Urban social sustainability through the web

Using ICTs to build a community for prospective neighbors

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ABSTRACT

In this paper the authors describe how urban social sustainability can be achieved by creating better relationships between neighbors. Social sustainability is often neglected in mainstream sustainability debates, but the authors argue creating cities that are socially sustainable is as important as designing cities that are economically and environmentally sustainable, since social sustainability is often a motor for acting holistically on sustainable issues. In particular, this paper examines the potential of using ICTs in creating relationships between neighbors, and its beneficial impact on facilitating sustainable lifestyle of residents. Findings from a case study on a cooperative housing in Milan, Italy, are discussed.

Keywords

Social sustainability, community, neighbor, social capital, ICT

1. THE NEED OF URBAN SOCIAL SUSTAINABILITY

Sustainability in urban areas is often addressed by mainstream debates as related to pollution, poverty or poor urban planning and approached with solutions towards environmental and economic sustainability. Thus, when talking about urban sustainability, the debate tends to be partial and emphasize mostly technological ways to reduce air pollution, to build energy-efficient houses, or to promote renewable energy for daily uses. There is however a strong need to think about sustainability in a more holistic way, and broaden the scope of discourses towards social aspects of sustainability.

Social sustainability, which has started gaining recognition in recent years as a fundamental component of sustainable development (Colantonio, et al., 2009), is concerned with using available human resources in order to achieve equity and well-being for the whole society. While there is a relatively limited literature focusing on social sustainability, some definitions of social sustainability can be found in the previous studies.

"Development (and/or growth) that is compatible with harmonious evolution of civil society, fostering an environment conductive to the compatible cohabitation of culturally and socially diverse groups while at the same time encouraging social integration, with improvements in the quality of life for all segments of the population"(Polese and Stren, 2000, cited in Colantonio, et al. 2009)

"…a quality of societies. It signifies the nature-society relationships, mediated by work, as well as relationships within the society. Social sustainability is given, if work within a society and the related institutional arrangements satisfy an extended set of human needs [and] are shaped in a way that nature and its reproductive capabilities are preserved over a long period of time and the normative claims of social justice, human dignity and participation are fulfilled." (Littig and Grießler, 2005: cited in Colantonio, et al. 2009)

"Social sustainability concerns how individuals, communities and societies live with each other and set out to achieve the objectives of development models which they have chosen for themselves, also taking into account the physical boundaries of their places and planet earth as a whole." (Colantonio, et al., 2009)

Colantonio, et al. (2009) argue that traditional 'hard' social sustainability themes, such as employment and poverty alleviation, are increasingly being complemented or replaced by emerging 'soft' and less measurable concepts such as happiness, well being, neighborhood satisfaction, and sense of place in the social sustainability debate. In a similar sense, this paper pays attention on building relationships among neighbors, and how it can positively influence on not only social sustainability but also environmental and economical sustainability in the urban context.

2. URBAN DWELLINGS AS HUBS FOR SUSTAINBLE LIVING

Cities are cradles for innovation because they are where knowledge, culture and self-governance come together (Mulgan, Leadbeater, 2009). There is a concentration of need in cities, and a greater incentive to address problems in ways that haven't been addressed before (Jacobs, 1997). People are finding creative solutions that can help them cope with the difficulties that the same cities preset; like isolation, segregation and high costs of living. Large urban housing are perfect places for the development of creative communities (Meroni 2007). It is there, where being nearby can be crucial for making each other's life easier. Many collaborative services in which end users collaborate to meet their needs in a sustainable way (Jegou & Manzini 2008) are often based on collaboration among people living nearby to each other.

The idea of creating houses that integrate services, as if the house was a welfare hub, is not new. Some of these ideas were already described in the beginning of the 20th century, Hanifan, already in 1916 is describing the relationship between neighbours as a font of social capital. The contact with the neighbours, he argues, create the capability to satisfy personal needs and improve the living conditions for the whole community. In more specific way related to housing, the Sociologist Elva Myrdal is asking about the

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need of "collective solutions". She puts in light the absurd of people with very similar needs that do not take advantage of their proximity for making their daily activities more effective. (Myrdal 1930). The implementation of these ideas was slow and is still challenging. Nowadays, however, the development of ICTs has opened new opportunities for realizing some of these ideas.

Examples of utilizing ICTs for sustainable living, especially among people living nearby, are already observable in many cities across the world. As an example, peer-to-peer car-sharing service *RelayRides* (https://relayrides.com) connects people who need a car with vehicle owners in their neighborhoods. This ICT-based service that launched in two cities in 2010 has grown to operate nationwide in the United States, including cities like San Francisco, New york, and Boston. (data accessed in June, 2012) Car owners can make money by renting out their car otherwise sitting idle in parking lots, and renters can save money by paying per use of car, instead of paying all the cost of owning a car. In recent years, similar type of neighborhood car-sharing services has been growing, such as *Whipcar* (http://www.whipcar.com) in UK, *Buzzcar* in France (http://www.buzzcar.com), *Snappcar* in the Netherlands (http://www.snappcar.nl), *Tamyca* in Germany (http://www.tamyca.de), *Getaround* (http://www.getaround.com) in the United States, a recent start-up *JustShareIt* (www.justshareit.com), and campus-based service *Wheelz* (http://www.wheelz.com) operating at Stanford University, UC Berkeley, UCLA.

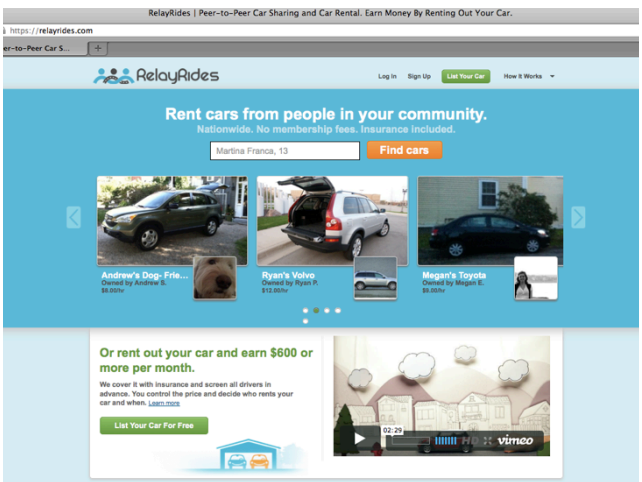

Figure 1. Online platform of car-sharing service RelayRides

The idea of neighborhood sharing can be applied to any underutilized assets, ranging from occasional-use household items (e.g. power tools) to space (e.g. garden, parking space). UK-based service *Landshare* (http://www.landshare.net), which has more than 69,800 members (data accessed in August 2012), helps people who want to grow their own vegetable and fruit but do not have a garden connect with nearby garden owners. Many garden owners who join the service are either too old or too busy to manage their own plots, and by sharing their garden they can reduce the burden of gardening. While no money changes hands in garden sharing, those involved often have an agreement to divide up the fruit and veg produced.[1] Similar initiatives such as *UrbanGardenShare* (http://www.urbangardenshare.org), and *SharedEarth* (http://www.sharedearth.com) also operate the same way. Services that help neighbors borrow/rent relatively trivial household items like hammer, and gardening tools, are growing as well, such as *Share Some Sugar* (www.sharesomesugar.com), *The Sharehood* (http://www.thesharehood.org), *StreetBank* (http://www.streetbank.com), *Frents* (http://www.frents.com), *Neighborrow* (http://beta.neighborrow.com), and *Hey, Neighbor!* (http://heyneighbor.com), to name a few.

From the perspective of sustainability, this trend spurred by ICTs is promising, since it leads to increase resource efficiency. By sharing products with limited usage, such as a car, which spends about 90 percent of the time sitting idle in parking lots in the United States (Roberts, 2011), the utility of products can be maximized, therefore resource efficiency can be increased. (Botsman & Rogers, 2010).

Not only physical assets, but also intangible assets, such as time and skill, can be shared (or exchanged) between neighbors to meet their needs. A classic example 'timebanking' has been revived by the widespread use of the Internet. *NeighborFavor* (http://www.neighbfav.com) implements a mobile platform to match a person who needs a favor like grocery shopping with neighbors who can do the favor. Similarly, users of *TaskRabbit* (http://www.taskrabbit.com) can post a task on its online platform to find someone in their neighborhood who would do it for them. While services like *NeighborFavor,* and *TaskRabbit* are based on monetary incentives (users get paid for doing a favor for others), timebanking initiatives based on a more traditional sense of 'mutual help' are also expanding through digital platforms. These platforms support users to post an offer or request (e.g. www.camdenshares.org.uk, http://twtb.co.uk, www.rgtb.org.uk, http://timebank.org.uk), or provide tools to start a new local timebanking community (e.g. http://timebanks.org).

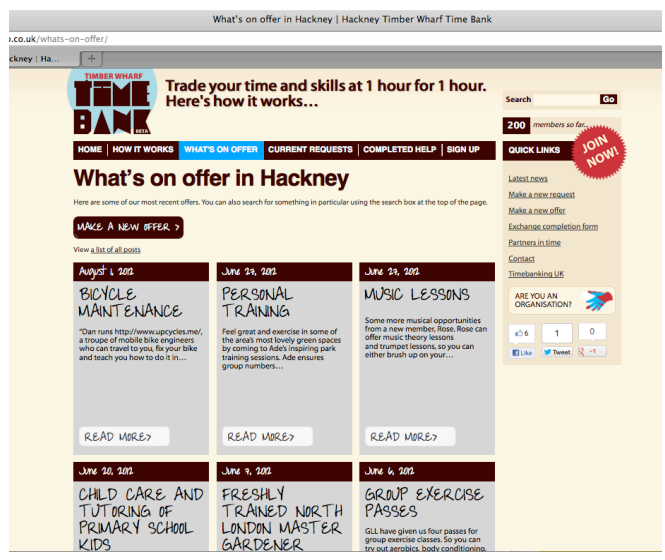

Figure 2. Online platform of Timber Wharf Time Bank

The benefit of timebanking goes beyond making use of the assets and resources existing within a particular community. Timebanking contributes to strengthening local communities by enabling people from different backgrounds, who may not otherwise meet, to form connections and friendships. (Timebanking UK, 2011) Van der Wekken (2012) claims that timebanking can play an important role to well-being in society. It can give people more control over their own lives as well as neighborhoods, and empower and engage communities along the principles of equality and reciprocity. Different from running an

[1] http://www.guardian.co.uk/money/2011/sep/02/garden-sharing-growing-vegetables

errand or doing chores in exchange of money, the driving force of timebanking is care and support for each other.

3. CONNECTING NETWORKED INDIVIDUALS, FACILITATING RELATIONSHIPS

All these examples may resemble collaborative lifestyle of traditional communities, but there are some differences. One of fundamental differences is the fact people who collaborate with each other do not have pre-existing relationship. They live in a geographically close area, but do not know each other personally. They search/find suitable collaborator through the online platform, and make decision based on the information presented on the virtual platform. The collaboration occurs among practically strangers connected through the Internet, unlike the collaboration in traditional communities, which were based on strong interpersonal relation among the members/participants.

Nowadays in cities, unlike traditional villages, living in a same neighborhood does not necessarily mean knowing each other or having a sense of community. Wellman (2002, 1998) illustrated the difference as 'densely-knit, tightly-bounded group' vs 'sparsely-knit, loosely-bounded networks'. Pre-industrial communities, in which people walked door-to-door to visit each other in spatially compact and densely-knit milieus, most individuals were directly connected ('densely-knit'), and most relations stayed within the same social boundaries/ group members/ circle ('tightly-bounded'). However, peoples' lives no longer fit the 'little boxes' model. Contemporary communities have moved out of neighborhoods to be dispersed networks, personalized social network. Most North Americans have little interpersonal connection with their neighborhoods, and the percentage of North Americans regularly socializing with neighbors has been steadily declining for three decades. Few neighbors are known, and those known are rarely known well. By contrast to traditional meetings in village squares or pubs, friends and relatives get together in private as small sets of singles or couples, but rarely as communal groups. Relationships became more selective. (Wellman, 2002)

According to Wellman (2002), the transition from traditional group solidarities to the networked individualism was partly driven by revolutionary developments in both transportation and communication. It was a move away from a solidary group in a single locale to contact between people in different places and multiple social networks. Households and worksites became important centers for networking, while neighborhoods became less important. The shift to a personalized, wireless world affords networked individualism, with each person switching between ties and networks. People remain connected, but as individuals rather than being rooted in the home bases of work unit and household. Individuals switch rapidly between their social networks. Each person separately operates his networks to obtain information, collaboration, orders, support, sociability, and a sense of belonging.

In fact, local communities, also referred to as residential communities, or physically or geographically based communities, are not 'communities' a priori, in the sense of neighborhood. Apart from the fact that members of local communities share the same location, they are not necessarily bound by any other common characteristic, such as interest, age, group, or occupation. (Foth, 2003)

As a result, it is challenging in urban neighborhood to motivate people in the same locality to collaborate together. For instance, despite the environmental, economical, and social benefits, neighborhood-scale general item sharing often turns out difficult to succeed. As an example, NeighborGoods, one of the services that advocate neighborhood sharing, closed its service as of July 31, 2012, after three years. Although sharing everyday stuff with neighbors and saving money seems plausible idea, more than ten neighborhood sharing websites launched since 2009 have failed. (Shareable, 2012)

As early studies on the relationship between the use of ICTs and communities (e.g. Rheingold, 2000; Kavanaugh, 1999) argued, the technological connectivity enabled by ICTs has opened up new opportunities for communities at local and global levels. For instance, the 'Netville' case (Hampton & Wellman, 2003) showed the positive role of the Internet in the creation of larger neighborhood networks, greater frequency of communication (on and offline), and participation in the public and private realms. Wired residents embraced local contact, on and offline. Similarly, 'Blacksburg Electronic Village' case revealed that the Internet, especially email and discussion lists, reinforce as well as expand social networks and ties (Kavanaugh, 1999).

However, 'Blacksburg Electronic Village' also revealed that there was no trend toward an increase in community involvement or attachment (Kavanaugh & Patterson, 2001). This study hypothesizes that technological connectivity solely is not enough to bring about collaborative ways of living among neighbors, especially when the neighbors do not have pre-existing relationship. The rationale behind this hypothesis is that the absence of social capital among neighbors who do not know each other (even though they live nearby), and the lack of a sense of community are significant barriers for collaborative relationship. In traditional communities, social capital among neighbors was formed as a by-product of interactions that occur naturally in the course of recreation, and social activities, such as bowling leagues and choral singing. While these types of interactions have declined in the last few decades (Putnam, 2000), this research assumes that ICTs can open up new ways to facilitate spontaneous interactions, which will gradually lead to formation of social capital. In this sense, facilitating spontaneous social interaction is assumed to play a crucial role in fostering collaboration, ranging from goods sharing to mutual help, among neighbors who do not know each other well. The emphasis on the social side of ICTs is in line with the recent trend of social networking services for geographically based communities - often described as 'Facebook for Neighborhoods'- such as YaTown (http://yatown.com), and NextDoor (https://nextdoor.com), but this study pays attention on the social interaction both online and offline contexts.

4. METHODOLOGY

This study employed participatory action research carried out with residents of a newly built apartment located in Scarsellini street in Milan, Italy. The building was built by a construction cooperative. The formation of cooperatives of this type has as its aim in the construction of houses and distribution to members at cost price. This eliminates the entrepreneur's profit and benefits from all the facilities provided to these companies. Nevertheless, the construction of houses in a cooperative has become more of a legal form. The process is a top-down one and the members do not have personal relationships with each other. The cooperatives are not new on the Italian context. Actually, construction cooperatives are very well known and are an inseparable part of

the real estate market in Italy. We chose working with this reality because the idea of collaboration and cooperation is on its base and we could find a fertile ground for this new idea.

The residents in this particular building did not have particular interest in sustainable living or collaborative relationship with neighbors, but the authors assumed ICTs could be utilized to foster interaction between residents, and support them to create more sustainable urban housing solutions collaboratively. In the beginning it seemed somewhat paradoxical to use digital interfaces in such environment like a condominium where people are physically in close proximity to one another, and easy to meet face to face. However, the authors assumed that implementation of ICTs can be beneficial in two ways. First, it can increase chances of spontaneous social interaction among members by providing a space where the residents can participate conveniently and autonomously. Second, considering the residents do not have pre-existing relationships, ICTs can play a useful role in building impersonal forms of social capital, where affective ties are not needed (Resnick, 2004).

For this reason, an online platform focusing on supporting social interaction and networking among members was implemented, even though the members already had access to intranet provided by co-op consortium for communication purposes, like announcement of meeting, updates of construction progress.

4.1 Description of Actions

The platform was built one year before moving into the building. This was accompanied by a presentation and a series of meetings with both the co-op president and the inhabitants. The idea was to open up the possibilities to the future residents and create active participation in creating their still-to-come social life in the new condominium. The action is divided in several phases:

A. Discussion with the co-op president and consortium: The action was coordinated and discussed with the president of the co-op. This was very important, as the involvement in the early phase of decision makers is crucial for the success of such projects. Also, for people to trust the idea and participate it guaranteed a sense of seriousness and reality.

B. The creation of the online platform: The platform was created by making use of NING framework (www.ning.com). The network allows people to get their own profile, to add pictures and statuses as well as participate in the various forums. The categories of the forums were created by the researchers and consisted initially on:

   1- let's know each other: for personal introductions
   2- together is better: for sharing ideas about how to use our being a group
   3- common rooms: for talking about the future use of our two common rooms
   4- marketplace: for exchanging knowledge and tools.

C. Launch of the tool and presentation to the prospect residents: in April 2011, about a year before the building was ready we presented to the future neighbors the opportunities of collaboration, creating in the public the Awareness of possibilities. After the presentation the online platform was presented as a tool for socializing, communicating and for sharing knowledge and ideas.

D. Use of the tool and face to face meetings: In the first 2 weeks after the presentation 12 people were connected to the site using shyly the categories 1 and 2. The number of people was small but the contributions have demonstrated a great interest in making a better house. Three face-to-face meetings took place during this year and the involvement of people grew.

E. Monitoring and feedback: Several tools were designed in order to gather useful feedbacks from the stakeholder involved in this study. All the activities were monitored through photo and video-capturing systems and written documentation of the meetings organized with the communities. At the month of moving in, we have conducted a survey and some interviews to have peoples direct feedback.

The overall process can be summarized into the five steps as follows:

1. Defining the issue and the area of intervention: After literature review and discussions with involved stakeholders, the main issue was defined as mediating interactions and relationships through an online social network platform for the prospect residents.

2. Planning the action: The platform was built and shared with stakeholders. A public envisioning presentation was prepared.

3. Taking action

4. Analysis and reflections

5. Modifications and re-planning

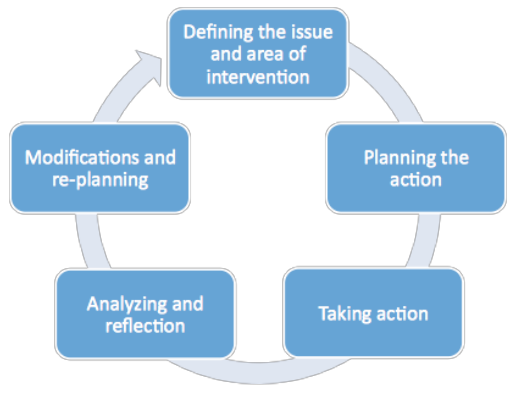

Figure 3. Overall process of the actions

4.2. Interface of online platform

The online platform was developed by customizing features supported by NING platform. Considering the varying degree of familiarity with ICTs among the residents, the interface was configured to be easily usable, with WYSIWYG (What-You-See-Is-What-You-Get) style text editors and image up-loaders. Except first-time registration, any additional procedures were not required to use the platform. In order not to alienate people who do not use social media like Facebook, and Twitter, integration with other social networking services was excluded.

When the platform was launched, an invitation email was sent to all residents of the building, and only those who accepted the invitation were registered as member of the platform. Registration could be done by answering the invitation email, and providing basic information like name, gender, date of birth, and house number. Once registered as a member, everyone could create his/her own profile with pictures. The profile page provides an overview of recent activities of the member within the system (e.g. recent posts, feedback to others' posts), list of friends within the community, as well as basic information about him/her. The

profile page encourages relationship building by enabling members to send personal messages, add each other as 'friend' to personal network on the platform, as well as sharing information about themselves with others. Profiles provide users their identity on the system, and aid in discovery of common interests and articulating relationships. (Hanrahan, et al., 2011)

Figure 4. Profile page of a member

The front page of the platform is composed of features creating ambient intimacy and providing social affordance, referring to the quality of artifacts in any space physical or virtual, which invite and facilitate social interaction among the participants in that space. (cited in Hanrahan, et al., 2011) Among various features, such as forum topics, and pictures and videos recently uploaded by members, an activity stream is placed in the most visible part of the front page. The activity stream presents an aggregation of recent updates and activities of members within the system, ranging from recent posts, to someone adding another member to his/her friend's list. Members can also share their activities, and status by directly typing short message into the activity stream. The activity stream can give a sense of vitality of the community, and show new users the range of activities that they can engage in within the platform. (Crumlish & Malone, 2009)

Figure 5. Activity stream feature in the main page

A list of forum topics was placed under activity streams in order to provide overview of on-going discussion. Discussion topics included not only practical issues like how to use communal spaces and internet contract, but also those to trigger members to get to know each other (Figure 6), and to find who are living next door. (Figure 7) Some of forum topics (e.g. '*Let's get to know each other*') were proposed by the researcher, but gradually more topics were posted by members, such as offers/request of product sharing, suggestion for group purchase of food.

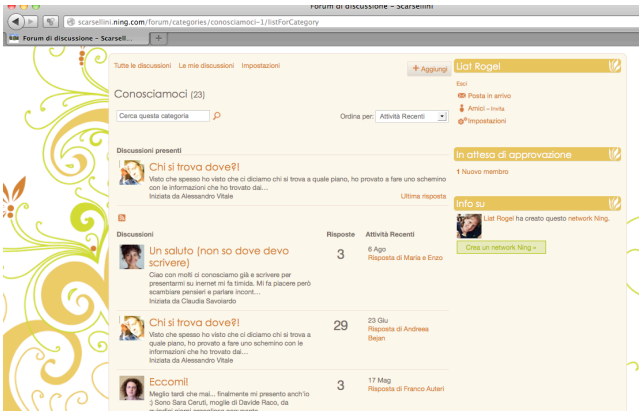

Figure 6. One of forum topics '*Conosciamoci (let's get to know each other)*'

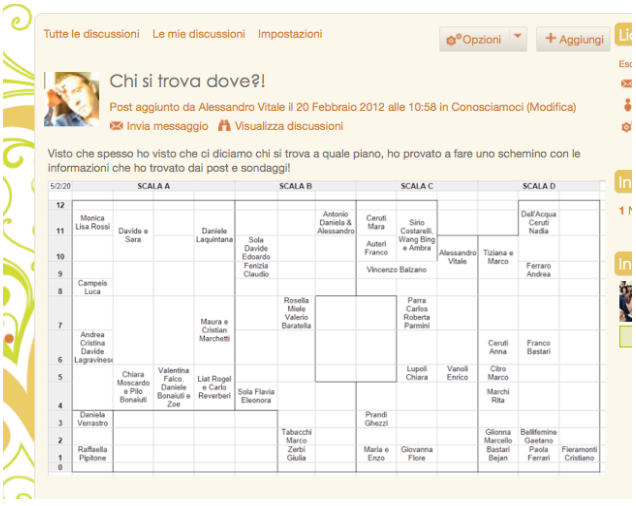

Figure 7. Another example of forum topics '*Chi si trova dove (discover who lives where)*'. Names of residents are placed based on house number.

When there are members whose birthday is coming up, they are introduced on the front page, with a messaging tool that helps easily send a personal message to the person. (Figure 8)

Figure 8. 'Birthday of today' feature

4.2 Analysis

The analysis was made through main 3 channels:

- An online survey

- Observation on the usage of the online platform

- Observation of off-line activities (meetings and everyday life)

Towards the end of the first year of use, the authors asked users to participate in a survey posted on the online platform. 22 users have answered the survey, which consisted of closed questions and open questions. In answering the open questions, 10 of the respondents provided in-depth detailed information about their experience. The questions were divided in different parts regarding personal questions about the house and the relationship with neighbors, questions about the use of the platforms, questions about the results in each one's daily life.

Observation on the usage of the online platform has started from the very first moment and it is still on going. We collect both numeric data, (e.g. number of members, date of joining the platform, age and so on) and content data (what do the users say, what they propose, how does the discussion develop over time).

Observation of offline meetings and daily activities together with informal conversation and interviews were carried out thanks to the ongoing presence of the authors in the building.

5. RESULT

From the survey it was clear that:

- All members did not know each other, but get to know each other through the online platform.

- The actual role of platform is assisting in communication, and organization of collective actions.

- Knowing people in advance made the members feel more secure in their new environment.

- People see themselves continuing and using the platform in the future as a support to their community neighbors life.

Observation of the platform and offline: Since its launch in July 2010, 91 members (approximately 50% of the residents of the building) joined the online platform. In the last month the platform was opened to another building in front of this one and 18 members joined in.

The members were joining gradually with some peaks related to face-to-face meetings, and the opening of the platform to the residents of another building in the neighborhood (Figure 9). Most members frequently use the platform after signing up, except 12 non-active members.

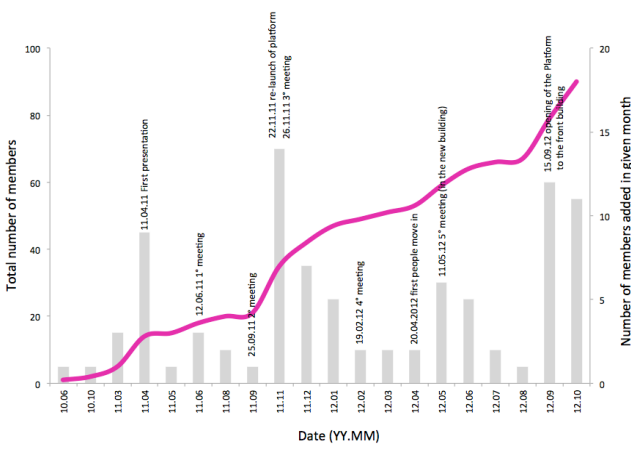

Figure 9. The number of new members in each month (bar), and the total number of members (purple line)

Members' age range from 15 to 68, with the larger group of users between 36 and 46. (Figure 10)

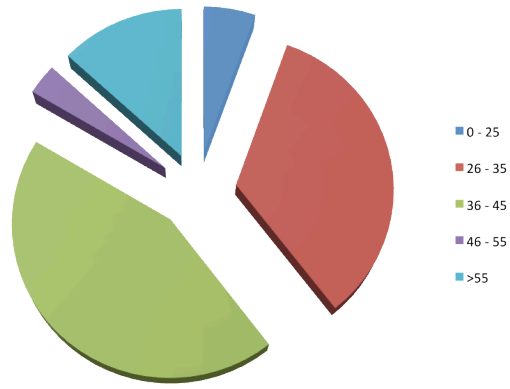

Figure 10. Age of members

The users of the online platform began very quickly to share ideas and make concrete proposals. Our hypothesis was that socialization between people would be a motor for future collaboration. However, socialization between members started to occur gradually as the discussion on concrete initiatives took place. In other words, introducing each other and knowing the future neighbors, which was thought as the principal scope of this platform was achieved only after many initiatives were proposed and discussed.

For example, the shared - wifi initiative evoked a larger participation on-line. Members started posting questions and requesting information about it. To make the discussion go on, a group of members met more than one time and social relationship started to be established. This has inspired people to introduce themselves also on the online platform. Also, other initiatives for a dedicated issue, like making playroom for children, have drawn attention of families with small children. Wanting to know more about the age of the children and which school they attend, members slowly started posting more stories about themselves in the page '*Conosciamoci (let's get to know each other)*' on the platform. Once the self-introduction forum began to have many people actively participating in it, it began working as we expected in the beginning. Members start using the forum as a first step when they join the online platform.

All the ideas proposed by members were in the spirit of using the force of the community. People were using the platform to give inspiration and information as well as to actively participate in the discussion and actions related to specific issues, ranging from wifi-internet to communal playroom for children. By the expression of needs and desires, collaboration was born. In this form of socialization members were inspired from one another and gain the ability to participate toward the realization of the ideas. The whole action was followed and accompanied by cooperative president. She assisted to bridge between the residents and the consortium decision makers. She has explained how some initiatives, like the shared wi-fi would never have taken place without residents' participation and how those could be innovative elements also for future buildings. A number of initiatives are already implemented:

- organic food purchasing group

- book sharing

- sport courses

- cineforum

- babysitting exchanges

- children workshops

And these are there 6 month after the first families moved in.

Another innovation that was made possible through the online platform, and showed the potential of trust building, is the free use of the common rooms in the building. In other similar houses the common rooms are used by privates or the collective through booking the room. The residents wanted to be able to use the room in a free way, for example to go have a coffee in the morning or bring the children in the afternoon to play without having to plan in advance. For this use, the suggestion coming from the residents was that each resident would have the keys to the room. Since in Italy self-management of spaces is not so common this was a risky suggestion. However, a large group of residents already got to know each other and achieved a sense of trust, so the proposal was agreed by the majority of residents.

The project is using existing on-line platforms for existing construction cooperatives. The innovation is this use is to find in the combination of the two and in the timing. Usually, Italian construction cooperatives do not use any kind social networking tools for their users. The responsible might use an on-line site for sharing documents, but there is no interaction between the prospect habitants and the organization. In this specific case the platform was launched about one year before people moved in the house. Social networking tools has been used elsewhere to create on-line communities from people who live nearby, but to create the community before head has many advantages:

- The people can improve/modify the building and influence it. The participation brings to greater satisfaction of people. Creating sharable solutions guarantees that they last longer. Therefore the solutions are more sustainable.

- People can exchange knowledge and material tools as well as create an on-line "market" of second hand furniture or other objects. These small sharing economies contribute a lot to environmental and economical sustainability.

- Moving into a house knowing already some of the neighbors reduce the chances of isolation and loneliness. In our case many elderly people that moved in were happy to participate and to have meaningful relationships.

- Other activities related to environmental sustainability, such as car sharing, recycling etc. are facilitated by the already existing ties between the neighbors.

6. DISCUSSION

The interactions and collaborative activities among neighbors have beneficial role in developing environmentally and socially sustainable urban environment for a number of reasons. First, they consist on recovering a lost social dimension of mutual aid and a sense of community, contrasting exclusion and reducing the stress and complexity of life in modern society. Second, the sharing of goods and services allows a considerable amount of saving of energy and costs, facilitating the management of daily activities and generating a more sustainable lifestyle. Third, involving people in designing their own solution creates a variety of housing options, enlarging diversity and fitting all types of families. Fourth, co-design of common spaces facilitates the development of relationships in the neighborhood and increases a sense of belonging to a community, maintaining at the same time the individuality of ones dwelling.

Despite these benefits, it is not easy to make it happen in urban environment where a highly individualized way of living is common. This paper shows how ICTs can be implemented to mediate interaction between neighbors who do not have pre-existing personal relationship, and how the relationship supported by ICTs leads to environmentally and socially sustainable ways of living between neighbors.

The experiment described in this study was carried out in the context of a newly built apartment and its residents who moved in same period, but the intervention is applicable to existing buildings as well. Sometimes neighbors who reside in a same building for many years do not have any sort of relationships despite their physical proximity. ICT-based platforms, as described in this study, can provide an opportunity to initiate a change in such an environment. On a detailed level, intervention for such context may require different strategies, but the basic idea - stimulating spontaneous interaction among neighbors by providing social affordances through digital platforms – would be applicable to any existing apartments. Also, participatory approach used in this study - inviting the residents in the design and try-out process- can be used to develop digital platform suitable for specific context.

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