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Social capital and the three levels of digital divide.

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Introduction

Although the relation between the Internet and social capital has been largely investigated (Wellman 2001; Vergeer and Pelzer, 2009; Hampton, Sessions, and Her 2011), the nature of such relation it is still unclear. The ongoing dispute is still between two opposite positions emphasized in the really early stage of Internet studies (Wellman 2001): on the one hand the Internet increases and improves social relationships (Lévy, 1997); on the other it negatively affects face to face relationships (Stoll, 1995). A number of studies have implicitly investigated that relation, by emphasizing the role of the Internet in promoting both new democratic, participatory and open spaces (Sproull and Kiesler, 1991; Kapor, 1993), and collective action (Frantzich, 1999; Diani, 2000). This enthusiastic attitude, that we can define as “techno-evangelist” approach, sees the Internet as a place of freedom in which people (with similar and different perspectives) meet up for “building” something together. According to this approach,

the virtual space gives to users a “power capital”, represented by freedom of choices and democratic spaces of discussion. In these virtual spaces, citizens have the power to decide and mobilize people and resources towards a common objective. By contrast, a “techno-skeptic” approach sees the other side of the coin, in which Internet-users increase their activity on-line while decreasing and weakening their social interactions and civil participation off-line (Kraut et al. 1998; Gladwell 2010; Fenton and Barassi 2011). More specifically, earlier studies show how online activities may also enhance and increase social, human, and economic capital (Hargittai and Hinnant, 2008; Hassani, 2006). These are part of a broader body of researchers that have focused on how social capital may affect digital divide (Chen, 2013; DiMaggio and Cohen, 2003). Literature on this relationship mainly refers to how the digital divide may increase the inequalities in terms of possession of social capital (Pénard and Poussing, 2014; Di Maggio et al. 2004; Katz and Rice 2003). More specifically, Kvasny (2006), Robinson (2009) and Sims (2014) adapted Bourdieu’s theory to the Internet and new media research.

This chapter proposes a nuanced perspective which investigates the potential new applications of social capital in the context of digital divide and explores how social and digital capitals are interrelated. Therefore, the aim of this chapter is twofold: first, shedding light into the reciprocal influences existing between social capital and digital divide; and second emphasising how digital capital is a distinctive form of capital, but strongly intertwined with other types of capital (e.g. economic, social, cultural). More specifically, this chapter attempts to investigate the interrelation between social capital and the three levels of digital divide (Ragnedda 2017). The analysis here proposed regards not only how the access to the Internet (first level of digital divide) influences and is influenced by social capital, but above all how users/citizens use the Internet, what they use it for (second level of digital divide), and the returning benefits of using it (third level of digital divide). Secondly, in analysing the

relationship between social and digital capital we shall mainly focus on the differences and similarities outlined by three key authors (Putman, Coleman and Bourdieu) and, finally, we shall attempt to provide a more nuanced definition of digital capital. Indeed, while literature often refers to digital capital, there is still a lack of a clear definition of this concept. In the majority of cases the concept of digital capital is used with regard to the resources upon which the development of new products and services for the digital economy rely (see e.g. Tapscott et al., 2000; Roberts and Townsend, 2015).

In order to do this, we will first explore the multidimensionality of social capital by analysing the main traditional approaches to social capital and how they can be applied to the study of social and digital inequalities; then, in the second section, we will focus on the evolution from digital divide to digital inequalities and on how digital capital may influence both social and digital inequalities; then, as indicative examples, we will discuss five macro-areas through which observe the interrelationships between social and digital capital and, finally, we draw some conclusions.

Social Capital: a multidimensional and controversial concept

Social capital lends itself to a multiplicity of definitions depending on the theoretical perspective from which it is observed. In the following we will focus on some “classic” definitions of social capital (and its constitutive elements) that can be applied to analyse the Internet experience.

Ties/human interrelationship, trust, and environments/norms (see Figure 1) are recognised to enhance social capital. In this direction, Coleman, influenced by Loury, is interested in the

human relations that favour the trustworthiness and improve the cooperation. In this vein, he defined social capital as “a variety of entities having two characteristics in common: they all consist of some aspects of a social structure, and they facilitate certain actions of individuals who are within the structure” (Coleman 1990: 304). Social capital is, then, rooted in relationships between individuals (Coleman 1990). This makes social capital different than other forms of capitals. Indeed, while economic capital is characterised by the possession of means of production, and human capital is based on the individual skills, social capital is “the value of those aspects of social structure to actors, as resources that can be used by the actors to realize their interests” (Coleman 1994: 305). Coleman picked out two elements upon which the creation of social capital depends: trustworthiness of an individual’s social environment and the extent of obligations certain people hold. Following this perspective, individual actions and goals are shaped by their environments and the social norms surrounding them. Coleman sees social capital as an “individual resource” in which social ties are decoded as harbingers of opportunities for the individual. Instead, Putnam (1993) sees social capital as a “collective resource”. However, people environments are viewed as trustees of public resources and as a function of individual objectives. Hence, social capital is a “collective resource” that increases individual/collective benefits. More specifically, he defines social capital as “the trust, norms of reciprocity and networks of civic engagement, which increase the efficiency of society by facilitating coordination between individuals” (Putnam, 1993; 1995). Therefore, trust and cooperative skills are determined by shared values and. This mirrors some of Coleman’s ideas of capital stemming from socialisation within the community.

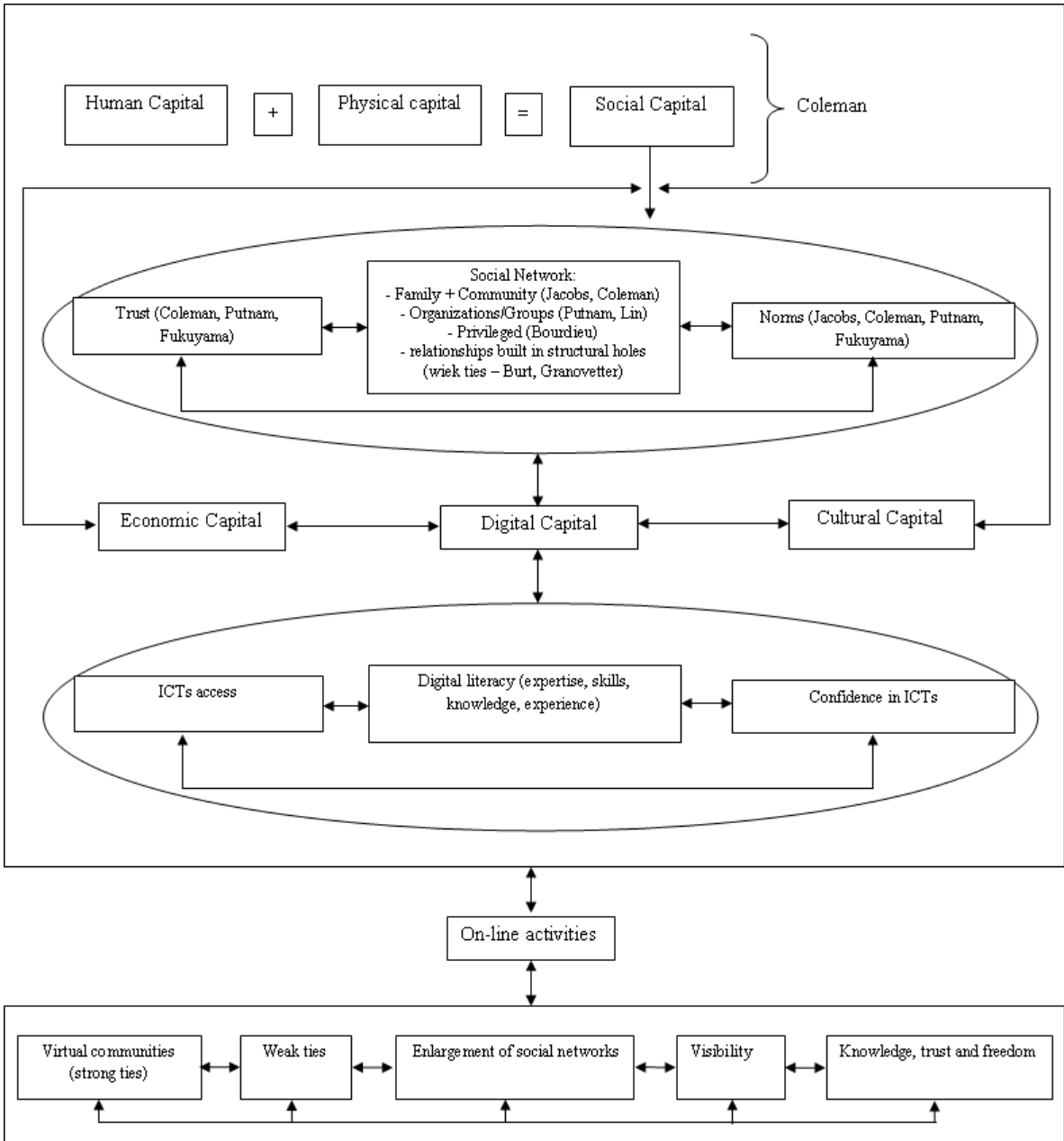


Figure 1. Interrelationships between social, economic, cultural, digital capital and on-line activities

Finally, Bourdieu defines social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationship of mutual acquaintance and recognition – or in other words to membership in a group – which provides each of its member with the backing of the collectively-owed capital, a “credential” which entitles them to credit, in the various senses of the word” (Bourdieu 1986: 248). The social relationship is central, as it allows access to the resources held by other

members of the group to which a person belongs. The proposed approaches to social capital assume that some aspects such as (strong/weak) ties, “size”/quality of social networks, visibility/role of members in the network, knowledge, trust and freedom can play a primary role in increasing (or affirming in Bourdieu’s perspective) social status of individuals.

As we will deepen in the following sections by giving concrete examples, these elements are relevant also in the Internet experience: they are able to both reproduce offline social structure, and privilege the privileged. Values, trust, reciprocity, and norms can be also considered constitutive elements of a “valuable” online experience that allows users to gather benefits from their participation in a “virtual community”. This suggests that the existing social capital of Internet users based on relationships and trust among people (located in specific places) may facilitate the creation of “virtual communities” (specific environments characterised by external and internal norms, trust and reciprocity) aimed at producing benefits for their members. This might reflect Bourdieu interpretation of social capital as something which has a value. He related “good social capital” to the amount of connections each individual had (the more the better), and the assets they gain from their social ties is almost like a profit they have earned through their investment in these relationships. At the same time, applying Bourdieu definition of social capital to the Internet experience, means assuming that social capital produces and reproduces inequality even on the online sphere, thus working alongside cultural and economic capital; all adding up for individuals to reach their own self-interest. In such perspective, social capital is functional to the maintenance and reproduction of the existing social structure (see also Field, 2008) both offline and online. In others words, Bourdieu’s view strays away from the humanistic side of social capital, towards a more “selfish position” that sees investments in people as purely worked on just to reap the rewards of what you will receive in return. By contrast, applying Putnam definition of social capital to the study of the internet experience means adopting a less economic point of view by prioritising civic engagement as

the most capital for individuals, such as educational groups, charity organisations, or even something recreational like a book club.

All the above mentioned approaches to social capital highlight the multidimensionality of the concept. As we will see in the next paragraphs, different “on line environments” lead to the emergence of particular nuances of the social capital concept. However, as we will clarify in the following, it appears that the digital capital is more likely to reflect Bourdieu’s definition of social capital by reproducing online the offline social structures and inequalities.

In the forthcoming paragraphs, exploring the possibility that the social capital might maintain and reproduce the existing offline social inequalities online, we shall try to discuss how the social capital decreases or increases in the context of Internet experience and how social capital affects the three levels of digital divide.

Social capital and the three levels of digital divide

In the following, we explore how social capital influences the three levels of digital divide. Indeed, as highlighted by a large piece of literature, social, economic, and cultural capital not only generate digital divide between people who can and cannot access the Internet (first level of digital divide), but also inequalities in terms of motivation, skills and purpose of use (second level of digital divide) and inequalities in terms of (social/cultural/economic/personal/political) benefits they can gain on-line (third level of digital divide). A large part of literature investigated the role of social, cultural, economic and demographic variables in influencing the internet experiences. What are common among these studies is that each of which focuses on specific set of variables, is the strong connection between cultural, social, economic

background of users and the Internet use (see Van Deursen, Van Dijk and Peters, 2011; Helsper, 2012; Van Deursen et al., 2014; Van Deursen and Van Dijk, 2015).

The initial technocratic approach to the digital divide as social and cultural phenomenon that underlines inequality in providing access to technology is outdated. This approach, defined as the first level of digital divide, saw digital divide in terms of “have and have not”. Such approach has been nuanced, over the years, by different theoretical models that emphasise digital inequalities as a consequence of different motivations, different skills, different use and different opportunities, creating what has been defined as the second level of digital divide (Hargittai and Walejko, 2008; Van Dijk, 2006). In other words, we have progressed from the first level, based on access to the Internet, to a more sophisticated level, based on the inequalities in ICT and Internet use (Attewell, 2001). Ragnedda (2017), moving from a Weberian perspective, introduced a new level of digital divide, based on the social and cultural benefits deriving from accessing and using the Internet. The third level of digital divide is strongly tied with different types of capitals and specifically with social capital. Indeed, the new form of digital divide emphasises inequalities in reinvesting in the social realm, valuable information and knowledge acquired online. The returning social benefits of using the Internet are influenced by the previous position in the social system (Ragnedda 2017). Indeed, we do not access the Internet as a *tabula rasa* (blank slate), but on the background of our own social, cultural, political and personal capital. More specifically, users’ background influences the way they search and process information online, which in turn can represent opportunities (Van Dijk & Van Deursen, 2014) that could be spent on the market (Ragnedda 2017). Our previous background, thus, influences how we access and use the Internet (first and second level of digital divide) and how we reinvest valuable information in the social realm (third level of digital divide) to improve our life chances. As shown in Figure 1, social, cultural and economic

capitals contribute towards generating digital capital, which in turn influences the number and types of online activities, thus producing effects on social/cultural/economic capitals as well (Van Deursen et al., 2014).

The circular relationship, visualised in Figure 1, shows both how the digital and social capitals are directly interconnected and how traditional social inequalities are replicated, if not reinforced, by digital inequalities (see also Mason and Hacker, 2003; Hargittai, 2008; Helsper, 2012). Despite the interconnections between all forms of capitals, such as economic, cultural, social and personal (Helsper, 2012) in this chapter we are mainly focusing on the role of social capital in influencing Internet use (second level of digital divide) and returning benefits (third level of digital divide).

Interrelationships between digital and social capital

Social capital can be conceptualised in a number of different ways. As a consequence, given the multidimensionality of the concept, mutual relationships might be identified between digital and social capital. Following the above mentioned approaches to the relations between ICTs and social capital, we focus on five macro-areas in which the digital and social capital influence each other by reinforcing some of their constitutive features and weakening others. The following discussion does not pretend to be exhaustive; however it gives some concrete examples that support the interaction model proposed in Figure 1. It can be summarised as follows:

- *Virtual communities (strong ties)*: the Internet may become a trust-based platform for sharing interests, informing people, disseminating information and increasing citizens' engagement

(Boyd and Ellison 2007) by bringing together people who share common goals. In this sense the multidimensionality of social capital, as described by Putnam, which consists of values, trust, reciprocity, and civic engagement, seems to be satisfied. The concept of “Electronic Agora” has been explored by an extensive and sometimes contradictory literature (Abbate, 1999; Castells, 2001; Benkler, 2006). In some cases, the concept of “virtual community” has been adopted to explain the capability of the Internet to create “deterritorialized spaces” in which financial resources, information, knowledge, and power flow (Fisher, 1982; Wellman, 1979). In other cases, this concept has been criticised due to its inability to substitute (but only reinforce) the “territorialized community” (Rheingold, 1993; Castells, 2001; Sassen, 2003). However, building a “virtual community” does not automatically mean mobilising people in the real life. There is a tangible risk that the virtual engagement might become a simple “clickactivism” (Gladwell, 2010; Morozov, 2010; Schulman, 2009). However, in some other cases, social media (e.g. Twitter and Facebook) can work as platforms for sharing information and organising mobilisation when they are already set up in the real life (Shirky 2011). Following this direction, it seems that the “virtual communities” included in the individual “digital capital” of users, rely on an already existing social capital based on relationships and trust among people located in specific places. At the same time the Internet might become a connector for “social movements” that work in different contexts but share information and useful insights widening their social networks and promoting co-operation (see Ruiu and Ragnedda 2017). Hence, creating a “virtual community”, based on common interests, views and perspectives might generate “strong ties” incrementing what Putnam defines as “bonding social” capital aimed at fostering “civil engagement”. In turn, bonding social capital provides strong and emotionally close relationships among people of similar backgrounds (Williams, 2006).

- *Weak ties*: the Internet might be a supportive tool for people seeking a job by increasing the number of contacts of potential employers that an Internet user can easily find on line. This opportunity offered by the Internet tool might contribute to reinforcing the “relational capital” of Internet users by generating “useful” relations. These resulting connections can be inscribed in what Putnam calls bridging social capital which contributes to access to both information and opportunities. This is also what Granovetter (1983) calls the “strength of weak ties”. At the same time, the communication via Internet (e.g. via email), in relation to the “weak ties” might increase the possibility that an employer will ignore my emails. Moreover, even job interviews can be made through the Internet across the world. However, this does not necessarily mean that these meetings will be successful thanks to the Internet. In fact, there can be a number of negative aspects as well. Just to give some example, during a Skype interview a number of problems can arise such as: connections problems and consequent misunderstanding (exacerbated if the language of employers and employees is not the same); missing of information given by proxemics (e.g. position of the body in the space, and management of interpersonal spaces). Therefore, one side of the coin shows increased possibilities to meet new employers; the other side shows how the resulting weak ties (and the use of the Internet for communicating) can negatively affect the success of the process.

- *Enlargement of social networks*: as already underlined the Internet can generate platforms of sharing. With regards to social media, and in particular to Facebook, this represents a platform in which people are mainly connected with their existing offline contacts (see Johnston et al. 2013). Hence, they become Facebook users bringing with them an initial existing social capital. In this sense, Facebook can be seen as a tool that increases bonding social capital by reinforcing relationships between people who already know each other. At the same time, new friendships can be generated thanks to a “snow ball effect” through which a user starts new friendships

with friends of friends, or new friendships can be generated from becoming member of “groups of interest”. Hence, Facebook might also generate a sort of bridging social capital by connecting new people (even though friends of friends tend to share the same background). In fact, an increasing number of people are founding groups based on cooperation for achieving common missions/goals (regarding diverse issues, from politics to societal and cultural challenges, pets, entertainment etc.). On the one hand, if close groups (characterised by high bonding social capital) are generated, they can become exclusive (Portes, 1998), excluding people of different backgrounds and not increasing the initial stock of social capital of members. On the other hand, when groups are too heterogeneous, Facebook can also become theatre of conflicts between persons/groups that do not share same opinions.

- *Increase of visibility*: the Internet, and in particular social media, are becoming platforms for increasing people visibility. This is the reason why, there has been a proliferation of degree and post degree programmes that focus on the Internet tools management, in particular with regards to social media. This is also the reason why, politicians are increasingly using the Internet (together with traditional media campaign) to gain visibility and success. In this context, the Internet demonstrates its potential in enlarging social networks by generating trust and producing civic engagement. This is the case of the “President on line” Obama in the USA in 2008 (Sullivan, 2008) or President Renzi in Italy in 2014. They used social media (together with massive television and face-to-face campaigns) for gaining consensus seeking to instil the idea of a revived e-democracy and so far they continue to use the Internet for constantly interacting with people. Furthermore, it seems that Twitter played a key role in Trump’s election (2016). Indeed, according to Debra Lee (Chairman and Chief Executive Officer of BET, the parent company for Black Entertainment Television), Trump was a master at using Twitter and it “really did seem to have helped him win the election” (Warzel 2016). However,

the use of Internet tools is not a guarantee of success. In the case of the 2004 election in the USA and in the 2014 election in Italy, respectively Howard Dean and the Movimento 5 Stelle (MS5, founded by Beppe Grillo) gained a wide consensus thanks to the Internet, but they did not win elections (see Kreiss, 2012; Bentivegna 2013; Cornfield, 2005). At the same time, better than Obama and Renzi, they are a testimony of the power of the Internet to reach people outside the mainstream media (television and newspapers). Beppe Grillo and the M5S have progressively increased their social capital by activating mixed processes of direct, participatory and deliberative e-democracy (Floridia and Vignati, 2013). In doing this, the Internet has played a significant role in engaging people, building trust within the movement and generating a “community” characterised by bonding social capital. At the same time, Grillo was a successful political satire who had already built his extensive social networks before founding the movement. Specifically, his ability was to transform his bringing social capital (deriving from his previous activity) in bonding social capital (around politics) thanks to ICTs.

-Knowledge, trust and freedom. Internet users need to trust the Internet (“cybertrust”) as a key factor to the ICTs success (Dutton and Sheperd, 2003, 2006; Urban et al., 2009). As underlined by Dutton and Sheperd (2003) Internet users develop confidence in the technology, and in the people they can communicate with on the Internet. They are also likely to believe that information on the Internet is reliable. Taking the case of shopping online, buyers have to trust not only sellers, but they need to have confidence in the net in which they put their credit card data. However, beside risks, a number of benefits in shopping on-line can be identified such as for example savings, choosing among a huge variety of products, and reducing waste of time to reaching and visiting shops. At the same time, experienced online buyers also enlarge their social capital by establishing economic relationships with sellers, respecting norms and increasing their “cybertrust”. However, the users’ trust in ICTs and their freedom in expressing

and virtual acting might be undermined by an invisible hand, which might drive users' choices. The amount of users' personal information contained in the Google database (as well as in social media databases) and gained from e-mail, searching activity, chats, calendars, photos, videos, blogs, documents, social networks, credit cards, give to the company a huge economic power. The search-engines aggregate current and past searches and use this information to profile and target people with effective advertising (Tene, 2008). This means that when users navigate on-line receive a huge amount of suggestions by search-engines and social media, which try to orient their choices. Advertising supports users in choosing material (e.g. movies, products) and immaterial goods (knowledge, news, information). Hence, in relation to past users' searches, existing virtual social networks and personal interests the Internet outlines users' profiles in order to help them to satisfy their needs while trying to direct them towards its preferences. As a consequence, those who have higher digital capital (in terms of ICTs skills and knowledge about ICTs privacy-related issues), are more likely to defend their privacy and freedom on the Internet, hence they have also the capability to increase their social capital (in terms of increased net-confidence, possibilities to gather knowledge less influenced by the search-engines, possibility to enlarge their social networks). In turn, digital skills are also dependent on social and cultural capitals, reflecting the traditional social inequalities (Van Deursen and Van Dijk, 2015). By contrast, those who have an initial limited digital capital (but also cultural and social) are more likely to be "victims" of the search-engines advertisements, limiting their possibilities to explore new horizons.

To sum up in salient points, from the analysis proposed it emerges that digital and social capital are connected at different levels: the creation of virtual communities seems to rely upon users' ability to translate their existing social capital into a virtual capital, which in turn reinforces strong ties and "in-group" sense of belonging. The Internet may become a trust-based platform

for sharing interests, informing people, disseminating information and increasing citizens' engagement, but it is mainly used for bringing together people who share common goals. In this sense, all the "classic" definitions of social capital considered seem to be satisfied by this tendency. At the same time, the risk that weak ties might not produce the expected benefits may indicate that the digital capital tend to reflect the same inequalities raised by the bourdieusian social capital (by reflecting the offline social structure). Moreover, the potential links between increase in visibility online and "power" offline is a further evidence of hoe the virtual dimension reflects existing social structures. Finally, one of the more evident points of contact between social and digital capital might be identified in the trust-generating mechanisms. In fact, it seems that "cybertrust" and confidence and trust in the Internet's environment might be undermined by the lack of expertise, knowledge, and digital skills, thus affecting the number of potential benefits deriving from the Internet experience. From these reflections, it emerges a definition of digital capital as independent capital, but strongly interrelated with other forms of capital (and primarily with social capital). As a consequence, digital capital might be defined not only as a set of skills, infrastructures, competences, experience, expertise, and abilities, but also as interconnections, virtual social networks, trust, motivations which origin from and can be converted into other types of capitals (economic, social, political, personal and cultural).

Concluding remarks

Although social capital has been defined in many different ways, once we apply social capital to the digital divide, it emerges that digital capital is an independent capital, but related with other forms of capitals. More importantly, digital capital is an independent source of power affecting social and digital inequalities.

Social capital influences “relational power”, which refers to those benefits deriving from the amount of “useful” relations (in terms of culture, economy, or politics) possessed by an individual. This aspect sounds particularly pertinent if applied to the three-dimensional level of digital divide: access-use-benefits. Indeed, one of the missions of the Internet is to connect people, by creating new and reinforcing existing social networks. The Internet may also support users’ in increasing their social capital while gaining benefits in economic, personal and cultural terms. However, in order to do this, citizens are supposed not only to access to Internet, bridging the first level of digital divide, but to have particular skills (technical, social, critical, strategic and creative) and motivation in using the Internet. Indeed, it is this different qualitative experience of the use of the Internet (second level of digital divide) that produces different outcomes and social benefits (third level of digital divide). By analysing five macro-areas in which digital and social capitals are directly interconnected, benefits and opportunities are generated by the use of Internet and by the capacity to reinvest into the offline network the valuable information acquired online. Indeed, when users’ approach the Internet they need to have already built a solid social capital in their off-line life, together with proper cultural and economic background and personal motivations. In fact, as we have underlined several times throughout the chapter, social capital not only consists of social networks, but it also refers to abilities and opportunities to create social network, thanks to trust-generating mechanisms, in a context defined by social norms. Likewise, off-line life, this scheme is also valid for the Internet use, in which users are responsible for creating their own opportunities. As a consequence, those who access the Internet with a high endowment of social capital will be more likely to reproduce their capital on-line by applying mechanisms similar to those adopted off-line, for generating on-line capital. In turn, the social-digital capital generated online will

support users' off-line activities. In this sense, the Internet seems to privilege the privileged, exactly as Bourdieu described the off-line mechanisms of social capital production.

Future research should focus on measuring off-line and on-line social capital, in order to empirically investigate the Bourdieu's position about the role of social capital as a means of maintaining superiority for privileged people. It might be useful to analyse how the reproduction of social capital into the online world help those who are already enjoying a privileged position to further reinforce their privilege. At the same time, it might be useful to analyse, by contrast, how digital capital might help those who are social disadvantaged to improve their life chance. The challenge here is to operationalize the concept of digital capital and analyse it in relation to third level of digital divide, namely the capacity to transform into social benefits the online experience.

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