CONNECTIONS: the use social associations with migratory background make of ICT to
build social capital for newcomers' social integration

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Abstract

Psychological studies in the field of migration attest that social integration is enhanced by social capital. Communities of origin and the ones of resettlement play different role in the promotion of newcomers' social integration. Nevertheless, researches highlighted that connections between migrants and resettlement communities are the hardest to be established. By reinforcing existing ties and generating new connections among communities, ICT represent a resource for the creation of migrants' social capital.

The paper presents two case studies addressing the use that a refugee- and a migrant-led association make of ICT in order to develop social capital aimed at fostering newcomers' social integration. An ethnographic approach was adopted, and qualitative data have been collected. Results show that in the associations ICT are aimed at easing connections within migrants and between migrants and the resettlement community by directly fostering the establishment of social ties and by spreading positive narratives about migration. Through the empowerment of refugees and migrants, ICT emerge as tools that lay the foundations for the promotion of social cohesion.

        Keywords: Information and Communication Technologies (ICT), Community Informatics (CI), Social Capital, Refugees, Migrants

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The present article is framed within the current historical context characterized by the

greatest migratory flows ever recorded. Such a situation, addressed as "Refugee Crisis",

involves not just asylum seekers but also migrants pushed by reasons other than war and

persecutions. Nevertheless, the term "Crisis" also underlies the state of emergency that

nations all over the world are facing with regards of reception and social integration practices.

With this regard, in the last years UNHCR has organized some international, regional

and national meetings aimed at consulting the recipients of reception policies for asylum

rights: refugees. Even though restricted to a specific category of the overall migrant

populations, these initiatives are worth of being explored for two reasons.

Firstly, they assume refugees as reliable interlocutors for the improvement of the

reception policies. Their direct experience as recipients of the reception system is indeed

exploited in order to evaluate and improve the existing policies.

Secondly, these initiatives give beneficiaries the chance to promote a representation of

refugees and migrants in general as active members of local communities. In this way, an

alternative image of migration is shared as opposed to the mainstream ones reported by media

that are instead focused on negative narratives (Allen, Blinder, & McNeil, 2017).

Such a contextual framework fosters an agency of refugees, assumed as actor of their

inclusion path but also of the social and cultural development of the resettlement community[1].

Information and Communication Technologies (ICT) sustain such a process in

different ways (hidden citation). From a Community Psychology perspective, by easing

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[1] The term "Resettlement community" is intentionally used in order to address the communities whereby refugees and migrants settled. The term "Hosting community" is not used as it may imply a transition nature of migrants' and refugees' settlement.

migrants' active participation to the resettlement society, ICT represent functional tools for Community Building. Such a function is explored by Community Informatics (CI), a branch of studies that particularly addresses the contribution of ICTs in the development of local communities. ICTs provide indeed opportunities to create and sustain social networks within a community (Zinnabauer, 2007) as well as connections between new and old members of a community (Damian, 2014; Lee et. al., 2016; Ogan & Ozakca, 2010; Andrade & Doolin, 2016) that in turn promote the creation of individual and collective social capital.

Framed within such a theoretical perspective, this paper explores the use that a migrant- and a refugee-led social association make of ICTs in order to develop social capital that foster migrants' social integration and promote the creation of inclusive societies.

Theoretical Background

Community Building and migrants' social integration

Within Community Psychology, Community Building refers to a series of "*activities, practices, and policies that support and foster positive connections among individuals, groups, organizations, neighborhoods, and geographic and functional communities*" (Weil, 1995, p. 482). Aim of Community Building strategies is to address social issues (McNeely, 1999). Among the components that make effective Community Buildings initiatives, Gardner (1994) places the integration of diversity, shared values, mutual trust and reliance, and participation. Not surprisingly, Community Building activities have been carried out in order to foster migrants' social integration.

According to Austin (2005) the very first Community Building programs, implemented in the late 1800 early 1900 in US, precisely addressed the social and economic inequities that effected immigrants. Lately in 2000 the term Community Building started to

encompass programs aimed at fostering social, economic, cultural and politic development of communities (Chavis, 2000).

The establishment of resourceful connections among people who belong to the same community is the focus of Community Building Strategies. This is in line with Ager and Strang's (2008) model of social integration that places social cohesion, characterized by the presence of strong networks within and between groups (Kawachi & Berkman, 2000) at the core of migrants' social integration. Trustful and reciprocal social relationships, or rather social capital, provide indeed migrants with resources that allow them to get settled and therefore to actively participate in the community life.

Because ICT constitute effective tools for network creation and reinforcement, within the Community Informatics framework, they can be adopted for Community Building strategies.

The contribution of Community Informatics

According to Gurnestein (2000):

Community Informatics pays attention to physical communities and the design and implementation of technologies and applications, which enhance and promote their objectives. CI begins with ICT, as providing resources and tools that communities and their members can use for local economic, cultural and civic development, and community health and environmental initiatives among others. (p.2).

Such a discipline is aimed at designing ecological ICT solutions to solve community problems and to promote local community development. Local communities are conceptualized as territorial spaces, such as neighborhoods, with their social and human tissue and information architecture (Stillman & Linger, 2009).

Within the CI framework, ICT users are considered as social actors with intentions and embedded in a context whereby they play a role. For this reason, CI consider ICT as tools that can foster the community activism, entrepreneurship and participation (Taylor, 2004).

According to Chavis (2000) community development is possible when its members share a sense of community, "*which refers to the strength of bonding among community members, including aspects such as cohesion and attachment*" (Lazarus, Seedat & Naidoo, 2017, p.4). By offering tools and virtual spaces to create connections between old and new members of a community, ICT foster a shared sense of community and commitment towards its development. ICT are therefore source of social capital.

Social Capital and ICT in the migration field

Bourdieu (1985) defined social capital as "*the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition*" (Bourdieu, 1985 p.51). As the definition specifies, the participation in a network is the constituent for the development of social capital.

Whilst Bourdieu only took into consideration resourceful connections within a group, Putnam (1993) proposed that resources can be developed even through ties that connect different groups. The author defined social capital as "*Features of social organization, such as networks, norms, and trust, that facilitate coordination and cooperation for mutual benefit*" (Putnam, 1993, p.2). He introduced the distinction between what is now addressed as Bonding and Bridging social capital. The first refers to resourceful connections, in terms of trust and cooperation, among people who share a social identity, while the second addresses respectful and reciprocal relationships between people who do not share a social identity. (Woolcock & Szreter, 2004).

In migration studies the distinction between bonding and bridging was applied in order to identify which social relationships foster social integration: bonding relationships address migrants' connections with their community of origin; bridging networks relate to relationships amongst migrants and resettlement populations (Bereins, Hughes, Hek, & Spicer, 2007; Modesti, Talamo, Nicolais, Recupero, 2020).

Studies in this field demonstrate that bonding relationships provide migrants with emotional and social support, but also with employment opportunities that in turn foster the establishment of bridging relationships (Eriksson, Wimelius, & Ghazinour 2018; Bereins et al., 2007; Calhoun, 2010). Bridging relationships enhance migrants' access to services and information and augment a sense of security.

Bridging networks play a peculiar role in terms of social cohesion since they connect migrants with members of the resettlement community and eventually result in a shared commitment towards the development of the local community. In other words, consistent with Putnam's conceptualization (2000), bridging networks produce what in literature is referred to as Collective Social Capital, or rather resources for the community benefit. Notwithstanding, bridging networks are the hardest to be established because of prejudice and discrimination (Eriksson et al., 2018; Bereins et al., 2007; Calhoun, 2010).

However, the mere embeddedness in a network does not guarantee the access and production of resources by its own (Portes, 1999). A person's effort is needed in order to make social connections resourceful. Therefore, the attention to social relations starts from the recognition of a person's agency. Such a perspective overturns the assumptions that commonly guide the psychological researches in migrations, characterized by a pathological model that victimizes migrants (Cobb et al., 2019). On the contrary, an approach that values migrants' participation to social relationships sheds light over their empowerment, a

"*construct that integrates perceptions of personal control, a proactive approach to life, and a critical understanding of the sociopolitical environment*" (Zimmerman, 1995, p. 581).

Recently, AbuJarour and Krasnova (2017) argued that ICT enhance migrants' empowerment with regard to their social integration. These technologies indeed facilitate the migration and social integration process by supplying sources of information useful to choose the destination, organize the journey and eventually to navigate within the resettlement community (Dekker & Engbersen, 2014; Andrade & Doolin, 2016).

ICTs empower migrants by also providing them with tools and spaces to strengthen and create bonding and bridging connections.

Dekker and Engbersen (2014) reasoned that social media connect migrants with co-nationals already settled in the reception community who provide information about the journey to undertake and how to get settled. ICT also ease contacts with families and friends left in the homeland allowing those who flew to take advantage of supporting bonding networks. In line with Zinnabauer (2007), Dekker and Engbersen (2014) found out that ICT promoted the creation of new bridging networks resourceful for migrants' establishment in the reception community. Additionally, Bacishoga, Hooper and Johnston (2016) argue that technologies allow migrants to strengthen the bridging networks that they had already created through physical encounters.

Therefore, integrated migrants are people who mastered their social integration path by exploiting the contextual and relational resources. Recalling Wenger's theory on Community of Practice, such a population passed from a peripheral to a central position within the resettlement community (Wenger, 1998). In such a path they created an experiential knowledge about the context they became part of, the effectiveness of the reception system and the relational resources that ease integration. Such a wealth of experience represents a capital to foster the effective social integration of those who arrive

after them and by doing so, it also concurs to the social and cultural development of the resettlement community.

By focusing specifically on social capital, the hypothesis that guided the present study is that ICT represent tools that integrated migrants intentionally use in order to create inclusive societies.

Social Integration in the Italian context

According to Italian legislation, social integration is defined as a "*Process (…) aimed at promoting the coexistence of Italian and foreign citizens, with the reciprocal commitment to participate in the economic, social and cultural life of the Society*" (art.4-bis Testo Unico sull'Immigrazione, 1998).

In Italy, the social integration strategies are addressed by the central government and actualized by the local ones. In particular, local administrations and third sector organizations deal with: information-sharing about duty and rights within the Italian society, acquisition of the Italian language and knowledge about the Italian culture. They also facilitate the job and housing placement and the use of the health care system (Testo unico sull'immigrazione, 1998). In addition, holders of international protection and unaccompanied minors benefit of the Protection System for Holders of International Protection and Unaccompanied Minors that create a customized path of social and economic integration (https://www.sprar.it/la-storia).

Italian local institutions are also supposed to promote initiatives aimed at easing the intercultural and interreligious dialogue among the territorial communities.

Within the above cited European movement that directly involve refugees in the decision-making process for the improvement of the reception system, in 2018 and 2019 the Italian branch of UNHCR and Intersos have jointly released two calls destined to refugee-led

organizations with the aim to support those that deal with refugees' social integration and the promotion of social cohesion in the Italian local communities. According to the national association of the Centres for Voluntary Service in 2018, in Italy, 197 associations with a migratory background have been map (CESV).

Cases study

The two cases study presented are part of the 20% of the abovementioned associations that specifically deal with social promotion. Both of them have participated and awarded the UNCHR-Intersos calls[2]. The first association works at a local level in a city the north of Italy, whilst the second one works at a national level all over Italy.

Creating Connections (CC) is a migrant-led organization founded in Turin in 2018 aimed at promoting and spreading a culture of coexistence whereby young migrants and new Italian citizens play a fundamental role. Its beneficiaries are refugees, working and second-generation migrants. The four founding members and six associated members, coming from different countries and with different migratory backgrounds, address its mission through the implementation of two main branches of activities. The first one, that is aimed at creating meeting spaces between new and old members of the Turin community, includes activities such as sports tournaments and religious events. The second type specifically addresses migrants' resettlement and includes meetings aimed at explaining the Italian reception system. Nevertheless, the association hallmark is a project designed to foster migrants' sense of belonging to the Italian and Turin culture. It consists in bringing together leaders of diaspora communities to participate to a tour of the museums and symbol places of the city. The leaders are then supposed to give back what they learnt to the rest of their community of origin residing in Turin.

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[2] The associations names have been modified to protect participants' anonymity

JOIN is a national organization founded in Rome in 2019 whose aim is to promote refugees' protagonism, self-representation and self-narration in order to make them active participants of the Italian society. Such a goal is achieved through the creation of a network within the refugee-led organizations operating all over Italy. JOIN is made of seven founding members, holders of the refugee status, but coming from different countries and resettled in different cities across Italy. The association beneficiaries are specifically refugees, holders of subsidiary protection and exiles. The main service that JOIN offers is an informative platform that brings together all the refugee-led associations that foster refugees' social integration in Italy. Through the organization of national and local meetings all over the Italian territory, JOIN pursues the creation of a national cohesive network of refugees whose aim is to collect their needs in term of social integration and advocate for them in national and local committees.

Research Objectives and Methodology

The following study is part of a broader research aimed at exploring the social capital created by migrant- and refugee-led organizations in order to foster newcomers' social integration. An ethnographic approach was used to carry out this research.

This study addresses specifically the use these organizations make of ICT for the creation of social capital. The following research questions (RQ) have driven the data collection:

RQ1 - What kind of ICT are used by the two organizations? How have they been chosen?

RQ2 - What is the function of ICT within the two organizations?

RQ3 – How do ICT address the creation of social capital?

Data collection and analysis

Data in the form of field notes, pictures and narrative interviews was collected from January to September 2019 by a PhD student in Social Psychology at the Department of [hidden text] of [hidden text] University.

Narrative interviews were chosen as they allow interviewees to narrate their own experience and therefore to capture their own point of view (Atkinson, 1998). A similar approach has been indeed adopted in other qualitative studies about the use of technologies (Recupero, Talamo, Triberti, Modesti, 2019). An interview framework was set up with open ended questions that were broad enough to allow participants to describe their experience and enrich their answers. Beside the exploration of participants' process of migration and social integration and the constitution of the associations, interviews included questions about the role that ICT played within the organizations.

Interviews were collected, audiotaped and transcribed in Italian, later they were translated into English.

Being an under-researched area, themes about ICT were selected from the entire dataset and analyzed through a "Theoretical" thematic analysis guided by the study interest (Braun & Clarke, 2006). Through the application of a sematic approach, data was firstly organized according to the semantic content and then interpreted according to the literature about ICT and social capital. Extracts were firstly coded according to their content then collated and organized in a draft thematic map with analytical categories, and one level of subthemes. Themes were then refined and structured in a final thematic map. Lastly, labels were given to each theme and sub-themes.

Fourteen participants were involved in the research, nine of them belonged to CC and five to JOIN.

	Creating Connections	JOIN
Age	M=33.3 SD=5.6	M=32.6 SD=8.35
Gender	5M 4F	4M 1F
Migratory background	4 Refugees 2 Second generation 1 Subsidiary protection 1 Work permit 1 None	5 Refugees
Years in Italy	M=15 SD=10.08	M=13.6 SD=2.7
Holders of Italian citizenship	4 members	1 member

Tab. 1 Information about participants

Results

Two analytic categories emerged from the data of both the case-studies:

"Connections" refers to the use the organizations make of ICT in order to create new ties and

sustain the already existing ones; "Communication" addresses the organizations' efforts to

communicate migrants and refugees' participation to the local community. The two case-

studies show some differences in the subthemes emerged within these two analytical

categories, as shown in the thematical maps reported in Tab. 2 and Tab. 3.

Creating Connections

Theme	Sub-theme
CONNECTIONS	CREATING BRIDGING NETWORKS
	OVERCOMING PHYSICAL BARRIERS
COMMUNICATION	EFFECTIVE COMMUNICATION
	POSITIVE NARRATIVES

Tab.2 Creating Connections Thematical Map

Table 2 shows the Thematical map emerged from the analysis of the CC data. Within

the "Connections" analytical category the subtheme labelled "Creating bridging networks"

emerged showing that the organization uses ICTs in order to ease the creation of bridging

networks within the local community in order to foster its development.

Evidence of such an intention is in the association webpages where a specific section

reads as follows: "*Let's network – Send us suggestions and proposals! We will try to network*

with the territory in order to concretely answer to everybody's collective needs".

The creation of bridging networks is the criterion that guides the choice of the specific

ICTs employed by the association. With this regard, in the following excerpt one of the

founders explains the importance of social media.

> *Technologies are instruments, yes, we have internet and Facebook and together with*
>
> *[another founder] we are planning to start other channels, because [we have]*
>
> *YouTube, Facebook and the website. Who visits a website? Questionable. Just an*
>
> *expert. Facebook, yes with Facebook you can come into lots of people's house.*

As the following excerpt shows, social media are in turn chosen by the organization

according to their target users and therefore to the net CC wants to create.

> *Today you cannot get along without [social media] (…) Nowadays, those who do not*
>
> *use them are screwed, especially Instagram, if you want to communicate with the*
>
> *world of youth. I have never used Instagram but I want to use it now. Twitter is just*
>
> *for politicians and journalists. Instagram is really youthful, Facebook too.*

Interestingly, this subtheme attests also the resourceful connections that CC

established for its own holding due to the use of ICT. In the excerpt hereunder, the president

of the association explains how those tools ease the partnership with stakeholders and lenders.

> *Let's simplify the question, "Why do we need a photographer, someone who*
>
> *documents?" Because if we want to send a proposal to a foundation or to someone*

who can finance us, technology is used too. It is not sufficient to say: "I have done this". "Let me see what you have done". [Our project] Common Places is the one that allowed us to meet [referred to the PhD student] because I brought the experience to the Summit in Milan and we met. (...) Nevertheless, Facebook is making us meet lots of other people.

The second subtheme in the "Connection" analytical category is "Overcoming physical barriers", this describes the use CC makes of those technologies to reach people that are hard to meet face-to-face. The president reported that thanks to social media they managed to reach an audience who could not participate to some of their events because of bad weather conditions.

Within the "Communication" analytical category, two subthemes emerged from the data analysis: "Effective communication" and "Positive Narratives".

The first subtheme attests the association effort to effectively communicate its goal. In the following excerpt one founder explains how such an effective communication has eased the network creation and raised the attention of journalists whose involvement is valuable in order to multiply the audience.

They have told few things but in a really good way with a new angle and so journalists have come without the necessity to call them. So, if [the president of CC] multiplies in terms of narratives, it's done.

The second subtheme includes the strategies to spread positive narratives about migration and their aim to foster social cohesion. The main strategy that CC adopts is the inclusion of journalists in the activities they carry out. The following excerpt is representative of such a strategy.

A football tournament was organized and we've attempted to create a team from the mosque, a team from the church of the city, a team of refugees and a team of journalists, because journalists must not be left outside the news. They must be inside, they must be involved so that they must not [tell] stories from the outside, but from the inside and if you are a citizen as such you have the duty to inform other people, so I involve you and ask you not to tell me "You are good, or ugly or bad" but to tell about this stuff that happens because we make good things. So, we ask you to give chances and to give right spaces even to this good news because everyone needs it.

Reading the aforementioned results in the light of literature on social capital, it emerged that CC pursues the creation of a cohesive social fabric through the promotion of bridging networks within migrants and the resettlement community. In this line, the organization lays the foundation for the construction of collective social capital. ICT address this mission easing the *creation of bridging networks* and *spreading positive narratives* about experiences related to migrants' social integration and commitment to the development of the resettlement community. The use of effective communication is the means by which these two goals are pursued.

JOIN

Theme	Sub-theme
CONNECTIONS	CREATING BONDING NETWORKS
	CREATING BRIDGING NETWORKS
	OVERCOMING PHYSICAL BARRIERS
COMMUNICATION	POSITIVE NARRATIVES

Tab. 3 JOIN Thematical map

Table 3 shows the Thematical map emerged from the analysis of the JOIN data.

The analytic theme "Connections" demonstrates that, as JOIN is a network of refugee-led organizations spread across Italy, ICT represent the key tools that sustain the creation and maintenance of the network itself.

In particular, because the founders and its beneficiaries share a common identity of "refugees", ICTs are particularly useful in "Creating bonding networks" which is the main subtheme that emerged within "Connection" in JOIN data. In fact, even though literature in the migration field addresses bonding networks as the ones that tie members of the same community of origin, the very first definition addresses resourceful relationships between people who define themselves similar in terms of social identity (Woolcock & Szreter, 2004).

Founding members have met during some national meetings organized by UNHCR. Since they live in seven different cities, Skype is the means that has allowed them to keep in touch in order to create the organization as the following excerpt testifies.

> *Technology will help us to implement and create JOIN (…). Because we are at a national level, we perform our meetings through Skype. [Technology] is more than fundamental, we have in fact kept in contact, exchanged materials and information through internet.*

Moreover, the creation of a network that involves all the refugee-led organizations working in Italy is the means through which JOIN accomplishes its mission.

The subtheme "Overcoming physical barriers" specifies the use the association makes of ICTs in order to reach all the refugee-led organizations spread all over the Country. The following excerpt exemplifies such an ICT function.

> *I mean we are talking about a level [that comprehends] the whole Italy, and technology is the only way to outreach all these realities and individuals. (…) The online platform will also allow us to be closer and to keep being constantly in contact.*

> *Technology is therefore so much important because otherwise we could not have been*
>
> *able to think or to find a different solution because it is impossible to be in contact*
>
> *from Cagliari to Leuca.*

Therefore, JOIN considers the web platform as the key tool to achieve its goals: it connects all the refugee-led organizations working in Italy in order to discuss and collect data about refugees' needs in terms of social integration and to report them in local and national committees. The web platform is hence the infrastructure that will allow the network of refugee-led organizations to improve the refugees' resettlement policies. Today, this web platform is in the final stages of its implementation.

The subtheme "Creating Bridging Networks" also emerged within the data analysis of this case study. The web platform is indeed intended as a tool that allows to connect members of the network with the resettlement community and hopefully with stakeholders that may provide for employment opportunities as the excerpt hereunder testifies.

> *[The goal is] to create a network indeed and this is already a first step so that not just*
>
> *a foreigner but also an Italian might say "I want to help". I mean, sometimes it*
>
> *happens that even my Italian contacts look for some associations, some places where*
>
> *to send some [refugee] guys, but they don't know where to look for.*

> *Since I consider job as the inclusion in the world (...) I really hope that this won't be*
>
> *just a portal but also I hope that, connecting different organizations, it will be possible*
>
> *to create also collaborations with some companies, because in Milan for example we*
>
> *have lots of companies, even famous brands, that employ refugees in their companies*
>
> *to give them a job.*

In JOIN data, the "Communication" analytical category emerged as referred to the subtheme "Positive narratives". This category attests that JOIN Facebook page and web

platform are intended as means to communicate an image of refugees as effective and active members of the resettlement community.

> *If a person gets in touch with JOIN through some social or through our website and sees our activities, he/she can have a different image of refugees. "Look, refugees are even those who speak the language well or maybe that have attended university or maybe that have done such a path and now are part of the society, maybe they do those activities for other refugees and now they are a point of reference for other refugees".*

With reference to literature on social capital, results attest that, in this case-study, ICT are the core tool for the creation of bonding social capital. By strengthening the ties already existing, Skype is the instrument that has fostered the creation of the organization. Similarly, the web platform is intended to create new ties among refugees and refugee-led associations in order to work together on the improvement of the resettlement policies addressed to refugees. Literature in the field attests that bonding networks are resourceful means to get settled within the resettlement communities as they provide for housing, job opportunities but also with emotional and social support (Eriksson, Wimelius, & Ghazinour 2018; Bereins et al., 2007; Calhoun, 2010). These results go in the same line and beyond as they testify that the creation of bonding networks, through the use of ICT, is intended by JOIN as a mean to create a collective action, or rather an action undertaken by a group in order to improve a disadvantaged situation (Hovalnd, Sears, 1940 in De Cristofaro, Pellegrini, Baldner, Van Zommeren, Livi & Pierro, 2019). At the same time both the web platform and social media will spread positive narratives about refugees that will act as a glue for the creation of bridging networks.

Discussion

Both the associations consider the creation of social networks as the basis for the achievement of their own mission. Consistent with literature (Zinnabauer, 2007), ICT are exploited by CC and JOIN to strengthen existing ties as well as to create new ones.

The two cases study present some commonalities and differentiations in the use of ICT that reflect their specific scopes and characteristics.

Because JOIN specifically addresses the creation of a network of refugee-led organizations in Italy, ICT turned out to be particularly useful for the development of bonding social capital. Skype has contributed to the creation of JOIN by reinforcing existing ties, while the web platform enables the creation of new networks among the refugee-led organizations that work in the whole country.

Even CC employs ICT tools to further develop the organization itself through the creation of new ties. However, because CC pursuits the coexistence of diversities and intercultural exchange, ICT are particularly exploited in order to ease the constitution of bridging networks between migrants and members of the resettlement community.

A commonality emerged with regard to the use CC and JOIN made of ICT in order to create bridging networks with stakeholders and funding organizations. In particular, JOIN considers technologies as tools to keep in contact with companies that could provide for employment opportunities. Such a function is complementary to the use migrants make of ICT-led networks for job seeking (Dekker & Engbersen, 2014).

Interestingly, both contexts address the promotion of bridging networks through the dissemination of narratives about successful social integration paths and migrants' active participation to the resettlement communities. Such a perspective is against the trend currently adopted by local, national and international press that report news about migration. According to the 2017 World Migration Report, the use of negative narratives on migration is indeed much more pervasive than the use of positive ones (Allen, Blinder & McNeil, 2017). In

Europe, negative narratives address migrants as illegal, criminals, source of economic expenses and victims. These representations affect public opinion and influence attitudes toward immigration endangering bridging networks (Boomgaarden & Vliegenthart, 2009; Allen, Blinder, & McNeil, 2017) and consequently social cohesion. Consistent with this, bridging networks are hidden by distrust, discrimination and prejudice (Eriksson et al., 2018; Bereins et al., 2007; Calhoun, 2010). Conversely, migrants-led journalism reports a more positive image of migration (Allen, Blinder & McNeil, 2017). Moreover, ICT provide migrants with the chance to self-manage and disseminate narratives that are adherent to their experience, contrasting or replying to the representations disseminated by mainstream media (Nunn, 2010).

By doing so, ICT promote empowerment. Rappaport (2000) sustained indeed that narratives constitute an important source for empowerment. According to Siddiquee and Kagan (2006), ICT empower refugees by providing them the tools to counteract their marginalised condition. In our study, participants used ICT in order to highlight their willing to actively contribute to community life. By doing so they contemporaneously reinforce their migrant social identity but also the one related to the belonginess to the resettlement community.

Both the organizations attempt to lay the foundations for the establishment of reliable bridging relationships that eventually results in the creation of collective social capital. As Putnam highlighted "*The social capital embodied in norms and networks of civic engagement seems to be a precondition for economic development, as well as for effective government*" (Putnam 1993, p. 3). In such a way the two organizations use ICT with a Community Building strategy aimed at fostering the community development at a local level, in the case of CC, and at a national level in the case of JOIN.

Therefore, the present study contributes to the CI literature providing two cases study whereby ICT represent key tools to address an issue of international relevance such as the one related to migrants' inclusion in cohesive societies.

Conclusion

Nowadays, ICTs and innovation-led projects attempt to deal with urgent societal challenges: the broad framework of ICT for Development (ICT4D) aims to support the economic and social development of less developed countries and marginalized populations, by implementing technologies on important sectors such as health, education, work and environment protection.

Community Informatics represents one strategy of ICT4D, focused on local community development through a bottom-up approach: the community is not merely the recipient of ICT interventions in the form of technology transfer; rather it is actively involved in the technology enablement (Gurstein, 2007). In line with literature (Talamo, Giorgi, Mellini, 2011; Recupero, Triberti, Modesti, Talamo, 2018) the cases study discussed in this paper represent two examples of technology appropriation since the associations selected and adapted existing ICTs tools and strategies to empower their members and develop local and national communities through the promotion of migrants' social integration.

The paper examines indeed the goals that guided a migrant- and a refugee-led association at adopting ICT solutions in order to create and sustain networks aimed at making their beneficiaries recognized and effective members of their resettlement community.

Findings show that ICT are strategically designed and used to the promote social cohesion that is at the very base for the creation of collective social capital. Within CC and JOIN, ICT address indeed one of the greatest challenge migrants face during their social integration path: the creation of bridging networks. Through the dissemination of *positive narratives* about migrants' social integration and civic engagement the two organizations

develop and use ICT to empower their beneficiaries and to undermine distrust and prejudice that hinder the creation of reliable relationships between migrants and the resettlement community. By addressing the social cohesion of local and national communities, CC and JOIN attempt to participate to community development and ICT represent key tools to achieve such a goal.

Comparative studies exploring the social capital developed by associations that do not rely on ICT in order to address newcomers' social integration are recommended as a future direction of the presented study. Such researches may indeed further clarify the specific contribution that ICT provide in the field.

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