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Institute for Prospective Technological Studies
Information Society Unit

Mapping eInclusion intermediaries in Barcelona

Final Report of Case Study Analysis

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0.   Executive Summary

This work analyzes the presence, categorization and localization of e-Inclusion Intermediaries in El Raval, one of the poorest neighborhoods in downtown Barcelona, Spain.

The research was conducted in three steps: preliminary interviews with local leaders and key actors in the field of e-Inclusion in Barcelona; structured interviews with the main venues in the area, with in-depth description and analysis of their infrastructures, way of working, portfolio of services and outcomes; comprehensive mapping of all venues, with categorization according to different heuristics, and performed both through official directories and personal visit to the venues.

The results of our work show that El Raval has a very dense network of e-Intermediaries which have different goals and provide different services, sometimes complementary sometimes competing amongst them. We see that the political structure of the area – with at least four levels of administration working on the neighborhood – and the composition of the citizenry (more than a half immigrants) have determined the emergent design of e-Inclusion intermediation in El Raval.

This design heavily relies on networks, both at the vertical and horizontal levels, and also both at the explicit and the implicit levels. These networks have in common that they create dependencies amongst the venues, some very strong – within the same network – and some weaker – amongst networks – but also important to understand the way venues interact one with each other, address different target communities and offer different services.

We believe that the evolution of e-Inclusion Intermediaries in El Raval necessarily has to undergo deep changes. What is working right now and has been working well in the past years can with difficulties explain what will work in the future: ease of access and growing need of digital competences seem to push e-Intermediaries either to irrelevance or towards a new area where physical access matters less in front of training, guidance and consultancy.

In this transformation – which does not seem urgent, but which needs to be prepared and thoroughly designed – venues like telecentres are very likely to suffer deep changes. Community building and in-company e-Inclusion intermediation would be our safest bets.

1. Introduction

1.1. IPTS research on ICT for Inclusion and the MIREIA Project

The 'Socio-economic Analysis of ICT for Learning and Inclusion Action' (ICTLI) of the Information Society Unit at the JRC-IPTS is conducting research in the area of ICT for socioeconomic inclusion with the main goal of providing evidence based analysis to support EU policy design, implementation and evaluation, focusing on the interplay between ICT, social inclusion and empowerment of groups at risks of exclusion.

As part of its research strategy and among its key activities the ICTLI Action is conducting research with the specific objective of **Measuring the impacts of ICT for socio-economic inclusion**, including the structuring of the policy landscape and the characterization of the various actors active on it, as well as the development of a conceptual and methodological framework and implementation strategy to gather data and assess impacts of specific ICT-enabled services in support of groups at risk of exclusion and to promote social inclusion, integration and employability. A particular interest in this regard concerns the role of e-Inclusion Intermediaries (due to their multiplier effects) in promoting socio-economic inclusion at various levels (e.g. regional, local, community, thematic, etc.).

Therefore, as part of the Administrative Arrangement (AA) for 2012-2013 with DG CONNECT a study on Measuring the impact of e-Inclusion Actors on Digital Literacy, Skills and Inclusion goals of the Digital Agenda for Europe (hereinafter referred to as MIREIA) has been agreed.The MIREIA research aims to address two key gaps:

a) the policy need to **understand and characterize the diverse set of actors** (from public, private and third sectors) involved in implementing the e-Inclusion policies;

b) the lack of both available **methodologies and practice in measuring the impact of ICT** for socio-economic inclusion.

This is case study is framed within the *Task 2: Case-study exhaustive mapping of selected areas* of the MIREIA research project.

1.2. Objectives of the Study

The main purpose of this study is to provide a close-up depiction of the presence and role of e-Inclusion Intermediaries in a depressed urban area in the core of a big European city. The study aims thus at gathering and analysing relevant data and documentation for mapping and characterising e-Inclusion intermediaries and activities, and drafting a case study on exhaustive locality mapping of e-Inclusion intermediaries and interventions in the neighbourhood of El Raval in Barcelona, Spain.

This study complements the ones carried on in the city of Sunderland, England – a small, non-capital city – and in the region of Zemgale, Latvia – a mostly rural area – covering, the three of them, the three main scenarios in Europe: a big urban settlement, a small urban settlement and a rural area.

The goals of this Mapping of eInclusion intermediaries in El Raval of Barcelona are as follows:

1) Perform a comprehensive and detailed list of e-Inclusion Intermediaries in the neighbourhood of El Raval (Barcelona, Spain) providing exhaustive data on their specific location and socioeconomic role in their community.

2) Characterize and categorize the e-Inclusion Intermediaries according to their nature and functions. A set of typologies will thus be created so that a classification can be made possible and can provide valuable information for policy-making.

3) Analyze the different initiatives that e-Inclusion Intermediaries are using to assess the impact of their respective activities.

These goals were addressed in the following way:

1) An initial mapping was drawn after the analysis of different directories and registries of venues that could potentially be e-Inclusion Intermediaries.

2) Interviews and on-site visits were performed to gather information about the venues that were identified in the initial analysis.

3) A categorization was defined based on two different axes: on the one hand, according to their functions; on the other hand, according to the institutions fostering the venues.

4) The context of the locality was analyzed in order to provide the socioeconomic landscape in which the e-Inclusion Intermediaries are performing their activities.

5) According to the nature of the venues, their impact assessments and the socioeconomic framework, policy recommendations were drawn.

1.3. Structure of the Report

This report is structured in three main parts, plus an introduction.

Chapter 2 – Context of the Locality – the urban neighborhood of El Raval is introduced as having been one of the most ancient neighborhoods in Barcelona, Spain. It is shown how its dynamics differ not very much from many other big cities: the increasing degradation of the environment drove wealthy citizens off the district, which was hence populated with the poorest strata of society. As it happened in many other cities too, the district suffered a major planning for its recovery in the late XXth century and now presents a tapestry of inhabitants from all extractions of society and more than 50 different nationalities. Still one of the poorest quarters, El Raval struggles to catch up with the rampant development of most parts of the city. The history and composition of the neighborhood is determinant for the typology of e-Inclusion Intermediaries.

Chapter 3 – Mapping of eInclusion intermediaries – presents a quantitative list, description and mapping of e-Inclusion intermediaries in El Raval. The chapter provides rich information on the different types of venues, the services they provide, their role, the networks that they weave amongst them, the kind of institution behind the venue, and the impact assessment methods that *some* of these venues put into practice to evaluate their activity and impact on the surrounding community.

A last 4th chapter provides policy implications and recommendations that can be inferred from this analysis.

1.4. Methodological approach

Data were gathered through four different approaches which sometimes shared tools. The ecosystem of eIntermediaries in El Raval is very complex despite the relatively small area that the neighbourhood covers. We needed to be able to have a general idea, from the start, of what constituted an eIntermediary and what not, and within this set, which ones put a special stress on the inclusion factor and which had e-inclusion as an implicit or second-order goal.

All fieldwork was done in several stages during the months of May to September 2012.

Non-structured interviews

In order to be able to draw a general view of the area we interviewed local leaders in the field of eInclusion. Three non-structured interviews were performed with three agents that represented the three main profiles in eInclusion:

- Ricard Faura, head of the Information Society Service, Government of Catalonia. Coordinates the main public telecentre networks and acts as a representative in state-wide and international networks of telecentres.
- Francesc Gasulla, former coordinator of Xarxa Òmnia (catalan network of public telecentres) and representative/coordinator of state-wide networks of telecentres. His institution is also part of international networks of telecentres such as Telecentre-Europe and Telecentre.org
- Boris Mir, former officer at the Service of Educational Innovation and Research, Government of Catalonia, where he was core member of the team that run the projects Educat1x1 and Educat 2.0 ("laptop in the classroom").

These interviews provided very valuable data on the general policies that were being applied in the area, the goals and, more important, the main networks operating. The knowledge of the main networks of eIntermediaries helped in building a first list of venues, mainly public-sector and nonprofits running on a strong "for inclusion" basis: telecentres, civic centres, libraries and educational centres (schools, technical schools, high schools, universitities).

Structured Interviews

From the aforementioned list of eIntermediaries for eInclusion, we selected three venues which we wanted to interview for further information and details. As the most relevant venues belong to networks, those are homogeneous amongst them and there seemed to be no need to interview or survey all of them – this was confirmed during the interviews. On the other hand, the relative isolation and specificities of the eInclusion programmes run in educational institutions made us decide not to interview them: information coming from documents and other institutions proved to be enough for the purposes of this research.

The tool that was used as a guide for the structured interviews was a modified version of the following one:

Technology & Social Change Group (TASCHA). (2010). Global Impact Study venue survey instrument. Seattle: Technology & Social Change Group, University of Washington Information School (http://library.globalimpactstudy.org/doc/venue-survey-instrument)

The main addition to this survey was a full set of questions belonging to networks of venues. Some other questions proved irrelevant during the interviews and were overridden.

Interviews took place in-site at the venue and were the following ones:
- Albert Francolí, director of Servei Solidari (private telecentre belonging to Xarxa Òmnia).
- Imma Solé Vilanova, director of the Biblioteca Sant Pau-Santa Creu (library, belonging to the City Council of Barcelona network and the Diputació de Barcelona network).
- Sílvia Castillo, librarian at Biblioteca Esquerra de l'Eixample-Agustí Centelles (library, belonging to the City Council of Barcelona network and the Diputació de Barcelona network). This venue, while not belonging to El Raval, provided rich information on the eInclusion programmes based on multimedia rooms.

Visits

Interviews left only uncovered the more (relatively) homogeneous set of venues: the ones whose purpose was physical access to technology and, thus, easy to characterize in general terms (of course, marginal differences arise between venues, but are consistent when taking into account the whole set.

The nature of the venues and the ease of characterization made us reject the idea of carrying on full interviews as the preceding ones: (1) The venues were operated by a single person who would not attend an interviewer while running on the venue and (2) the infrastructure and services provided were evident enough to run our initial exploration. Thus, instead of interviewing actors in the venues, a sample of venues was visited.

We visited the following venues:
- Pindi Internet Locutori. Hospital, 89 (cybercafe, shop).
- Lucky Telecom, SL. Hospital, 139 (shop, cybercafe).
- Zeeshan Comunicacions. Sant Antoni Abat, 22 (shop, other services).
- Hits Mobile. Sant Antoni Abat, 23 (shop).
- Wifi BCN La Rambla, 75
- Wifi BCN Bonsuccés, 3

Directories

Besides interviews and visits, we also went through a number of directories. Many of the listed venues were checked in situ for veracity. Some others – only in the cybercafe category – were left unchecked due to (a) difficulty to access them in holidays season and (b) quick rotation of businesses in the area.

See *Annex IV: Directories* for a list of directories.

1.5.   Methodological challenges

There are three main areas of methodological difficulties that we have struggled with when mapping our pool of e-Inclusion Intermediaries.

The first one, on a theoretical level, is where is the red line that separates an e-inclusion intermediary than a regular e-intermediary. We decided to leave outside of the list two main groups:

-        Venues that provide WiFi access as a side-service to their customers (e.g. hotels).

-        Venues that do not provide ICT access and access to other telecommunication services, but that do sell goods such as SIM cards and credit/minutes for SIM cards, reparation of mobile phones or money transfer, to name but a few.

Regarding the former, though leaving them outside of the list may seem obvious, it is not so: Barcelona WiFi, the public access to the Internet network, mainly provides the same service that some bars, cafeterias, restaurants and hotels. Intuition says that a government providing WiFi service is "different" from a private business doing the same thing. But the distinction should definitely rely more on pure concepts rather than intuition.

Regarding the latter, the distinction is even more difficult to do. As we have stated, there is a big set of venues that offer a wide range of services, not always the same ones and conforming a sort of continuum that goes from what we could call the telecentre-for-profit until the traditional appliances shop. Indeed, the problem is not in where to cut in this continuum, but in the fact that this continuum creates an ecosystem of businesses that cluster together in providing the customer with hardware, software and connectivity and the services attached to these three main areas. In other words, although venues could work in an isolated way, appliances shops are close to cybercafes and cybercafes are close to shops, and this is not a casuality.

The second problem is, of course, the inventory of venues. When venues are publicly operated, belong to networks or provide services thanks to public money or directly in concession by the government, the inventory is clear, up-to-date and of easy access. When it comes to private and for-profit venues, the list of actual businesses is just a fair approach. On the one hand, most of them are small businesses whose life span can vary substantially. On the other hand, and within the aforementioned continuum of ICT services, adding an Internet cabin only requires installing a computer and putting a chair in front of it, while for this research purpose, it implies a leap from one category to another one.

The third problem comes with public venues that offer some – or many – ICT related services but whose purpose is not explicitly e-inclusion. All the institutions within the educational system fall within this gray area, including some libraries.

We will try to address problems one and three in our policy report, while problem two is most likely impossible to solve.

2. Context of the Locality [Neighbourhood, City, Area]

2.1. Socio-Economic Landscape

El Raval is located in downtown Barcelona. Initially built outside the south-western side of Barcelona's XIIIrd century city walls it was then included in the new city walls built in the XIVth century, which lasted until mid XIXth century. With the Eixample project designed by Idefons Cerdà, the walls were torn down and Barcelona quickly grew both in extension and population. With wellbeing classes exiting the ancient city, The Raval began a continuous socioeconomic degradation that made it the most poor and dangerous quarter in the city. It was not until the late XXth century that the City Council planned a recovery of the neighbourhood based, among other things, in radical a redesign of its urban planning and the building of a large number of public equipments.

El Raval now holds the highest ratio of immigrants per capita in the city, most of them from poor extraction. Those live in a singular mix with students, artists, designers and new bohemians, making of The Raval a unique tapestry of nationalities, political interests, and large differences in socio-economic statuses.

Map 1. Barcelona and its districts.

**Map 2. The district of Ciutat Vella and its neighbourhoods.**

El Raval is one of the four neighborhoods that compose the district of Ciutat Vella, one of the 10 districts of Barcelona. El Raval covers 109.8ha and holds 48.485 inhabitants[1]. This means that the population density is 434 hab/ha, which corrected taking into account only residential areas, more than doubles up to 958 hab/ha.
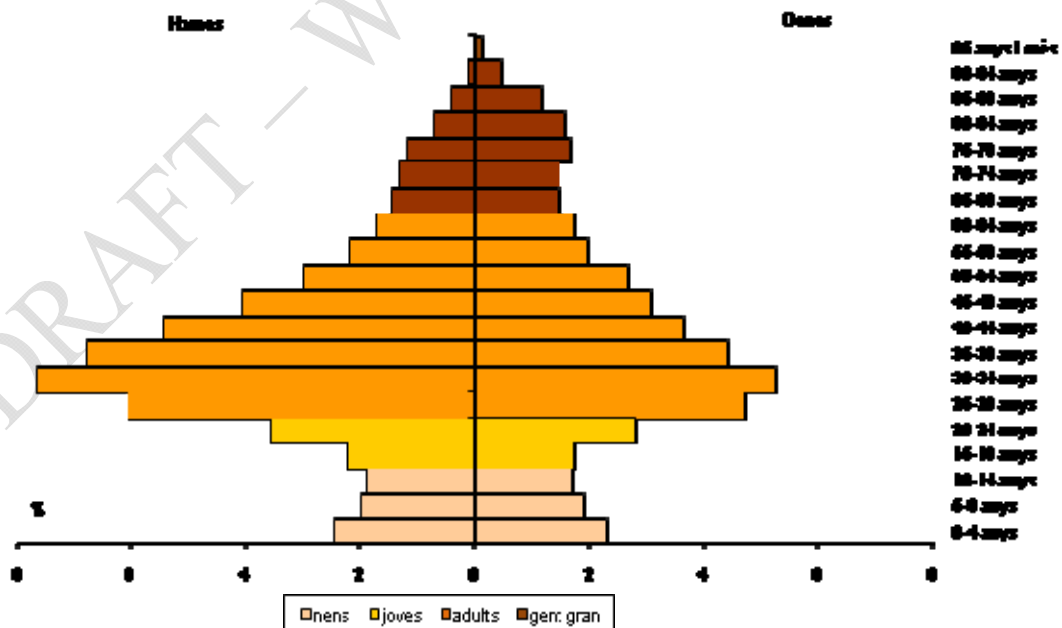
Graphic 1. Distribution of ages in El Raval

The population of El Raval is relatively young, with 86% of the total below 65 years old and 22% in the infancy-youth group. One of the reasons of this young profile of the population is that the neighbourhood is the highest rating in terms of immigration. Circa 67% of the people living in El Raval were not born in Catalonia, and only 13% come from the rest of Spain: more than half of the citizens of El Raval come from abroad. Curiously enough, El Raval also has the oldest population: compared to the city mean, El Raval has more elderly people living on their own or receiving subsidies and has an overaging mean higher than the average citizen of Barcelona. This perfectly shows how immigrants are living together with locals born in the neighborhood more than 70 years ago.
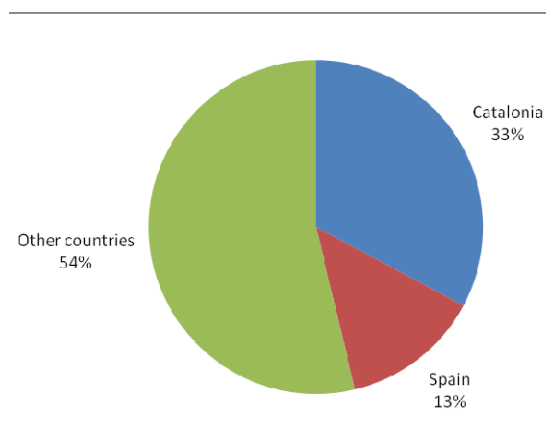
Graphic 2. Distribution of origin of birth El Raval

Pakistan, The Philippines, Bangla Desh, India, Equator, Colombia, Bolivia, Argentina, Morocco, The Dominican Republic, China, Romania, Italy, France are amongst the main sources of immigration of El Raval. It must be noted that the presence of European Union countries – closer to the culture of Catalonia – and Latin America countries – that also speak Spanish – the big bulk of immigrants come from Asia or the Magreb, posing serious challenges to integration and understanding of the different communities living in such a small space.

This composition of immigrants, most of them coming for a better life, has also an impact in gender and socioeconomic status. Even if it seems somewhat balanced, 54% of people in El Raval are men, which is a big difference when compared with the city mean of 48%. These data show that El Raval is a landing area for first comers that, once established, regroup their families and usually move along towards other districts or to other cities different than Barcelona.

This composition of the population has at least two more impacts. The first one is on the level of education, which is clearly below the average and presents 45% of the population with no schooling or only primary school levels (when in Spain education is compulsory until Secondary school).
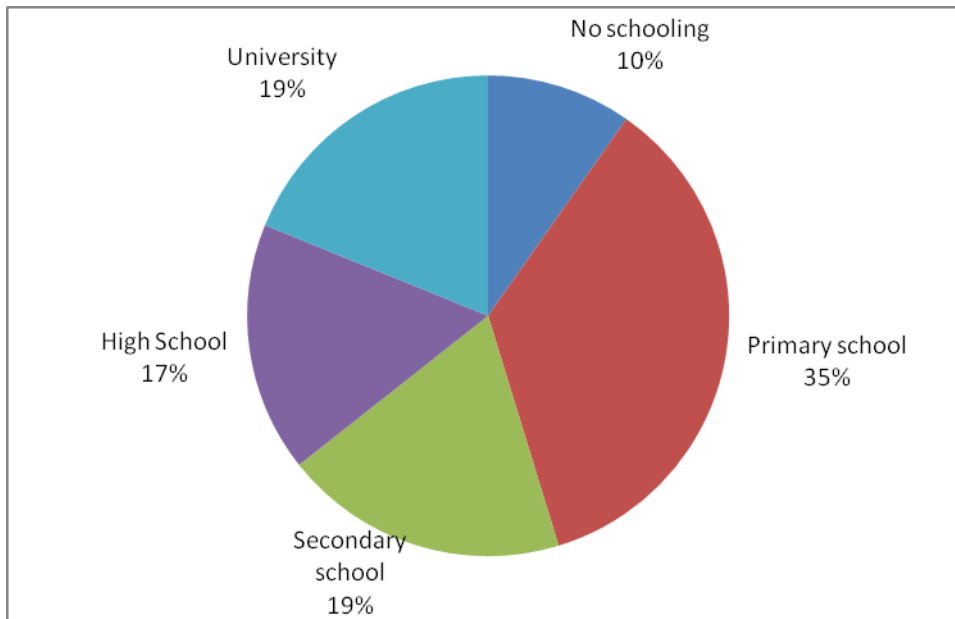
Graphic 3. Distribution of education level at El Raval

This level of education is partly responsible for the economic status of El Raval citizens. Oficial statistics show that El Raval has "only" circa 13% of people unemployed. If we take into account that unemployment in Spain is almost the double of that figure and that it is composed mainly by non-skilled workers, it is easy to see that these statistics are untrue. The main reason is that the high levels of illegal immigrants cannot register as unemployed as they lack the official documents to do so.

Another way to look at the ecomic status is through the Gross Available Household Income Index produced by the City Council. If 100 is the average of Barcelona, the index's value of El Raval is 62.0, one of the poorest in the city.

In the same train of thought, it is not surprising that El Raval has a big bias in elections towards left wing parties, especially when compared with the average of the city and Catalonia in general.

2.2. Digital Inclusion Policy, Strategy and Projects

To understand how policies are organized in El Raval it is interesting to be aware of the structure of the Administration in Spain: a central government (the Government of Spain), a regional government (the Generalitat de Catalunya), a supra-municipal government (the Diputació de Barcelona) and the local government (the City Council of Barcelona). These governments, for several reasons (different parties ruling them and a fragile balance in the distribution of responsibilities amongst them being the most important ones), do not usually cooperate but even compete in the field of digital inclusion.

At the state level there is no such thing as a "digital inclusion policy" in Spain, at least not with a strong focus on the inclusion part. There have been, nevertheless, two main programmes to foster the information society as a whole, with a strong emphasis in infrastructures and the ICT sector.

The **Plan Avanza** was approved in 2005 and was deployed in the years 2006 to 2010. Prior to that, there had already been programmes to foster the Information Society, such as INFO XXI (2000-2003) and España.es (2004-2005), but it was not until 2006 that such programmes got a boost with much more budget and more comprehensive policies.

As we have said, even if Avanza and its second part, Avanza 2 (2011-2014) were not specifically "for e-inclusion" projects, their comprehensiveness and budgetary resources helped in financing several ICT initiatives state-wide, like setting up telecentres and other e-inclusion projects.

Related to Avanza, but placed in schools, Escuela 2.0 was the 1:1 (one laptop per child / laptops in the classroom) Spanish project. Designed in 2009 and initiated in the academic course 2009-2010, it was transposed in Catalonia by the Catalan Government (with competences in education) as **Educat 1x1** also in 2009, lasting for two courses: 2009-2010 and 2010-2011. The economic crisis and a change of government turned Educat 1x1 into **Escola 2.0**, a much less ambitious programme that set aside laptops and focused in "wiring" schools and provide smartboards for most classrooms.

Even if these initiatives can be counted as the strategic ones at the state (or Catalan) level, there had been at least three other initiatives that, at the regional and local level surely have had much more impact and capillarity.

1999 was the year of the birth of **Xarxa Òmnia**. Arguably one of the oldest telecentre networks in the state, Xarxa Omnia has always had a strong "for e-inclusion" goal, despite the fact that it has evolved during the years. Counting now 124 total Òmnia points, it provides physical access to ICTs, training, consulting and almost all the usual services that European telecentres provide. For several reasons (political reasons, the need to cover unattended areas, etc.) the Xarxa de Telecentres de Catalunya operated (along with Xarxa Òmnia) from 2002 to 2008. They both merged as Xarxa Punt TIC, which coordinates all the telecentres and other access points, while keeping Xarxa Òmnia as a subnetwork in order to maintain its original "for e-inclusion" goals. El Raval has three Òmnia points which are coordinated by the network coordinators and, mostly at an informal level, coordinate with other venues from other networks.

Besides the telecentres of Xarxa Òmnia, the second public network of venues are **libraries**, which depend from two networks at the same time: the Diputació de Barcelona network of libraries and the City Council network of libraries. That is: in the case of Barcelona, venues are the same and are financed both by the Diputació and the City Council. In matters of e-inclusion this means that they also run two e-inclusion programmes in parallel: "Internet i+" from the Diputació, and the Multimedia Spaces from the City Council. Both programmes focus on different issues (free software, multimedia, training, etc.) and only have an informal coordination within venues, where librarians try and keep Internet access and activities as a single service for the user, even if, as we have said, in their origin infrastructures, services and activities are designed and paid by different governments.

It is worth noting that training in ICT related issues that happens in libraries is designed and imparted by the **Cibernàrium**. The Cibernàrium is a city wide programme to mainly provide training in all related with ICTs, from the basic ICT literacy courses to the most specific training in e-commerce, e-business or programming. While the Cibernàrium has its own venue in the technological district of Barcelona, it uses the libraries to get closer to the territory, and libraries use the Cibernàrium resources to be

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able to schedule courses they wouldn't otherwise be able to provide. Indeed, all training happening inside libraries is usually provided by the Cibernàrium. Thus, Cibernàrium and public libraries act as two parallel networks that usually address the same users in different manners.

Last, but not least, in 2009 the City Council set up the Barcelona WiFi network, with the aim to provide wireless access to the Internet to citizens in Barcelona. Adding up now to 429 access points. After a few months were connectivity was limited in time, it now can be accessed anytime and for any duration from 08:00 to 01:00h, with only some limitations in the services that are allowed (e.g. no VoIP, specific websites).

Summing up, there are several initiatives hitting the very same target. Some come from the highest levels of the administration and some others from lower levels; the former usually have a more generic approach and the latter usually have a much more specific focus on e-inclusion – though it is not unlikely that the latter are funded by the former programmes in one of their subprogrammes.

Coordination rarely happens in the source, that is, governments or NGO's working together to design and set one and just one programme with different projects and initiatives. Notwithstanding, coordination does happen at the bottom, even if usually informally and based on personal will – which translates in working well when there is time to coordinate, or remain in standby when there is priority work.

Some of these coordinating groups are the network "Espais Informàtics del Raval" – to coordinate actions and services –, the "Xarxa Educativa del Raval" – where educators share resources and information, and coordinate with schools and with Pedagogical Resources Centres; and the "Taula d'entitats del Raval" where most organizations (NGOs and GOs), working for inclusion, coordinate their strategies.

2.3.   Implications of the context in the composition of the typology e-Inclusion Intermediaries

There are several factors that make of El Raval quite a singular place. Singular in relationship with other quarters or districts in similar cities (and especially within Barcelona itself), and singular too in what concerns the composition and kind of activity of e-Inclusion Intermediaries in relationship with other areas where e-inclusion Intermediaries have an intense presence and activity.

The first factor is the fact that El Raval is deeply rooted in a big, modern city, Barcelona, and placed in one of the wealthiest regions in the European Union, Catalonia. In other words, **El Raval is 100% urban**, which is oftentimes not the usual scenario of most researches and reports analyzing e-Inclusion Intermediaries. Its urban nature is but accentuated by the fact that El Raval is not placed in a suburban area in the outskirts of the city, but in the very core of downtown Barcelona: El Raval borders in the east and northeast by two major touristic venues in Barcelona – la Rambla and Plaça Catalunya – which make up the arguably most important commercial and shopping area in the city; and el Raval also borders by the northwest with Ronda Sant Antoni, the electronics and computer components retail district. Tourism, shopping and electronics are then the surroundings of El Raval, determining that the neighborhood, though

decadent, depressed and poor, does live within the big city and facing what happens in it.

A second factor, strongly related with the former one, is the **city plan to recover the neighborhood after its decadence in the XXth century**. Formerly a founding neighborhood of ancient Barcelona, it became a district to avoid after the city tore down its city walls and opened itself towards the plain between the two rivers Llobregat and Besos. Forgotten by all city planning – which now focused in the expansion of the city all over the valley – El Raval became a dangerous and sordid place that and the intense foreign immigration of the late XXth century from Asia, Africa, Latin America and Eastern Europe only worsened the problem. Due to its geographical centrality in Barcelona, El Raval could not be avoided by politicians, citizens and visitors and thus became the target of many initiatives – local and regional – to regain the place for the city. The city council and the Catalan Government have in the last years invested plenty of resources in the neighborhood, most of the times implying locating civic infrastructures in El Raval like universities, research centers, museums, art galleries, or hotels. Many streets have been refurbished almost from scratch and many buildings totally rebuilt. E-Inclusion Intermediaries live in the fringe between old poor El Raval and rampant, modern and hipster new El Raval.

This fringe between the old and new El Raval is an important third factor: **the need to balance the inequalities that El Raval has** both intradistrict and interdistrict. That is, beyond the need to recover the area – many times for sheer humanitarian reasons – the fact that there are growing inequalities within El Raval itself and in relationship with other districts is also an important factor to understand the scenario in which e-Inclusion Intermediaries are acting. Indeed, these inequalities and the need to address them are, amongst other reasons, a good argument to understand why there are so many venues and so many of them publicly founded and "for inclusion" bound. There is no other place in Catalonia nor in Barcelona with such a concentration of Punts Òmnia / Punts TIC in such a small area. And if we take into consideration the huge amount of public access points to the Internet as a whole, the presence of not-for-profit venues can, again, only be explained in terms of a very explicit and intense e-Inclusion policy in the area to reduce inequalities.

Of course – and fourth factor – **immigration** also plays an important role in how venues operate in the area, in this case, private and for-profit venues. Cybercafés – or *locutorios* – are often much more than public access points and many of them have become community centres where people can connect to the Internet but also keep in touch with their peer-immigrants, get cultural devices (e.g. a local newspaper for a given collective of immigrants) or even find a job.

Last, but very important, a fifth factor that contributes to understand the way e-Inclusion Intermediaries organize and operate all over El Raval is **the concentration of political layers in the city**: the city council, the Diputació or provincial government, the Generalitat or Catalan government and the Spanish government apply their policies – directly or indirectly through funding and regulation – in El Raval, most of the times with no coordination (at least at the top-level, which sometimes is fixed at the bottom-level) and still many times even competing one with each other, with the case of libraries as the more evident one, but also evident in education, health or business.

Many political competencies are run at one specific level of the administration and passionately managed against all interference from the outside, many times making collaboration difficult. On the other hand, the fact that the different government levels are run by different – and opposing – parties does not make things much easier.

3. Mapping of eInclusion intermediaries

3.1. The landscape of eInclusion intermediaries in El Raval, Barcelona, Spain

In our benchmark, we identified up to 10 types of e-Inclusion Intermediaries, of which one we left unmapped – WiFi Access Point (see below for an explanation).

Table 1 counts the number of venues that we identified for each type of e-Inclusion Intermediary (but WiFi Access Points). As it has been already stated and will be commented again below, the number may vary, especially in the categories of Cybercafes and Municipal WiFi Access Points, as the rotation of businesses in the former is very high and the possibility of growth in the latter is relatively easy.

e-Intermediaries	
Cybercafe	31
Municipal WiFi Access Point	20
School	7
Library	6
High School	4
Technical School	4
Telecentre	4
Civic Centre	2
University	2
Total	**80**

Table 1 e-Inclusion Intermediaries by typology
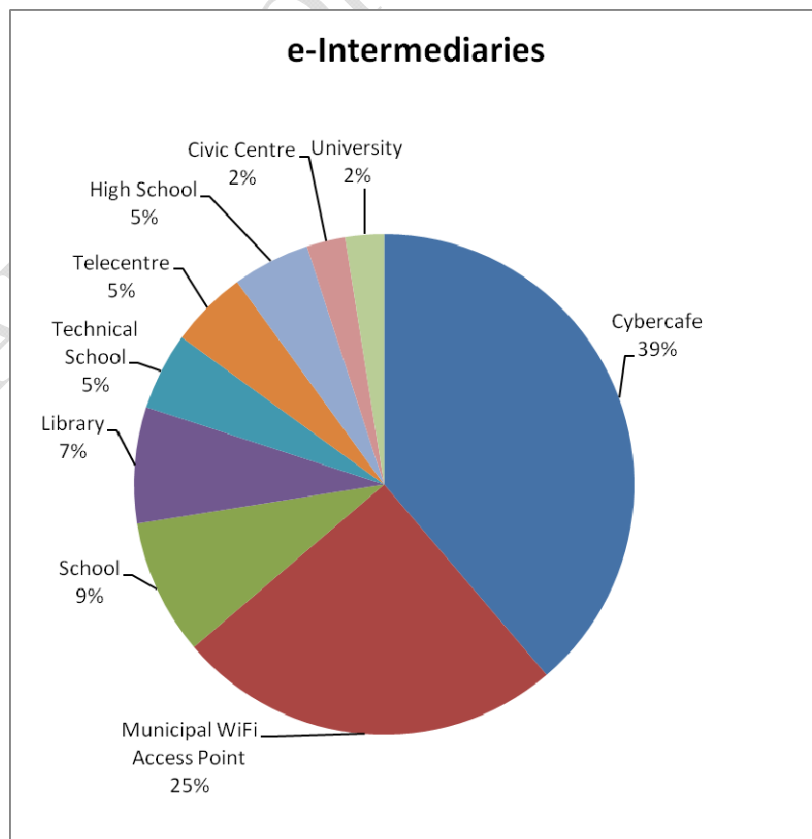
Graphic 4. e-Inclusion Intermediaries by typology

If we look at the organizational type of the venue, we can have the following categories with their respective subcategories:

- Government
    - National, Regional, and State Agencies [Social, Employment, Health]
    - Municipal/City Government [Adult Education Centers, Electonic Village Halls, Training Rooms, etc.]
    - Public Libraries
    - Government-run Telecenters
    - Formal Educational Institutions [Primary, Secondary, High School, technical school, University]
    - Other [Ad hoc projects –Terminated projects – would fit here?]
- Third sector
    - NGO-run Telecenters
    - Neighbourhood Community Centers/Associations
    - Voluntary Support Organizations
    - Youth Centers
    - Migrant and Minority Support Organizations [Refugee & Asylum seekers, BME Support orgs]
    - Other
- Private Sector
    - Cybercafes
    - Private Training Organizations [Support Government programs, NGOs, etc]
    - Formal Educational Institutions [Primary, Secondary, High School, technical school, University]
    - Other [Private nursing homes, privately-run social housing, etc.]

	Government	Third Sector	Private Sector
Telecentre	● Funding	● Ownership	○
Library	●	○	○
Civic Centre	● Funding	● Management	○
School	●/○	○	●/○
High School	●/○	○	●/○
Technical School	●/○	○	●/○
University	●	○	○
Cybercafé (*locutorio*)	○	○	●
Municipal WiFi Access Point	●	○	○
WiFi Access Point[2]	○	○	●
● Yes ○ No ●/○ Varies with venue			

Table 2 e-Inclusion Intermediaries by institution fostering the venue

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[2] Not included in in-depth analysis.
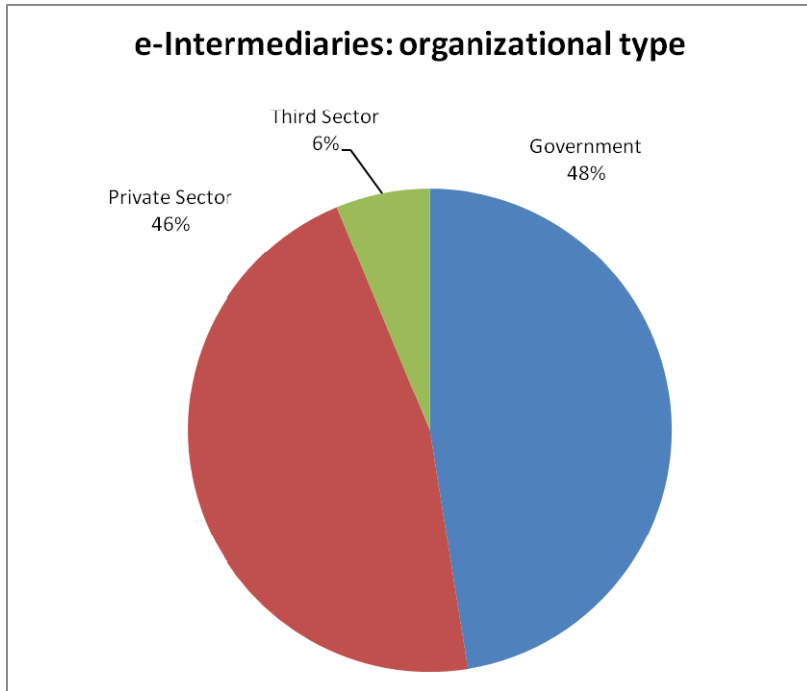
Graphic 5. e-Inclusion Intermediaries by organizational type
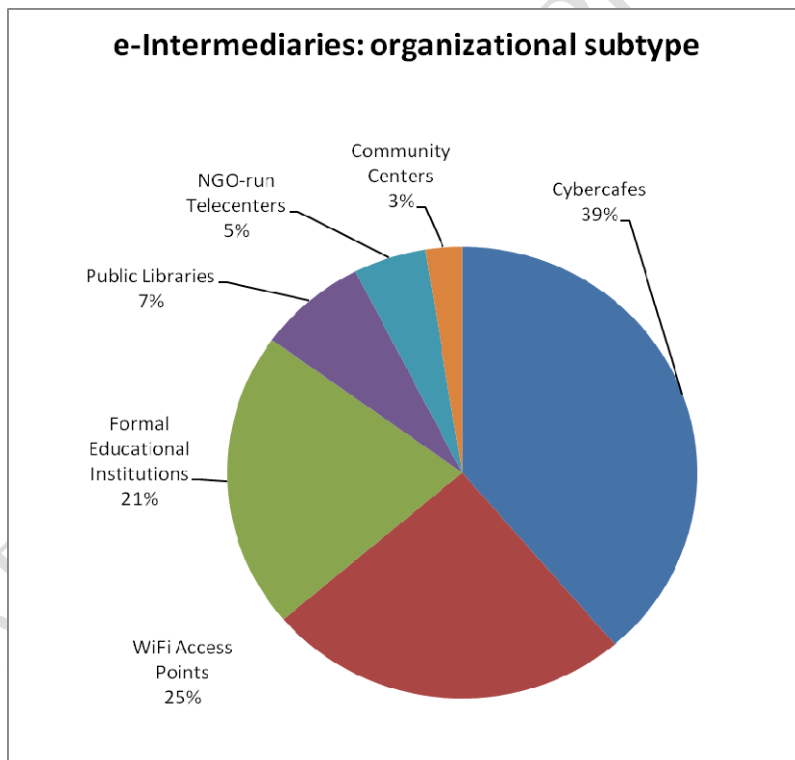
Graphic 6. e-Inclusion Intermediaries by organizational subtype

Besides what is pictured in Table 7, Table 1 and Table 2 following we provide a brief description of each category. In Table 5 we provide a summary of the main services provided and goods sold in the different venues per category.

Telecentre

In this category we find the venues that have the most explicit "for e-inclusion" goal of all our mapping. These are venues that are usually run by private organizations – usually foundations or civic associations – but whose budget heavily relies on the public sector. The three of them belong to the *Xarxa Òmnia*, the Catalan network of telecentres established in 1999. Xarxa Òmnia is coordinated by a private organization hired by the Catalan government: telecentres within this network share resources, strategies, and all kind of services.

All Telecentre services are usually free.

Users of telecentres are all kinds of citizens, though seniors prevail.

Library

Libraries have become an important agent in the area. Many of them include in their strategic plan e-inclusion goals, mostly related with digital literacy in a very broad sense, and the rest of them understand that providing WiFi access is a must.

In this sense, we have listed 6 libraries[3] within this category, of which:
- 3 have an explicit e-inclusion strategy.
- 3 only provide WiFi access.

The former ones belong to two different networks:
- The network of Barcelona City Council libraries.
- The network of Diputació de Barcelona libraries.

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[3] The actual number of libraries may vary depending on two considerations. The first one is whether university libraries are included: we did not include them. The second one is related to *Biblioteca Sant Antoni - Joan Oliver* and *Biblioteca Gòtic - Andreu Nin*, none of which technically speaking belong to El Raval. We did nevertheless include them in our analysis as they are too close to the neighbourhood not to think they are used by its inhabitants.

Their belonging to different networks implies that they offer different services at the same time, in the same venue, but sponsored by either one or the other network. The differences between the services are usually big (training vs. no training, free software vs. proprietary software) and librarians deal with it trying to provide a transparent service to the end user (i.e. that the end user does not have to care who is sponsoring which service).

Users of libraries are all kinds of citizens, though a library ID card is needed for Internet access: as the library ID card requires a national ID card, illegal immigrants are technically prevented from enjoying most services.

Civic Centre

Civic centre is here understood as the venue that explicitly works for inclusion – understood in a broad sense – but not necessarily for e-inclusion. Notwithstanding, WiFi access has become mainstream in this kind of venue, thus making it possible, as a side-effect or indirectly, that some e-inclusion activities do happen within civic centres.

Users of telecentres are all kinds of citizens, but the ones listed in our benchmark are explicitly addressed to elderly people.

School

Schools neither have a "for inclusion" goal nor an "ICT core" component in their core services. Two reasons made us include them here because:
1. As will be explained in our context and policy reports, schools have recently included an important goal in matters of ICT usage in education and with an important drive towards fighting the digital divide.
2. All of them – and besides the previous point – provide some sort of ICT training.

High School

Same as Schools. While merging of both categories could be an option, they are not subject to exactly the same ICT for Education project that affects schools.

Technical School

Same as Schools and High Schools. While merging the three categories could be an option, they are not subject to exactly the same ICT for Education project that affects schools.

University

As it happens with the rest of educational institutions, universities are neither "for inclusion" nor have an "ICT core" goal. Notwithstanding, almost everywhere in their campuses there also is WiFi access for students and all of them have libraries which provide WiFi access for a community much broader than the academic one.

On the other hand, while they are not beneficiaries of the ICT for Education programmes of Schools, High Schools and Technical Schools, they do use intensively ICTs in education and, thus, while indirectly, they perform an important role in fostering ICT usage in all aspects of life.

Cybercafe (*locutorio*)

Locutorios[4] are the name with which cybercafes are usually known in Barcelona (and Spain in general). The name comes from the fact that they initially provided public phone use, until the Internet came in and, with the shift towards VoIP, many other ICT services were added.

Locutorios are always for profit and never (or just seldom) have a "for inclusion" goal, despite the fact that they have a very important role in e-inclusion as most academic literature on immigration shows.

Unlike other venues, that are usually super-specific in the services they provide, *locutorios* provide a wide range of services that vary from venue to venue, from the most comprehensive to the most specialized, and from the more communications-centered to the most appliances centered. Thus, we can find from a *locutorio* that mostly offers Internet or telephone access to an electronics appliances shop (that does not call itself *locutorio*, by the way) that also has a public access cabin with a computer wired to the Net.

Unlike other venues too, *locutorios* are mainly used by immigrants and just seldom by tourists or some locals.
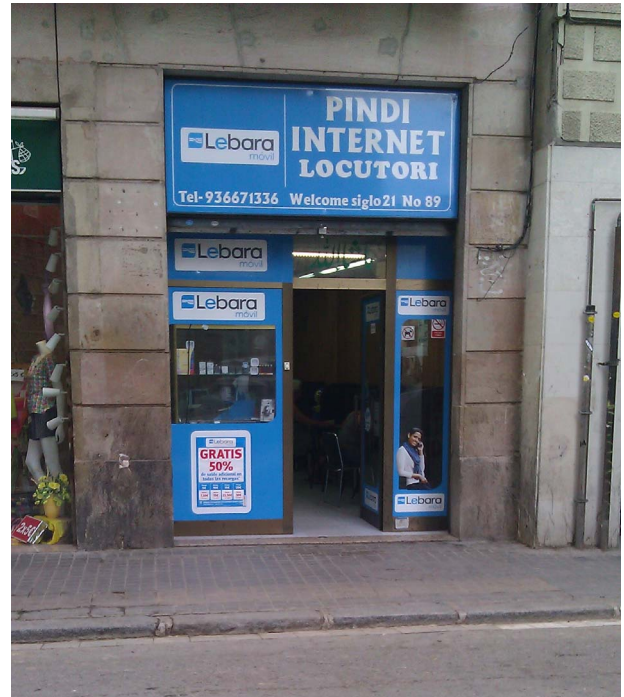
Municipal WiFi Access Point

The City Council of Barcelona maintains a city-wide network of hotspots that provide free (both in the sense of free beer and free to browse any kind of content) access to the Internet. Quality varies depending on connections and requires that users provide their own devices.

Hotspots are usually placed in the outside of public buildings[5] or placed in strategic points all over the city.

WiFi Access Point

This is a very generic category that contains all venues that offer ICT related services – usually WiFi access or sale of telephony goods and services – but that do not fall in *any* of our strategic axes. Mapping these venues is almost impossible, as there are many establishments that fall within this category: bars, restaurants, hotels, appliances

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[4] *Locutori*, in Catalan.
[5] Of course Internet access is also available *inside* the buildings.

shops, etc. But it is worth mentioning them here as they provide similar services as the Municipal WiFi Access Point and are many times used as eIntermediaries.

3.2.   Target groups of eInclusion intermediaries

As it has already been stated, El Raval has a high share of the population coming from foreign countries. This immigrant population is mainly people that work in unskilled positions and thus have very low income. This fact is added to the also low income local population.

Thus, we can group venues by their targets in four big groups:
- Venues that address this low income immigrant population, i.e. most cybercafés.
- Venues that address low income population in general, providing physical access and ICT training. These are mainly telecentres.
- Venues that address the population in general, but whose purpose also is providing physical access and ICT training. These venues are mostly libraries, though their targets many times overlap with those of telecentres.
- Venues that address no particular target, such as WiFi access points.

The former classification can be put in other terms, which have been stated in previous sections.

On the one hand, there are venues whose purpose is explicitly working with collectives that are in risk of social and/or digital exclusion and those others who have not such an explicit goal. The former ones include telecentres while the rest fall within the second category. Amongst the later, some venues have an implicit work related to inclusion: those are public venues such as libraries, civic centres and, of course, all the organizations of the educational system.

In matters of targeting groups, telecentres are a one-size-fit-all solution: they normally have programmes and services addressed either to any collective or specific for given collectives. That is, the telecentre does indistinctly addresses most collectives, but activities and services are often targeted – a similar reflection could be drawn for libraries, although they different nature and mission does not allow for such an specific targeting through a wide array of services, which they do not usually provide.

On the other hand, venues that do not have this specific targeting end up being used more intensively by specific groups depending on the location of the venue or the kind of services. This is the case of cybercafés, intensively used by immigrants, immigrants who chose different cybercafés according to the nature of the collective to be found in a given venue.

Table 3 provides a summary of how different venues are addressing different target groups. Please note that this is the theoretical or supply-based point of view. In other words, *locutorios* do address the population in general, despite the final use is very biased towards the immigrant population.

	Telecentre	Library	Civic Centre	School	High School	Tech. School	University	Cybercafé (locutorio)	Municipal WiFi Access Point	WiFi Access Point
General (all groups)	●	●	●	○	○	○	○	●	●	●
Children	●	●	●	●	○	○	○	○	○	○
Young adults (includes NEETs)	●	●	●	○	●	●	●	○	○	○
Migrants	●	●	●	○	○	○	○	○	○	○
Ethnic Minorities	●	●	●	○	○	○	○	●	○	○
Women	●	●	●	○	○	○	○	○	○	○
Individuals with physical disabilities	●	○	○	○	○	○	○	○	○	○
Individuals with mental disssabilities	●	○	○	○	○	○	○	○	○	○
Senior citizens/elderly	●	●	●	○	○	○	○	○	○	○
Unemployed people	●	●	●	○	○	○	○	○	○	○
People in precarious work	●	●	●	○	○	○	○	○	○	○
Offenders/ex-offenders	●	○	○	○	○	○	○	○	○	○
People suffering from addictions (drugs, alcohol, etc)	●	○	○	○	○	○	○	○	○	○
Low-income people	●	●	●	○	○	○	○	○	○	○
People living in social housing	●	●	●	○	○	○	○	○	○	○
Other	○	○	○	○	○	○	○	○	○	○
● Yes ○ No ●/○ Varies with venue										

Table 3 Target population addressed by e-Inclusion Intermediaries

3.3. Organizational Structure

It is very difficult to provide a single measure for most variables on how venues are organized. As we have stated, private venues range from a single computer connected to the internet to big groceries that sell all kind of appliances or big cybercabés with cabins and many IT related services.

On the other hand, telecentres quite always are related to an NGO that not only manages the telecentre but also provides much more community services. Despite the fact that NGOs keep clear records on the different services and how they are paid, the daily activity constantly keeps users and employees crossing the boundaries of accountancy. On the other hand, the usual proliferation of volunteers makes it extremely difficult to quantify variables such as staff or budget, as it will depend on whether we focus on cost or added value.

As Table 4 shows, it can be said that venues are usually small, with one or two rooms to run their activities that usually split between free usage and training. Libraries are surely the exception as they benefit from bigger spaces, though the greatest part of them are occupied by shelves full of books: thus, Internet areas or computing areas are not much bigger than the ones that telecentres use. Venues in the educational system usually have a computing classroom and only recently have been equipped with WiFi access all over the venue so that 1x1 programmes can be run inside classrooms.

It is worth noting that this structure is just what could be expected in an urban environment such as El Raval's: placed in the core of a big city, even if depressed soil is a very scarce and expensive good, so housing and businesses compete for it. Added to the fact that there is a great supply of venues, there is no need to have huge infrastructures that can serve hundreds of people at the same time. Small venues are cheaper, more flexible and enough for a dense population that, nevertheless, has plenty of alternatives to access the Internet – inside or outside of the district.

		Staff	Infrastructure	Funding	Budget
Government[6]	Agencies (Municipal WiFi Access Points)	Variable (not relevant)	1 WiFi access point	City council	n.a. (low)
	Public Libraries	~10	~40 computers 1-3 other appliances (fax, photocopying machine, scanner, etc.)	City council, province government, e-inclusion programmes (e.g. EU)	~700.000€ (El Raval library, varies with library)
	School	(varies a lot with venue)	(varies a lot with venue)	Catalan Government, fees	(varies a lot with venue)
	High	(varies a lot	(varies a lot	Catalan	(varies a

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[6] Some venues belonging to the educational system are privately owned by either receive most of their funding from the government or do not diverge much in terms of e-Inclusion from public venues.

	School	with venue)	with venue)	Government, fees	lot with venue)
	Technical School	(varies a lot with venue)	(varies a lot with venue)	Catalan Government, fees	(varies a lot with venue)
	University	(varies a lot with venue)	(varies a lot with venue)	State Government, Catalan Government, fees	(varies a lot with venue)
	Civic Centre	1-3	1-3 computers (varies with venue)	City council	(varies a lot with venue)
Third Sector	Telecentre	1-10 (varies a lot with venue, volunteers)	15-25 (varies with venue)	Catalan Government, NGO, e-inclusion programmes (e.g. EU)	~50.000€ (telecentre with 1 main officer plus accidental staff, varies a lot with venue)
Private Sector	Cybercafé (*locutorio*)	1-3	1-2 (small cybercafés) 5-15 (bigger cybercafés w. cabins)	Private	n.a. (varies a lot depending on the services and size of venue)

Table 4 e-Inclusion Intermediaries and organizational structure

3.4.   Main activities and outcomes

Table 3 provided us with an approximate idea of what is the general structure of e-Inclusion Intermediaries in El Raval according to the the target groups that each kind of venue addresses. In Table 5 we list the activities and pursued outcomes for each type of venue. We then provide a summary in Table 6, where services and organizational type are crossed with the target population that every venue is addressing.

		Telecentre	Library	Civic Centre	School	High School	Technical School	University	Cybercafé (locutorio)	Municipal WiFi Access Pt	WiFi Access Point
Skilling	Training (access to online courses)	●	●	●	●	●	●	●	●	●	○
	Training (in-house)	●	●	●	●	●	●	●	●	●	○
Networking Capabilities	Computer usage without Internet	●	●	●	●	●	●	●	●	○	○
	Internet usage on venue computer	●	●	●	●	●	●	●	●	○	○
	Wi-fi or Ethernet for use with personal computers	●	●	●	●	●	●	●	●	●	●
	e-government services provided specifically by this venue or venue network	○	○	○	○	○	○	●	○	●	○
	e-health services provided specifically by this venue or venue network	○	○	○	○	○	○	○	○	○	○
	e-commerce services provided specifically by this venue or venue network	○	○	○	○	○	○	○	●	○	○
	Assistance with online services, such as e-government and e-banking	●	●	●	○	○	○	○	○	○	○
	Hardware rental	●	●	●	●	●	●	●	○	○	○

Empowerment	Hardware or software designed for people with disabilities	●/○	●/○	○	○	○	○	○	○	○	○
Job-placement	Job placement	●	●	●	●	●	●	●	●	●	○
Other	Photocopying	●	●	●	○	○	○	●	●	○	○
	Printing	●	●	●	○	○	○	●	●	○	○
	Scanning	●	●	●	○	○	○	●	●	○	○
	Faxing	●	●	●	○	○	○	●	●	○	○
	CD writing	●	●	●	○	○	○	●	●	○	○
	Technical support and computer repair services for users' personal computers	●	●	●	○	○	○	○	●/○	○	○
	Document preparation for users	●/○	●/○	●	●	●	●	●	●	○	○
	Public phone use or sale of phone cards	○	○	○	○	○	○	○	●	○	○
	Web design for users	○	○	○	○	○	○	○	○	○	○
	Sales of computer parts or products	●/○	●/○	○	○	○	○	○	●	○	○
	Video or arcade games	○	○	○	○	○	○	○	○	○	○
	Availability of food and beverages	○	●	●/○	●/○	●/○	●/○	●	●/○	●/○	●
	Social area for relaxing	●/○	●/○	●	●/○	●/○	●/○	●	●/○	●/○	●
	● Yes ○ No ●/○ Varies with venue										

Table 5 Services provided by e-Inclusion Intermediaries

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		Skilling	Networking	Empower ment	Job- Placement
Government[7]	Agencies (Municipal WiFi Access Points)	-	General	-	-
	Public Libraries	General / Segmented targets	General / Segmented targets	General / Segmente d targets	General / Segmented targets
	School	Children	Children	Children	-
	High School	Young Adults	Young Adults	Young Adults	-
	Technical School	Young Adults	Young Adults	Young Adults	-
	University	Young Adults	Young Adults	Young Adults	-
	Civic Centre	General / Senior Citizens	General / Senior Citizens	-	-
Third Sector	Telecentre	General / Segmented targets	General / Segmented targets	General / Segmente d targets	General / Segmented targets
Private Sector	Cybercafé (*locutorio*)	(General - indirectly)	General	(General - indirectly)	(General - indirectly)

Table 6 e-Inclusion Intermediaries by service, organizational type and target

Table 6 provides us with four main kinds of venues vs. outcomes.

The first kind is Municipal WiFi Access Points. These points have no specific outcome in their design and their sole purpose is providing access to the Internet to citizens that already have the appropriate devices or appliances to wirelessly connect to the internet. Access to these venues is (in general terms) anonymous and cannot discriminate by individual user or type of user. In this sense, speaking of expected outcomes is definitely out of the question.

The second kind is cybercafés. These cybercafés, in their design, are not much different from Municipal WiFi Access Point, as their sole purpose is providing access to the Internet to any kind of customer, in this case willing to pay a price. Of course, there is a big difference amongst the two types of venues as cybercafés do provide the devices or appliances to access the Internet (usually a desktop computer), but the goal is still the same: providing access to whomever and for whatever purposes. Being a non-profit, and having to specific goal for third parties in their design, the idea of outcome again is out of the question.

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[7] Some venues belonging to the educational system are privately owned by either receive most of their funding from the government or do not diverge much in terms of e-Inclusion from public venues.

Notwithstanding, cybercafés push for an outcome when they become the venue not for accessing the Internet but for a specific community. Though this does not happen in many venues, an interesting number of cybercafés have become meeting points where specific communities – usually immigrants from a specific country – gather not only to speak or communicate with their loved ones living in their countries of origin, but also to find friends from the same country, exchange tips and information on bureaucracy or jobs, or even to find some food or press especially addressed to these collectives. Often enough, the members of these communities help each other when they struggle with some technical or literacy-related difficulties in operating computers or mobile phones or accessing the Internet. Thus, outcomes related with skilling, empowerment or job-seeking are to be found even if they were not expected or even pursued by the original goals of the venue.

Unlike cybercafés, telecentres and libraries do expect and do work for outcomes to take place. Their whole mission, goals and design of services is actually focused towards impact on several different communities or target groups. It applies to the whole venue, both in the case of telecentres and libraries, though, of course, in the later it is only a part of the venue that acts as an e-intermediary, while the rest of the venue acts as an infomediary.

There is, though, a difference between libraries and telecentres. The former ones gather data on usage and some profiling of the user, which can help to infer some of the outcomes. In this sense, usage and profiling help in feeding back the design of some services (e.g. courses) so that they better address the needs of the users. But telecentres have a deeper and more explicit "for e-Inclusion" compound, as can be seen in the different categories that telecentre operate with: immigration, elderly people, gender, disability, childhood or youth are specific areas around which telecentres explicitly work to achieve an also explicit goal that is social inclusion. Social inclusion – in its many conceptions – is the main expected outcome of telecentres, happening in different forms depending on the collective: social and legal inclusion for immigrants, empowerment for disabled and elderly people, equality of access (to information, to services, etc.) for women, improved access to the job market for unemployed, etc.

A fourth kind of venue is represented by the whole educational system. As we have already explained, different programmes to bring ICTs "into the classroom" have been put to work in the recent years. Both the programmes and educational institutions measure the impact and outcome of such measures. Available information[8] makes us not very confident neither on the outcomes nor on the tools used to measure them (most information available is based on secondary data and many times subjective perceptions from the implied agents). In any case, and within the scope of this document, it is worth being stated that directly or indirectly outcomes are measured and most of the times in relationship with the core activity of the venues related to the educational system.

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[8] Padrós Rodríguez, J. (2011). *El Projecte EduCAT1x1. Què en pensen els implicats.* Barcelona: Asociación Espiral.
Generalitat de Catalunya (Ed.) (2010). *El projecte eduCAT1x1. Una aproximació en la perspectiva de les directores i directors de centres participants (curs 2009-2010).* Barcelona: Generalitat de Catalunya.
Area Moreira, M. (Dir.) (2011). *¿Qué opina el profesorado sobre el Programa Escuela 2.0.* Madrid: Ministerio de Ciencia e Innovación.

3.5.   Complementary/Alternative classification of eInclusion intermediaries

Although the boundaries are not very clear – we are seeing some examples afterwards – we have identified 5 main categories that define the different e-Inclusion Intermediaries (eII) in El Raval.

ICT is a core activity – ICT not a core activity

Most e-Inclusion Intermediaries that will be listed in the following section on the definition and mapping of the typology have access to Information and Communication Technologies as a core activity. This is, for instance, the case of telecentres.

There are some others, notwithstanding, that do offer access to ICTs and, despite it not being the core or main activity, they do play a role in the whole e-Inclusion landscape. This is the case, for instance, of civic centres or many of the institutions belonging to the educational system: though ICTs are obviously not their core activity, most institutions do have a plan concerning ICTs and, directly or indirectly, e-Inclusion (e.g digital literacy).

E.g. telecentres have ICT as a core activity; schools have ICT not as a core activity.

For inclusion as a core activity – Not for inclusion

A second axis is whether the institution has a clear inclusive goal. This is not to be confused with providing a public service, which most of the times is, evidently, an inclusive one (e.g. education). We thus consider in this category whether institutions have an explicit goal that addresses people with a high risk of social exclusion.

E.g. telecentres clearly fall within the category of having "for inclusion" as a core activity, while cybercafés would be just the opposite.

Not for profit – For profit

Clear enough, we analyse in this axis whether the service provided in the venue has profits as a purpose. As it happened with the former axis, this one is not to be confused with whether the institution providing the service does it for profit. We will find, for instance, private companies that work on a for-profit basis, but that have been contracted by another institution whose purpose on supplying a specific service is not economic profit. An example of this category can be Civic centres, usually operated by private companies that are hired by the government to supply some not-for-profit services.

E.g. as we just said, civic centres or libraries are usually not for profit, while cybercafés and private WiFi access points are for profit.

Public – Private

Clear enough, whether the institution providing (not operating) the service is private or public. Not to be confused with the former category.

E.g. most schools and universities are publicly owned and funded, cybercafés belong to the private sector. On the other hand, telecentres, for instance, are usually privately owned – by NGOs – even if most of their funding comes from the government.

Networked – Not networked

Last, but actually a very important category, networked vs. not networked stands for the distinction between institutions that explicitly collaborate with similar institutions in the provision of a service and others that do not. By explicit collaboration we do not mean some

minor coordination, but sharing services and, most important, strategies, common goals and the design of those services. They usually work under a common label.

Within this category it is important to note that some of these networks are implicitly formed by the level of the public administration to which a specific institution belongs to. We can usually find 3 levels of public administration in El Raval – municipal (Barcelona City council), province (Diputació de Barcelona) and autonomy (Generalitat de Catalunya) – sometimes coexisting in the same venue.

The networks we find in El Raval are as follows:

- **Xarxa Òmnia**: set in 1999, it coordinates all the telecentres of El Raval (but one: Associació de Dones SURT, which actually is an association with a telecentre). It is funded by the Catalan Government and each venue run by an NGO.
- **Biblioteques de la Diputació de Barcelona**: the network of libraries of the Diputació de Barcelona, the supralocal administration of the province of Barcelona. All public libraries in El Raval are part of this network and it provides coordination and services, amongst others, "Internet i+".
- **Consorci de Biblioteques de Barcelona:** the network of libraries of the city of Barcelona. All public libraries thus belong to this and the later network. As in that case, the network provides coordination and common services, amongst others the Multimedia Spaces.
- **Cibernàrium:** not a network strictly speaking, but an ICT center in the technological district of Barcelona. It provides training in its own venue and shares their courses and trainers with the libraries. In this sense, it adds a training layer to the offer of services of the libraries while, at the same time, creates a network of "cyber-antennas" (the libraries that have multimedia centers with Cibernàrium courses) so that the Cibernàrium can be present in the whole city.

Table 7 lists these 10 types according to the 5 axis described in the previous section.

	ICT Core	Inclusion	Not for profit	Public	Networked
Telecentre	●	●	●	○	●
Library	●/○	●	●	●/○	●
Civic Centre	○	●	●	●	○
School	○	○	●	●/○	●
High School	○	○	●	●/○	●
Technical School	○	○	●	●/○	●
University	○	○	●	●	●
Cybercafé (*locutorio*)	●	○	○	○	○
Municipal WiFi Access Point	●	○	●	●	●
WiFi Access Point[9]	○	○	○	○	○
● Yes ○ No ●/○ Varies with venue					

Table 7 e-Inclusion Intermediaries by role

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[9] Not included in in-depth analysis.

3.6.   Impact Assessment Methods

As we have already stated, there are two main types of venues that collect data on impact and outcomes: libraries and telecentres.

Libraries usually gather more quantitative (in opposition to qualitative) data, probably because their goal is not as "for e-inclusion" bound as the later ones, probably because their activity is more disperse and has traditionally been centered in access to books and other sources of information. On the other hand, this quantitative data is usually referred to the intensity of usage of infrastructures and services, and attendance to activities, rather than on its impact and the outcomes of the usage or attendance.

Data that libraries regularly collect and publish:

- Number of registered or individual users.

- Number of visits: to the venue, to the website, virtually to the WiFi network.

- Number of uses of the different services: infrastructures (computers, printers, faxes, etc.), connectivity (LAN and WiFi).

- Attendance and completion of: courses, activities and services.

- Profiling of users: age, gender, nationality, place of residence.

All these data are obtained in a much automated way – libraries work based on library IDs – and they provide very useful information as they tell how infrastructures and services are being used, how much and, indirectly, what are the interests of the citizens that go to the venues. This helps in the scheduling of activities or the investment of infrastructures. It does not help, though, in being able to tell the impact of such activities. All knowledge around this issue is, to our knowledge, informal and not obtained in a systematic way.

On the other hand, **telecentres**, do collect much more data, now including quantitative and qualitative indicators.

Data that telecentres regularly collect and publish:

- Number of registered or individual users.

- Number of visits: to the venue, to the website, virtually to the WiFi network.

- Number of uses of the different services: infrastructures (computers, printers, faxes, etc.), connectivity (LAN and WiFi).

- Number of courses, activities and services, and attendance.

- Duration of uses (max, min, average, total).

- Profiling of users: age, gender, nationality, place of residence.

- Profiling of uses after crossing uses, users and profiling of the user.

- Budget: general, per activity and service, per user.

- Degree of completion of goals.

- All data categorized by project, space, activity and goal.

- Projects, spaces and activities categorized by goals, added value to the community or expected impact/outcome, collectives, partnerships with other institutions, budget.

- Qualitative information on the evaluation or impact assessment of each project, space or activity, added up to other qualitative information on the usage of specific services (e.g. employment space) and the outcomes of these usage as stated by the users.

This data are collected in a systematic and thorough way, and can be aggregated by literally any kind of indicator.

We believe that these indicators – most especially the ones produced by the telecentres in Xarxa Òmnia – provide a comprehensive and thorough analysis for understanding the performance of e-Inclusion Intermediaries in El Raval. Indeed, telecentres also draw "maps" of the different institutions working in the area and what are the networks that are working in the area, some of which telecentres have joined, some of which have relationships with them.

So, the picture of what is happening in the field of e-Inclusion in El Raval is more or less completely measured, at least in what is explicitly addressing the more "for development" or "for e-inclusion" goals.

Our doubts, though, and we will go back to the issue in the next section too, is whether actors in the area do know, with an acceptable degree of certainly, what is the impact and what is the outcomes of their work in matters of improving or changing lives.

Some of the qualitative data that telecentres collect goes in the line of being able to answer these questions, but we are afraid that most of the questions fall – contrarily to the majority of indicators – in the field of informal knowledge and/or personal knowledge of the community and their individuals, rather than on an actual research towards measuring impact.

4.   Policy Implications and Recommendations for MIREIA

There are five main aspects that we think have a strong relevance for both the assessment of telecentres, their impact and their outcomes, and for what should come next in matters of e-Inclusion Intermediaries in the European Union.

First of all, we believe there is – or there will be – a huge difference between the past and present of e-Inclusion Intermediaries and the future of e-Inclusion Intermediaries. In other words, we think that awareness should be raised that we are living a moment with lots of changes and where changes happen very quickly. The discussion about the digital divide has – at least in El Raval and its context – quickly been shifting from physical access to digital competence (or the second level digital divide). And this digital competence is increasingly being identified not with a digital divide in itself, but with an (a) knowledge gap or divide and (b) and organizational divide.

Even if we have succeeded in explaining what have been e-Inclusion Intermediaries in the last 15 years, the evolution of digital competence and adaptation of individuals and institutions to the changes of the so called information society puts serious doubts whether the past will be

of any use to explain the future. And this is a crucial aspect to keep in mind when measuring and mapping for the future.

After our research, and especially during interviews more than during quantitative measuring, we gathered some acknowledgement and awareness that the difference between cybercafés or telecentres or libraries is increasingly blurring, and that it is the community – powered and fostered by access to information, of course – what is becoming the core issue of inclusion (without the "e-").

In this train of thought, and second, aspect, we can state that if something shapes the mission, the design, the organization, the array of services and infrastructures and, in general, the essence of e-Inclusion Intermediaries is context. Obvious as this might sound, it is definitely not how many venues have been designed in their origins. Indeed, many venues show a layer of design upon which a layer of (community) usage has been deployed. Informally and continuously deployed.

There is no way that a policy on e-Inclusion Intermediaries does not take into account not only the socioeconomic status and profile of the potential user, but also how the private sector is acting in the area and how the public sector is putting its policies to work.

The private sector has truly shaped how citizens in El Raval access ICTs. And telecentres and libraries cannot be understood without cybercafés and cybercafés cannot be understood without the former. It is undeniable that the private sector has a very clear and specific role in El Raval and any e-Inclusion initiative should take this factor into account. There is an implicit impact on e-inclusion from for-profit actors despite their goals being different from other actors' directly engaged in e-Inclusion.

On the other hand, the way the different layers of governments (municipality, province, region an state) have provided resources, infrastructures, policy and regulatory frameworks have also shaped the successes and failures of telecentres. For instance, informal networks arise when there is no coordination amongst the different levels of government, as it is the case of libraries themselves or libraries and telecentres. Or informal networks do not arise and we see money and resources underused just because of this lack of coordination, as it is the case of educational technology programmes and how they were never rooted in the community.

Which leads us to the third factor: networks. Networks are the essence of e-Inclusion Intermediation in El Raval.

Vertical networks are a must in the case of telecentres and libraries: networks of telecentres (e.g. Xarxa Òmnia) or networks of libraries (Barcelona, Diputació de Barcelona) have demonstrated to be an efficient way to share resources and disseminate the knowledge gathered at venues.

Horizontal networks amongst telecentres, libraries, NGOs and sometimes schools have also demonstrated that coordination is needed not to replicate services, to be more efficient and effective to identify the needs of the community and to provide what these needs require to be covered.

Informal networks – like the one that is weaved by cybercafés and IT and telecommunications appliances suppliers – also explain much of the public Internet access points fabric in the neighbourhood. As we have stated before, it is difficult to understand cybercafés in an isolated way without all the microcosmos of venues that work in the field of telecommunications and information technologies.

In fact, it is easy to understand El Raval as a set of networks that interact one with each other: the different political networks belonging to the different administration levels; the networks of telecentres (such as Xarxa Òmnia or the two library networks); and the private sector networks made up by cybercafés and IT shops and telecommunication services.

Sometimes there is explicit coordination sometimes just tacit living together. But an external observer should be fully aware not only that they exist, but how they co-exist.

A fourth key factor that has already been mentioned in previous sections is the evolution from access to empowerment in digital matters. Actually, this co-existence of networks partly proves that many citizens have already gone beyond mere (physical) access to ICTs and are in need or asking for the next step. The fact, also, that the municipality is providing free WiFi access is another way of understanding that the barrier to efficient is to be found on later stages, that is, on empowerment.

In the years to come – and academic literature has been warning about this issue for the last years – it is to expect that the digital divide consisting on lack of physical access will almost close (at least in an environment like El Raval) and, instead, in "new" digital divide will grow based on lack of digital competence or lack of sense of purpose of the Internet. e-Inclusion Intermediaries will have to shift from fighting the first level digital divide to focus on this second level digital divide. We believe this is already happening in El Raval – hence the proliferation of WiFi access points (public and also private: bars, restaurants, hotels, shops…) and cybercafés – and even if most telecentres and libraries are already moving towards the new scenario, most policies and decision makers simply are not.

Which takes us to the fifth and last factor or recommendation, which is related to policies to foster employment.

Firstly, it is easy to deduce that these policies have to strongly focus on digital competences. Looking at the portfolio of courses and services, telecentres and libraries are already working in this field. We believe, though, that this work should be improved or expanded in two ways.

The first one, by providing more training and more specific. And by more specific we mean not more specific digital tools, but addressing the informational needs of the employee (or employee-to-be). Addressing them with the help of ICTs, but trying to focus less on the tool and more on the informational need. All in all, it is information what matters in an information society, and information management, and knowledge management: many times training is about how to do things but not what things to do. And this should definitely be addressed.

The second one, and probably more important, is that almost all e-Inclusion Intermediaries work only on the supply side of the job market. The demand side – the employer, businesses – are most of the time if not all just taken out of the equation. Catalonia – and many other places in Europe – is characterized for having a productive sector that heavily relies on small

and medium enterprises. Indeed, many of them are micro- or nano-enterprises that are – and will increasingly be to the tertiarization and the digitization of the economy – almost indistinguishable from freelancers and autonomous workers. Taking into account only employers when designing policies for e-Inclusion and employability is forgetting about a huge amount of self-employees or small employers that share with their employees most if not all the problems caused by the impact of ICTs in the economy. Employers need as much training in digital and information management matters as employees, especially out of the big corporations, who can afford – or even conceive – their own training strategies.

In fact, and summing up, we believe that e-Inclusion intermediation and e-inclusion policies is becoming less about "e-" and more about "inclusion". Once physical access is still an important but a relatively minor barrier, community building is what comes upfront, as it is in the community (the productive community, the emotional community, the leisure community) where the individual will be included in.

We believe – and what we have seen in El Raval seem at least not to contradict this belief – that it may be time for telecentres and libraries to tear down their walls. In two ways.

The first one, because by putting the community first, ICTs (or books in the case of libraries) necessarily come after, meaning that telecentres should populate civic centres, and working spaces (like living labs), or knowledge hubs (as libraries and schools and universities) instead of asking the community to leave their natural scenarios and populate telecentres instead.

The second one, because maybe it is time for virtual telecentres. If physical access is not the main issue but training, or competence, or guidance and advise, it is likely that telecentres could get rid of physical spaces so to gain in efficiency, efficacy, flexibility, mobility, "ad-hoc-ability", "on-time-ness", etc.

Maybe there is now a chance to (re)think about the function of the e-Inclusion Intermediary and not their traditional materialization.

ANNEX I: COMMON TYPOLOGIES FOR ANALYSIS OF LOCALITY MAPPING

1. TYPOLOGY BASED ON ORGANIZATIONAL TYPE | TWO LEVELS FOR ANALYSIS:

1.1 AGGREGATED CATEGORY:
1. **GOVERNMENT**
2. **THIRD SECTOR**
3. **PRIVATE SECTOR**

1.2 DISAGGREGATED CATEGORY

GOVERNMENT	**National, Regional, and State Agencies [Social, Employment, Health]**
	Municipal/City Government [Adult Education Centers, Electonic Village Halls, Training Rooms, etc.]
	Public Libraries
	Government-run Telecenters
	Formal Educational Institutions [Primary, Secondary, High School, technical school, University]
	Other [Ad hoc projects –Terminated projects – would fit here?]
THIRD SECTOR	**NGO-run Telecenters**
	Neighbourhood Community Centers/Associations
	Voluntary Support Organizations
	Youth Centers
	Migrant and Minority Support Organizations [Refugee & Asylum seekers, BME Support orgs]
	Other
PRIVATE SECTOR	**Cybercafes**
	Private Training Organizations [Support Government programs, NGOs, etc]
	Formal Educational Institutions [Primary, Secondary, High School, technical school, University]
	Other [Private nursing homes, privately-run social housing, etc.]

2. TYPOLOGY BASED ON OUTCOMES AND ACTIVITIES

2.1 OUTCOMES:
1. SKILLING
2. NETWORKING CAPABILITIES
3. EMPOWERMENT
4. JOB-PLACEMENT CAPABILITIES

2.2 ACTIVITIES PER OUTCOME

SKILLING	**Basic ICT Training/Digital Literacy [basic ICT use and information search, analysis and storage]**
	Advanced ICT Skills Development
NETWORKING CAPABILITIES	**ICT Access [both computers and Internet]**
	Training and use of ICT for communication, collaboration, and participation [Digital communication, content creation and sharing, social networks participation]
	ICT networking and support to increase outreach capabilities
	e-Intermediation [ICT supported access to welfare, health, independent living, government and private e-services]
EMPOWERMENT	**Engagement in Life Long Learning activities through ICT**
	Awareness and management of legal and ethical aspects of privacy and security
	e-Accessibility
JOB-PLACEMENT CAPABILITIES	**ICT-enabled skills building for employability**
	ICT-supported job-seeking, job application, CV development
	ICT supported community building (including assistance to SMMEs, entrepreneurship and self-employment)

3. TYPOLOGY BASED ON TARGET GROUPS

1. General (all groups)
2. Children
3. Young adults (includes NEETs)
4. Migrants
5. Ethnic Minorities
6. Women
7. Individuals with physical disabilities
8. Individuals with mental disssabilities
9. Senior citizens/elderly
10. Unemployed people
11. People in precarious work
12. Offenders/ex-offenders
13. People suffering from addictions (drugs, alcohol, etc)
14. Low-income people
15. People living in social housing
16. Other:

ANNEX II: MAP OF VENUES

Graphic 7. Map of e-Intermediaries

See a dynamic version of this map at http://goo.gl/maps/F1aU

Table 8 Key to the venue map

Tc	Telecentre	S	School
L	Library	HS	High School
CC	Civic Centre	TS	Technical School
Cé	Cybercafé (*locutorio*)	U	University
W	Municipal WiFi Access Point		

ANNEX III: LIST OF VENUES

Venue	Type
Fundació Privada Servei Solidari per la Inclusió Social Carrer de Sant Antoni Abat, 61 08001 Barcelona, Spain 934 41 64 06 serveisolidari.org PUNT ÒMNIA	Telecentre
Associació Per A Joves T.e.B. / Ravalnet Carrer del Salvador, 6 08001 Barcelona, Espanya 934 425 867 jovesteb.org PUNT ÒMNIA	Telecentre
Associació Casal dels Infants del Raval Carrer de la Junta de Comerç, 16 08001 Barcelona, Espanya 934 124 904 casaldelraval.org PUNT ÒMNIA	Telecentre
Surt Carrer de Guàrdia, 14. 08001 Barcelona, Spain, 933 42 83 80, surt.org	Telecentre
Casal de Gent Gran Josep Tarradellas Plaza Caramelles, 3 08001 Barcelona, Spain 934 416 905	Civic Centre
Casal de Gent Gran Josep Trueta Carrer de Sant Pacià, 9 08001 Barcelona, Spain	Civic Centre
Biblioteca Sant Antoni - Joan Oliver Carrer del Comte Borrell, 44 08015 Barcelona, Espanya 933 29 72 16 bcn.cat/bibjoanoliver	Library
Biblioteca Sant Pau-Santa Creu Carrer de l'Hospital, 56 08001 Barcelona, Spain 933 02 07 97 bcn.cat/bibsantpau	Library
Biblioteca Gòtic - Andreu Nin Biblioteca Gòtic - Andreu Nin. La Rambla, 30-32; 08002 Barcelona. Tel.: 933 437 369; Fax: 933 437 200; Adreça de correu electrònic: b.barcelona.an@diba.cat ... www.bcn.cat/bibgotic	Library
Biblioteca del Museu Maritim Drassanes Reials de Barcelona Avinguda de les Drassanes 08001 Barcelona, Espanya 933 42 99 20 mmb.cat/index.php?idm=2	Library
Biblioteca de l'Associació de Mestres Rosa Sensat Avinguda de les Drassanes, 3 08001 Barcelona, Espanya 934 817 372 rosasensat.org	Library
Biblioteca de l'Escola Oficial d'Idiomes de Barcelona - Drassanes Avinguda de les Drassanes, 0, 08001 Barcelona, Spain +34 933 24 93 30 · eoibd.cat	Library
CEIP Castella Plaça de Castella, 8 08001 Barcelona, Spain	School
CEIP Milà i Fontanals C/ dels Àngles S/N 08001 Barcelona Telf: 93 442 70 38 Fax: 93 443 44 92 http://agora.xtec.cat/escmilaifontanals/intranet/	School
CEIP Rubén Darío	School

Sant Pau, 38	
CEIP Collaso y Gil Carrer de Sant Pau, 101, 08001 Barcelona, Spain	School
CEIP Drassanes Drassanes, 8-10 http://agora.xtec.cat/ceipdrassanes/	School
Centre Educatiu Cintra La Riereta, 21	School
Centre Educatiu Griselda Sant Pau, 42	School
IES Milà i Fontanals Plaça de Josep Maria Folch i Torres 08001 Barcelona, Espanya 934 417 958	High School
IES Miquel Tarradell Plaza Dels Angels, 1 bis 08001 Barcelona, Spain 934 412 380	High School
Escola Pia Sant Antoni Sant Antoni, 72	High School
Institut Obert de Catalunya Departament d'Educació Avinguda del Paral·lel, 71 08004 Barcelona, Spain 933 47 61 00 ioc.gencat.cat	High School
Centre d'Estudis Catalunya C Jovellanos, 6	Technical School
Centre Educatiu CEYR - Villarroel Villarroel, 5	Technical School
Institut Lluïsa Cura Sant Antoni, 19	Technical School
Centre Educatiu Stucom C Pelai, 8	Technical School
Facultat de Comunicació Blanquerna Valldonzella, 23	University
Facultat de Geografia i Història Universitat de Barcelona Carrer de Montalegre, 6 08001 Barcelona, Espanya 934 021 090 ub.edu/facgh/gh.htm	University
Barcelona WiFi Pelai, 2	Municipal WiFi Access Point
Barcelona WiFi Pelai, 34	Municipal WiFi Access Point
Barcelona WiFi Ramelleres, 17	Municipal WiFi Access Point
Barcelona WiFi Bonsuccés. 3	Municipal WiFi Access

	Point
Barcelona WiFi Pintor Fortuny, 17-19	Municipal WiFi Access Point
Barcelona WiFi La Rambla, 116	Municipal WiFi Access Point
Barcelona WiFi La Rambla, 75	Municipal WiFi Access Point
Unitat Territorial de la Guàrdia Urbana del Districte de Ciutat Vella Barcelona WiFi Unitat Territorial de la Guàrdia Urbana del Districte de Ciutat Vella La Rambla, 62	Municipal WiFi Access Point
Gran Teatre del Liceu Barcelona WiFi Gran Teatre del Liceu	Municipal WiFi Access Point
Macba Barcelona WiFi	Municipal WiFi Access Point
CCCB Barcelona WiFi Centre de Cultura Contemporània de Barcelona (CCCB) Carrer de Montalegre, 5 08001 Barcelona, Spain 933 064 100 cccb.org/en	Municipal WiFi Access Point
Barcelona WiFi La Rambla, 7	Municipal WiFi Access Point
Barcelona WiFi La Rambla, 27	Municipal WiFi Access Point
Barcelona WiFi Portal de la Pau, 1	Municipal WiFi Access Point
Centre Cívic Drassanes Nou de la Rambla, 43	Municipal WiFi Access Point
Barcelona WiFi Paral·lel, 29	Municipal WiFi Access Point
Barcelona WiFi Nou de la Rambla, 57	Municipal WiFi Access Point
Centre Esportiu Municipal del Raval Can Ricart Barcelona WiFi C Sant Oleguer, 8*10, bxs	Municipal WiFi Access Point

Centre d'Informació i Assessorament per a Joves Barcelona WiFi C Sant Oleguer, 6*8, bxs	Municipal WiFi Access Point
Barcelona WiFi Ronda de Sant Antoni, 60	Municipal WiFi Access Point
Cyberclub Carrer de Sant Pau, 124 08001 Barcelona, Spain	Cybercafe
Telecomunicaciones del Caribe S.l. Carrer d'En Xuclà, 16 08001 Barcelona, Spain 933 42 48 29	Cybercafe
Lefer Transfer Carrer de Joaquín Costa, 10 08001 Barcelona, Spain 933 29 73 66 lefertransfer.com	Cybercafe
Pronto Envios Pronto Envios Carrer de Joaquín Costa, 1 08001 Barcelona, Espanya 933 248 161	Cybercafe
Melita Baraquio Orate Melita Baraquio Orate Carrer del Carme, 91 08001 Barcelona, Espanya 934 430 483	Cybercafe
Pak Raval Telecomunicaciones SL Rambla del Raval, 5 08001 Barcelona, Espanya 934 433 843	Cybercafe
Assar Gulfam Carrer del Salvador, 17 08001 Barcelona, Espanya 934 416 790 aka Afsar Zachoo	Cybercafe
Alí Gula Mohammad, Maisam Carrer de Santa Margarida, 2 08001 Barcelona, Espanya 933 248 662	Cybercafe
Lucky Phone S.L. Carrer de Sant Pau, 45B 08001 Barcelona, Espanya 933 296 177	Cybercafe
United Europhil S.A. Carrer de Joaquín Costa, 12 08001 Barcelona, Espanya 934 439 008 Aka Tropical Express	Cybercafe
Toaha Mòbils Carrer Nou de la Rambla, 31 08001 Barcelona, Espanya 933 040 316 aka Bukhari aka Amahaf Hispano SL	Cybercafe
Ashiq Cyber Carrer de Joaquín Costa, 49 08001 Barcelona, Spain	Cybercafe
Eservitech Carrer d'En Robador, 33 08001 Barcelona, Spain	Cybercafe
Alí Gula Mohammad, Maisam Carrer d'En Robador, 45 08001 Barcelona, Spain	Cybercafe
Fintel Carrer d'En Robador, 47 08001 Barcelona, Spais Aka Fazily	Cybercafe

Qureshi Carrer de les Carretes, 22 08001 Barcelona, Spain	Cybercafe
Manzoor Hussain Carrer de l'Hospital, 15 08001 Barcelona, Spain Aka Europack Telecom	Cybercafe
Abasi Comunicación S.L. Carrer de l'Abat Safont, 9 08001 Barcelona, Espanya 934 433 307	Cybercafe
Mohammad Farooq Carrer de l'Hospital, 143 08001 Barcelona, Spain aka Saghuir Hussain	Cybercafe
Total Tech Unió, 23 , 08001 , BARCELONA	Cybercafe
Za - Ika 2006 Passatge de Bernardí Martorell, 5 08001 Barcelona, Espanya 933 249 134 aka Baba Telecom	Cybercafe
Aneel Islam Avinguda de les Drassanes, 29 08001 Barcelona, Spain	Cybercafe
World Telefon Center Carrer Nou de la Rambla, 93 08001 Barcelona, Spain aka Adrià Farré Cosgallay	Cybercafe
Lefer Transfer Carrer de Sant Pau, 38 08001 Barcelona, Spain aka Harbans Singh	Cybercafe
Locutorio Aslam Carrer de la Cera s/n 08001 Barcelona, Spain	Cybercafe
Envia Telecomunicaciones Avinguda del Paral·lel, 76 08001 Barcelona, Spain	Cybercafe
Fazal Hussain Carrer de Sant Pau, 73 08001 Barcelona, Spain	Cybercafe
Gateway Rambla del Raval, 45 08001 Barcelona, Spain	Cybercafe
Pindi Internet Locutori Carrer de l'Hospital, 89 08001 Barcelona, Spain	Cybercafe
Lucky Telecom, SL. Carrer de l'Hospital, 139 08001 Barcelona, Spain	Cybercafe
Zeeshan Comunicacions Carrer de Sant Antoni Abat, 22 08001 Barcelona, Spain	Cybercafe

Table 9 List of venues

ANNEX IV: DIRECTORIES

Mapa d'entitats Del Raval
http://www.bcn.es/ciutatvella/catala/raval.htm

Equipaments del Raval
http://www.ravalnet.org/files/admin/mapa_raval.swf

Mapa dels Punt TIC
http://punttic.cat/punttic_cercador_mapa/

Cercador dels Punt TIC
http://punttic.cat/cercador_punttic?&filter0=424

Cercador de punts Òmnia
http://xarxa-
omnia.org/llistat_punts_omnia?tid_vegueria[]=1192&distance[search_distance]=&distance[se
arch_units]=km&distance[postal_code]=&tid_municipi=barcelona&nom_punt=

Guia de Barcelona
http://guia.bcn.cat/index.php?pg=search&q=*:*&code1=0040102004034

Barcelona Wifi
http://www.bcn.cat/barcelonawifi/es/

Paginas Amarillas
http://www.paginasamarillas.es/locutorio/all-ma/barcelona/all-is/barcelona/el-raval/all-pu/all-
nc/1

Papeles España
http://www.papelesespana.com/empresas/locutorios-y-envio-dinero/barcelona/barcelona/

Eix del Raval
http://www.eixraval.com/es_associats_llistat.html?Id=40&As=0

Wojaz
http://wojaz.pl/barcelona/kafejki-internetowe.html

ANNEX V: QUESTIONNAIRE