Appropriation of ICTs by informal communities in metropolitan cities. The case of the "La Salada" market in the Latin American context.

Ester Schiavo[1], Sergio Rodríguez[2], Paula Vera[3]

1. Graduate, Architecture, Universidad de Buenos Aires (UBA). PhD, Université de la Sorbonne Nouvelle - Paris III. Professor, Universidad Nacional de Quilmes (UNQ).
2. Graduate, Administration, UBA. Fellow of the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET, National Council of Scientific and Technical Research). Completing PhD at the UNQ with mention in Human And Social Sciences.
3. Graduate, Social Communication, Universidad Nacional de Rosario (UNR). CONICET fellow. Completing PhD in Social Communication.

ICTs and innovation in metropolitan cities

Political, economic, social, cultural, scientific and technological transformations in recent decades have left their mark on cities, bringing about multiple changes. Although some literature in the 1980s predicted the end of cities as a consequence of the processes of globalization, at present the opposite has proven to be the case. Indeed, what has been strengthened is the political prominence of the local and even regional level, to the detriment of the previously near-exclusive role of nation states (Castells & Borja, 1997).

In this respect, studies by various authors (Castells, 2001; Sassen, 1991; Schiavo, 2004) have shown that the vertiginous spread of information and communication technologies (ICTs), far from bringing about the dispersion of populations and their activities over the territory, has contributed to a progressive urban concentration and has had the same functional effect on global economic and political power, strengthening major metropolitan areas, also known as global cities. [1] The explanation for this process can be found in at least two factors. One is the global economy's need for a first-level technological infrastructure, given that its whole organization depends on ICTs. This need in turn determines that latest-generation infrastructure of the best quality tends to spread preferentially, connecting the decision-making centres of this economy. The second factor is this new economy's requirement for highly specialized administrative systems and high-end knowledge, both of which are centralized in cities.

From a historical perspective it can be observed that cities, far from being mere stages, are the key actors in the development of their societies. The study of cities has therefore taken on greater significance with time, on equal terms with the growing importance of the urban population.[2] In the current context, and focusing on the issue from a city planning perspective, ICTs give rise to the emergence of a new dimension of time and space, that of the space of flows (Castells, 2001) or space time of the ICTs (Schiavo, 2004). Thus, the geographic space continues as the territory of states, with physical limits and political administrative borders, whereas the space that comes with ICTs is a self-regulated territory with other limits and borders.

In short, it is clear today that both spaces overlap each other, and the sum of human and social activity takes place as much in one as in the other, both in the geographic space and the virtual territory, both in the space of places and in the space of flows. This overlap, in relation to the unequal distribution of ICT material infrastructure, contributes to the formation of a new urban duality. The urban fragments favoured by the market in different cities of the planet are connected through latest-generation networks, while isolating in the geographic space those other fragments that cannot transcend close relationships, because they lack material access to these technologies or because they access technological states from earlier generations (Castells, 2001; Schiavo, 1998, 2004). Thus, a network of cities is gradually generated at global level, although this network in fact connects the privileged fragments, and in turn modifies the known scales to consolidate ways of being in the multi-scale city. Indeed, in the new spatial, economic, cultural and political modalities resulting from globalization processes, there is a convergence of different global and local scales through different trans-border networks or bodies, making up what is known as a multi-scale system (Sassen, 2007).

In this context, it is fitting to inquire about innovation in relation to cities. Some authors, such as Finquelievich (2005), maintain that the capacity of cities to convert themselves into innovative environments is precisely what will make them central or peripheral cities in the information society. In fact, in recent years the issue of innovation, technology and society has been the object of renewed interest by

different sciences and disciplines. Thus, from diverse knowledge fields, different analysis perspectives have emerged, generating new tools and perspectives. This study looks to highlight two of these that are considered complementary.

One theoretical perspective is based on the notion of co-creation of technology, as posited by the social sciences. In this regard, Finquelievich (2007) focuses on the work of Tuomi (1999), who considers that there is only innovation in relation to ICTs when there is a change in social practices which, as such, are collective. He then proposes an approach in which technologies are interpreted and appropriated by existent actors, in the context of specific practices. From this, Finquelievich analyzes the processes of technological innovation, emphasizing co-creation such as social practices. These practices structure and organize social life, thus providing the bases for processing collective meaning, which in turn is produced and reproduced in each community, based on each community's singularity.

Another interesting perspective is that of centering innovation in citizens, as seen from a transdisciplinary approach. From this perspective, Serra (2010) maintains that, particularly since the latest generation of ICTs, it is citizens who drive innovation, not enterprises, universities and governments as was previously the case. Although the latter three are relevant actors, their roles are changing. For Serra what is important is the new ways in which citizens position themselves in the use and development of ICTs. Citizens now position themselves as leading actors in co-creation processes. From this perspective, Serra characterizes living laboratories or citizens as new actors in the development of innovative bottom-up social practices, modifying the classic top-down innovation model. In addition, these communities of social innovation develop not just technologies to fit their needs, but also new organizational technologies.

In line with the theoretical perspective indicated, in this study it is understood that innovation in the field of ICTs is not only seen in the traditional circuits of cities-that is, in the innovative relationships and dynamics that connect the productive, scientific, university and governmental sectors. This "triple helix" [3] has traditionally been favoured in national innovation systems. The idea of this study is to focus on the emergent "quadruple helix" model, in which the final users (recipients of knowledge transfer, who may also be citizens) become the new actors involved, even in different urban spheres, such as informal ones, which are scarcely considered in technological innovation studies, and further investigate the social and technological practices that form them.

It is clear, as indicated below, that where reference is made to informal urban spaces, it is understood that these do not operate in isolation. On the contrary, they complement and juxtapose with cities' formal circuits.

Informality in the Latin American context

Sassen (2007) analyzes informalization as one of the aspects of the localization of globalization in cities. Sassen highlights how this modality not only constitutes a way of producing and distributing goods and services with greater flexibility and lower costs, which in turn further devalues this type of activity, but also preferentially captures a labour force made up of the less-fortunate social actors of these cities, such as immigrants and women.

Informality is a growing feature in Latin America. By way of example, taking informal employment as a principal indicator of the informal economy, the International Labour Organization (ILO, 2009) estimated that informal urban labour accounted for 53.6% of all labour in the region in 2009. But the issue of informality is both broad and complex. The inability of the formal sector to absorb unemployed labour, as well as the reductions in costs, time and labour to be had from not registering formally, and the search for more flexible production systems in the context of globalization, reveal distinct ways of understanding the issue of informality. Initially associated with marginality and the subsistence economy in less-developed countries, informal activities persist and are manifested in new activities which, as is known, function with the formal sector. However, whatever the informal activity may be, it is characterized by occurring outside of the laws, norms and policies that regulate society. This criterion of legality is useful in differentiating conceptually between what is formal and what is informal, but its empirical verification is not always simple (Barrientos & Garay, 2004).

This leads us to analyze informality in forms of ICT appropriation and development in the Latin American context. To this end, the case was selected of La Salada market, located just outside the city of Buenos Aires and considered the largest market of illegal sales in the region, both by volume of business and its precariousness in terms of the fiscal and legal norms in force (European Commission, 2006; United States Trade Representative, 2007).

It is fitting to ask about social practices and use of ICTs by the many actors of this informal community formed around La Salada market. Do they use and develop functional technologies for their own ends? Are they involved in processes of co-creation of technologies or technological innovation? Do they use social networks for

specific ends? What dynamics characterize these processes? In addition, from a counterpoint perspective, it is interesting to research the effects of ICT use in informal communities such as La Salada. Do they contribute to strengthening their identity? Do they integrate new social actors? Do they contribute to broadening activities and radii of action or areas of influence? Do they help to provide transparency or at least a certain degree of formality to activities? How do they do so?

Studies began on this case in 2007 (Schiavo & Rodríguez). At this time the emphasis was placed on productive and commercial activity. The study then continued with its focus on the issues of urban informality and community identity (Schiavo, Rodríguez & Vera 2011; Schiavo, Dos Santos Nogueira, Rodríguez & Vera 2011). Throughout this process special attention was always given to analyzing the different ways in which ICTs were integrated, in order to answer the research questions.

The methodology used was predominantly qualitative. From the start of the research bibliographical, documental and journalistic information was analyzed continuously. In parallel, primary information was produced through participative observations, repeated visits to the place, and in-depth interviews with key actors. In addition, primary information was produced for the present study, analyzing the websites related to La Salada.

The case of La Salada market

La Salada market [4] is located in the administrative area of Lomas de Zamora, just outside the City of Buenos Aires, occupying a surface of twenty hectares on the banks of the River Matanza. The market is actually a complex of three internal markets:[5] Punta Mogote, Ocean and Urkupiña; organized into different companies [6] which administer each market. In addition there are itinerant vendors and outside markets, which are not formally organized and whose stalls illegally occupy the banks of the river, over a distance of 1500 metres. La Salada dates from the early 1990s and was originally dominated by the Bolivian community, which was later joined by Argentines and Peruvians. The first market was Urkupiña (the name of a Bolivian virgin), followed in 1999 by Punto Mogote, currently the largest market in terms of size and sales. [7]

The growth of the group of markets began with the sale of imported and contraband products, which were augmented with counterfeit products, mostly of major textile brands. Informality is also found to the precarious labour conditions, both in the workshops and illegal factories [8] that feed the markets and in the itinerant vendors and self-employed workers at the markets. All of these factors account for merchandise prices being far lower than market prices. Furthermore, with an estimated 50,000 daily customers, the market has a turnover of approximately 10 million dollars per week, via 15,000 points of sale [9] (Abba, 2009).

However, La Salada today is not limited to the physical market, which is held twice a week. The market has gradually gained ground, both in the space of flows and in the geographical space. Thus, a production, distribution and marketing chain has been created, to which two arguably official web portals were added between late 2009 and early 2010, Mercado La Salada and Feria La Salada, promoted by the more formal or corporate commercial sector. In recent years the market has also started to be copied increasingly in the geographic space through small ventures known as "saladitas" (little Saladas). [10] In addition, at present the possibility is being evaluated of exporting the business model to other countries. [11] In short, as Campos (2008) highlights, all these factors reveal not only the flexibility of this community to market products from different origins, but also its high degree of adaptability to the fluctuations and cycles of the socio-economic environment and global context.

In spite of the size of the business and its degree of informality, the market is also notable for the particularities of its community. In effect, the community [12] of La Salada exceeds strictly commercial questions, orienting a good number of its actions towards satisfying social needs. In this respect, in addition to the specific services relating to commercial activity, such as training courses, the market's own credit card, a chamber of commerce and a financial entity to facilitate the economic growth of start-ups, there is a prepaid health service, a first-aid room, a chapel, a crèche, various community soup kitchens and a refuse recycling initiative for homeless children. The market also has its own media: a radio station, a newspaper in paper format and an Internet news channel. In short, the weak and permissive presence of the State in the area, the economic success of the market and multiple social and cultural ventures, have even led to a project to create a new local government in the neighbourhood where the market is located. [13]

However, if this apparently homogeneous community is analyzed it can be seen to be made up of quite heterogeneous actors, differentiated according to different logics and forms of internal organization. Thus, it is possible to identify that the most influential actors and those most visible in the media are the indoor markets. These actors can be characterized as the corporate commercial sector of the whole market, as they are constituted formally as enterprises. Their most representative figure is Jorge Castillo, who has led the majority of commercial, political and social projects developed by La

Salada. There are also other actors operating under the commercial logic represented by the stall-holders and traders, as well as suppliers from textile workshops. Nonetheless, at the opposite extreme another group of actors can be observed, made up of stall and workshop workers, and workers from other market activities, who due to their precarious labour situation generally follow a subsistence logic.

In short, La Salada can be defined as a space full of places constructed and under construction, in collusion with the dominant political and economic power. But at the same time it is a community, with some homogeneous features, but certainly heterogeneous when considering the particularities of its actors. It is also a place that aspires to and is gradually attaining political, social and economic legitimacy, both in the geographic terrain and the space of flows. All the projects developed by the market show that this is not just an informal market, but also a political and social project in which diverse technologies converge and place La Salada beyond its twenty hectares. What role have ICTs played in this process?

Appropiation of ICTs from the practices and dynamics of involved actors

It is fitting to ask how ICTs have been appropriated in La Salada. If these technologies are reduced to merely their technological functions and innovation as the traditional process of invention and diffusion or transfer of knowledges, one could hardly claim that the market is highly technical or innovative. However, if technology and innovation are understood as going beyond physical devices, it is possible to recognize that bottom-up social practices, practices generated in the place that in a classic model would be occupied by the users, give new meanings through different forms of appropriation. Seen this way, the integration of ICTs in the community that concerns us can be analyzed in a broader and more complex way, as multiple processes of co-creation and socio-technical innovation.

From the same perspective, the evolution of the market has meant the resignification and co-production of different types of technologies. Particularly, as is analyzed below, the portals that offer complementary support to the organization of activities at La Salada are among the most developed and important technologies, formed from the intervention and inter-relation of numerous actors, each with a different mission, make-up and operation.

It is evident that one of the most significant features of this organization is informality, shown in the location of the market, which is hard to reach, its nocturnal operating hours, and its disparate ordering of market stalls. These features represent informal practices that differ from traditional commercial logics in the city. Furthermore, at present the diverse practices that make up the market have become more complex as it progressively integrates with formal circuits of the economy and with the everyday social life of the metropolitan region, and even of the country and neighbouring countries.

In this scenario, ICTs have been integrated and at the same time have been appropriated by different involved actors. Although it is difficult to establish a precise start date, it can be claimed that the process of appropriation of these technologies is relatively recent. A 2007 study (Schiavo & Rodriguez) observed how ICT use gradually grew. At the time, operations at the markets were more underground, so on various forums and advertising websites it was common to find queries about how to get to the market and opening days and hours. In time, advertising began to be found for different "shopping tours", organized to respond to difficulties in reaching the place, both from different points in the country and from neighbouring countries. Later, these technologies began to be used to advertise the types of products on sale and the market's activities in general.

Thus, the appropriation of ICTs gradually increased, from those apparently disarticulated initiatives to the two official web portals created in 2009 and 2010. [14] These portals have been notably popular with the public and have led to the creation of a network of ventures, such as related websites or social networks, related to different uses and dynamics of market actors. [15] For these reasons the presence and actions of La Salada have become well-known in the space of flows.

Unsurprisingly, most identified websites and their numerous observed uses are mainly related to commercial activity and the development of e-commerce, [16] although other uses were recognized, related to market organization and promotion. Consequently, forms of ICT appropriation in La Salada can be divided into three major groups, according to the social practices and actors involved, which obey different logics according to their roles in the market, resignifying these technologies in diverse ways. These are:

1. websites and uses intended for e-commerce which vary according to their level of development and degree of informality of involved actors;
2. websites intended to promote the market and its multiple activities;

3. websites and uses that complement or reinforce the organization of the market, incorporating new tools, such as social networks.

The arrival of e-commerce and the creation of Mercado La Salada S.A.

The growth and consolidation of e-commerce constitutes a dynamic that is spreading in Latin American cities, in the context of the processes of globalization with ICT support. According to a study published by América Economía Intelligence (2010), [17] in the countries in the region, e-commerce for consumers has maintained a growing trend in recent years. In 2009 it increased 39.2% in comparison to 2008 and a total of US$21.775 billion was invoiced in web-based operations. In addition, the study highlights the potential consequences of e-commerce, particularly that it encourages companies that operate illegally to formalize their operations.

Specifically, the study makes reference to the La Salada e-commerce portal, [18] which since its creation in late 2009 has become the reference point for the market on the Internet. This site is one of a few related to the market, in which it is possible to identify the physical or legal person responsible. Its creation implied the setting-up of a new enterprise, Mercado La Salada S.A., which is responsible for its operation. This means that within the first group of Salada enterprises related to ICTs, namely those concerned with e-commerce, this latter venture has the highest degree of formality.

It should be mentioned that there is one leading e-commerce website in Latin America, MercadoLibre.com, [19] which started operations as an online auction website in various countries in the region [20] in 1999. In 2001 it strengthened its business model through a merger with eBay,[21] the world leader in online auctions, which enables it to operate exclusively in Latin America. Over time, user preference led to fixed-price operations predominating over auctions.

Mercado Libre today offers a prestigious and reliable service, mainly due to two features. The first is a system for measuring the reputation of agents operating on the website, through ratings made by users, both sellers and buyers, after each operation, which contributes to the construction of conditions of trust and safety. The second feature is the freedom the service gives users, because although the enterprise offers various own services for performing the different transaction stages, users may opt to use them or not.

To a certain extent Mercado La Salada sets out to compete with Mercado Libre, but unlike Mercado Libre is offers a portal that is centrally managed by the owner company, and therefore users can only advertise their products and cannot intervene in any stage of the transaction. Consequently, as the actor involved as seller is the sole agent, this does not contribute to any kind of system that might generate conditions of trust.
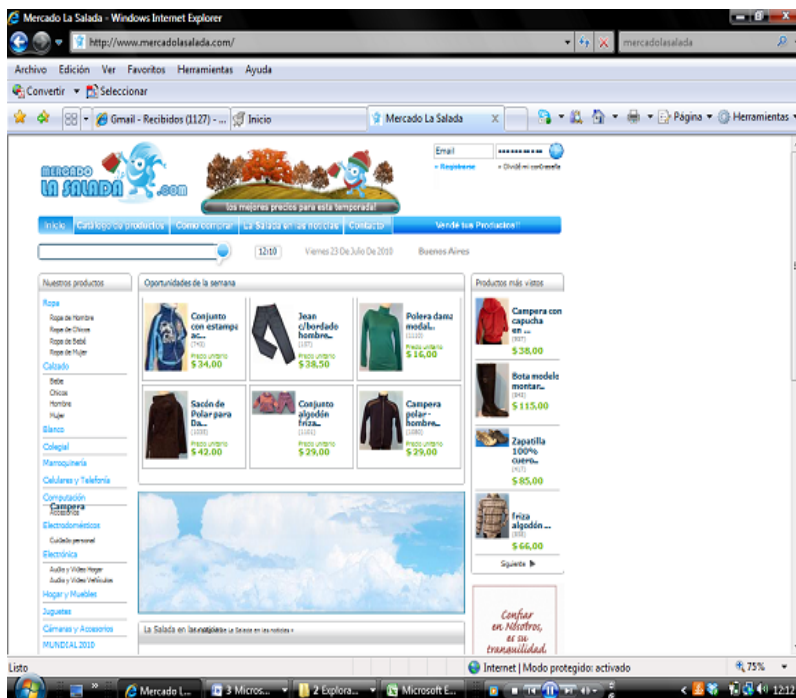

Figure 1 - Homepage of Mercado La Salada

The Mercado La Salada portal was the responsibility of a company specializing in e-commerce websites. Basically, it consists of a catalogue of products divided by categories, through which users can place an order and, if they wish, pay via bank transfer, cash or credit card. Products purchased in this way are priced at 10% above the purchase price available at the market proper. [22] Delivery is provided by a well-known logistics company or, according to instructions on the site, purchases can be picked up from the offices of the company. What is striking about this is that the offices are not located on the market premises but, on the contrary, in one of the most expensive areas of the City of Buenos Aires, Puerto Madero.

The site also includes a form of media called "La Salada TV". This space presents short videos published via a YouTube channel, [23] simulating news reports to show diverse market activities and, in many cases, promote workshops and supply companies. La Salada TV is complemented by another section which reproduces different articles published in different media about favourable aspects of the market.

In short, Mercado La Salada constitutes the counter example of the co-production and resignification of bottom-up ICTs. In fact, this is an initiative by the more powerful actors, the corporate commercial sector, aiming to reach other target audiences and place La Salada into a broader socioeconomic context.

La Salada's e-commerce network and the benefit of belonging

With regards to the other websites related to e-commerce and members of La Salada's network, in very few cases is it possible to identify who operates them. Generally, it is clothes factories or workshops or market wholesalers, selling the products they manufacture. [24] In the other websites identified it is not possible to recognize those responsible. Unlike the other websites, although these are wholesalers who indicate some type of relationship with the market, some of the products they publish are forgeries or copies of leading brands. Taking this modality to one extreme, one of the websites identifies itself as " *supplier of clothes similar to La Salada market"* , meaning that they offer copies of the counterfeit clothing made at La Salada.

Furthermore, numerous advertisements were found that sold products from the market in various portals for classified ads, both in Argentina and in bordering countries. [25] Although to a certain degree these advertisements belong to wholesalers who operate the websites mentioned above, the majority of them are individual initiatives and a high proportion of them sell falsified products. These are therefore re-sellers from the market who have broadened their sales channels via the Internet.

In this respect, it should be noted that La Salada market is the only e-commerce website related to the market that has guidelines with terms and conditions for buying and selling, explicitly prohibiting the sale of products that violate trademark and forgery legislation, and which also mentions a program created by the company to prevent this kind of crime. [26] However, from visits to the site it was possible to identify some products on offer that could well infringe these terms and conditions.

All of this leads us to ponder the question of trust, as security and therefore trust are necessary conditions for making any kind of commercial transaction. Thus, formal commerce takes place in the framework of different forms of trust. [27] In e-commerce the objective of security is to generate trust in the platform and its agents, in order to guarantee the reliability of information, the quality of merchandise and delivery conditions. In this respect, the system developed by Mercado Libre is an excellent example.

In contrast, in the websites that make up the La Salada network, there are very few explicit actions to guarantee trust in transactions, and most of those that do are related to payment methods. [28] Only one site tries to emulate the Mercado Libre system, but does so with a significantly more precarious set-up that allows users to post their opinions without having to register or identify themselves, which detracts from the site's credibility. Consequently, it is understood that trust in the market's online commercial operations is principally symbolic and is guaranteed by belonging to the network. In other words, identifying oneself as a manufacturer or wholesaler of La Salada carries a certain social recognition, to some extent similar to that of a recognized brand.

La Salada market site: commerce and multiple activities promoted on the Internet

Although it is true that La Salada is in a process of expansion in the geographic space, both in the form of "saladitas" on a national scale and new offices in the city of Buenos Aires, and in the space of flows through e-commerce which transcends the borders of the country, the original physical site has not lost importance. On the contrary, commerce remains steady and it is a place where social and cultural initiatives have

multiplied.

For this reason, this section analyzes the second group of ventures of the market related to ICTs, which aim to promote the market and its various activities.

Indeed, another of the forms in which this community has appropriated ICTs is closely related to the promotion of different activities at the original market site. As mentioned above, this type of use regarding the diffusion of information through different web-based tools was the first and remains important in numerous forums and social networks, particularly regarding opening times, directions to the market and safety conditions. Other websites that can be included in this group are those that belong to "saladitas", which provide similar information in their respective territorial scales. [29]

Although there are different websites for promoting the market and providing information, one that stands out is the Paseo de Compras Punta Mogote, [30] created by the corporate sector and related to the above-mentioned local figure, Jorge Castillo. Unlike other websites, this one is better developed in terms of functionality, graphic design and presentation of information, such as the inclusion of an interactive map of the place. It also publishes other promotional tools for the shopping area that are not necessarily virtual, such as the radio station Rivera Sur and the magazine Revista Punta Mogotes, in paper format.

The promotion of the market on the Internet goes beyond the commercial interest to establish it as a tourist attraction in the metropolitan region. In addition to the numerous advertisements for "shopping tours" there are various blogs, forums and social networks dedicated to the promotion of traditional tourist spots in Argentina that have incorporated La Salada as a new potential destination. [31] As a result, different tour operators now promote tours of Buenos Aires in which a visit to the market is included as another activity on the itinerary, as if it were a theatre outing or a visit to one of the more traditional markets in the city, such as San Telmo Fair. [32] However, some operators alert users to the particularities of the market and promote these visits as "alternative tourism" [33] or "tourism on the verge of illegality". [34]

Therefore, in this second group of initiatives ICTs not only contribute to promoting and to some extent consolidating the diversity of activities in La Salada market, but also contribute to the progressive integration of atypical customers, such as the middle classes, those from other regions of Argentina or from abroad, particularly tourists.

The web as material support and organizational means for the expansion of La Salada

This section analyzes the third group of ventures of the market related to ICTs, those that complement or reinforce the different organizational forms of the market through the co-production or resignification of diverse technologies.

Above we highlighted the organizational capacity of the market as an innovative feature in the sphere of commerce in the city. This same organization was transferred to the space of flows via the creation of two portals in which different forms of connections and dynamics are raised that complement the practices of the market. One is Feria La Salada and the other is Mayoristas La Salada.

Feria La Salada was developed by corporate sector initiative and is presented as *"... the website of La Salada market. Created by the people who buy and sell at this market. This website is dedicated to all traders, whether wholesalers, retailers, suppliers, distributors, stall-holders, etc, who perform this activity. As you know, this market is the largest in Latin America".* [35]

The site has various sections common to the majority of websites, including a search engine, a section with the history of the market, a section for new items featuring the latest articles and a contact form. But aside from the basic categories, it is interesting to highlight some sections that differentiate this site and allow us to characterize it more as a "social network" than as a space for commerce or information. Indeed, there are forums and community sections that allow interaction between numerous users. In the forums, according to the information available on the website, [36] there are over 25,000 registered users and there have been over 3,500 messages. These forums are divided into three categories, two of them related to diverse market activities and the other for buying and selling products. The latter is used mainly to advertise products, order catalogues and request prices, and agree on transactions between vendors and potential buyers, whether retail or wholesale.

However, the community section is where the use of this site as a social network is most encouraged, motivating different types of interactions among registered users. In the presentation users are invited to form friend groups and networks, do business and share information. The site also links to groups on the social network Facebook. There are also various messages querying opening hours from potential customers, and both traders and supply companies interact through messages on the walls, advertising and offering their products or websites and making queries about

merchandise.

One more portal that contributes to the organization of the market, although of lesser importance than the other portals considering the number of users and advertisements, is Mayoristas La Salada.[37] This website was not created by the corporate sector and promotes interaction within the commercial production system. Its implicit objective is to generate horizontal communication between manufacturers and traders. The categorization of advertisements through which users interact refers to specific activities that make up the productive and commercial chain on which the market is organized. For example, the advertisements related to the textile sector are categorized according to different types of workshops related to textile activity, such as dressmaking, printed fabrics, buttons and buttonholes, etc.

Therefore, some websites contribute to strengthening the forms of organization of La Salada from the space of flows, allowing interaction among different involved actors. In the first case, priority is given to community participation, particularly that of consumers, while in the second case it is oriented towards the productive commercial system.

Final Reflections

La Salada market began its activities approximately fifteen years ago, practically at the same time as the start of the mass diffusion of Internet in the region. However, this community would take over a decade to start using ICTs. Since then, there has been a process of slow and disarticulated appropriation, which became exponential in 2009. This process, from the conceptualization of innovation proposed by Tuomi, led to the co-creation of technologies, particularly the development of organizational innovative technologies, which introduce changes into existent social practices and, therefore, give new meaning to collective actions. In other words, the creation of new technologies seen here cannot be sustained, but the uses and consequences of different processes of ICT appropriation have produced processes of innovation in social practices and processes of resignification of appropriate technologies. Hence in this case some experiences of socio-technical co-production or innovation can be found, particularly those which are user-driven, according to the perspective proposed by Serra.

However, the decade in which La Salada was limited to the geographic space can be explained by three equally relevant factors. First concerns the place, which is located in an urban fragment on the outskirts of Buenos Aires, where material access to these technologies was almost impossible at the time. Another factor is related to the social actors involved initially-mostly illegal immigrants-who were joined by local actors from socially and economically excluded sectors. Most of them lacked the necessary knowledge to access the space of flows, given that the keys to access were not only material but also, mainly, related to knowledge. The final factor is the degree of informality in the market's activities. Although the market has gradually formalized some of its activities, in its beginnings it was principally known for clandestine activity. Consequently, ICTs were an unknown terrain with promises of transparency, and therefore represented a threat.

So what changed? What allowed this informal community to appropriate these technologies creatively and intensely in recent years? The study attempts some reflections.

In reference to the three factors that account for La Salada's late access to the space of flows, it is evident that ICTs themselves changed and brought progressive innovations. Along with these changes came a greater opening up of material and cognitive access. In Latin America, the State's involvement contributed to a large extent to this process, as it started to implement public policies to install public access centres, at which the State also provided what was then called computer literacy. This effort was also gradually incorporated into formal education. Argentina participated in this process and at present all the urban fragments of its metropolitan cities have been penetrated by the ICT material infrastructure. Consequently, the location of La Salada market has ceased to be an impediment to accessing these technologies.

To a lesser degree, knowledge has also ceased to be an obstacle, due not only to the factors described above but also to the growth and expansion of the market community. This community today includes social actors who are clearly differentiated by internal logics and organizational dynamics. Thus, at one end there persist those actors who, like the initial market actors, remain in a logic of near subsistence and are occupied basically with the provision of services. At the other end there has been a consolidation of actors who act from a corporate commercial logic and represent the productive and commercial sector of the market. Evidently they have been joined by individuals and groups with other cognitive capacities, including those related to the ICT universe.

In this context it is interesting to observe how the multiplication of involved social actors goes hand in hand with the expansion of La Salada in the space of places and

does so with the new forms of urban duality. In this way, the actors with the highest degree of informality and least qualified workers remain in the original market premises or around them; that is, in one of the urban fragments with a high degree of social exclusion in the metropolitan periphery. This is also the case of the "saladitas," which sprout up in fragments not privileged by the market. By contrast, the corporate sector and more qualified workers are located in one of the most expensive neighbourhoods of the city of Buenos Aires, Puerto Madero, where they share the geographic space with the offices of major national and multinational enterprises.

Furthermore, although informality is the result of collective practices of the group of actors, it must be recognized that the corporate sector deploys a strategy in the geographic space that goes in the opposite direction, which can be summarized as follows. In the market premises it operates to a certain extent in the framework of legal regulations and provisions, in terms of the administrative structure that the indoor markets have taken on, and in terms of the group of social initiatives and cultures that it promotes. In parallel, in Puerto Madero, it has a greater degree of formality, being a limited liability company that operates very strongly through the mass media with the purpose of incorporating new targets, both for retail and wholesale commerce and for its business model, in Argentina and abroad.

It is fitting to reflect now on the role that ICTs have played in the organization process of the La Salada community, in tune with new forms of urban duality and taking into account that not all actors involved have been incorporated or have benefited in the same way. In this respect, and as mentioned earlier, the turning point came in 2009, with the creation of the two portals that we deemed official for this study, Mercado La Salada and Feria La Salada, both of which were developed under corporate sector initiatives.

Most of the portals and initiatives analyzed, whether regarding e-commerce, market advertising or those with an organizational bent, maintain and to a certain degree strengthen the most basic and distinctive aspect of the group, which is informality. This informality occurs not only on their own websites but also in the network of associated websites and forums, since not all encourage the formal registration of users and activities. Informality also occurs in the Mercado La Salada e-commerce portal, the most formal face of the market in the space of flows. Consequently, the promise of transparency that ICTs supposedly entail is not to be found, at least in these cases.

At the same time, certain initiatives led by corporate logic contribute to reproducing in the state of flows the new forms of urban duality. The Mercado La Salada portal, for example, forms part of the business expansion strategy of this sector, which is located in Puerto Madero, away from the geographic site of the market, although in truth the portal uses activities at the market to open up another market in the space of flows and present a different appearance.

Despite this, the Mercado La Salada portal is to a certain degree an exception, in the context of the group of ventures relating to the market in the space of flows. The Feria La Salada portal in particular functions with a totally different logic. It is the most innovative and inclusive organizational technology, given that it includes all the actors involved and their activities. It is the portal with the most registered users and is not limited to a website for commerce and information, but functions principally as a social network, promoting different types of initiatives in themed forums and diverse sections for the community.

In this respect, it is interesting to observe the network of new websites that have appeared under the initiative of various actors and which have different degrees of informality. Most of these operate with the same logic as the Feria La Salada portal; that is, with the same aims and similar consequences in terms of the socio-technical innovation processes that they promote. The most outstanding of these websites is the Mayoristas La Salada portal.

All of which, returning to the perspective proposed by Tuomi, brings us to the processes of co-creation of technologies and innovation in relation to ICTs. There is a change in collective social practices. Hence technologies are re-interpreted and appropriated by existing actors, in the context of existing practices; namely, strengthening in consequence community identity and incorporating new actors, as well as broadening activities and the spheres of action of these activities.

In other words, one of the greatest innovations of the Feria La Salada portal and the websites that have been created with the same logic, is that they function as organizational means for groups, through processes of resignification of different technologies, promoted by the users themselves, in the sense that Serra proposes. But in addition, by including all the sectors of the market, through experiences of socio-technical innovation or co-production, it is possible to bring together in the space of flows what is fragmented in the geographic space.

Footnotes

[1] Sassen (2007) considers that at present there are around forty global cities. In this author's opinion, the most important on a planetary scale are Tokyo, New York, London and Paris. In the region that concerns us, Latin America, the key cities are Mexico City, Rio de Janeiro and Buenos Aires.

[2] In Latin America, 79.4% of the population lives in cities (ECLAC). http://websie.eclac.cl/anuario_estadistico/anuario_2009/pdf/Anuario_2009.pdf

[3] Finquelievich & Prince (2010) analyze this model of interaction between universities, enterprises and governments as the "triple helix" (Etzkowitz & Leydesdorff, 1996, cited by Terra & Etzkowitz, 1999). In this configuration, the nation-state covers academia and industry, and coordinates the relationships between them, offering an appropriate regulatory framework. The universities act as producers of knowledge and the enterprises generate new business opportunities and promote technological innovations. In Argentina, the triple helix model is particularly applied at regional level, where in the last decade projects have been created to empower clusters or generate technological poles.

[4] The market is known as such because in the location where the market operates there used to be a group of thermal water pools known as "Complejo La Salada".

[5] Indoor markets, such as those in large warehouses, are known as "internadas", to differentiate them from "externas", open air markets.

[6] One is a public limited company, another a cooperative and the other a limited partnership. In the latter, the unlimited partners are liable for the collective partnership's debts, while limited partners' liability is limited to the amount underwritten in their shares. In addition, each partner owns stalls in the market according to the number of shares owned.

[7] This market grew under the figure of Jorge Castillo, who interviewees indicate as the real owner. Born locally, Castillo ties together the dynamics of the markets with the political sector and textile production that provides the raw material, as well as promoting activities in the social field.

[8] From time to time, the mass media reports on police operations in these clandestine workshops. http://www.lanacion.com.ar/nota.asp?nota_id=1271463

[9] Of 15,000 points of sale, 10,000 are located in the indoor market and considered "formal" and 5,000 in the open air and categorised as "informal".

[10] At present, it is calculated that there are around 250 "saladitas" in all Argentina. http://www.diarioperfil.com.ar/edimp/0467/articulo.php?art=21561&ed=0467#sigue

[11] In one interview, Jorge Castillo claimed to have received offers to replicate the business model in India and the USA. http://www.iprofesional.com/notas/92842-La-Salada-for-export-ya-evaluan-replicar-el-modelo-de-negocios-en-India-y-EEUU.html

[12] According to the *Diccionario de Ciencias Sociales y Políticas* (2004, p.102), community is understood, in the broader sense, as the formation of a given group characterised by strong cohesion (e.g. religious) or common features and interests. In the case of the La Salada community, the stall-holders or traders and customers and suppliers form part of this group. As a human grouping it responds to the same interests (commercial, economic) and they share the same symbolic universe.

[13] Jorge Castillo is seeking to gain municipal autonomy for La Salada. http://www.iprofesional.com/notas/94350-Insolito-La-Salada-ahora-busca-transformarse-en-un-municipio-autonomo.html

[14] http://www.mercadalasalda.com, http://www.ferialasalada.com.ar

[15] Author's own work: generation of primary information from the identification and surveying of different activities that take place in the network of relations articulated with the two portals of La Salada.

[16] E-commerce is understood as uses of ICTs to cover any or all phases of a commercial transaction. Consequently, e-commerce operates in some cases as partial support and to initiate traditional commercial transactions, and in some cases to generate new commercial modalities undertaken entirely with ICT support (Schiavo & Rodriguez, 2007).

[17] http://especiales.americaeconomia.com/2010/comercio_electronico

[18] http://www.mercadolasalada.com

[19] http://www.mercadolibre.com.ar

[20] Argentina, Brazil, Colombia, Chile, Ecuador, Mexico, Peru, Uruguay and Venezuela

[21] http://www.ebay.com/

[22] According to statements made by Jorge Castillo in the newspaper Crítica de la

Argentina http://www.criticadigital.com/impresa/index.php?secc=nota&nid=33004

[23] A channel is a user's page which can be accessed by other users and which, in turn, contains information about their profile, their videos or their favourites, among other topics.   http://www.google.com/support/youtube/bin/answer.py?hl=es&answer=174555

[24] This is the case of these websites: http://www.karcris.com.ar; http://www.lasalada-feria.com.ar

[25]These include the following websites: http://www.buenosaires.avisos.com.ar/ http://www.anunico.com.ar/ http://www.quebarato.com.ar

[26] http://mwww.mercadolasalada.com/terminos

[27] "One is hierarchical trust, which refers to a principle of higher authority which acts as a guarantee against any eventualities that may arise. Another is ethical trust, which refers to the more general principles relating to the integrity of the human and implies for example that in a capitalist, democratic society, marked by individualism as a fundamental value, respect for liberties and private property are ethical principles that are imposed over any hierarchical authority that finds the limit of its intervention there. There also exists methodical trust, although this in reality is a form of distrust looking for a palliative to ensure the regularity of transactions; it characterises, for example, the functioning of financial markets that incorporate an endless number of routines and procedures based on the repetition of gestures to ensure the continuity of the system" (cited in Schiavo & Rodriguez, 2007).

[28] In particular, there is the cash on delivery option, where the buyer pays for the merchandise on receiving it. Another possibility is to outsource the online payment through leading companies in this market.

[29]   These   include   the   following   websites: http://www.outletquilmes.com/paseorivadavia.htm/   http://www.outletquilmes.com/, http://www.outletquilmes.com/paseoturdera/ http://www.paseojosecpaz.com.ar/index_paseo.php

[30] http://www.puntamogote.com.ar

[31] These include the following websites: http://www.absolut-argentina.com/la-feria-la-salada-de-buenos-aires,   http://www.visitingargentina.info/profiles/blogs/feria-la-salada-2010-buenos,   http://www.buenos-aires.ws/blog/feria-la-salada.htm/ http://sobreargentina.com/20 10/02/09/tour-de-compras-en-la-feria-la-salada/

[32] http://www.contactoturismo.com/19-4-10/bs%20as%20oto%F1al%2019-4-10.htm

[33]   http://cantinhodascasadas.com/gozando-a-vida/turismo-alternativo-em-buenos-aires

[34] http://hostelbuenosaires.blogspot.com/2007_06_01_archive.html

[35] http://www.ferialasalada.com.ar

[36] 30/07/2010

[37] http://www.mayoristalasalada.com

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