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Creating an Inclusive Digital School District in a Northern Italian Urban Periphery

Mirella FERRARI¹, Ida CASTIGLIONI², Giulia MURA³, Davide DIAMANTINI⁴

Abstract

Citizenship in the sense of participation and shared responsibility is challenged by social exclusion in multicultural communities, particularly those with high economic inequity. This research study of schools in a socioeconomically disadvantaged suburb on the outskirts of Milan, Italy, addresses how access to information and the development of digital skills mitigated aspects of social exclusion and triggered more active participation in the life of the community. The project team observed the process of digitalisation as it affected administrators, teachers, parents, and students over a period of four years. Data in the form of structured observations, meeting and interview transcripts, and actual usage rates were collected, categorised, and eventually sorted into three main categories: 1) administrative promotion of inclusion; 2) school investment in equitable access to digital resources; and 3) capacity-building among stakeholders. Analysis of the data supported the ideas that 1) digital forms of participation are particularly valuable for people at risk of exclusion in communities; 2) consistent with European Union [EU] policies, education and particularly its digital form is a valuable key to civic inclusion; and 3) efforts at educational digitalisation must be long-term and intentional to be sustainable.

Keywords: inclusive citizenship, school digital district, digital inclusion, inclusive education, capacity building; lifelong learning.

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Introduction

Social inclusion and citizenship

The terms inclusion and exclusion are frequently used in literature as a dichotomy. Literature on inclusion has been widespread since the beginning of the 1990s; however the European sociological tradition has been more focused on the concept of exclusion. The concept of social inclusion was anticipated in the work of Max Weber, and its interpretations, changing in time, can be organized in nested schema representing degrees of inclusion, from more restricted to broader ones. Depending on the adopted interpretation, underlying factors and intervention approaches also change (Gidley *et al.*, 2010). At a political level, the idea of exclusion received more attention and it generated a good amount of academic and applied research. For instance, in the French political discourse of the late 1970s, social exclusion was connected with economic, ethnic and geographic disadvantage (Barata, 2000). The EU has continued along these lines, to the point that inclusion is one of the key words of the Agenda 2020 (Frazer, Marlier, & Nicaise 2010).

It's possible to distinguish a continental, 'European' approach and an Anglo-Saxon one. The first emphasizes the role played by governments and politics in the actuations of measures to counteract 'social exclusion,' especially in the field of health and education. In this view, the citizen is marginalized by society that should, through actions of solidarity, give back the ability to participate in the community. The second approach sees social exclusion as a result of voluntary choices of the subject, of wrong judgments in the practice of her role as a citizen. From the viewpoint, it is the individual that, for different reasons, retreats from social life, and therefore expectations for government and social support are very low (Korsgaard & Mortensen 2017). Nevertheless, both approaches focus on the issues of mental health, economic conditions, ethnicity, and occupation as critical aspects to be overcome in order to support social exclusion.

The concept of social inclusion is closely related to another complex issue, that of 'citizenship', which can have a more local, closed definition or be conceptualized in a wider, global, transnational perspective. In 1949 Marshall defined citizenship as 'participation in or membership of a community, as expressed through various rights, obligations and institutions', and identified three main types of citizenship: civil, political and social. Citizenship brings along issues of inclusion and exclusion when talking about sharing of common ethos, habits and traditions (Ariemma, 2013). We will focus on the relationship between citizenship and inclusion, as highlighted by recent research on 'social equity' and 'active participation' (Lister 2007).

The role played by the welfare system in supporting social citizenship implies the necessity to provide all individuals with the possibility to express themselves

and their own potential (Bellamy, 2008; Barbalet, 1996). From a socio-geographical standpoint, the economic, cultural, and territorial resources of a country play a crucial role in the social inclusion of citizens and their ability to express rights and duties (Barbalet, 1988; Newby, 1996). These are the so called third generation, or cultural rights (Touraine, 2000). According the authors, supporters of these rights are no longer the traditional social subjects - they are personal subjects who express themselves through cultural movements such as universally recognized individual rights.

Personal subjects could be the link to the concept of *digital citizenship*, where the subject takes on responsibility for action thanks to the interconnectedness with others. Such civicness refers not only to a fair allocation of resources but also to the promotion of good quality relations between citizens (Lister, 2005) and access to different kinds of networks, including digital ones (Sassen, 1997). Intervention and intentionality are two key words in the management of this transition to a digital form of democracy. Studies from the field of international education such as the Georgetown Consortium Research (Vande Berg *et al.*, 2009) or SAGE, the 50-year retrospective Study abroad for Global Engagement (Paige & Fry 2008), or the 40-year retrospective study conducted by Youth for Understanding (Bachner & Zeuschel 2008) have all demonstrated the need for intentional intervention to stimulate inclusion efforts.

Information and Communication Technologies [ICT] has fostered a new geography of global, centrality and marginality (Sassen, 1997; Warschauer & Matuchniak, 2010), thus determining a new frontier of inclusion/exclusion (Sachs, 2000) known as the *digital divide*, 'a multidimensional phenomenon encompassing different levels' (Sassi, 2005; Notley & Foth, 2008). In the late 1990s, the first investigations on the digital divide focused on issues related to infrastructural access to the Internet, a problem still relevant in some of the European countries (OECD, 2015). But as the diffusion of digital infrastructures grew, attention moved to 'information literacy' – the need for specific competences to be able to access the web and its services and to participate to the life of a community (DiMaggio *et al.*, 2004).

Bandura (1997) asserts that the digital divide cannot be measured in exclusively economic and social terms and those other cognitive elements, for instance an ability to organize and carry out actions in the digital world by being able to foresee the consequences of those actions, have to be taken into account (Notley, 2009). Currently the critical issue is Media Information Literacy (MIL): the ability to freely express oneself in a virtual environment, thus developing a higher level of digital competency and critical thinking (Testoni, 2014; Lu *et al.*, 2013). In this evolving scenario, it is still possible to see how different kinds of digital divide are linked to factors of social exclusion such as socio-economic status (Park, 2012); age, income and employment status (Lengsfled, 2011); gender and location (Asthana *et al.*, 2009).

School system and education can play a key role in providing individuals with the instruments necessary to avoid marginalization and to be able to critically evaluate the complexity of the world they inhabit. In line with the European Recommendation (2006), although almost ten years later, Italy has adopted a National Plan for Digital Education that includes among its goals the development of advanced digital skills (Falcinelli & Gaggioli, 2017) and the spreading of practices of lifelong learning and life-wide learning. The plan extends the idea of school from the physical space to a virtual learning space and to the use of ICT to prevent and contrast social exclusion.

Local experimentation that preceded the National Plan for Digital Education included the *Classe 2.0* and *Scuole 2.0* projects, involving 258 schools in Italy (Carro & Mori, 2017) and the Millennium project, developing 12 digital classes in central Italy (Limone & Parmigiani, 2017). Researchers suggest the need for a training of teachers which would increase the focus on the strategies to promote active citizenship in subjects at risk of marginalization (Menichetti 2017) as well as the adoption of new pedagogical approaches closer to the specifics of today's society (Calvani & Menichetti, 2015). So far, actions for inclusion in Italian state schools have been mostly targeted towards specific groups (Belotti, 2010) adopting a medicalizing approach (Caturano, 2016), while the application of ICT in schools remains confined to traditional pedagogical approaches (Mura, Ferrari, & Diamantini, 2016).

Our research design addresses some of these issues by assessing how the access to information, the development of digital skills and the participation to the life of the community, mediated by ICTs, could mitigate aspects of social exclusion and trigger germinal phases of action of social inclusion and active citizenship (Dozza, 2012) within a community (Caidi & Allard, 2005).

Cinisello Balsamo and the Digital Districts

Cinisello Balsamo is the third largest municipality of the Metropolitan City of Milan, a metropolitan area of 3,220,250 inhabitants situated in the north of Italy. The Metropolitan City of Milan is the second most populous in Italy and its capital, Milan, is one of the leading economic cities of Italy and Europe (Istrate & Nadeau, 2012). Cinisello Balsamo, situated in the northern outskirts belt of Milano, experienced an economic -heavy industry- boom from the 1950s to the 1970s, which generated a rapid increase of the population due to the immigration from the southern part of the country. Today most of those factories have closed and relocated, and, struggling to find a new identity, the city administration has promoted the implementation of a number of urban policies that are reshaping the city, trying to find new use for the existing structures, while at the same time renovating the city infrastructure. According to the data provide by the Italian Institute of statistic, the presence of new migrants, mainly from Romania, Egypt and Peru, is a relevant issue. 17.2% of the 75,600 citizens are born in a different

country or have a diverse ethnic background (while Italy has an average 8.3% of foreigners), and in the 0-14 years range the percentage reaches the 28.7% (ISTAT, 2016).

The economic status of the families is generally low or medium/low, with a per capita income of 20,200€, 36% less than the per capita income in nearby Milan (TWIG, 2017), and public schools struggle with issues such as infrastructure maintenance and integration of disadvantaged groups of students (recently arrived immigrants or coming from socioeconomically disadvantaged families) stakeholders.

In the context of Cinisello Balsamo, social exclusion is related to three main variables: 1) the socio-economic status of the families; 2) the family origin, with the high number of migrant families arriving from other countries or the southern areas of Italy; 3) the geographical location of the territory as an outskirts of a big city, lacking digital infrastructures, but also poor in cultural stimuli.

The creation of a 'School digital district'

The city has five public '*Istituti Comprensivi*' (state run unified school complexes grouping nursery, primary and lower secondary schools), including 12 kindergartens (3-6 years old), 12 primary schools (6-11 years old) and 8 middle school (11-14 years old), with a total of about 5.000 students and 700 educators. The percentage of students having an ethnicity other than Italian for each school goes from 12% to 57%, although schools with a lower proportion of ethnically diverse students still host groups of disadvantaged students, i.e. members of families who migrated from the south of Italy.

In 2013, the schools were completely unable to meet the growing need of digitalisation on administrative and didactic levels, for lack of both infrastructure and expertise. None of these schools had Wi-Fi, and Internet connection was scarce. Therefore, the local administration, in collaboration with the University of Milano-Bicocca, decided to promote and fund a wide programme of innovation involving the whole body of public schools on the territory. The project, called 'Digital District', started that same year and emerged from the necessity to promote and establish a digitally inclusive community. Beginning with the introduction of ICT in the local school system, the project was developed around a number of concrete actions such as the building of a community of parents and teachers, and the launch of two digital curriculums in one middle school. Specifically, the project carried out a full digitalisation of all the Institutes infrastructure; a training programme involving the whole body of teachers to support the introduction of innovative, inclusive, digital didactics; and the planning among all relevant actors (teachers, school principals, parents, local administration, local institutions, methodological, didactic and technological partners) of events and initiatives disseminating good practices of digital inclusion.

The local administration financed and promoted the project to local schools. All engagements in different activities sponsored by the project (i.e. teachers, parents) were on a voluntary basis. On the other hand, the implementation of digital innovation at school was, to some extent, imposed by the Ministry of Education, which demanded at least part of the school administration to be digitalized by 2016. The project adopted a community of practice model of governance: “Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. Members of a community of practice develop a shared repertoire of resources: experiences, stories, tools, and ways of addressing recurring problems - in short a shared practice” (Wenger. 2011).

The ambitious goal of strengthening the sense of community and the inclusion, through a shared governance models of the project (Healey, 2010), requires a capacity building process as a prerequisite; a process of strengthening of abilities to perform core functions, solve problems, define and achieve objectives, and understand and deal with development needs (Milen, 2001). This would allow the different actors (more or less at risk of exclusion) to increase their technical and participative skills and become able to cooperate and create connections.

The aim of the research was, therefore, to investigate if the introduction in the education system of new, inclusive strategies, through process of digitalisation of the schools, would mitigate social exclusion among the students.

The methodology

Data collection, instruments and participants

The collection of data started in 2013, following each step of the project, from the first meetings with local administration, to the planning and implementation of the activities, up until their final evaluation, and took place in different settings: the local schools, the local administration offices and the spaces offered by the University to the project. The recruitment of participants for the research phase of the project was facilitated by the school principals and the teachers, and was always on voluntary basis. The school complexes involved in the project were initially five but one of them dropped out of the project after the first year.

In all but one case, school principals changed over time, causing delays and at times inattention to the process. The same trend held for teachers, whose turnover and retirement plans affected the continuity of the process. Finally, political turnover on the part of the city council administrators changed, to some extent, the initial commitment.

Multiple methods of data gathering were applied, (Creswell 2009) for three main reasons: 1) capturing the systemic character of the Digital District; 2) using data over the years to help new participants overcome initial resistance;

3) deepening understanding of the various elements of inclusion. The strategies adopted allowed data to be gathered on both the project implementation and its impact on the stakeholders.

Specifically, the data collection included:

1. *Participant observation*: Through the whole timespan of the project 20 meetings, attended by the Mayor, 4 city council members, 10 education board members, 2 experts from the University and 2 technical experts were held. A researcher participated in all of the meetings as observer, taking notes of all the exchanges.
2. *Focus groups*: (a) At the beginning, mid-term and end of the project a focus groups with about 10 teachers and the school principals was organized in each of the 5 Institutes. At the end of the project one Institute had dropped out of the project, so only 4 Institutes participated for a total of 14 focus groups; (b) In March 2014, 2015 and 2016 3 inter-school focus group (4 school principals and 15 teachers from the various Institutes) were held at the University; (c) At the beginning, mid-term and end of the project 2 focus groups with parents of the students were organized. Each of the 2 focus was attended by 10 parents coming from different Institutes, and different school level (primary and middle school); (d) A focus group involving the local administration (1 city council member, 1 manager of the local administration, 4 employees of the local administration, all of which involved in the education policy making process) was organized at the beginning, mid-term and end of the project. Standard methodology was applied (neutral setting, guide for the session and recording support) and all of the participants to the focus groups signed an informed consent.
3. *In depth interviews*: In June 2016, 6 teachers and 6 parents of the digital classroom were interviewed with a special focus on inclusion. The researchers obtained from the teachers the contact of the parents. The semi-structured interviews had separate guides for teachers and parents, but the indicated topics and questions focused in both cases on the processes of inclusion in the context of the Digital District. All interviews were recorded and transcribed afterwards. All of the informants for the interview study signed an informed consent.

All textual data were analysed using Nvivo software, which allowed the data to be organized with conceptual coding. At the end of the project the data were reorganized on the basis of a nested model of inclusion. The evolution in the development of inclusive practices was observed as it developed in the processes of governance (first layer), in the school system (second layer) and among the involved stakeholders (third layer).

Results

The first layer: policy makers and governance assessments for the promotion of inclusion

The local administration of a disadvantaged suburb decided to adopt a strategy of digitalisation in its school to counteract social exclusion among the students and their families. During meetings with the project management, special attention was given to *strategies of inclusion of recently arrived migrants* (Romania, Egypt, & Peru), an issue highlighted by the school representatives involved in the project:

School principal: The number of foreign families is growing, often for family reunification. I just don't know where to place them anymore, if the Ministry does not allow me to create one more class. And we need to invest on literacy, actual resources are not enough.

The administrators recognized the potentials of the introduction of *ICT in school to support politics of inclusion*:

City council member: The inclusion of migrant families is, in this moment, a crucial issue, and the use of smartphone is a powerful tool.

The Town Administration, who had commissioned the venture in the first place, had to face issues regarding the economic sustainability of the infrastructure implementation and maintenance:

Councillor for Education: The Ministry of Education should take action, to help overcome structural problems that frustrate the efforts of school principals and teachers: for instance, primary and middle school do not have, in their staff structure, any technicians. At a strategic level, it's not plausible to imagine that schools should not have an informatics expert in their staff.

In the 3-year span of the project the public administration *increased its level of awareness* on its role for the success of the project, and undertook the following actions: (1) financed the project (2012) and included it among the priorities of its action; (2) created a scientific committee composed of representatives of the administration, the university and the institutes (2013); (3) organized a number of meetings for the coordination and monitoring of the project (starting in 2013); (4) assigned 2 staff members to the project, with a role of support and connection among all stakeholders (beginning of 2014); (5) promoted a 'Tavolo della scuola' (School Table) work group, which involved on voluntary basis 15 people representing the different stakeholders (local administration, university, school principals, parents). The group worked on the identification of main strategies for the territory (beginning in 2014).

Mayor: Our role cannot be simply that of financing a good idea. Inclusion is not something you can buy – you have to build it with perseverance. We as administrators have to give operational support, and I believe we are actually opening a path that other administrations should follow.

The second layer: school investments to support equitable access to students

It’s in the Institutes involved that the impact of the project was more concrete and visible. Overall, the project affected 550 teachers of primary and middle school, about 3000 parents and 1500 students through five major forms of activity:

Infrastructure: By February 2014 all of the 32 schools were provided with Wi-Fi and internet connectivity in all of the school buildings. Also, all 162 classrooms were provided with either a LIM or a digital projector and about 380 tablets were distributed to teachers (some of them already had a personal device).

Administrative Software: Between 2014 and 2015 all schools abolished the paper version of the school register and only used the digital one. By 2016 all administrative functions were digitalized, anticipating the Ministry of Education directions on the digitalisation of Public Administration. All communication between school and families (both regarding general school information and each singular student) from that moment happened via a Family Website/Digital Register channel especially realized by a technical partner for the aim of the project (Table 1).

Teacher: ‘This change affected radically not only the organization of my school but also the routine of my work. It was hard, especially at the beginning! But now I appreciate the results’.

Table 1. Average access for Institute to the digital tools of families and teachers (primary and middle schools)

	Families Website		Teacher’s Digital register	
	2015/2016	2016/2017	2015/2016	2016/2017
Primary schools	3230	5248	8.978	8.570
Middle schools	22.917	37.919	16.721	15.421

Training: Initially, both administrative staff and teachers received 4-hour training on the use of the administrative software. The main part of the training programme, though, concerned the use of ICT for didactics. The programme delivered about 380 hours of training, organized in-house seminars for school

leadership, basic and advanced classes and a ‘Digital contents group’, a laboratory for advanced users on the creation of digital school books. At the end of the project, 327 teachers received a certificate of attendance of the first base course, 178 of the intermediate course and 206 of the advanced course.

Didactic activities: At the end of the training, 90% of teachers were using ICT for didactics. The 37% of the teachers (all those who attended the advanced course) developed school activities (such as collaborative writing and group work) that fostered inclusion via digital tools, as part of their training.

School principal: *At first my teachers did not realize the potential of what we were doing. But when they had to go to other Institutes (for training or other reasons) they realized our improvements... they came back and told me: - we are advanced! In that school, the situation is terrible!*

Communication: The University supported the creation of 10 teams including teachers and parents aimed to start a dialogue between parts. Two communities of practice for the families were promoted on Facebook, via closed groups, to promote discussion and support on issues connected with school attendance and inclusion. While the University supported the creation and moderation of the groups, parents took responsibility of topics and debate.

Teacher: *We tried hard for this new channel of communication to reach everybody. There was some parent, some family that was hard to reach; they did not catch up straight away with the new system.*

Parent: *At first it was only a few of us posting things... but the conversation grew, and it was not just about – when the next class meeting will be. We organized our own meetings to do activities for the school, and everybody... well, almost everybody, participated.*

The third layer: the impact on the stakeholders and the capacity building process

The actions designed by the University and implemented in the school environment supported the maturation of a new awareness among the stakeholders concerning the issues of inclusion and digital divide.

Midway through the process, a few aspects were still problematic. Organizational issues and technical problems were frustrating a good portion of less resourceful teachers, leaving only the more tech-smart ones to successfully carry out projects. Many participants tried, at different times, to avoid responsibility by lamenting technical problems.

Another initial resistance shared by families and teachers regarded the risks of ICT, in the school, both on a general level and more specifically for the students. The use of ICT to communicate was seen as possibly leading to isolation and a loss of real life contact and exchange with the others.

Teacher: Reading, reading, reading... it's ok, but where will real life relationship end?

and elicited, on one hand, the fear of being cut out from on line discussion lacking time or writing/language abilities:

Parent: If relevant things are being discussed online, what about those who don't have time to read and respond? How will they participate in the decision making?

on the other hand, the fear of exposing the students to a malevolent influence, inappropriate online contents such as pornography, cyberbullying, violence, or just a time-devouring machine:

Parent: He comes home from school and just want to go on his computer and spend hours glued to the screen....

By the end of the project, though, the main critical issues had been overcome in most cases, and new aspects gained prominence in the discourse of the stakeholders.

For teachers, ICTs were useful resources, *increasing the motivation of students* to participate in school activities. All the students were more involved, which was particularly relevant for those people at higher risk of early failure such as students with Learning Disabilities and migrants.

Teacher: I had these two students; they were at high risk of drop out. Difficult families, you know a very difficult background... but when I introduced the idea of working with Apps they both responded very well. Now I see them totally involved with the rest of the class.

Collaboration among teachers was improved. Participation to many training sessions held by colleagues created a new positive climate in the school community, and creative new projects emerged. All of the teachers gained confidence in their use of ICTs, and this was positively mirrored back to their students.

Teacher: In my school we created an Innovation Team, on voluntary basis, to work with these new ideas.

School principal: Some teacher has been dedicating his/her free time to the preparation of new projects, applying to public calls for the financing of projects of infrastructural renovation, for example, with no additional retribution.

Collaboration among families also improved, and in some cases the school promoted actions of mutual support.

Parent: We are using the ICT to find parents that volunteer to manage groups of students during holiday time, to support those parents who work longer hours. We feel more like a community.

Parent: Too many parents underestimate the risks of cyberbullying, and the kids don't find help and support, so we decided to do something about it....

A model of digital inclusion: the digital classroom

The activities promoted found their full realisation in 2014, with the introduction of two first year digital classrooms in a middle school. At the end of the project the Institute had 2 first, 2 second and 2 third year digital classes in which a total of 105 students were attending classes with the support of a tablet and were involved in daily tasks that promoted collaboration and an active role in their learning. The use of schoolbooks was partly replaced by digital contents created by the teachers and the same students. In these classes, the communication and collaborative didactic became structural elements.

Since there was variation in the implementation of digitalisation in the schools, data from all the school complexes were compared to identify elements that would enable the school to fully develop the project. The key elements for the successful development of an inclusive digital classroom can be summarized as such: (1) continuity in the level of awareness and involvement of the leadership; (2) support for all of the actors, families included, in a process of capability to promote a sense of inclusion through the intervention of tutors and social animators; (3) technical and didactic training; (4) economic investment in infrastructure/software. Only when all of these elements were available the actions proposed fully developed into a digital experimentation that successfully promoted digital and social inclusion.

Particularly relevant to our research, ICTs represented a *strong appeal to families of different backgrounds*, especially to parents of kids with LD, but also to recently arrived migrants.

Teacher: We received more requests of enrolment that we could satisfy, both from Italian and foreign families. However, we decided to maintain the balance between different groups of students similar to the one of other classes. But parents were very interested: a family went to a private neuropsychiatrist to be able to show a LD certification to support the inclusion in the digital class, another was ready to swap to full-time school just to be in the digital class.

Parent: Some of the other parents from primary school enrolled their kids in another school because of the rate of foreigner here, but we thought that the digital classroom was really a big opportunity.

Parents' motivation to be part of the group was a key to bridging the economic gap existing in the community, particularly for foreign migrants who were often the families with the lowest income.

Teacher: While during the first year of experimentation the necessity to buy a device for the kid was considered a problem, now also migrants families live it as a valid investment, and forms of instalment payment have been studied to support them.

Parent: At first it was kind of scary, having to actually buy a tablet for our son... he is only 11, so messy with his things... But he never lost it, never broke it, I wish he was so careful with his other properties too!

The experience has had a *unifying effect* both among students and parents especially noticeable among students of the third year of digital class.

Teacher: If I compare this third year with my other ones, I see them much more united; the class group is more cohesive.

Parent: We didn't know the other families, we did not meet them in primary school like others did...we arrived just recently in Cinisello. But now I know all of the other parents, we meet many times, we chat... I have found a lot of information this way....

Those students were involved in a number of group activities, where communications were supported, and the classes participated in many extra-curricular events, even after-hours. The students of this class have contributed with enthusiasm and competence in the school open day, more than colleagues from other classes.

Parent: My daughter has collaborated with her schoolmate on a lot of projects and it was not unusual to see them working together in the afternoon, in either home.

Teacher: These girls are members of a resident family⁵ tied to local organized crime, their mother is completely illiterate: thanks to the digital workgroup, they were included in the social group of other more integrated families.

Overall, these data support the contention that in the digital classroom/curriculum the process of capacity building of the persons involved was more effective, and their contribution to the community of practice especially lively and productive in terms of inclusion.

⁵ Their family is well known as a part of an organized crime system operating in Cinisello Balsamo.

Discussion

The study confirms the complexity of social inclusion, a phenomenon connected with various dimensions, and falling under the administration of different institutions. Among the relevant factors impacting social inclusion we addressed ethnicity, socio-economic status, working situation, competences, citizenship and education.

The EU, following up on the attention to social exclusion, has recently focused on the issue of inclusion, implementing various actions in the Europe 2020 strategy for smart, sustainable and inclusive growth's framework, such as the platform against poverty and social exclusion. Among the instruments proposed by the EU to promote inclusion, we want to mention the Open Method of Coordination (OMC) used by Member States to support the definition, implementation and evaluation of their social policies and to develop their mutual cooperation: it is perhaps the most coordinated effort so far in this ambit.

The project here presented can be framed within very similar parameters. What is implied by our research is the need for an investment in infrastructure in Italy, although in this particular case the motivation for inclusion and participation in the life of the community expressed by participants outweighed the simple economic need. People belonging to disadvantaged groups were notable in identifying digital technology as an opportunity to participate in the community (Alam & Imram, 2015).-

It seems clear that people in a situation of social or economic disadvantage see an opportunity -through digital technology- to participate in civiness, to be included in the local community, to 'author' (Wawrzynski & Pizzolato, 2006) their existence. A process of capacity building directed to all the stakeholders of the scholastic district can help to mitigate the impact of the main factors in exclusion. The ICT played a role of disintermediation, allowing marginalized groups to access institutions directly and to get more involved in the community.

We see the potential pitfalls of temporary communities based on technology as lacking affect and presence, but in this case the project demonstrates how opportunities can outweigh the downsides. The inclusion of diversity in schools, whether ethnic, economic or based on physical ability, is a major challenge (Suarez-Orozco, Suarez-Orozco, & Todorova, 2008) for every society, but finding a way to give individuals responsibility for participation in it, by offering tools and space to do it, could be a key.

The social benefit of the 'Digital District' project has been made explicit by participants at all levels confirming existing research on the topic: feeling part of a group is an aspect of well-being increasing knowledge, reducing anxiety and overall an existential engagement (Sthephan & Sthephan, 1984; Jayawickreme, Forgeard, & Seligman, 2012). Furthermore, the intentional creation of such a community has increased awareness of the use of digital tools among students,

thus allowing for the possibility of a more active form of citizenship on their part. (Birbes, 2014); nevertheless, it remains difficult to measure the impact of ICTs on any target of population, if not in longitudinal terms (Reynolds *et al.*, 2003).

Conclusion

The research also reveals the ubiquitous need to guide schools to pursue, among other priorities, the acquisition and diffusion of digital competencies and literacy, together with the awareness of risks and dangers of social media and life on the Internet. In this regard, the result of this project is very encouraging: intentionally using digital tools can help counteract social exclusion and act as a democratic action by promoting active citizenship.

As noted in the venerable contact hypothesis (Allport, 1954), proximity among individuals of different background is not enough for turning a multicultural society into an intercultural one, particularly when the economic disparity among group members is wide, such as in this case study. Our research supports the contention of Vande Berg (2009) and others referenced earlier regarding the need for intentional intervention in multicultural coordination situations. Coordination of meaning in a diverse society can then happen more easily as a meta-coordination (Bateson, 1972; Maturana & Varela, 1992): the opportunity offered by ICTs needs to be taught as an invaluable tool for such coordination and managed properly to that end.

Resistance to the introduction of technologies and to the exercise of active citizenship still exists in Italy, as evident in this research as well. Re-thinking civicness is of primary relevance in order to fill the gap of the perceived hiatus between 'local' and 'global' (Hannerz, 1992). The engagement of local administrators and leaders has been not only crucial to the success of the endeavour, but an expression of civic democracy as well. Inclusion can only be the result of a systemic effort where every component is important to the whole.

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