pandemic through social media, with the same age, gender, geographic area and level of education, is greater among respondents from the lower middle class, followed by all the others, with members of the upper middle class (the reference category of the variable relating to social group) who are less likely to use this information channel. Although the differences are not so large, they are statistically significant and similar to those due to age and indirectly attributable to the generation gap.

The first regression model shows that on the one hand the more socially advantaged are less likely to use digital media for information purposes, but on the other hand the people who make most use of the web through social platforms include those from the lower middle class rather than more disadvantaged or peripheral groups (as is the case for a number of retired people). Naturally, the differences between the groups distinguished by professional status have also been analysed considering the same level of education, a factor that is itself even more important, with those without a high school diploma, all things being equal (and thus also by considering age, and thus the more

---

<sup>8</sup> We would like to remember that all our analyses were carried out through the data weighting, taking into account gender, level of education and age (see Methodology section).

intensive use of the web by young people) showing a particularly inclination to acquire information on social networks.

*Table 7 – Regression models on the propensity to be informed about the pandemic through social media*

	B	Standard Error	Beta	t	Sign.	Tolerance	VIF
(Constant)	-0.196	0.055		-3.535	0.000		
<b>Lower middle class</b>	0.118	0.040	0.045	2.949	0.003	0.356	2.810
<b>Working class</b>	0.085	0.040	0.037	2.127	0.033	0.276	3.621
Students	0.059	0.045	0.025	1.307	0.191	0.236	4.240
<b>Unemployed</b>	0.104	0.044	0.033	2.339	0.019	0.426	2.346
<b>Housewives / Retirees</b>	0.095	0.047	0.035	2.019	0.044	0.280	3.573
<b>Without school diploma</b>	0.239	0.036	0.093	6.655	0.000	0.430	2.324
<b>High school diploma</b>	0.085	0.027	0.041	3.173	0.002	0.496	2.015
25-34 years	-0.026	0.040	-0.010	-0.652	0.514	0.386	2.588
<b>35-54 years</b>	-0.112	0.039	-0.055	-2.902	0.004	0.231	4.328
55-64 years	-0.057	0.044	-0.021	-1.307	0.191	0.332	3.009
65 and over	0.041	0.055	0.013	0.751	0.453	0.300	3.338
<b>Males</b>	-0.041	0.019	-0.020	-2.178	0.029	0.967	1.034
Central Italy	0.030	0.022	0.015	1.394	0.163	0.757	1.322
<b>South Italy</b>	0.318	0.024	0.140	13.298	0.000	0.756	1.323
(Constant)	-1.563	0.049		-32.122	0.000		
Lower middle class	0.054	0.032	0.021	1.697	0.090	0.355	2.816
Working class	0.011	0.032	0.005	0.351	0.726	0.275	3.633
Students	0.060	0.036	0.025	1.669	0.095	0.235	4.249
<b>Unemployed</b>	0.090	0.036	0.028	2.527	0.012	0.425	2.351
Housewives / Retirees	0.057	0.038	0.021	1.508	0.132	0.279	3.578
<b>Without school diploma</b>	0.086	0.029	0.034	2.994	0.003	0.424	2.358
<b>High school diploma</b>	0.082	0.021	0.040	3.854	0.000	0.495	2.020
<b>25-34 years</b>	0.068	0.032	0.025	2.131	0.033	0.385	2.598
<b>35-54 years</b>	0.025	0.031	0.012	0.813	0.416	0.227	4.399
55-64 years	-0.012	0.035	-0.004	-0.344	0.731	0.323	3.095
65 and over	0.075	0.044	0.023	1.698	0.090	0.292	3.428
<b>Males</b>	0.025	0.015	0.012	1.651	0.099	0.937	1.067
Central Italy	-0.038	0.017	-0.018	-2.161	0.031	0.752	1.330

<b>South Italy</b>	0.156	0.019	0.068	8.021	0.000	0.732	1.366
<b>Anxiety level</b>	0.031	0.008	0.031	3.958	0.000	0.894	1.119
<b>Overall increase in digital practices</b>	0.104	0.008	0.104	13.690	0.000	0.924	1.082
<b>Use of traditional media for information</b>	0.098	0.008	0.097	12.398	0.000	0.877	1.140
<b>Conversations with acquaintances, friends, relatives</b>	0.270	0.005	0.435	55.091	0.000	0.857	1.166
<b>Degree of reliability attributed to social media news</b>	0.159	0.005	0.232	30.216	0.000	0.905	1.105

*Note: regressors with  $p. < 0.05$  statistical significance are highlighted in black.*

Thus, it can be argued that, although there is no direct linear relationship, as social marginality increases, there is an increase in the use of information on the internet proposed by platforms such as Facebook or conveyed through WhatsApp.

This trend seems to be confirmed by the role played by geographical area, which sees residents in the poorest part of the country (Southern Italy) preferring social media information channels. This result can be better understood in the light of the second regression model, reported in the lower part of table 7: the introduction of the intervening variables makes the picture clearer, while also increasing the reproduced variance of the dependent variable from 3% to 38.2%.

It is worth noting that 26.2 percentage points of variance in the index concerning the use of social media as an information source is due to the variable related to the degree of frequency with which the respondents declared that they were kept informed through conversations with friends, acquaintances and relatives, while a minor weight on the reproduction of the dependent variable is played by the reputation on the reliability of social media news (5.4 percentage points), the level of anxiety (1.8 percentage points), the overall increase in digital practices (1 percentage point) and the information use of traditional media (0.8 percentage points).

Given all other intervening variables being equal, one factor that is in any case associated with the index assumed as the dependent variable, is that those with a lower level of education and the unemployed, i.e. socially peripheral groups, make greater use of the internet: those who were unemployed at the time of the survey were more inclined than others to search for information on the web in order to understand what was happening during the lockdown. Likewise, it is those with a lower level of education who make use of this information channel. While it is conceivable that those without a high school diploma would access the web mainly via mobile phone, for the unemployed

perhaps the use of PCs could be more widespread, especially considering people in this condition but with a slightly higher level of education.

The effect on the use of social media as an information source that is seen for those belonging to the lower middle class becomes statistically insignificant and in any case halves in the passage from the first to the second statistical model, revealing how it is indirect in approximately half the cases, i.e., mediated by the intervening variables: one of these is the use of traditional media for information, the index which - as can be seen (table 5) - shows that it is in fact this social group that has the highest average score, after retirees and housewives. These data give us sufficient reason to think that people from the lower middle class were those most likely to get information about the pandemic through different channels, and therefore they did so by integrating news from newspapers, TV, radio with that diffused on the internet. A similar situation was observed for retirees and housewives: their propensity to use social media becomes statistically uncertain and almost halves once the intervening variables are taken into account, in particular those relating to the use of traditional media as an information source and the intensification of their use of digital technologies: housewives and retirees got most of their information through traditional media (table 5), while there was no particular change in the frequency of use of the digital practices examined here (table 3).

On the contrary, the unemployed turned out to be the most likely to get information through social media, considering the change in the frequency of digital practices, the use of traditional media or the recourse to more informal communication channels in addition to the other intervening variables analysed. In this regard, it is very interesting to note that the propensity to acquire information about the pandemic through social media increases very little as a function of the level of anxiety, while a more significant influence is seen in the traditional media diet, the increase in the frequency of use of digital practices and, more importantly, the recourse to informal communication with relatives, friends and acquaintances. As might be expected, the use of social media information increases as confidence in its reliability rises.

According to the data in table 7, the use of social media for information purposes increases as a function of a higher media consumption, in which traditional media are combined with new media, also due to a particular propensity to use digital media for non-information purposes (this aspect is detected with the index of the overall increase in digital practices); in the same way as an increase in the same direction, but of greater intensity, is due to the greater recourse to particularistic networks, such as those with friends and relatives, with whom the communicative relationship is informal, direct and horizontal.

Indeed, it is precisely the preference for the horizontality of informal communication, mediated at most by the telephone, that is the most influential intervening variable in the use of social media information. Once the inter-

vening variables are taken into account, age (and presumably generational) differences are almost irrelevant, since the relationship is totally mediated: younger people are more likely to use social media because of their greater familiarity with digital media, not because they necessarily trust information from this source.

### **Social media trust and restricted code**

The results above described can be confirmed by the other two regression models used to analyse the second hypothesis, concerning the degree of reliability attributed to information on the pandemic conveyed by social media (table 8). The inclusion of the intervening variables determines the reproduction of the dependent variable from 2.4% to 11.2%.

Despite the fact that the variance reproduced is not high and therefore it is necessary to identify other models in order to understand what trust in social media information actually depends on, some interesting results emerged from the study.

The models reported in table 8 show that those with a lower level of education, even amongst people of the same age, are more trusting of information found on the internet: as cultural marginality increases, trust in social media grows, and this is the case independently of the role of the intervening variables, since the effect is almost entirely direct, as can be seen by comparing this model with the concurrent variables and the other model with the intervening variables. When analysing employment status, it appears that the respondents from the upper middle class are the most diffident towards social media, while among the other groups no particular differences are evident, with a very slight inclination towards this information channel on the part of the working class.

Returning to tables 7 and 8, we can see that the two hypotheses formulated above are confirmed, although only partially.

During the first lockdown, given the same structural conditions (age, geographic area, gender), the unemployed and poorly educated people were the most likely to use social media to keep informed about the pandemic; members of the lower middle class also showed this propensity. However, once frequency and type of media consumption were taken into account, lower middle-class individuals were no more likely than others to use this information channel. Cultural marginality plays a central role in this picture, as the absence of a tertiary education was found to be significant in pushing respondents to get information about the pandemic through social media (table 7), and often this led people without a secondary education to use these platforms in a less critical way than others, as seems to be revealed by their greater inclination to trust the news circulated on these channels (table 8).

Table 8 – Regression models relating to the degree of reliability attributed to information on the pandemic conveyed by social media

	B	Standard error	Beta	t	Sign.	Tolerance	VIF
(Constant)	2.426	0.081		30.037	0		
<b>Lower middle class</b>	0.188	0.059	0.049	3.213	0.001	0.356	2.81
<b>Working class</b>	0.210	0.058	0.063	3.602	0	0.276	3.621
<b>Students</b>	0.151	0.066	0.043	2.29	0.022	0.236	4.24
<b>Unemployed</b>	0.154	0.065	0.033	2.373	0.018	0.426	2.346
<b>Housewives / Retirees</b>	0.181	0.069	0.046	2.629	0.009	0.28	3.573
<b>Without school diploma</b>	0.563	0.052	0.150	10.752	0	0.43	2.324
<b>High school diploma</b>	0.112	0.039	0.037	2.855	0.004	0.496	2.015
25-34 years	-0.018	0.058	-0.005	-0.308	0.758	0.386	2.588
35-54 years	0.082	0.056	0.028	1.455	0.146	0.231	4.328
<b>55-64 years</b>	0.165	0.064	0.041	2.592	0.010	0.332	3.009
<b>65 and over</b>	0.257	0.08	0.054	3.221	0.001	0.3	3.338
<b>Males</b>	-0.081	0.027	-0.028	-2.98	0.003	0.967	1.034
<b>Central Italy</b>	0.119	0.032	0.04	3.757	0	0.757	1.322
<b>South Italy</b>	0.276	0.035	0.083	7.902	0	0.756	1.323
(Constant)	2.034	0.085		24.001	0		
<b>Lower middle class</b>	0.147	0.056	0.039	2.634	0.008	0.355	2.815
<b>Working class</b>	0.175	0.056	0.052	3.145	0.002	0.275	3.63
<b>Students</b>	0.151	0.063	0.043	2.411	0.016	0.235	4.249
<b>Unemployed</b>	0.139	0.062	0.03	2.246	0.025	0.425	2.352
<b>Housewives / Retirees</b>	0.147	0.065	0.037	2.252	0.024	0.279	3.578
<b>Without school diploma</b>	0.522	0.05	<b>0.139</b>	10.445	0	0.428	2.339
<b>High school diploma</b>	0.118	0.037	0.039	3.187	0.001	0.495	2.019
25-34 years	-0.005	0.055	-0.001	-0.089	0.929	0.384	2.604
<b>35-54 years</b>	0.136	0.054	0.046	2.521	0.012	0.227	4.4
<b>55-64 years</b>	0.156	0.061	0.039	2.544	0.011	0.323	3.093
<b>65 and over</b>	0.239	0.077	0.05	3.108	0.002	0.292	3.425
<b>Males</b>	-0.063	0.026	-0.022	-2.392	0.017	0.937	1.067
<b>Central Italy</b>	0.077	0.03	0.026	2.545	0.011	0.752	1.329
<b>South Italy</b>	0.123	0.034	0.037	3.646	0	0.729	1.372
Anxiety level	-0.010	0.014	-0.007	-0.772	0.44	0.886	1.128
<b>Use of traditional media for information</b>	0.104	0.014	0.071	7.554	0	0.862	1.16
<b>Use of social media for information</b>	0.276	0.015	<b>0.189</b>	18.171	0	0.699	1.43
<b>Overall increase in digital practices</b>	-0.011	0.013	-0.007	-0.8	0.424	0.903	1.108
<b>Conversations with acquaintances. friends. relatives</b>	0.130	0.009	<b>0.144</b>	14.136	0	0.732	1.366

Note: regressors with  $p. < 0.05$  statistical significance are highlighted in black.

Bernstein's code theory provides a framework for this phenomenon, also showing an interesting, but not strong, link between the more culturally marginal subjects - those to whom the restricted code, the use of horizontal and particularistic information networks is attributed - and the use of social media. However, on the one hand, the level of schooling can be very disadvantageous in the critical use of social media beyond the use of these networks, while on the other hand, the close link between the preference for bonding trust relationships and the use of social media as an information source is not closely linked to differences in occupational status. On the contrary, almost everyone, including students and members of the lower middle class, used social media to find out about the pandemic, and had an average level of trust in the reliability of the news acquired in this way. The only respondents who were more detached and distrustful of social media were the upper-middle class respondents, who presumably sought out more specialised sources of information, including traditional sources such as the television.

## Discussion and concluding remarks

In this paper, we have explored the Italians' need for information on the multiplicity of aspects related to the spread of the Covid-19 virus, focusing in particular on the use of social media; these contexts, in their ability to activate a many-to-many communication based on the contemporaneity of information flows, represented a suitable point of connection to spread news about the sudden evolution of a problem characterised by their extraordinary and unpredictable nature (Addeo et.al., 2020). First of all, the results obtained need to be interpreted also in the light of the characteristics of social media. In general, the Internet, and social media in particular, are contributing to the deconstruction of traditional information systems, converging in decentralised, permeable, increasingly user-generated models, while also creating hybrid models linked to the 'possibility of intertwining' a multiplicity of both new and traditional channels; certainly, one of the salient features of social media concerns the possibility for users to take part in a shared discursive context based on peer interactions and less mediation from those with expert knowledge, but still conditioned by the operating mechanisms of the platforms and the rules of the actors who are involved<sup>9</sup>.

Taking into account these peculiarities, the data analysed showed that the uses of social media as a source of information during the emergency period were different within the sample of Italians interviewed. In particular,

---

<sup>9</sup> These characteristics are indicated in the guidelines of the Digital Transformation Institute's appeal-manifesto to address the issue of fake news in Italy proposed by Stefano Epifani, Alberto Marinelli and Giovanni Boccia Artieri.

according to the main results that emerged from the construction of the first regression model, the use of social media for information purposes seems to depend on the restricted code adopted by the most disadvantaged groups: they are the less educated and the unemployed, i.e. the socially peripheral groups that respond to horizontal communication modes in line with the restricted code, who made greater use of social media to understand what was happening during the lockdown.

In other words, the increase in social marginality is associated with a greater propensity to use information through social media, understood as spaces in which direct, 'immediate' communication and interaction processes are developed, based on informal conversations, marked by an intensification of emotions and disintermediated compared to traditional media. In this sense, those who appear more vulnerable in terms of intellectual resources, those with a lower level of education, seem to show a greater inclination to access information obtained 'directly' from particularistic networks; that is, through relationships characterised by less distance with the interlocutor with whom it is possible to relax forms of caution and insecurity, establish relationships of trust and in a certain sense satisfy the principles of social desirability. In short, the greater propensity to find out about the pandemic through social media on the part of the most disadvantaged groups who adopt a restricted code could be associated with the direct and disintermediated nature that belong to these digital contexts, in which information comes from, is filtered and often generated - as in the case of user-generated contents - directly from the user's own circle of contacts. They interweave a plurality of contents in terms of news, opinions, and experiences which, through discussions and interactive discourse practices generated by sharing, come into direct contact with the world of the user's daily life; they are based on languages and codes with strong emotional and symbolic connotations such as images, emoticons, hashtags that reduce the communicative complexity that characterises more traditional media.

This analysis is reinforced by the use of informal conversations - such as those with friends or relatives (face to face or mediated by telephone) with whom the communication relationship is informal and direct - which is the most influential intervening variable on the use of social media information, and is associated with the level of anxiety and social insecurity felt during the emergency period. At the same time, in addition to disadvantaged groups, also young people seem to be more likely to use social media for information purposes. This data can be read in two ways: on the one hand, it is likely that this use is closely linked to the younger generation's greater familiarity with digital media, as they are more comfortable with digital contexts and are used to communicating and expressing themselves through the semantics of these sites; on the other hand, it could imply a more general un-

derlying problem of media literacy, and in particular of digital competence, thus linked to difficulties in decoding the information conveyed by digital technologies consciously and critically.

The results of the first model are closely connected to those obtained using the second one, which concern the degree of trust attributed to the information on the pandemic conveyed by social media. As seen in the previous section, the assessment of the trustworthiness of social media information on the pandemic is in fact dependent on media practices, in particular on the use of digital and informal communication networks, but above all on the level of education. In particular, those with a lower level of education, who use social media more than traditional media to keep informed, are much more trusting of the information these convey; in contrast, university graduates show a greater aversion to using social media for information, which also translates into a lower degree of trust.

This result essentially shows that those with lower education, who are anchored to a more restricted code, tend to trust information on social media as it is generated and disseminated by their own circle of contacts, as well as by people who are socially and culturally closer to them in terms of ideas, values, beliefs, interests, and experiences.

These forms of proximity reinforce forms of solidarity within the network they belong to, which in the case of those with a low level of education can refer to a form of bonding trust, and are fuelled by the language and semantics of social media - hashtags, likes, sharing - oriented towards encouraging the sharing and approval of meanings, perspectives and information.

This conclusion is attributable to the phenomenon of so-called 'homophily', typical of online social networks (McPherson et al., 2001). The latter concerns the propensity of individuals to prefer interactions with those who are more similar and to express agreement and approval with the opinions of like-minded people, for which they establish stronger relationships of trust (Salzano & Napoli, 2020). The main risk of such dynamics is the generation of closed information spaces in which one remains confined to selected news, disseminated or produced by individuals who are trusted and share similar perspectives, creating a distance with different points of view and damaging the ability to discern and decode other information that comes instead from other channels or groups. In such closed bubbles, known as echochambers, on the one hand information confirming beliefs prevail by virtue of trust in the source of the information, rather than the content itself (Flaxman, 2016; Salzano & Napoli, 2020), on the other hand they tend to exclude different points of view, to the disfavour of critical and divergent thinking (Veltri, 2018).

The consequence of such dynamics can also be associated with the increasing diffusion - especially in social media - of false, inaccurate and mis-

leading information, several studies on which have demonstrated a higher level of exposure and risk among the most vulnerable categories and those with fewer intellectual resources (Gili & Maddalena, 2018). In the light of the results obtained, the differences in the use of digital media that reflect forms of socio-cultural inequality give rise to the need for media education paths aimed at promoting media literacy, i.e. a set of knowledge and skills that encourage a more critical understanding of the media and foster a reflexive creation of the media itself in order to bridge this gap (De Abreu et al., 2017).

This topic is becoming increasingly important in the scientific reflection on the different forms of literacies (such as media literacy, new media literacy and digital literacy) fostered by the diffusion of media and technologies (Koltay, 2011; Livingstone, 2014). This field of research is representing an important priority in the educational and assessment policies of many governments engaged in defining models of development of digital literacy, such as the DigComp Project promoted by the European Commission (Pérez-Escoda et al., 2019).

## Acknowledgements

Although the article is the result of a joint work of the authors, Maria Carmela Catone is the author of 'Introduction', 'Methodology', 'Social media trust and restricted code' and 'Discussion and concluding remarks' sections; Fiorenzo Parziale is the author of 'Bernstein's theory of codes applied to the use of social media' and 'Communicative codes and social inequalities in digital practices' sections.

## References

- Addeo, F., Catone, M.C. & Parziale, F. (2020). L'uso delle tecnologie digitali. In C. Lombardo & S. Mauceri (Eds.). *La società catastrofica. Vita e relazioni sociali ai tempi dell'emergenza Covid-19* (pp. 139-151). Milano: Franco Angeli.
- Barbaranelli, C. (2007). *Analisi dei dati. Tecniche multivariate per la ricerca psicologica e sociale*. Milano: Led.
- Bernstein, B. (1971). *Class, Codes and Control. Theoretical Studies towards a Sociology of Language* (vol. 1). London: Routledge & Kegan Paul.
- Bernstein, B. (1975). *Towards a Theory of Educational Transmissions* (Vol. 3). London: Routledge & Kegan Paul.
- Bernstein, B. (1999). Vertical and horizontal discourse: An essay. *British journal of sociology of Education*, 20(2), 157-173.
- Boccia Artieri, G. (2017). The Italian Sense of the Web: a Social History of the Culture of Connectivity: A Mediatization Approach. *Comunicazioni sociali*, 2, 215-226.
- Bourdieu, P. (1984). *Homo academicus*. Parigi: Editions de Minuit.
- Bourdieu, P. (1991). *Language and Symbolic Power*. Cambridge: Polity Press.

- Bourdieu, P. (1994). *Raisons pratiques*. Paris: Éditions du Seuil.
- Brint, S., Curran, M. & Mahutga, M.C. (2022). Are US Professionals and Managers More Left Than Blue-Collar Workers? An Analysis of the General Social Survey, 1974 to 2018. *Socius*, 8, 1-23.
- Buckingham, D. (2019). *The media education manifesto*. Hoboken (New Jersey): John Wiley & Sons.
- Castells, M. (2011). *The rise of the network society*. Hoboken (New Jersey): John Wiley & Sons.
- Couldry, N. (2015). The myth of 'us': digital networks, political change and the production of collectivity. *Information, Communication & Society*, 18 (6), 608-626.
- Crawford, M. B. (2019). Algorithmic governance and political legitimacy. *American Affairs*, 3 (2), 73-94.
- De Abreu, B. S., Mihailidis, P., Lee, A. Y., Melki, J., & McDougall, J. (Eds.). (2017). *International handbook of media literacy education*. London: Routledge.
- Di Franco, G. & Marradi, A. (2003). *Analisi fattoriale e analisi in componenti principali*. Acireale: Bonanno.
- Fasanella, A., Lo Presti, V. & Parziale, F. (2020). L'esperienza della Didattica a Distanza (DaD). In C. Lombardo & S. Mauceri (Eds.). *La società catastrofica. Vita e relazioni sociali ai tempi dell'emergenza Covid-19* (pp. 95-116). Milano: Franco Angeli.
- Flaxman, S., Goel, S., & Rao, J. M. (2016). Filter bubbles, echo chambers, and online news consumption. *Public opinion quarterly*, 80 (1), 298-320.
- Gili, G., & Maddalena, G. (2018). Post-verità e fake news: radici, significati attuali, inattesi protagonisti e probabili vittime. *Media Education*, 9 (1), 1-16.
- Gui, M. & Gerosa, T. (2019). Strumenti per apprendere o oggetti di apprendimento? Una rilettura critica della digitalizzazione nella scuola italiana. *Scuola democratica*, 10 (3), 481-501.
- Jenkins, H. (2006). *Convergence Culture: Where old and new media collide*. New York: New York University Press.
- Koltay, T. (2011). The media and the literacies: Media literacy, information literacy, digital literacy. *Media, culture & society*, 33 (2), 211-221.
- Livingstone, S. (2014). Developing social media literacy: How children learn to interpret risky opportunities on social network sites. *Communications*, 39 (3), 283-303.
- Lombardo, C. & Mauceri, S. (2020). *La società catastrofica. Vita e relazioni sociali ai tempi dell'emergenza Covid-19*. Milano: Franco Angeli.
- Lupton, D. (2015). *Digital Sociology*. London: Routledge.
- Mannheim, K. (1929). *Utopie und Ideologie*. Frankfurt a. M.: Vittorio Klostermann.
- Maton, K. (2009). Cumulative and segmented learning: Exploring the role of curriculum structures in knowledge-building. *British Journal of Sociology of Education*, 30 (1), 43-57.
- McCall, L. (2005). The complexity of intersectionality. Signs. *Journal of women in culture and society*, 30(3), 1771-1800.
- McLean, M., Abbas, A. & Ashwin, P. (2013). The use and value of Bernstein's work in studying (in)equalities in undergraduate social science education. *British Journal of Sociology of Education*, 34 (2), 262-280.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual review of sociology*, 27 (1), 415-444.
- Mead, G.H. (1934). *Mind Self and Society from the Standpoint of a Social Behaviorist*. Chicago: University of Chicago.

- Mingo, I., Mauceri, S., Faggiano, M.P. & Di Censi, L. (2020). Un'indagine sociologica sull'emergenza Coronavirus. Note sul disegno della ricerca. In C. Lombardo & S. Mauceri (Eds.). *La società catastrofica. Vita e relazioni sociali ai tempi dell'emergenza Covid-19* (pp. 17-37). Milano: Franco Angeli.
- Pérez-Escoda, A., García-Ruiz, R., & Aguaded, I. (2019). Dimensions of digital literacy based on five models of development/Dimensiones de la alfabetización digital a partir de cinco modelos de desarrollo. *Cultura y educación*, 31 (2), 232-266.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Salzano, D., & Napoli, A. (2020). La Parresia al tempo degli algoritmi. *Studi di Sociologia*, 58 (2), 201-217.
- Silverstone, R. (2006). Domesticating domestication. Reflections on the life of a concept. In T. Berker, M. Hartmann, Y. Punie & K. Ward (Eds.), *Domestication of media and technology* (pp. 229-248). Maidenhead: Open University Press.
- van Dijck, J. & Alinejad, D. (2020). Social media and trust in scientific expertise: Debating the Covid-19 pandemic in the Netherlands. *Social Media+ Society*, 6 (4), 1-11.
- van Dijck, J., Poell, T., de Waal, M. (2018). *The Platform Society. Public Values in a Connective World*. Oxford: Oxford University Press.
- Veltri, G. (2018). La tempesta perfetta: social media, fake news e la razionalità limitata del cittadino. *Media Education*, 9 (1), 36-56.
- Vergés Bosch, N., Freude, L., Almeda Samaranch, E., & González Ramos, A. M. (2021). Women working in ICT: situation and possibilities of progress in Catalonia and Spain. *Gender, Technology and Development*, 25(3), 275-293.
- Young, M. (2014). What is a curriculum and what can it do?. *Curriculum Journal*, 25 (1), 7-14.