



Impact Evaluation of the
"Biblioredes Abre tu Mundo"
Project
September 2005



This report is a summary of the main outcomes of the final evaluation, and the third and final phase of the impact evaluation study on the Biblioredes "Abre tu Mundo" project, conducted in Chile through the Center for Educational Research and Development (CIDEA in its Spanish initials), with the support of the Bill & Melinda Gates Foundation.

Prepared by
Marcela Román, Coordinator in charge of the evaluation.
Alexis Guerrero, Evaluation team researcher.
September 2005

ACCESS TO KNOWLEDGE AND SKILLS REQUIRED IN THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs)

The *Biblioredes: Abre tu Mundo* project is an initiative driven by the Chilean Government through the Board of Libraries, Archives and Museums (DIBAM in its Spanish initials), an agency in charge of implementing the project in all the public libraries in the country between 2002 and 2005. The project is sponsored by the Bill & Melinda Gates Foundation.

1.- Purposes and Objectives of the Biblioredes Project

The essential purpose of the project is to promote the connection among local communities, the country, and the world through the free training in and access to Communication and Information Technologies, (ICTs.)

The objective is to provide the Chilean population especially that of low-income sectors with access to knowledge so that it may develop and strengthen the basic skills involved in the use of digital communication and information technologies. This is intended to decrease the inequality in the access to information significantly and in turn to help close the existing digital divide in our society.

The strategy chosen to face this challenge successfully is based on trying to improve and innovate in Public Library Management and thus facilitate the user community's access to technology and its possibility to gain technological literacy. To this end, computers were installed, Internet access was provided and the library staff and project monitors were trained to develop and implement systematic training mechanisms aimed at the technological empowerment of users and the promotion of the use of such technologies as a tool to improve their standard of living.

The idea is to transform the Public Library into a meeting place, incorporating free Internet access for every person and user. The project provides the libraries with:

- Access to computers and the Internet.
- Training in the use of digital communication and information technology.
- Publication of local contents on the Internet.
- Remote communication with other communities (video conferences, chat room discussions, e-mail and other means of communication).

2.- Why Public Libraries?

In Chile, Public Libraries have always been social spaces providing free access to everyone, which enhances their use as mediators in the development and strengthening of the democratization of information. Thus, the digital literacy campaign of the user community in computer skills is expected to provoke important effects on the digital divide, collaborating in the transition of our society from a consumer of technology and knowledge into a producer of both.

3.- Why are ICTs important?

We live in a globalized world, which entails the internalization of growing and complex processes in all order of things. It is a world in which physical boundaries have stopped being natural limitations, giving way to a dynamics of communication, exchange of information and knowledge never seen before. In such a process, information and communication technologies assume a protagonist and essential role, both for its links to the country's economy as well as for its potential for establishing social networks set up in spaces of exchange and dialog among individuals, as well as the state and civil society. In this scenario, we believe that the new information and communication technologies are linked to variations in the social and cultural capital of people. This leads to the assumption that a greater access to information via the use of communication and information technologies would generate a significant increase in the social and cultural capital of individuals.

4.- The Evaluation Study

The project under evaluation is related to processes of information and access to knowledge, basically through the Internet. The evaluation approach considers two intertwined aspects: the effectiveness and impacts of the project. The effectiveness is related to the universe of the objectives themselves, whereas the impacts refer to their influence on other spheres. Thus, the evaluation approach intends to put in perspective and pinpoint the effect of the implementation of the project on Public Libraries and the benefits of this intervention in the local community, mainly in its contribution to the narrowing of the digital divide in the users of these public spaces.

In concrete terms the study describes and analyzes:

- The access and usage level of Information and Communication Technologies in users and the community surrounding the Public Library (PL);
- The effect of ICT use in the increase in competencies for the use of ICTs in PLs, as well as the effect at the surrounding community level and;
- The innovation in the Management of Public Libraries, as a consequence of the incorporation of ICTs.

5.- Methodological Design of the Evaluation

The analysis integrates and articulates the quantitative and qualitative approaches for the impact evaluation. It comprises three (annual) stages that allow: a) the description of the situation before the implementation of the Project, b) the processes and changes during its development and c) the final effects and impacts.

Quantitative study

Household Sample

For the study of the impacts at the community level, a longitudinal panel-type model was used, which considers a bi-stage random sample of households. Originally, 20 municipal districts were chosen. These were located in the I, II, IV, V, VII, VIII, IX, X and Metropolitan regions of the country. They were chosen according to their urban-rural character, size and percentage of indigenous population.. Later, inside each municipal district 3,000 households were chosen proportionately from the areas surrounding the Public Libraries, assuming that the people living in those households are more exposed to the influence of the project's activities. A follow up and assessment of this sample was conducted throughout three consecutive years (October 2002; November 2003, and December 2004).

Sample Users

To constitute a baseline analysis, we worked with a per-quota sampling, a system used to ensure that the sample is similar to the population. It involves a total of 300 Public Library users, structured by quotas according to gender, age and geographic origin (Metropolitan Region, large cities, small cities, small urban areas).

For the intermediate and final measurements we used a poly-stage probabilistic sample of over 4,000 users out of a total of 105 libraries. Through this means we were able to observe and analyze the effects of the Project on users of these Public Libraries. On average, nearly 40 users per each of these Public Libraries in the sample responded. The surveys were applied to users during April 2003, May 2004 and May 2005, resulting in three measurements that allow the observation and comparison of their characteristics and behavior patterns.

Qualitative Study

The qualitative approach yields information about the meanings and senses that users construct with respect to the quality and relevance of the work carried out in the Public Libraries. It also sheds light on the perception and opinion of users about ICTs and their incidence on generating better opportunities and standards of living for them. It also allowed us to have a more in-depth look and analyze the social and cultural factors and variables linked to the implementation and success of the Biblioredes Project.

Focus groups

To construct the baseline, we conducted focus group discussions in an intentional sample of libraries in five municipal districts (rural and urban) of regions I, VII, IX and Metropolitan, in which the project would be implemented. Two of these municipal districts exhibit a high percentage of ethnic population. The makeup of the groups considered differences in age, experience and use, as variables allowing the identification of positions with respect to identity and daily cultural practices in reference to the issue of ICTs and the use of Public Libraries.

Ethnographic Tracing of PLs

The process employed in the implementation of Biblioredes in Public Libraries, is followed and analyzed by monitoring and recording general aspects of location, interaction, perceptions of actors, and daily use of the surroundings by users and personnel of the 10 libraries chosen for such a purpose. The selection of these libraries considered the ICT usage levels, library size; and geographical context (urban/rural). Hence, the ethnographic monitoring we conducted is in fact a follow up of the modifications observed in the locations, usage, interaction with and sense attributed by the subjects to their activity. .

I. OUTCOMES OF THE USER STUDY (2003-2004-2005)

1. User Characteristics

User Gender

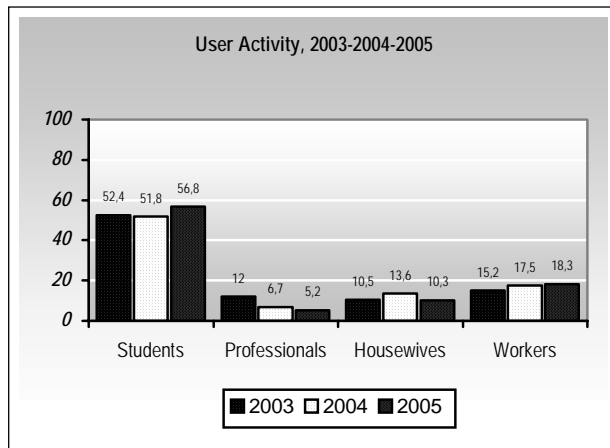
The evaluations do not yield any significant changes in the distribution of library users by gender from the beginning to the end of the Project. Thus, following the incorporation of ICTs for free public use, the percentage of women who use them is still greater than that of men. In the last measurement (2005), the proportion of women reached 53%, whereas that of men accounted for the remaining 47%. These figures are very close to those of the baseline and intermediate evaluations of the Project (the variations do not exceed a percentage point in this proportion for both cases).

User Age

There are no significant changes with respect to user age. Users are mostly young. Seven (7) out of every ten (10) PL users are under 29 years of age. In 2005, this segment reached 72%. Users between 30 and 50 years of age fluctuate between 23% and 24%, whereas those over 50 years of age account for roughly 6%. Among the latter, the relatively low percentage of elderly citizens (over 65 years of age) is maintained. As a whole, the elderly account for 2% of the total number of users (1.8% in 2003 and 1.5% in 2004 and 1.6% in 2005).

Main Activity

Figure 1



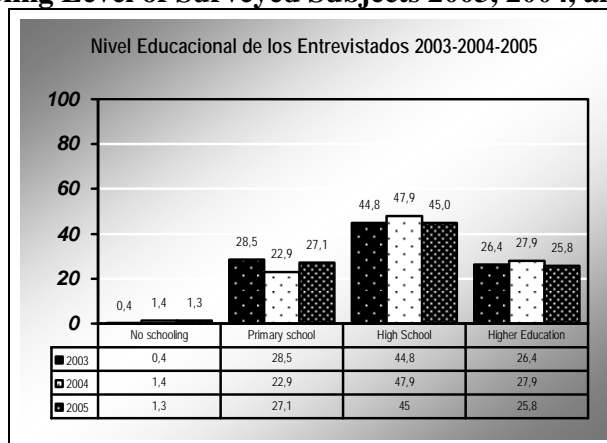
Nearly 57% of PL users are students. This percentage has increased significantly as a result of the implementation of Biblioredes. There is a marked increase of 3 percentage points in those users whose main activity is that of workers currently accounting for 18% of the total. On the other hand, the percentage of professionals has decreased a bit totaling nearly 5% in 2005, whereas the percentage of housewives remains at roughly 10%.

Users schooling level

45% of the users have attended high school (completely or incompletely), with no significant variations since the beginning of the Project (44.8% in 2003; 47.9% in 2004 and 45.0% in 2005). The percentage of users with higher education, technical college or university (complete/ incomplete), oscillates from 26% in 2003 and 2005, to 28% in 2004. Users that report having primary school education (complete/incomplete), range between 28.5% in 2003 and 27% in 2005. Finally, nearly 1% of users, lacks an education, regardless of the measurement involved (0.4% in 2003; 1.4% in 2004 1.3% in 2005).

Figure 2

Schooling Level of Surveyed Subjects 2003, 2004, and 2005

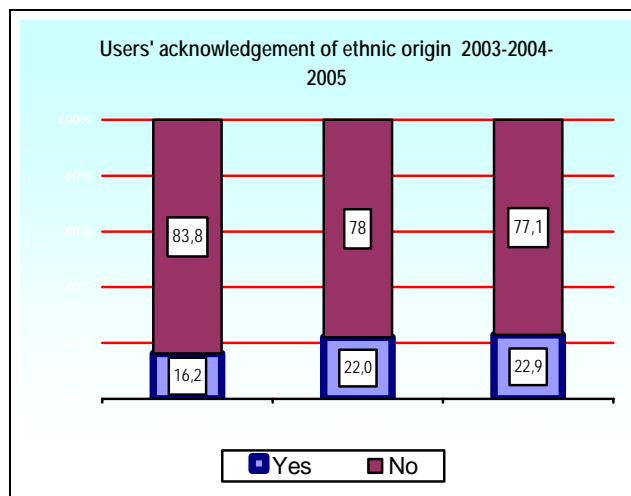


Ethnic Origin

The acknowledgement of ethnic origin by users fluctuates among the different measurements. However, the Mapuche ethnic group is the one with the highest acknowledgement level, reporting a percentage that varies between 7% in 2003 and 8% in 2004 and 2005. As a whole, a relevant increase in the number of users who acknowledge belonging to some ethnic group is observed between the beginning and the end of the Project (from 16.2% in 2003 to 22.9% in 2005.)

Nearly 40% of users do not consider themselves part of any ethnic group, whereas a similar percentage (roughly 41%) reports acknowledging their ethnic origin or condition. The following figure shows the tendencies found in the three measurements.

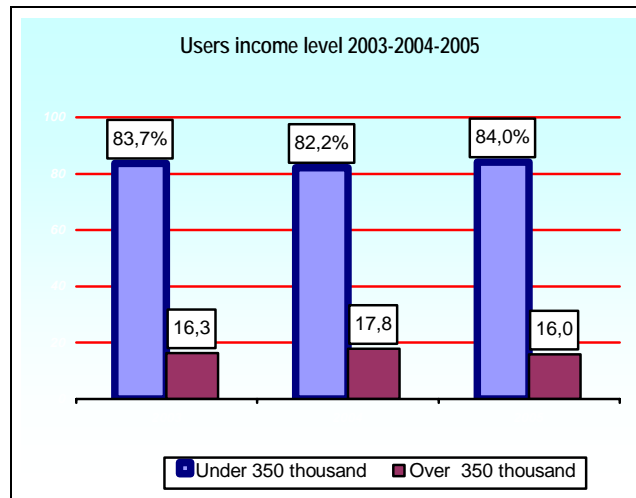
Figure 3



Family income levels.

In 2005, nearly 65% of PL users belonged to the lowest quintile of income in the country (an average monthly income of roughly \$143,928), whereas in the second quintile with an average of \$ 278,769- nearly 18% of the users were found. Thus, regardless of the year involved, over 80% of PL users report monthly family incomes of under \$350,000. These figures prove and allow us to conclude that the target population of the Biblioredes Project is comprised of people with the lowest income levels in our society, evidencing the appropriate focus of the Project.

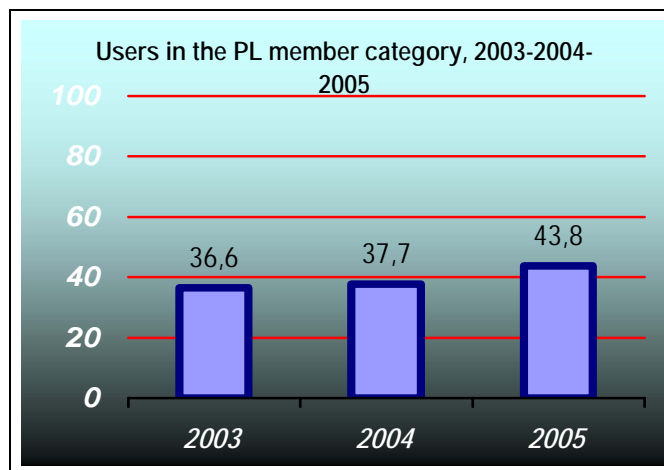
Figure 4



Users belonging to the PL member category.

The evaluation shows a sustained increase in the number of users who are PL members between the beginning and the end of Biblioredes. In fact, while in 2003, 36.6% of users report being PL members in the 2004 measurement, such percentage was 37.7% and in 2005 the percentage increased to 43.8%.

Figure 5



2. Behavior patterns of users

Frequency and duration of stay at the PL .

In 2005, users visit the PLs at an average of 10 times per month. This percentage shows an increase of one day in the frequency of visits registered between 2004 and 2005, whereas in 2003 such average was only that of 5 times per month. On the other hand, we also observed that men register a higher average attendance level than women. Beyond these differences according to the gender of the surveyed subjects in the year of measurement, it is worth highlighting that in 2005 users attended the PL a minimum of 2 times a week on average.

It takes 87% of users less than 30 minutes to get to the library. Moreover, it takes 60% of them less than 15 minutes to arrive. These figures lead to the conclusion that the largest percentage of users live relatively near Public Libraries, that is, in the surrounding households.

Reasons for visiting PLs reported by users

The evaluation confirms that among the most frequent reasons for visiting the library cited by users, the use of information and communication technologies outnumbers that of the traditional services offered by the library, such as access to and borrowing of books and texts.

3. Digital divide

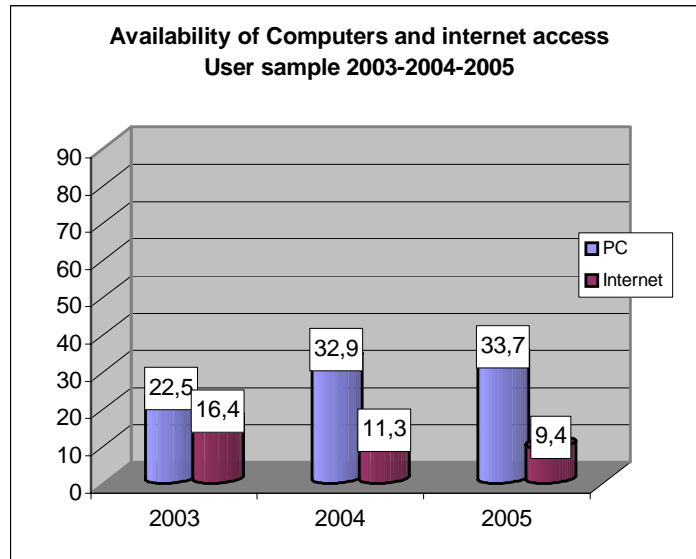
The digital divide concept refers to the separation or distance existing between the people (communities, groups, regions, countries, etc) that use ICTs a part of their daily routines and those having no access to them, who even when having such access do not know how to use ICTs. Therefore, the digital divide concept includes two types of "differences", one referred to the access to and use of ICTs and the other related to the ability to use such technologies.

Así, y a pesar del aumento observado, los usuarios sin acceso a computadores e Internet son una mayoría importante

Access and use of ICTs

About 34% of PL users currently have a home computer. This percentage is 11.2 points higher than the one registered at the beginning of the Project in 2003. Thus, in spite of the observed increase, those users without access to computers and Internet make up an important majority. In the 2005 measurement 66.3% of users reported having no home computer. This percentage increased to 90.4% in the case of Internet access.

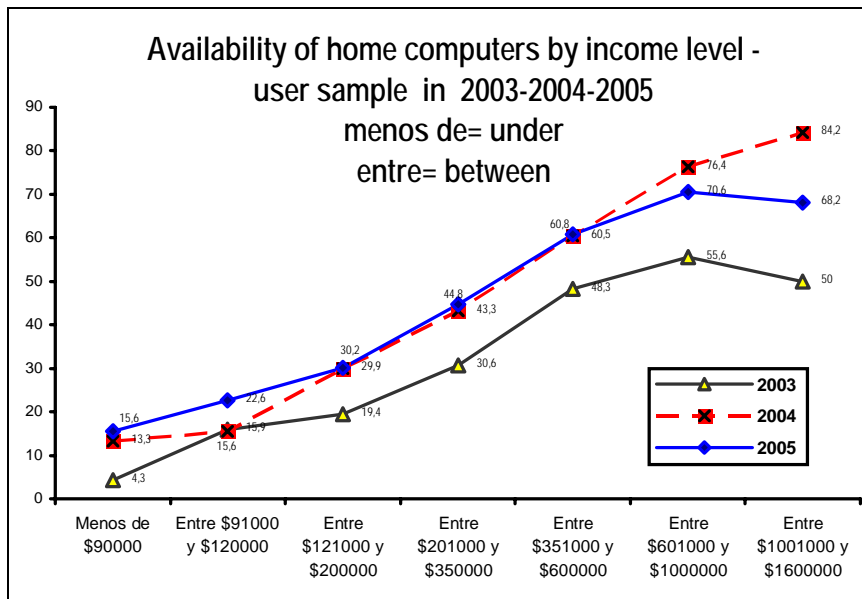
Figure 6



Access by income level

According to the income level of users, the different measurements show a proportional relationship in which the increase in an income bracket implies an increase in the percentage of users who report having a home computer. This situation is reversed in the bracket above \$1,600,000 Chilean pesos per month. This is a key element in determining and profiling the existing digital divide in Chile.

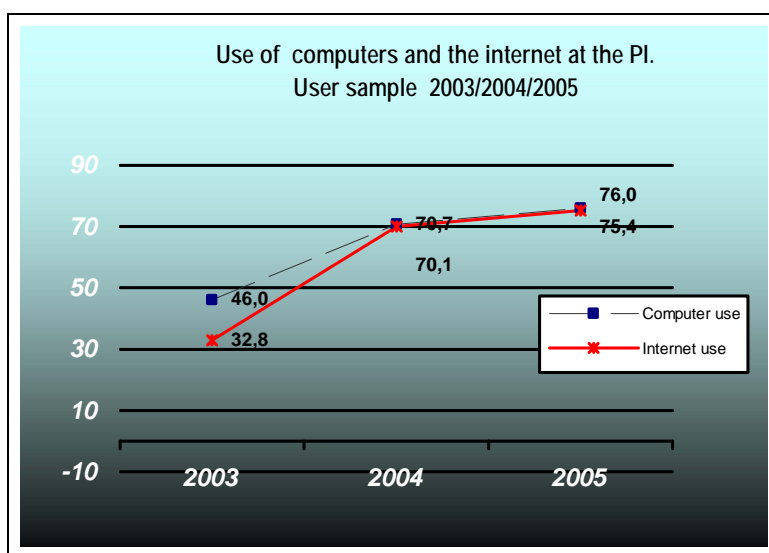
Figure 7



Use of computers and the Internet when visiting the PL

With respect to the use of ICTs inside the PL, there is a marked increase between those who report using ICTs at the PL. An increase from 46.0% in 2003 to 76% in 2005 is observed. Thus, at present over 7 out of 10 users who visit the PL use computers on every visit, compared to those of 2003 when the ratio was 4-5 per each 10 users. The increase between those who log onto the Internet is even more remarkable. In fact, while in 2003 merely 32.8 reported using the Internet at the PL, in 2004 70% of users report such use, and in 2005, 75.4% of users report using the Internet when they visit the PL.

Figure 6

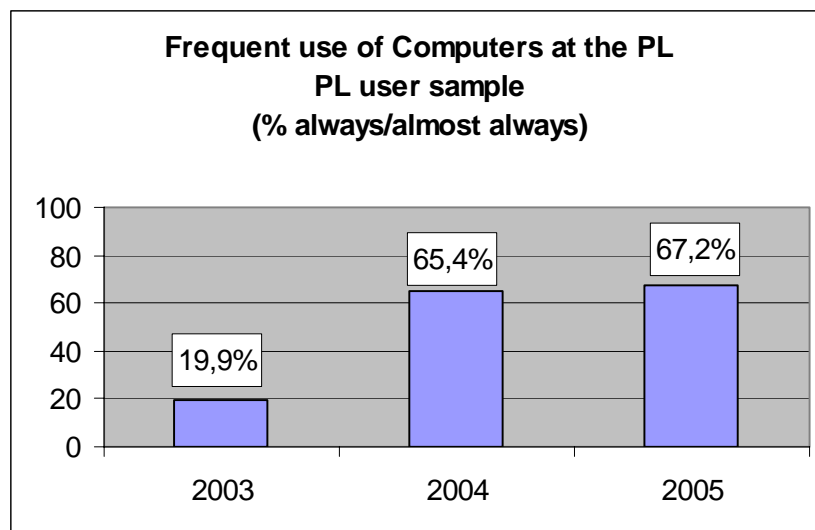


Use by context and size

It is interesting to observe that rural PL users are the ones who report using computers in a higher percentage than urban PL users. In the 2005 measurement the percentages were equal to 83.2% for rural users and 69.3% in the case of urban users. With respect to the type of libraries, in addition to the increase in use, a higher percentage of users of PLs located in the outskirts that use computers with respect to those of centrally-located PLs remain the same. In 2005, 81.3% is reported for PLs located in the outskirts and 74.3% for centrally located PLs. This implies that the access to ICTs in these public spaces contributes significantly to a greater social inclusion in the most isolated sectors lacking such services, such as the rural areas of the country.

Frequency of use.

At the end of the evaluation period (2005), 67.2% of users reported using computers on all or most of their visits to the PL. This would imply that besides the high level of computer use; the frequency of such use is also high. Relevant increases between the beginning and the end of the Project are observed. In fact, 19.9% of users in 2003 reported a frequent use of computers at the PL (on all or almost all of their visits) whereas in 2004, such percentage reached 65.4% of those reporting use of computers on all or almost all of their visits to the PL.



In the case of Internet, the percentage of users who always or almost always use the Internet when visiting the PL is 68.2% in 2005. Thus, like in the previous case, in addition to a high percentage of computer use, there is also a high percentage of users who log on to the Internet when using such computers. The comparison between the beginning and end of the project yields a significant increase in the frequency of use from year to year, given that the 2003 measurement shows that merely 14.6% of users report always or almost always using the Internet on their visits to the PL.

Reasons cited by users for logging on to the Internet

Internet use on PL visits has varied in the different measurements. However, albeit in different proportions in each measurement, the following uses continue being cited as the most important ones:

- Resolve study problems
- Email correspondence
- Free surfing of the Internet
- Look at or read online newspapers

It must be noted that in 2005 there is a significant drop in the users who report using the Internet for free surfing, downloading blogs, music, pictures, and software programs and chatting. This implies

that current use is more concentrated on learning or communication activities rather than on entertainment or recreational activities as observed in 2003.

Learning strategies

It is highly worth noting that there has been a significant increase in the percentage of users who have received training in the Biblioredes Project "Abre Tu Mundo" context. Thus, while in 2003 one out of every one-hundred users reported having learned how to use a computer at the PL, in 2005, twenty out of every one-hundred users reports having learned at the PL.. On the other hand, , the drop in users who report not knowing how to use a computer has decreased from *30% in 2003 to 5.9% in 2005.*

Table1

Computer use learning strategy – PL user sample	2003	2004	2005
Self-taught	22.3	26.2	27.8
At school	27.5	24.3	23.9
At this PL	1.8	17.8	20.5
By other means	7.3	10.2	10.6
Through friends or relatives	8.0	8.9	7.9
Does not know how to use a computer	30.0	8.6	5.9
At work	3.8	4.1	3.4

Thus, if we consider the total number of users who report having learned how to use a computer at the PL, we observe that 87.7% of them have participated in the training provided as part of the Biblioredes Project.

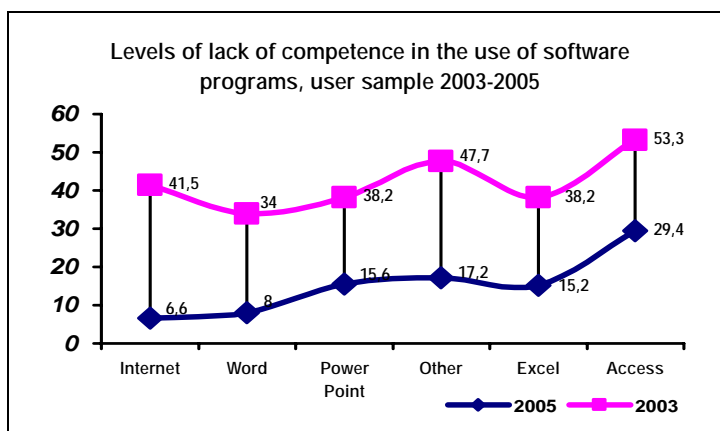
Profile of PL users who do not know how to use a computer

Over half the PL users (53.4%) who do not know how to use a computer are under 29 years of age, and are mainly women (58.3%). This identifies the type of potential population for the current and future training programs offered by the Biblioredes Project.

ICTs competence level

Users have a self-perception of their different competence levels in the use of the software included in the study. Undoubtedly, the Internet is cited as the tool that most users are able to use: 51.5% considers that they have a high or very high competence level in the use of this tool. The second higher percentage cites the text processor (Word), in which 41.5% of users consider that they have a high or very high competence level. In turn, the percentage of users who report having no competence in the use of different software programs has decreased notoriously.

Figure 7



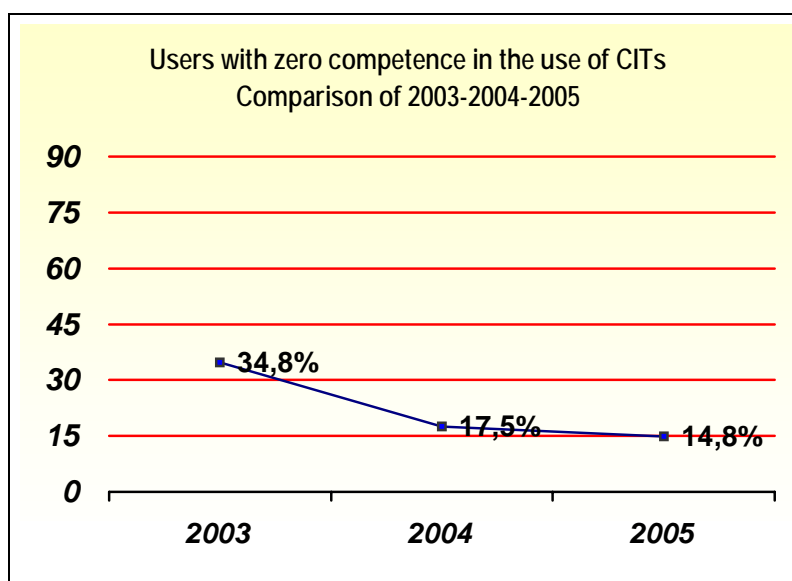
This figure shows the great drop in the percentages showing lack of competence level between those registered in 2003 compared to the one registered by subjects surveyed in 2005. Without exception, the percentage of users who are unable to use the different software programs drops by a minimum of at least 20 percentage points. .

4. ICT competence index

An index reflecting the ICT competence level of users was constructed using the indicators linked to the self-perception that users had of their competence level in 6 software programs considered as the most important and common ones. Thus, the index will vary from 0 showing no competence level to 24 showing a maximum competence level. Hence, a higher score in the index indicates a higher ICT competence level.

The analysis shows an important increase in the ICT competence index, which averages **7.1 in 2003** (7.6 points in 2004) and **rises to 9.4 in 2005**. In turn, there is a decrease in the percentage of users who have no competence whatsoever in the use of ICTs (an index equal to 0), **from 34.8% in 2003** (17.5% in 2004) to **14.8% in 2005**. This data allows us to ratify that PL users have improved their ICT competence level significantly.

Figure 8



Based on the interviews and ethnographic observations conducted in 2005 we observe a growing degree of autonomy in the use of computers, particularly in students and young people in general. . Although, in the case of adults there is a greater demand for the support provided by the personnel in charge of the Project. This fact does not affect the everyday activities and organization of the library. In various cases, a year-to-year increase is observed in the use of the resources to do paperwork on line, especially in the filing of income tax returns in 2005

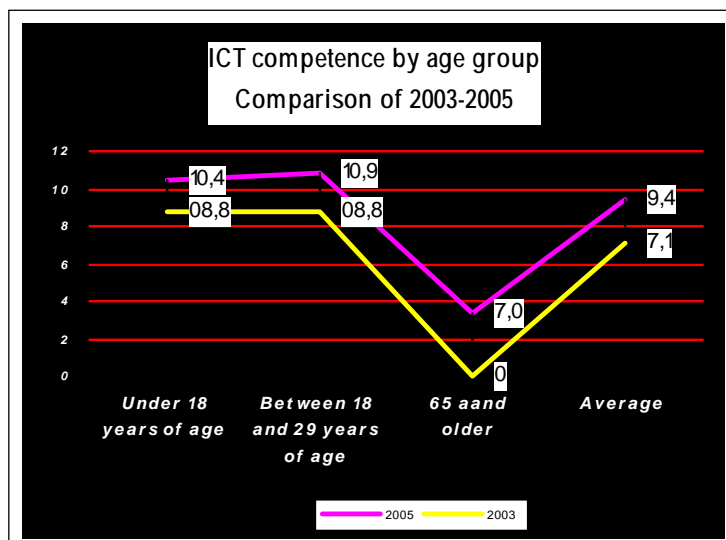
- Differences by gender

In 2003 and 2005 men averaged higher than women. This implies that they have more ICT competence than women. It is interesting to observe that in spite of this, women have improved their index significantly year to year, moving from an average of 6.5 in 2003 to 8.8 in 2005. The same occurs with men who register an increase from an index of 7.8 in 2003 to 10.1 in 2005.

- Differences by age

A direct relationship is observed between the age of users and the ICT competence index: the older the user the lower the ICT competence level. Besides, we observed that when comparing 2003 with 2005 an increase of nearly 2 points in the ICT competence level is observed. The greater progress (over 3 points average in the index) is registered in users above 30 years of age, and the greatest difference (4.1 points) is observed in the 51 and 64 age groups.

Figure 9



- Differences by type of users

To analyze the final impacts of the Biblioredes Project at the PL user level, we constructed a type description of users that allows us to examine and compare the behavior of users based on the availability and/or lack of computer and Internet access and participation in the ICT training programs offered as part of the project. Based on the combination of various indicators we generated a description of the type of users to help in their characterization and analysis of this process we considered the total number of users interviewed in 2004 and 2005, which totaled a bit over 8 thousand cases.

Thus far, 48.3% of PL users have not participated in the training programs offered as part of the Biblioredes project, and have no access to computers or the Internet at home. This implies that nearly half the users remain far from ICTs.

When considering only those without any ICT competence, we observe that the majority of them (72.2%) have not participated in the training programs and have no access to ICTs at home. If we add to this the 10.2% of users who have in fact participated in the training programs but do not have access to ICTs at home we may conclude that a very important factor in ICT competence levels is related to the availability of computers at home.

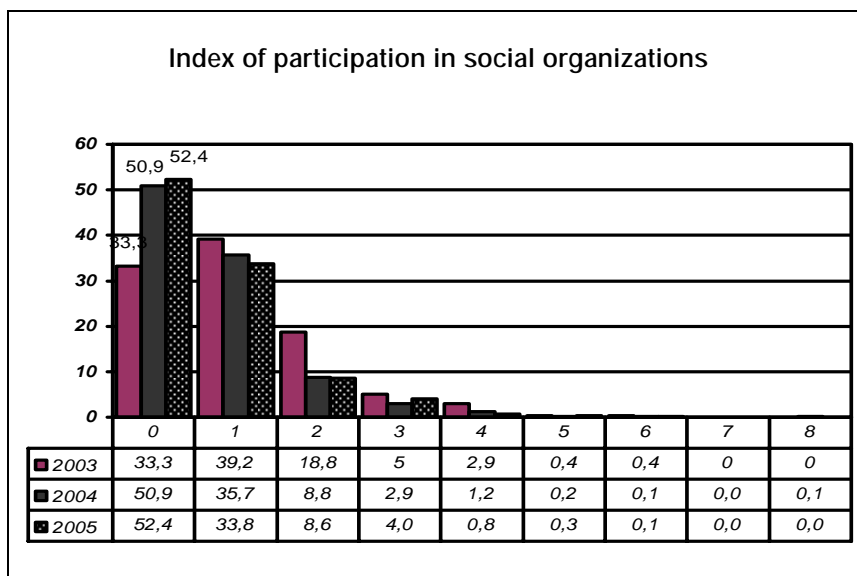
The above reflection is confirmed by the results in the ICT competence index averages of the different types of users. Those users who have neither computers nor Internet access at home have significantly lower average ICT competence levels than those who do have such elements..

5. Social capital of users

As a way of determining the social capital of PL users, we constructed an index of participation in social organizations which included the participating in 8 different organizations: neighborhood committees, PTA associations, sports clubs, professionals associations and/or trade unions, cooperatives, political parties, cultural or artistic groups and religious groups. A 0 index corresponds to those users who do not participate in any of these organizations and an index of 8 represents those who participate in all of them.

The results show that in 2003 one third of users (33.3%) did not participate in any social organizations. In the 2004 measurement this percentage increases to 50.9% and in 2005 it rises to 52.4%. This implies that the participation of users in the social organizations that comprise this index has decreased.

Figure 10



The participation index with respect to men and women shows that female users are the ones who participate the least given that in **2003**, 70% of those who do not participate were women. **This percentage drops to** 56.8% in 2004 and 59.8% in 2005. This corresponds to zero participation in social organizations. The previous figure shows the distribution registered in the measurement conducted in 2003-2004 and 2005 s.

Young PL users participate less than adults in the different social organizations. The trend remains the same regardless of the measurement involved.

II. RESULTS OF THE HOUSEHOLD STUDY

1. Characteristics of the surveyed subjects

Gender

In the successive measurements over 60% of the subjects who responded to the survey in their homes were women. Thus, while in 2002, the subjects interview totaled 61.7%, in 2003 the percentage rose to 65.2%, reaching 63.9% in 2004.

Age

The average age of the surveyed subjects in 2002 was 41.3 years of age. In the 2003, measurement, this average increased slightly to 42.9 years of age and in 2004 it jumped to an average age of 43.9 years for the surveyed subjects.

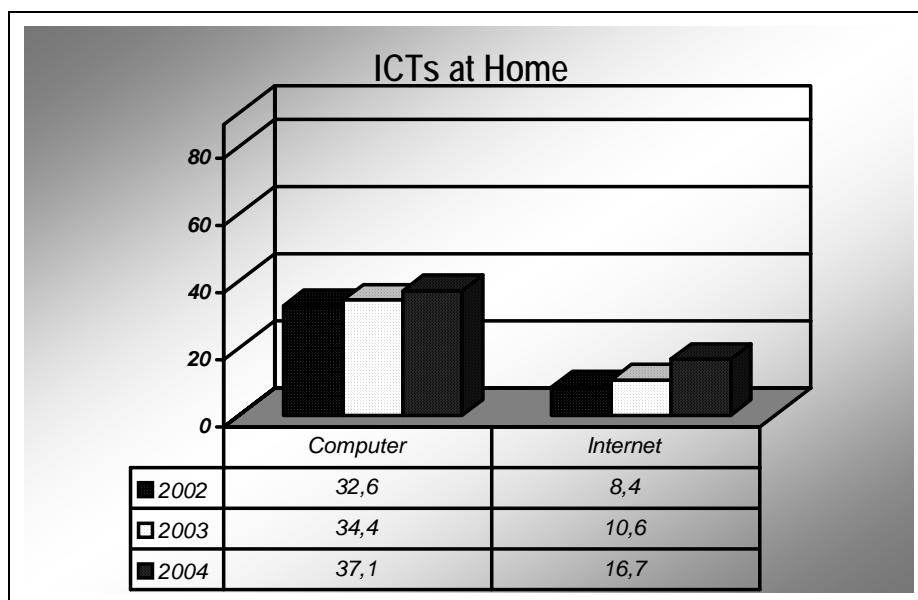
Role of the surveyed subjects

In the three measurements, it was mainly the mothers who answered the questionnaire. Thus, they account for 43.3% of the subjects surveyed in 2002, for 48.0% of those surveyed in 2003 and for 44.7% of the ones surveyed in 2004. The second largest group of surveyed subjects answering the questionnaire was that of the children, who follow with 27.2%, 25.5% and 24.3% in 2002, 2003 and 2004 respectively.

2. Digital divide

Availability of ICTs at home

Figure 11

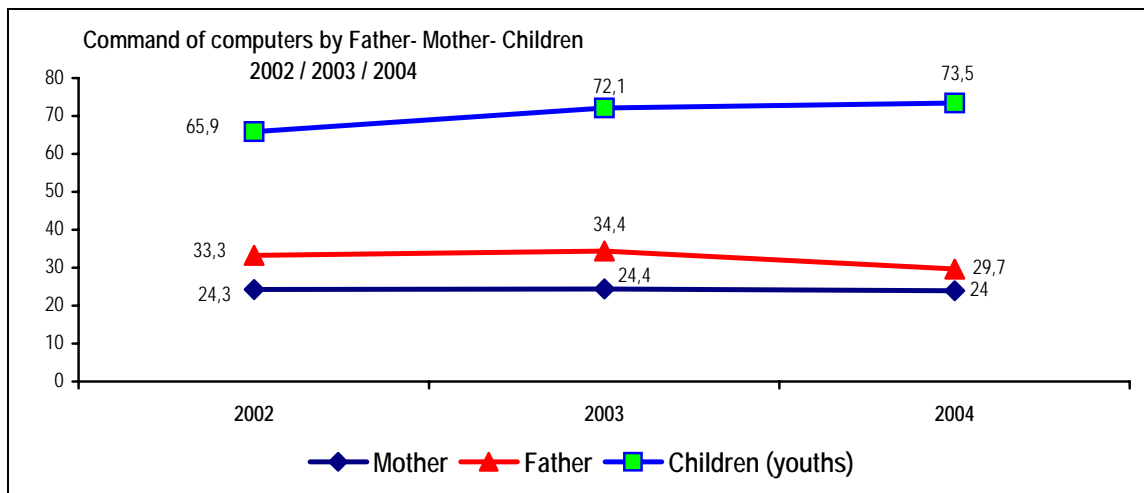


With respect to the access to ICTs, it is obvious that the community has greater access than it did three years ago. On the one hand, the percentage of households with access to a computer increases by 4.5 percentage points between the baseline measurement and the final measurement corresponding to the year 2004. On the other hand, and despite the low percentage of households with Internet access, there is a significant increase of nearly 100% (98.5%) of households with Internet between 2002 and 2004. However, there is a greater demand for computers and Internet connection registered in Chilean households.

Command of ICTs

Computer

The data reflects that during the three measurements those who are able to use a computer only show a significant increase in the case of the family's children which reach an average increase of 6 percentage points between 2002 2003 and of 7.5 between 2002 and 2004. On the other hand, the trend showing that there is a greater percentage of children who are able to use computers with respect to their parents remains the same.



Internet

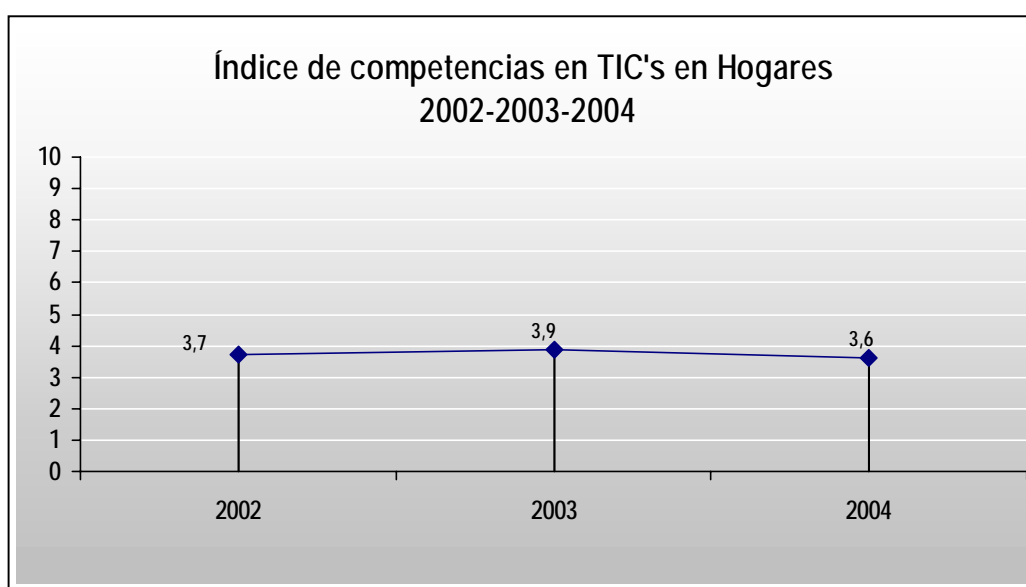
In the case of the ability to use the Internet, there are also slight increases in the case of parents but relevant increases in the case of children. The latter register average increases of nearly 16 percentage points between 2002 and 2003 and of 15 percentage points between 2002 and 2004. In any case, the percentages of Internet command among the different actors continue being lower when compared to those registered in the command of computers.

Index of competencies in ICTs

This index was constructed with the variables linked to the level of command in each of the software programs. The index varies between 0 (in case of no competencies) and 24 when the subject shows the maximum number of competencies). Therefore, the greater a subject's score in the index, the greater the ICT competency level he/she shows as a whole.

The average resulting from the index for the different measurements shows a very low level of competencies in the subjects surveyed. However, an average increase of 3.7 in 2002 to 3.9 in 2003 is registered. . This decrease registers a drop in the 2004 measurement decreasing to 3.6.

Index of ICT Competencies- Household sample



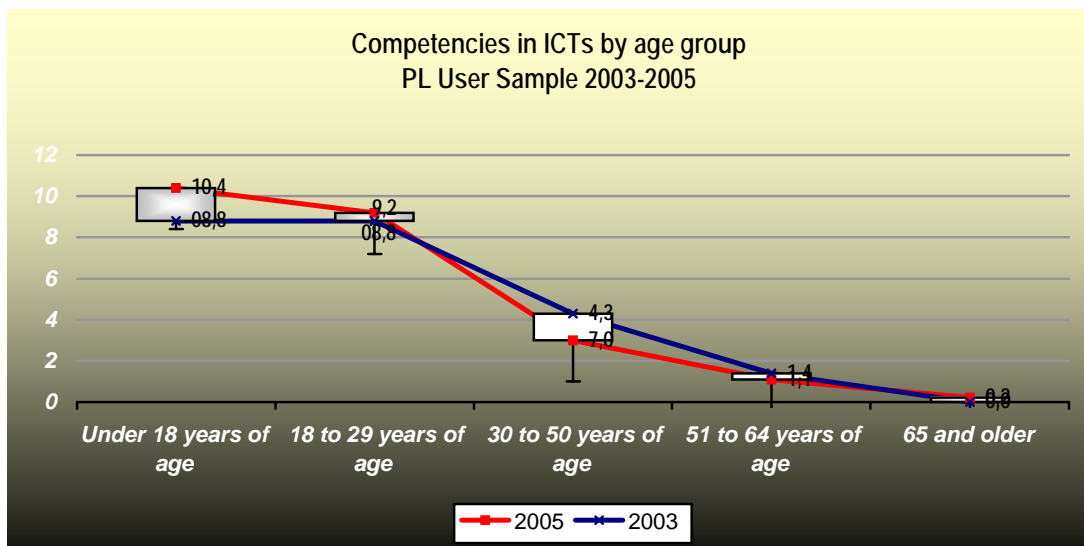
It is important to point out that a decrease in the index does not imply that the subjects have less knowledge of ICTs. It simply indicates that the subjects surveyed are different from one measurement to another. Since the study focus is the households, the subjects surveyed may not be the same. This shows, among other things, that there is a great deal of work to do with respect to empowering and/or increasing the information literacy of many Chileans. An index of less than 4 points on average implies low levels of command among the subjects surveyed in almost 3,000 households, in addition to the great differences shown when comparing across the board the variables of gender, age brackets and roles of the subjects surveyed

According to the gender of the subjects surveyed we observe that in the different measurements, men show a better ICT competence level. The averages registered in the 2004 measurement confirm

that there is a great difference in competencies when comparing men and women, a 5.2 index for men versus a 2.7 index for women. This ratio was also registered in the previous measurements.

AVERAGE ICT COMPETENCE BY GENDER OF THE SUBJECTS SURVEYED HOUSEHOLD SAMPLE 2002-2003-2004			
	2002	2003	2004
Men	5.1	5.0	5.2
Women	2.8	3.5	2.7
Average Index	3.7	3.9	3.6

With respect to the age groups of the subjects surveyed, we observed that in the 2004 measurement there was a great generation difference with respect to ICT competencies. The distances between the different age groups register marked differences and decrease significantly when the age group of the subjects surveyed is raised. In other words, the relationship observed in 2002 and 2003 is maintained, indicating that the older the subject the lower the index score and in turn the lower ICT competence level such subject registers. The subjects under 29 years of age have increased their index significantly since the beginning of the Project, jumping from an index of 7.2 in 2002 to one of 9.2 in 2004. It is the children who show greater progress in the index between the beginning and the end of the Project, which is obviously linked to the age of the subjects.



The divide persists

On analyzing the index of ICT competencies by household income level we observe the enormous divide existing in our society. For all the actors involved, the index increases dramatically as the family income levels increase. Thus, for instance, while youths from families who report incomes of over one million Chilean pesos register an average of nearly 14 points, those from households with income levels below 90 thousand Chilean pesos, do not score above 6 points in the index. The same occurs with the parents. In spite of this, the mothers are the ones who register the lowest indexes regardless of the socioeconomic group they belong to.

Learning Strategy. (Percentages referred to those who report knowing how to use a computer).

Most of the subjects surveyed in this evaluations, who report knowing how to use a computer have learned on their own, without concrete reference to the place in which they learned (29.4% in 2002, 31.8% in 2003 and 28.3 in 2004). Elementary school and high school are the places most subjects cite, ranging from 23% in 2002 to 26.7% in 2004. Next in line, the subjects indicate the workplace as the relevant place in their learning process (15.9% in 2002, 16.1% in 2003 and 13.6 in 2004).

The sustained increase in the percentage of those subjects who report having learned how to use a computer at the PL is very relevant. In fact, *from 0.3% in 2002*, such percentage rose to *5% in 2003* and to *6.4 in 2004*.

Reasons for visiting the Library

With respect to the services most used at the library by the people living in the surrounding areas, the trend combining the more traditional services with the ones related to the access and use of ICTs is maintained since the first measurement. Thus, in the first place and for the three years measured the service used the most is still that of reviewing and/or checking out books. In 2004 the second place is taken by the specialized searches which registered 46.4% while the 3rd and 4th place are taken by the use of computers and logging on to the Internet, which registered 36.4% and 34% respectively. Thus, over 34% of those who visit the Public Library always use a computer or log on to the Internet. This use has increased year to year as shown in the following table.

Table 2

FREQUENCY OF USE OF LIBRARY SERVICES			
	2002	2003	2004
Review and/or check out books	69.8	58.8	67.8
Study	4.6	36.7	31.8
Specialized searches	39.9	29.7	46.4
Log on to the Internet	16.2	26.9	34.0
Use the library computer	23.3	25.0	36.4

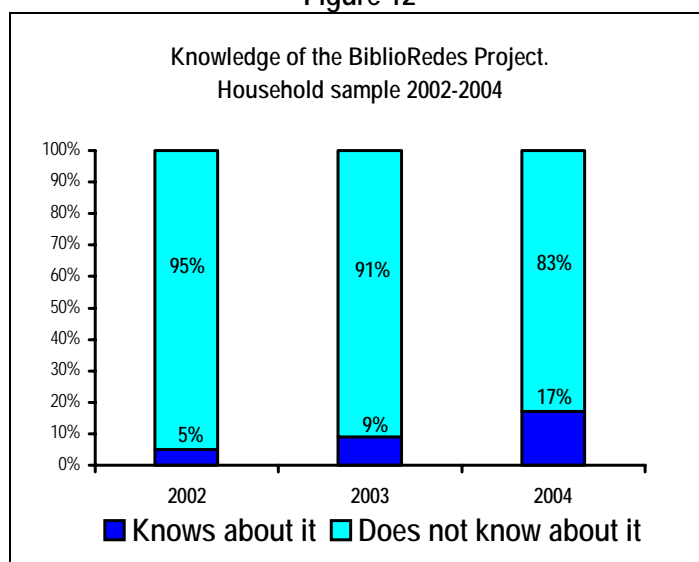
Perception of PL quality

There is a slight increase in the subjects surveyed consider that the library in their communities is the best they know of (8.1% in 2002 and 8.8% in 2004), thus reversing the decrease registered in 2003 (5.9%). The percentage of those who report that their library is among the best in quality stabilizes at nearly 24%.

The analysis indicates a decrease in the percentages of those who consider that their PL is among the worst (12.7% to 9.9% in 2003 and to 6.7% in 2004 respectively). This could be pointing to relevant positive changes in PL management, which have been perceived by PL users.

Information level on the Biblioredes Project

Figure 12



During 2004, there was a significant increase in the percentage of those who report knowing about the implementation of Biblioredes at the Public Libraries. Thus, while in 2002 merely 5% of the subjects surveyed indicated knowing about the project, such figures reached 9% in 2003 and 17% in the last measurement conducted in 2004.

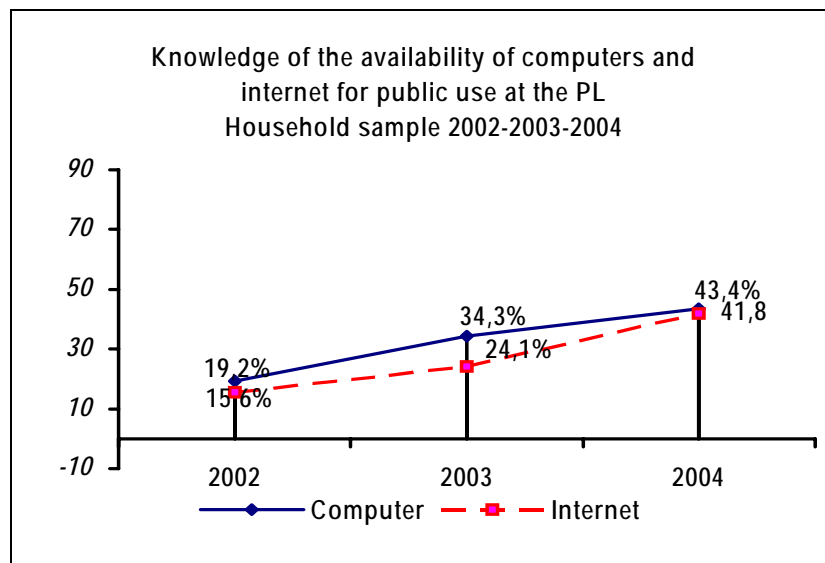
Knowledge of availability of computers and Internet at the PL

The level of knowledge regarding the availability of computers at PLs between the different measurements has increased. Thus, while in 2002, only 19.2% reported knowing of such availability, the percentage rises to 34.3% in 2003 and to 43.4% in 2004. This shows an increase of over 24 percentage points between 2002 and 2004. This clearly shows the dissemination of the Project (regardless of the means used) has increased growingly with the years.

Thus, as the knowledge of the availability of computers at the Public Library increases, so does the percentage of those who know about the availability of Internet as well. This percentage increases from 15.6% in 2002 to 24.1% in 2003, registering a remarkable increase in the last measurement which reached 41.8%. The increase registered is over 26 percentage points between 2002 and 2004.

In brief, we can report that in 2004 the households show greater knowledge of the access to Internet at the library than they did in 2002 and 2003. This information shows the effect of the dissemination activities conducted as part of the Biblioredes Project.

Figure 8



Use of computers at the PL

The increase in knowledge regarding the availability of computers and Internet at the PL, leads to a significant increase in the percentage of those who report using such computers in 2004 *rising from 8.9% to 16.9%*.

The reasons provided by those who despite knowing about the availability of ICTs at the PL in their sector do not use such elements are *lack of time, not knowing how to use them* and considering that it is *not a need* for them. The percentage variations year to year are lower.

Reasons for use of ICTs at the PL (percentages referred to those who report using a computer at the PL)

There are no relevant variations with respect to the motivations cited by the subjects surveyed for using ICTs at the PL in all the measurements (2002-2003-2004). The three main reasons cited are: free surfing, email correspondence and to resolve study problems.

Online Government Services

The analysis indicates that about 16% of users report having visited the Web sites of online public services. Thus, the percentage of those who do not use such services remains high. Between the first measurement (2002) and the last one (2004), no significant differences are registered.

Perception of progress at the PL thanks to the introduction of ICTs (percentages referred to those who report knowing about the existence of computers and Internet access at the PL)

A high percentage of the subjects surveyed consider that there have been positive changes at the PL as a consequence of the incorporation of computers and Internet access. In fact, between 77% and 97% of those surveyed in all the measurements consider that the PLs are more modern, and that the service has improved, that more people visit the PL, and that they perceive a faster delivery of the information. There are no significant changes between measurements.

Table 3

Perception of progress at the PL thanks to the introduction of ICTs. Percentage of those who agree or fully agree			
	2002	2003	2004
It is more modern	96.9%	96.6%	93.2%
The service is better	76.9%	79.7%	71.5%
More people visit it	83.0%	85.3%	85.3%
Faster delivery of information	86.0%	84.3%	77.8%

Internet valuation index

The following index varies between 5 and 25 points and shows the degree of agreement or disagreement shown by the subjects surveyed with respect to the importance of the Internet as a tool that aids and gives people more possibilities in different areas. The index shows that the greater the score the greater the degree of agreement with the advantages and benefits of this tool as perceived by the subjects surveyed.

As a whole, there is a high homogeneity in the results of the index, mainly due to the high degree of agreement of the different subjects surveyed on the statements with respect to the Internet. However, these results are detailed under different variables, in order to prove that there are no major variations than the ones observed at a global level. (21.1 average in 2002, 20.8 in the 2003 measurement and 21.3 in the 2004 measurement).

3. Social Capital

Index of participation in organizations

The index considers the participation of the subjects surveyed in the following organizations: neighborhood committees, PTA associations, sports clubs, professional associations and/or labor unions, cooperatives, political parties, cultural, artistic, or religious groups. Hence, the index varies from 1 to 8 (theoretical index).

According to this index, the participation remains low between the different measurements. In the three measurements over half of the subjects surveyed reported not participating in organizations, in other words, they registered a point average of 0 in the index. The lack of participation was higher in the 2003-2004 measurements contrary to what occurred in 2002. In the last measurement nearly 35% of the subjects surveyed reported participating in some organizations.

Considering the assumption indicating that as the level of ICT competence of the population increased its social capital also increased, we find that this has not occurred, at least with respect to the classical concept of social capital. However, we may be facing the development and strengthening of a new type of indicator of social capital, linked to the integration and participation in new forms of association, such as virtual networks.

Degree of trust in institutions.

In the following table we can observe the degrees of trust that the subjects surveyed show with respect to various institutions. The percentage sums up the options of 'great trust' and 'trust'. The trust placed on PLs is relevant as it is placed in second place next to the family.

Table 4

DEGREE OF TRUST (GREAT TRUST / TRUST) 2002/2003/2004			
	2002	2003	2004
The police	62.8	59.5	69.8
The church	63.8	55.1	70.0
Neighborhood committees	36.6	29.6	42.4
Elementary school and high school	82.0	66.7	78.6
The family	96.5	89.6	95.9
The supreme court of justice	29.5	29.5	42.2
State / Government	35.4	35.7	54.9
Political parties	9.4	14.7	21.1
The armed forces	38	37.0	53.3
The public library	-	80.5	86.4

III. THE PERCEPTION OF THE PEOPLE IN CHARGE OF THE PROJECT AT THE LIBRARIES

It is interesting to highlight that 77% of those in charge of the Biblioredes Project in 2004 and 70% in 2005, are in turn the people in charge of the Public Library. This is an important factor to bear in mind when analyzing the dynamics of insertion of the Biblioredes project at the libraries, as well as the potential difficulties of such process.

In the measurement of 2004, 75% of the people in charge of the Project at the 105 Public Libraries of the sample were women, while merely 25% were men. In 2005 its ratio is maintained at a similar level although the percentage of women increases to 77%. The average age of these people varies between 38 and 41 years of age according to the data gathered in the 2004 and 2005 measurements, respectively. Most of them receive an income for their work which fluctuates between 100 thousand and 200 thousand Chilean pesos, only one out of every three people in charge of the project earns over 200 thousand Chilean pesos.

Degree of Satisfaction with the different areas of work related to the Project

The people in charge of the Biblioredes Project, report being highly satisfied with the different areas their coordination work covers and involves. If we consider the 'satisfied' and 'very satisfied' levels of the 2004 measurement, only the establishment of partnerships with other institutions and organizations shows a low percentage 70% (67.4), whereas the rest of the areas consulted show percentages above 78%. In the 2005 measurement, the results are very similar, generating partnerships with other organizations shows the lowest level of satisfaction among the people in charge of the project since only 61.2% of them reports a lot of satisfaction or satisfaction. . In the rest of the areas there is great job satisfaction among the people in charge of the project. The work related to ICTs is the one that generates the greater level of satisfaction among these people, given that satisfaction levels of 89.8% (offer support to users with on line procedures and paperwork) and 92% (manage the use of computers and the access to Internet) are registered.

Satisfaction with the number of computers available

In the measurement conducted in 2004 we found that 63.7% of the people in charge of the Project at the PL disagreed or fully disagreed with considering the current number of computers at the PLs as appropriate. In the 2005 measurement the percentage of the people in charge of the project who considered the number of computers inappropriate reached 67.4%. On analyzing this perception, in 2005 according to the size of the PLs, differences in the degree of dissatisfaction with the number of computers available at the PLs were observed. 70.4% of the people in charge of the Project in large PLs, reports fully disagreeing or disagreeing with the number of computers at the PL, this percentage increases to 72.7% in small-sized PLs and drops to 62.5% in medium-sized PLs. In case of the location or context in which the PLs are located, the degrees of satisfaction differ even more, given that 67.6% of the people in charge of urban PLs urban fully disagree or disagree with the number of computers in contrast with 83.3% of those in rural PLs report not being satisfied with the number of computers at the PL.

Coverage and type of Users

Both users and the people in charge of the Biblioredes project agree that the number of people who come to the PL has increased. They also observe changes in the type of user with respect to the ones that used to come before the implementation of the Biblioredes Project. Thus, 98.3% of the people in charge of Project and 77.1% of users report an increase in the number of people that currently come to the PLs.

With respect to the age of users, there is a perception indicating that the affluence of people of all ages has increased, except for those 65 and older. In fact, in the opinion of the people in charge of the Project, there has been an increase in the public of all ages, both men and women, who come to the PL, with the exception of elderly citizens whom nearly 35% of the people in charge of the project indicates that this type of user has increased after the implementation of ICTs and the Biblioredes project. A little over half of the people in charge of the project surveyed consider that this type of user has remained in previous patterns. 5% of them even believe that currently the attendance of elderly citizens to the PL has decreased. In the opinion of the people in charge of the project the affluence of women has increased more than that of men.

Valuation and Satisfaction with the Biblioredes Project

The installation of ICTs at the PL has been perceived and assimilated positively both by the people in charge of the project as well as by users. This proves that most users report being satisfied with the current services offered by the PL. The following figure shows the distribution of these percentages. There has been an increase of almost 5 percentage points in the users who are very satisfied or satisfied with the services delivered by the PL. It may be observed that nearly 9 out of every 10 users is satisfied with the implementation of the Project.

6. The training strategy

Coverage

Training activities take up an important amount of the work time of the people in charge of the Biblioredes project and this has had a significant positive impact on the diversity of public served. In this sense, the articulation of existing social networks in public agencies or organizations has been important, as well as the management of the community itself, promoting the realization of training workshops. In a frame work of a very positive evaluation of this experience some libraries report having doubts of the impact of this initiative in the case of a population with certain territorial isolation. These concerns specifically lie in the objective difficulty that people have to continue practicing the basic skills they learn during the training sessions and the ensuing loss of the knowledge acquired as time goes by. .

- ✓ 32% of users have received ICT training from Biblioredes.
- ✓ 58% of the users trained are women and 42% are men

- ✓ A percentage below 5% of users in 2005, did not know how to use computers. Over half the users (53.4%) who do not know how to use a computer are under 29 years of age and are largely women (58.3%).

Enrollment modality

The enrollment of users in the training courses is mainly conducted personally and directly at the library, as reported by 92% of the people in charge of the Project. However, it is interesting to note that 32% of the people in charge of the project report going to various institutions in search of potential users whom they enroll in such places

Mechanisms used in the information and dissemination of courses

The main means used to inform about and disseminate the ICT training courses are the traditional means used to inform users about different activities of the PL. In this respect, the people in charge of the Project acknowledge resorting to a wide variety of such strategies, among which they highlight the use of posters and advertisements as reported by 82% of the people in charge of the project. Next in importance is the use of local radio stations, the Network of Volunteers and the dissemination carried out in social organizations with 65%, 53% and 50%, respectively. Oddly enough, the least used mechanisms are the PL websites (only 6% of the people in charge of the project report using them for such a purpose).

In turn 72.5% of users reports having as a source of information about the training, the libraries themselves (on their visits to the PL); 21.5% also reports having found out about the courses through posters and advertisements and 16.9% report having done so via the local media (newspapers, radio stations, etc.)

Course times

In this year's measurement, and according to the people in charge of the Project, the training courses are preferentially taught in the morning (54.5%) and in second place in the afternoon (27.3%). Only 18.2% reports schedules that adapt to people who have activities that do not allow them to attend morning or afternoon courses. (until 6 PM).

The criteria employed when establishing the training schedule, are the use of surveys conducted via a diagnosis (48.8%), based on the direct proposals of the users themselves (25.0%) and on the experience of the librarians themselves (13.1%).

In spite of this, 42.9% of the people in charge of the project report having received requests to change the training schedules from several users. It would be advisable to re-evaluate the possibility of having each PL offer at least one course in morning, afternoon and evening hours.

With respect to the time considered in the training sessions, 83.7% of the people in charge of the project indicate having had no problems since they have enough time to deliver the contents considered in the courses.

Use of Mobile Lab

In 2005, nearly three fourths of the people in charge of the project (75%) had never used the mobile lab to conduct training. Among those who have, most of them have used such labs only once. A minimum of 4.3% have used them twice and three times respectively.

In the 2005 measurement, there were mobile labs available in all regions, due to which the reasons for not using them are directly linked to the need of using them rather than with their availability. . Only in a few cases has there been a reference to the refusal to lend them, either because they were being used, or due to problems with the librarians, or simply because their use was denied. .

Most frequently requested courses

Librarians believe that the most frequently requested courses are for the use of Excel (16.9% as reported by librarians). The next in line are Power Point and Internet. It is interesting to analyze this demand in relation to the offer made by the project. There is certain coherence between the most frequently requested courses and the most common ones that comprise module 1 of the training courses (basic computing, Word, Internet, e-mail). In this respect, there is an obvious need to include a section on Excel in module 1, to cover the demand expressed by part of the users.

IV. CHANGES IN PL MANAGEMENT

The organization and dynamics of the ICT training offered to users seems to play a key role in the understanding the development and effects and of the Biblioredes Project and incidence on the daily practices of PLs. The changes that the introduction of ICTs entails, necessarily imply modifications and adaptations on behalf of the people who run the libraries.

Modality used for the reservation of computers.

83.7% of the people in charge of PLs report that the modality used for this purpose is that of a waiting list. Users are contrarily divided in their opinions regarding the waiting list and the first-come-first served system. Then we can conclude that the modality used according to regulations is the first one and the second one is the one actually used and socially accepted as valid. .

Waiting time to use computers and the Internet on PL visits

In general, users report that the waiting time to use computers is not too long, given that over half the users surveyed (56%) wait between 1 to 15 minutes maximum to use the PL computers. 1 out of every 4 users surveyed reports having to wait over 15 minutes but less than half an hour. It is worth highlighting that the users who must wait the longest are those of urban PLs compared to those of rural PLs. the same holds true for centrally-located PLs with respect to those located in the outskirts and in the large-sized and medium-sized ones compared to the small-sized libraries. This implies that the waiting time has more to do with the number of users than with the number of computers, given that the PLs which register longer waiting times are precisely those PLs with a greater number of computers. In other words, it is more related to an excessive demand than to a scarce offer. .

Operation of the Computers available at the PLs

The opinions that the people in charge of the Project have with respect to the operation of the computers available is divided. Thus, while 42.7% of them reports that the computers do not work totally well, 47.1% reports the opposite.

On analyzing these perceptions according to the geographical context of the PLs, we observe great differences. For 41.1% of the subjects surveyed in the urban area the computers do not work as well as they should, while in the rural context, this percentage increases to 78.6%. This indicates that the computers of rural libraries work worse than those of urban sectors. There are also differences according to the size of the PLs. In the small and medium-sized ones the percentage of subjects surveyed who agree and fully agree that the computers do not work as well as they should is greater than that of large PLs.

Summary

We may conclude that the Biblioredes Project has enabled more people from vulnerable sectors of the country to have access to and use ICTs. This was possible thanks to the free computer and Internet access provided in all the PLs and the appropriate and free-of-charge training strategy delivered to the users of these public spaces so that they could use the ICTs appropriately. The high valuation of the availability of these technologies, their greater frequency of use, as well as the increase in the indexes showing the ICT competence levels of users who have been trained by Biblioredes, allows us to conclude that the project's main objectives have been met successfully after three years of implementation. This is evidenced in the greater connection observed in local communities with regard to the rest of the country and the world, via a means that was unknown to many of them, thus contributing to the decrease in the digital divide that exists in our country.

This is reflected and confirmed by the indexes very significantly. **The percentage of users who use computers on their visits to the PL has increased by 65%** compared to the beginning of Biblioredes (46% in 2003 and 76% in 2005). On the other hand, it is relevant to observe that the users of rural Public Libraries are the ones who use computers the most, compared to urban users. This is added to the fact that the users of these libraries are mainly people who belong to the poorest quintiles of the country, which proves that the Project – through its appropriate focalization- is effectively reaching the most excluded sectors of our society.

The number of users who is now technologically literate thanks to the basic training provided by the people in charge of the Project at each of the libraries has increased with every year of implementation. Thus the project is completed in 2005 having trained nearly 32% of the total number of PL users. In other words, 3 out of every 10 users have become ICT literate within the framework of the Biblioredes Project. Besides, the articulation and activation of existing local social networks (public ones, as well as those of the community itself) have played a very important role in the promotion and execution of the training workshops. The evaluation shows a growing autonomy on behalf of users, particularly students and young people in general, as an effect of the proper ICT training and support provided at the libraries by the librarians themselves.

Users of Public Libraries have improved notoriously their ICT competence levels. The analysis shows an important increase in the ICT competence index of such users. Thus, this index went from an average of 7.1 in 2003 to 9.4 in 2005. In turn the percentage of users who have no ICT competence (index equal to 0) has decreased (from 34.8% in 2003 to 14.8% in 2005..

Although men continue showing greater ICT competence than women, the latter have improved their index as a result of the training provided by Biblioredes. Women go from an average index of 6.5 in 2003 to one of 8.8 in 2005 (a 2.3-point increase), while men increase from an average index of 7.8 in 2003 to 10.1 in 2005 (a 2.3 –point increase).

Likewise, there is a direct connection between the ages of users and the ICT competence level: the older the user, the lower ICT competence index he/she shows. . Between the beginning and the end of the Project there has been an increase of nearly 2 points in the levels of ICT competence in all age groups. However, the greatest progress (an average of over 3 points in the index) is observed in users who are over 30 years of age, while the greatest difference (4.1 points) is registered by users between 51 and 64 years of age. This undoubtedly ratifies the great contribution that the decrease in the digital divide, by means of the implementation of Biblioredes has made. .

Finally, a very interesting point worth highlighting is related to the total integration of the new technologies to the offer of services that the libraries place at the disposal of local communities. This is reflected in the fact that among the principal reasons cited by users for visiting the library, we find the more traditional services (revise, read and borrow written texts) as well as the use of computer and the connection to the Internet. This has undoubtedly had a repercussion in the sustained increase in the number of users who have become PL members between the beginning and end of Biblioredes, who have increased from 36.6% in 2003 to 43.8% in 2005.