

INSTITUTO DE COMPUTAÇÃO
UNIVERSIDADE ESTADUAL DE CAMPINAS

**Launching Vila na Rede:
First Results of e-Cidadania Project**

Elaine C. S. Hayashi
Heiko Hornung
M. Cecília C. Baranauskas

Technical Report - IC-09-14 - Relatório Técnico

April - 2009 - Abril

The contents of this report are the sole responsibility of the authors.
O conteúdo do presente relatório é de única responsabilidade dos autores.

Launching *Vila na Rede*: First Results of e-Cidadania Project

Elaine C. S. Hayashi, Heiko Hornung, Maria Cecília Calani Baranauskas

Institute of Computing, University of Campinas, 13081-970 Campinas, SP
elaine.hayashi@gmail.com, heix@gmx.com, cecilia@ic.unicamp.br

Abstract

Vila na Rede is an Inclusive Social Network built for and with Brazilian citizens. It was conceived after the research and analysis that took place throughout the first three Semio-Participatory Workshops conducted at Vila União, a neighborhood of low income families located in Campinas, SP. These workshops, as well as the *Vila na Rede* itself, are part of the e-Cidadania Project, which aims to study and propose solutions to the challenges of interaction and user interface design on systems related to the exercise of citizenship, contributing to the promotion of a digital culture. This Technical Report describes the activities from e-Cidadania's 4th Workshop, since its preparation until the examination of the collected results. The 4th Workshop had as main objective the launch of *Vila na Rede* system.

1. Introduction

The development of a system projected for a population of the size and diversity as the Brazilian's, requires a broader vision, considering the socio-technical aspect of the challenge. In this sense, a research approach was proposed by Baranauskas et al in [1] and other results of similar applications were shown at [2]. Following the same direction, we have been conducting Semio-Participatory Workshops: activities where the artifacts of Organizational Semiotics (OS [3,4,5]) are used, combined with techniques from Participatory Design (PD) [6,7]. This combination provides an approach in which researchers are able to deeply involve and understand users - who participate in the whole system development process -, and in addition, it helps us to keep in mind all the related issues which are not restricted to only technological matters.

The Inclusive Social Network *Vila na Rede* was the concrete result of a sequence of three Semio-Participatory Workshops that reunited end users, community leaders, researchers and developers in order to assemble the information needed to constitute this initial version of the system. These workshops are part of e-Cidadania, a research project supported by *Microsoft Research – FAPESP Institute for IT Research* (FAPESP / MS # 2007/54564-1).

The first Workshop's purpose was to make it clear to all participants what the theme was - by clarifying, among other things, the concept of Inclusive Social Network - and who all the involved or interested parties were. These definitions were constructed collectively with the aid of artifacts from the Organizational Semiotics, working in both directions on the Semiotic

Framework: from the social world towards the technological world, and from the technological world towards the social world [8].

The second activity was prepared in order to provide researchers with a deeper knowledge about the intrinsic of a real social network: how the relations, communication and sharing take place, how participants organize themselves and how norms are established and maintained in these networks. A technique adapted from a Participatory Practice [6,7] was applied and the activities, analysis and findings are presented in [9].

Following the sequence, the next step was to elicit some design elements that could be used to give the system its first shapes. To this end, the *BrainWriting* and *BrainDrawing* techniques [6,10] from Participatory Practices were used. These activities generated many ideas in a democratic way, allowing all participants to contribute equally [11]. Once we had defined the concept of Inclusive Social Network, understood its work and collected design ideas, we were ready to have the first version of the system.

The launch of *Vila na Rede* took place on the 4th Semio-Participatory Workshop. The goal was to present the system to the community members and end users, letting them get acquainted with its features in a direct contact. We present this experience in this Technical Report, which is organized as follows: Section 2 describes the functionalities of *Vila na Rede* as of the day of the launching; Section 3 delineates the activities that composed the 4th e-Cidadania's Workshop; Section 4 presents the results from the activities; Section 5 discusses the findings; and Section 6 concludes.

2. Vila na Rede

In the first workshop, a chart with the stakeholders was collectively constructed. Also we obtained concepts for Inclusive Social Networks, which became an Ontology Chart (OC). From the second workshop we were able to extract information on communities' social dynamics, including some of its norms and needs. Out of these materials, researchers were able to identify system requirements that were translated into User Cases and Mock ups of the system, which served as the basis for developers to start the creation of the system.

In order to choose a name for it, a virtual pool was created and made available at the projects' site. Participants voted for the name they preferred. *Vila na Rede* (something like "neighborhood in the network") was elected with 33.33% of the votes. Among other possible names were Gente Ligada (connected people), e-Cidadania (the name of the Project) and others. The options for names for this pool were collected during a past workshop. Figure 1 shows a print screen of the pool displayed at e-Cidadania's web site.

Once we had the name of the system, a graphical representation was needed in order to compose the visual identity of the site. With the help of a graphic designer, *Vila na Rede's* logo was created (Figure 2). The letter V - initial letter of *Vila na Rede* - together with the circle inside of it should represent a person and the cyclic formation of the letters should give the idea of people and their interaction in a net. The choice of the colors for the logo also had a meaning, as reported by the designer:

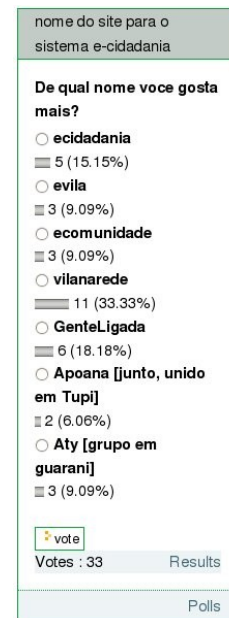


Figure 1 - Pool for choosing the name of the system



Figure 2 - Vila na Rede's Logo

Orange - color that suggests the search for something new and curious. It is ideal for those who need to create and also for those who want to get rid of fears from criticism in order to go ahead. It is the color of liberty, concentration and independence.

Black – the color for mystery. It keeps the intentions in the anonymity. It instigates the curiosity and at the same time, it helps to go unnoticed.

White - Vibrant and stimulating for being the union of all of the other colors.

The proposal of the entire site is to be simple, flexible, inclusive and accessible for all; though this first version was not intended to contain all the elements and functionalities thought for the complete system. Below we describe *Vila na Rede's* features that were implemented in the first version.

For the registration process, a mechanism was offered so that no e-mail would be needed to create the user *id* and that would be accessible for everyone. For that, the users have the option to choose between standard written password and a pictorial password, which is composed by a

sequence of three images that the user elects out of a bigger set of images. This kind of system is supposed to help people with low literacy and it also has a mnemonic appeal. Figure 3 illustrates this step of choosing pictures for the password. When we collected the images to compose this section of the system, we searched for public domain images that were under no specific licenses. For this search we divided the pictures basically into five categories: fruits, landmarks, professions, animals and objects. Preferably, we looked for simple images without many details around so that it would be easy to recognize and memorize. We used sites like Wiki Commons¹ and Creative Commons² to start our searches. Images were also used to compose the next step of creating an id: the reminder questions. The system will randomly choose two personal questions, like "What is your favorite fruit?", and the user has to choose an answer among the images. These questions are intended to be used when the user forgets his/her password.

Cadastrar

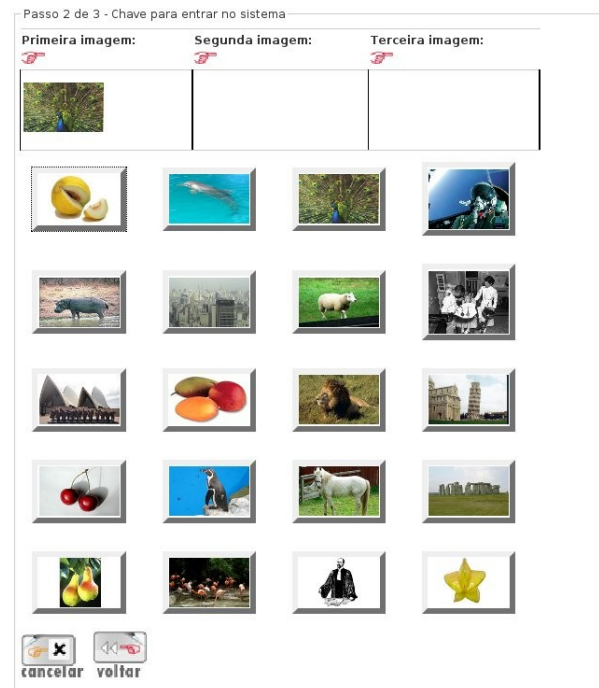


Figure 3 - Password with pictures

¹ <http://commons.wikimedia.org>

² <http://www.creativecommons.org.br>

In the first version of *Vila na Rede*, users were also able to publish and browse advertisements of products/services, events and ideas. In all of them, they counted with multimedia resources to aid in the advertisements: one could take a picture using the webcam and have that picture on the ad; make short movies to show their goods or to say something using LIBRAS (Brazilian Sign Language); and upload files with images or videos. All ads can be commented and the person who creates an ad can choose if s/he wants his ad to be seen only by members of *Vila na Rede* or if anyone can see it. Only registered members can put an ad on the system.

As Figure 5 illustrates, the column on the left has the logo right on the top and, underneath, the Enter and Registration buttons. On the bottom of the left column one can find who is online. This counter specifies how many are registered users and how many are visitors. The right side column is the support area. On the top, you can find font size controls to adjust the zoom in the page. In this same column, a place has been reserved for an area of interaction. Here the users will count with a tool to help them use the elements of the pages. This feature will be available in future versions. Right below this area there is the Contact. Here users can communicate with the administrators of the site, to send suggestions, questions or critics. Still on the right column, there is the pool mechanism, similar to the one used before to vote for the name of the system. All these interaction elements are illustrated in Figure 5.

From other encounters with the target users, we noticed that a simple task like scrolling up and down a page could be hard for some of them. In order to provide some aid toward this goal, we furnished the pages with an additional tool: arrows pointing to the direction to which the page can be scrolled. A different color of the arrow indicates when it is possible to scroll. Figure 4 illustrates this element.

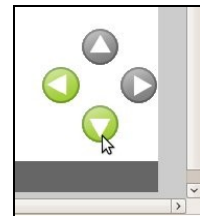


Figure 4 - Scroll arrows

The process model under which all the development and articulations around *Vila na Rede* is taking place is the AIPM (Agile Inclusive Process Model), described in [12]. The architecture of *Vila na Rede* followed the propositions that were detailed in [13,14].



Figure 5 - The home page of Vila na Rede

3. e-Cidadania's 4th Semio-Participatory Workshop

The Workshop lasted about four hours and had basically four moments: the opening, the exploration of the system, discussion and closing. Everything was prepared beforehand and the research group arrived earlier to make sure that all equipment would be working properly (Fig. 6). The activities had been discussed in meetings that occurred throughout the weeks that preceded the event. In addition, throughout the four moments of the workshop, participants were invited to answer a survey intended to collect data to help researchers in the characterization of the group.

At the opening of the workshop, participants were arranged in a semi-circle around a room, with one of the walls reserved for projections. The coordinator welcomed everyone and announced the *Vila na Rede*, an Inclusive Social Network system that resulted from other workshops where the same participants had contributed before. In order to make it clear to everyone the place of this activity inside the entire project, a short video was presented. This video had about 5 minutes of duration and summed up project e-Cidadania's effort in the past year, including the three previous workshops and how they led to the development of *Vila na Rede*.



Figure 6 - Researchers preparing the computers for the workshop

In the next moment of the workshop, participants were divided into three groups and they went to a lab where three laptops were already set for them to use and meet *Vila na Rede*. All three laptops were equipped with sound, microphone and webcam. Additionally, software was installed in order to record the screen activity, showing what the users were doing. The groups accessed *Vila na Rede* directly from the Internet and no prototype or simulation was in place. First, they had some free time to explore *Vila na Rede* and all its screens and functionalities. Latter, they had a task - which had been explained in the opening -, that was to create and publish an ad at *Vila na Rede*. Each

participant took turns in the use of the laptops to create their profiles and put their ads on the system.

In a third moment, participants went back to the common room for a discussion about their experiences in exploring the system. The projector exhibited *Vila na Rede* and the ads that had just been created. A quick explanation on the design elements present on the system was made. One of the features in the home page is a display that exhibits some images uploaded by the users (located on the top center of the page). There, some of the participants were able to see themselves as they had their own picture published in order to advertise their services. Together they reviewed some ads and comments that were made at *Vila na Rede* during the workshop. Some were amazed to realize how the system made possible the immediate interaction among the users of the system, noting that even one researcher - who was in a trip to London, was connected and participating with her comments on their ads.

To close the activities of the day, a questionnaire was distributed to each participant and they were given some minutes to answer it individually. It had questions related to their opinions on the workshops in general. A complete account on the questions and answers are found in Section 4.3. Participants received a calendar with the days for the next Workshops and a card

with the web address of *Vila na Rede*. The surprise that had been previously announced at *Vila na Rede* (at ads about events) was a gift from the researchers to the participants: a T-shirt from *Vila na Rede* (Fig. 7). The day ended with everyone enjoying the coffee prepared by one of the participants - a catering service which had also been advertised at *Vila na Rede*.



Figure 7 - One of the participants holding Vila na Rede's T-shirt

4. Results

From the activities described in the section above, we were able to collect data about the group of participants, the elements of the system and the relation between both. In this section we present and discuss some of the relevant results found.

4.1 Exploring the system

In their first contact with the system, users browsed around the ads that had been previously put by researchers (all ads were advertisements of real products). For this exploration, participants were divided into three groups. All groups had access to webcam, microphone and sound speakers. Some participants were informed in advance that they could bring their products to the workshop, and so they had the possibility to take pictures or make movies to announce their goods.

Most of the users demonstrated to have difficulties in the use of the mouse and the laptop's keyboard. For those, the touchpad seemed to be easier to control. Interesting to note that the participants that were not familiar with the computer and internet (as reported in the survey) were exactly the ones to make most use of multimedia resources (video and images), and they did not have a physical product to display. The hairdresser and the housekeeper took their pictures to use in their ads and the person who had an idea to announce, did it by recording herself talking to the camera. The other video was made by a handcrafts woman who displayed her work in front of the camera. All comments made in the system regarding the ads were initiated by the researchers. A total of 10 ads were created between December 15 (the day of the workshop) and December 20. Table 1 shows some data collected from the system showing the use of *Vila na Rede*






Figure 8 - Users exploring the system

during that period.

Before publishing their ads, users had to create their accounts. One of them created her account on behalf of the entire group (a cooperative that creates and commercializes art products). As described in section 2, users had the option to have their passwords as images or text. Nine out of the sixteen *ids* created during the workshop had images as their passwords.

Table 1 - First ads on the system

Type	Add	Media used	Comments received
	Computer basic course	text only	2 comments (1 in duplicity)
	Selection of teachers and monitors	text only (Dec. 20th)	0 comments
	Salgadinhos para festas (kind of catering service of snacks for parties)	text and 1 image	1 comment
	CIDA CABELOS (Cida hairdresser)	text and 1 image	2 comments
	Embroidery, Cross-stitch, Lace and others	text and video	0 comments
	Eco-friendly shopping bags	text and 2 images	2 comments
	GOMES FAXINA (housekeeping)	text and 1 image	0 comments
	Pão de queijo and other snacks	text and 2 images	2 comments
	CURSINHO PREPARATÓRIO PARA VESTIBULARES (preparatory course for Brazilian's college admission test)	only text (Dec. 20th)	0 comments
	Centro de Educação Ambiental (Center for Environmental Education)	text (phone number) and 1 video	0 comments

4.2 Interviews

By following a pre-elaborated form, three researchers conducted a survey among participants during different times of the activities. The main objective of this survey was to delineate the characteristics of participants. Some researchers benefited from the opportunity to add questions concerning specific subjects related to their focus of work (e.g. TV, communication

and SMS) besides other questions aiming at revealing some socio-economical aspects of the group. All interviews were recorded on MP3 devices and notes were taken by the interviewers in paper forms. Figure 9 illustrates this activity.



Figure 9 - Researcher and participant during an interview

From the 27 people on the Workshop, 11 were interviewed. This survey was intended only to the representatives of the end user community, and not the researchers (which summed 14 participants - either researchers from project e-Cidadania or invited observers). Other two people from the community were not interviewed this time due to lack of time (it is expected that they will be answering this same interview in a near future).

The numbers resulted from these queries are not expected to reveal the opinion of the average Brazilian citizen. We are aware of the fact that not every part of the population was represented in this group. The intention here was to know who the people that compose this group are and to have an idea on how they relate to technology. As for the Workshops' results in general, we believe that, even though the group of participants represent only part of the population, the society in general is well represented since we had many community leaders who were able to express on their behalf.

The complete set of questions can be found at the end of this report, in appendix 1. It had three sections, covering personal information, relation to ICT and electronic devices, and Social Networks.

Personal Data. From the eleven participants, three were born in Campinas. Others came from diverse regions of the country, namely south, southeast, north and northeast regions - none from the central area. Their family size ranged from 2 up to 8 people living in the same house. Table 2 and Figure 10 show respectively the age of the participants and the group's schooling levels.

Table 2 - Age of participants

Age range	# of representatives
Above 60 y.o.	1
50-60	6
40-50	2
30-40	0
20-30	2
15 -20	0
Below 15 y.o.	0

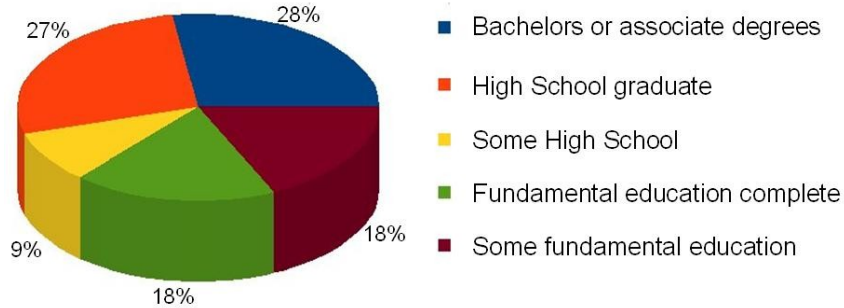


Figure 10 -- Schooling level

ICT and other electronic devices. 100% of the interviewees have at least one TV set at home, which is kept either in the living room or in the bedroom. Three out of eleven said they do not use the TV remote control, either because it is broken, prefer to move and use the buttons on the TV set, or because they simply never change the channel. Five out of eleven assumed the fact that they do not know what the use of all the buttons on the remote control are for. All of them usually have more than one remote control (usually from the TV and DVD). These information provided researchers with a better understanding on how people use the TV and the environment in which they do it, giving some clues on the use of the most popular device in their homes.

The use of ATM machines was also inquired. Two out of eleven never use ATMs and other three prefer not to use them, but sometimes they have to. Usually they are concerned about an eventual loss of money due to misuse. One person reported that some ATM's are easier to use than others, depending on the bank.

Only one person does not own a cell phone and only because she does not like telephones in general: she prefers to walk to other people's house to talk to them. All others use the cell phone daily and six of them use SMS (cf. Figure 11). One of the SMS users said SMS is simple and useful because you can send your message without interrupting or bothering the recipient or the sender's surrounding activities, i.e. during a meeting. None of them uses the internet on the cell phone.

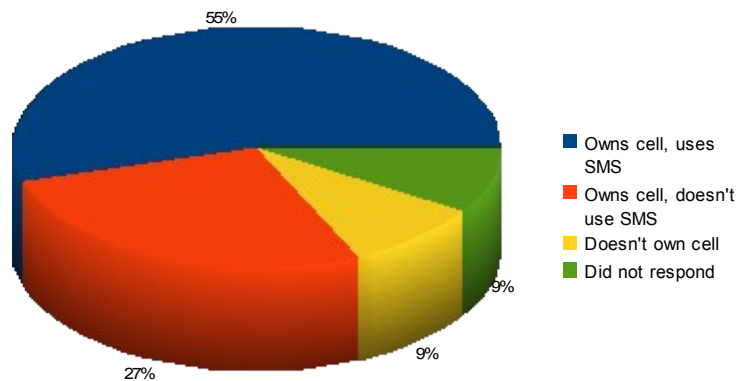


Figure 11 -- Cell phones and SMS

Two out of eleven do not own nor use the computer (cf. Figure 11). Other two do have a computer at home, but do not use it. Those who do have a computer at home also have access to the internet, being three of them dial up access.

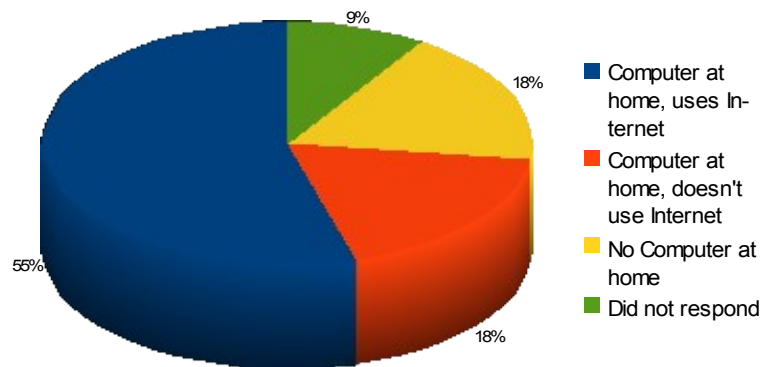


Figure 12 -- Computer and Internet at home

Social networks. The two youngest members (22 years old each) are those who know and are part of more than one online social network. Four interviewees said they have already heard of Orkut but they are not in its network. One person said she knows Orkut but she does not want to be part of it due to privacy reasons. Two participants are members of Orkut but they find it difficult to use. One person recognized herself as a member of offline social networks, as cooperatives and neighborhood.

Even though there are many online and offline social networks, Orkut seems to be a synonym for social network for most of them. While some people enjoy Orkut because of the possibility it gives them to browse around their friends pictures and profiles, others do not like Orkut exactly because of the same reason, as they find that too "invasive".

Besides the numbers and knowledge that this survey provides us, it also brought closer together researcher and end users, as the conversation during the interviews led them to know more about each other's life, preferences and concerns. In a future opportunity, these same questions will be directed to those who missed this Workshop and are part of the group.

4.3 Questionnaire

As described in section 3, at the end of the Workshop participants answered a written questionnaire. The aim of these questions was to understand participants' opinion about the activities e-Cidadania performed throughout the year. The questionnaire was one page long, with six opened questions, written in a simple way, in Portuguese. The papers with the questions were distributed to the participants, who answered them individually. This questionnaire, on the contrary of the survey, was intended to get more qualitative responses from the participants. While in the survey they talked directly to the interviewer and provided us with numbers, here they were able to express their opinions and feelings anonymously.

All questions and answers were translated and listed in the table below. Some sentences needed to be restructured in order to make sense in English. Others were not very clear even in the original language; in those cases, a word-by-word translation was used.

Table 3 - Questions and answers

Question 1. What do you think about Project e-Cidadania?
[It is] an alternative for social inclusion by the use of information technology. No doubt, it is a great idea that should be followed by the local community.
It has been great because I learned many things about technology; it was great for the neighborhood.
It is a project that has the potential to mobilize the deprived community.
[no answer]
Very good and I hope this project won't stop here.
I think this project is very interesting. Before, I had no interest, but it made me curious and it has motivated me to learn.
It is very good. It motivates. I had the opportunity of learning a lot more, and I meet more people.
It is a very good idea, with a well-defined objective. Great opportunity for digital inclusion.
This project is marvelous because after it I started to have a new vision about network and how to deal with the computer.
I think it is very cool. The most important of all is that in this project we were able to participate directly in the activities. That made me very happy.
I thought it was interesting because I had never participated in one of them before.
I liked a lot because I had no idea how it was like to participate in the creation of a project.
Functional, broad, really very good!

Question 2. What do you think about the group that participated with you in the workshops?
Great interpersonal relationship, communicative and with big interest in growing with quality in the project.
I liked a lot; they helped me to develop the ideas about how to deal with the computer. The people were great with me.
Participative, creative and intelligent people. We work well together.
[no answer]
I thought it was very participative.
I think it was a great project.
I loved my group. They are very hospitable and they have shown interest in me and in my work.
Group with real needs and with great expectations about the project.
The groups helped me a lot.
They are all very nice people, they became friends.
I liked a lot, they all participated and they gave their opinions.
The connection between participants was great.
Great people.

Question 3. What do you think about the activities of the workshops?
Fundamental to know the particularities of each individual that takes part of the community, therefore, obtaining data to develop a product that is of everyone's interest.
They were great because they helped me to advertise my work.
The activity with the scenarios was not very clear to me. There were many different ways of covering each scenario, depending on the way you start.
[no answer]
That's what we needed to our society, very instructive.

Very good because I had never participated in such a thing so I can't compare to anything, but what I've learned was great.
They are good, very good, I was able to understand everything, I saw the results.
They are well planned, intended to motivate the use of the system.
Very creative.
Very interesting.
Funny, active and well participated.
I thought it was great. I left each activity with more knowledge.
Practical, objective.

Question 4. How was your contribution in the activities?

Each people involved in the workshop has their own daily activities, which may or may not be done with the aid of information technology. As for myself, I work with these tools, so I have the view of someone who uses them.
I helped with my ideas for the drawing activity.
I think I helped gathering partners' ideas.
I was able to contribute by helping people with the use of computer's elements and by putting the add of an event like the informatics' course at Centro de Referência da Juventude.
With constant attendance and with ideas.
Talking about my professional experience and showing our reality as people who don't use the technology that is there.
I gave my opinion and everyone listened.
[no answer]
With my will to discover new things.
I think (I contributed) with ideas and comments.
(I contributed) with the (idea of) the shape of a modern computer system that only needs to turn a button.
Perhaps, by giving my opinion as a non-expert.
I don't know.

Question 5. What are your expectations about Vila na Rede?

They are positive, mainly because I expect that it will expand the business in the local community, generating new relations, both personal and business-economical.
I hope it will help many people, just as it helped me.
It would be very good if it would contribute to the digital literacy of this population.
It will be a great channel to advertise ideas, products, services and events, by many cultural centers, educational or even personal. It may even conciliate common ideas and interests.
I expect that it will be a great success and that it will be visited by everyone.
It will be a success.
It will have a good result, by this system people will get in touch with me.
It may become a tool of great impact in society; it may bring benefits to a big amount of people.
New horizons in the future.
My expectations are very high... where the community will be able to interact more and because of that there will be profit.
Of knowledge and of selling.
I have many [expectations], at least that our neighborhood will have knowledge and will make its advertisement.
That it will be a strong exchange, of communication.

Question 6. Do you have any additional comments or suggestions?
At a first glance, the system looks better than I expected, as it is the first version. With time and use we will be able to identify corrections and improvements that could be done. It's been very interesting to participate in this kind of workshop.
I wish the activities will continue next year and that other neighborhoods would be involved. I would like to see other activities being announced, like "painting in fabric".
Congratulations on the good job!
Some adjustments are still necessary in the interface of the site that we used because there are some features that could not be accessed.
I would like to thank everyone for the patience and dedication. I beg you not to stop here. Thank you.
At the moment no.
Thanks to the workshops I was able to build a "housekeeping business", and build my own team. I have everything planned already.
[no answer]
I hope it will go on next year.
No, everything is great.
I was informed about many things that I did not know before.
Yes = to thank for the opportunities that were given to me. They were of great value in many ways. Thanks a lot.
I can't think of anything right now.

5. Discussion

The qualitative data collected from the questionnaire, together with the quantitative analysis from the survey and the results from the exploration of the system helped us reveal information that is very relevant to the research. The fact that those participants who had had little access to computer had been the ones to make the most use of multimedia resources, as described in section 4.1, is a good indicator that this Inclusive Social Network really has the potential of creating a digital culture among them, which confirms our expectations.

In general, participants reported being very excited about the system, especially those who are not familiar with computer, internet and online social networks, as they were motivated by the results they saw in a short time of use. The pictures displayed in figure 13 captured some of these moments. Most of them have highly positive expectations, as we could see in section 4.3.



Figure 13- User's reaction while using Vila na Rede

The launch of *Vila na Rede* can be considered a success, as it has fulfilled many of its purposes right on the first version. There are still many features to be developed and many ideas from former Workshops to be tested. The data collected from the use of the system in these first days also indicates us some changes that can be made in order to improve the application. For example, the number of page hits since the launching of *Vila na Rede* shows that the "Entrar" (enter, or sign in) button had 216 hits, against 29 hits of "Sair" (leave, or sign out). That indicates that if no one is clicking "Sair" we could consider some other mechanism. Even though the system logs out the user automatically when he closes the browser, this might be an important issue related to privacy, especially when we consider that many users will be accessing *Vila na Rede* from public computers and that they might not be used to closing the application's windows. The importance of knowing the id that is logged in was shown during the third moment of the workshop, when the ads were being reviewed by the entire group. One of the researchers was at the computer that was displaying *Vila na Rede* with a projection on the wall while the group was discussing on it. One of the ads received a comment and the user who had created it answered aloud so that the researcher could type it on the system. Then they realized that if the researcher would answer for her, than the answer would have his identification, not hers. This kind of situation can be simple funny - as a boy answering a typically female question, or can result in loss of opportunity, like a customer receiving the phone number of a competitor instead.

Other improvements and corrections will be discovered as the system starts being used by a larger number of people. In order to gather more participants to join this Inclusive Social Network some different strategies are already being applied to begin with. We understand that, after this initial period, the network will constitute itself by itself and assume its shape naturally. Probably when more elements of *Vila na Rede* is working, providing users with fuller communication possibilities, more flexible interfaces and tools for identification, then users will have reasons to join and spread the system, expanding their networks.

6. Conclusion

With the objective of studying solutions for interaction design and user interfaces for Inclusive Social Network systems, three workshops had been conducted and as a result, *Vila na Rede* was born. This Technical Report describes the activities that took place during the 4th Semio-Participatory Workshop of Project e-Cidadania, in which the Inclusive Social Network *Vila na Rede* was announced to the target community. Once again, end user representatives, designers and developers gathered to work collaboratively in this endeavor to create a system that is expected to help the communities in the promotion of a digital culture and in bringing new opportunities to the members of the networks.

According to the data collected during the workshop (in the surveys, questionnaires, logs of the systems and discussions), *Vila na Rede* had a very good acceptance already in this first version. Users demonstrated interest and were able to browse throughout its pages and put on real advertisements. Even those who were not used with dealing with ICT's joined the network and precisely those who did not use computer or internet at home were the ones to make the most use of multimedia resources in order to announce their products, services, events and/or ideas.

The launching of *Vila na Rede* was only the first step. In this workshop, users were able to have a first contact with the system (cf. Figure 14 for an example of content created by the participants). It was not yet complete but had many working functionalities that were successfully explored. More features are still to be developed and other new requirements will come as the use of the system grows. Next steps will include the promotion of dissemination strategies and the evaluation of the elements of *Vila na Rede* in its new versions.



Figure 14 - One of the ads published by users

References

- [1] BARANAUSKAS, M. C. C., HORNUNG, H., and MARTINS, M. C. Design Socialmente Responsável: Desafios de Interface de Usuário no Contexto Brasileiro. In Proceedings of the XXXV Seminário Integrado de Software e Hardware, SEMISH 2008.
- [2] HAYASHI, E. C. S. ; BARANAUSKAS, M. C. C. . Facing the digital divide in a participatory way: an exploratory study. In: IFIP Worlds COomputer Congress, 20., TC 13 Human-Computer Interaction Symposium, HCIS 1. 2008.
- [3] LIU, K. Semiotics in information systems engineering. Cambridge University Press, New York, NY, USA, 2000.
- [4] STAMPER, R. Linguistic Instruments in Knowledge Engineering. Riet, R. P.; Meersman, R. A. Elsevier Science Inc., New York, NY, USA. Language and computer in organized behavior, pp. 143–163. 1992.
- [5] STAMPER, R., Althaus, K., and Backhouse, J. Measur: Method for eliciting, analyzing and specifying user requirements. In CADISLC '88: Proceedings of the IFUP WG8.1 conference CRIS88 on Computerized assistance during the information systems life cycle. T.W. Olle, A.A. Verrijn-Stuart and L. Bhabuts (eds) New York, NY, USA. 1988.
- [6] MULLER, M. Participatory Practices in the Software Lifecycle. In: M. Helander et al (eds.) Handbook of Human-Computer Interaction. Elsevier Science. pp. 255-297. 1997.
- [7] MULLER, M. Layered participatory analysis: new developments in the CARD technique, Proceedings of the SIGCHI conference on Human factors in computing systems, p.90-97, Seattle, Washington, United States. 2001.
- [8] HAYASHI, E. C. S. ; NERIS, V. P. A. ; ALMEIDA, L. D. A. ; RODRIGUEZ, C. L. ; MARTINS, M. C. ; BARANAUSKAS, M. C. C. . Inclusive social networks: Clarifying concepts and prospecting solutions for e-Cidadania. Technical Report IC-08-29, Institute of Computing, University of Campinas – UNICAMP. 2008.
- [9] HAYASHI, E. C. S. ; NERIS, V. P. A. ; ALMEIDA, L. D. A. ; MIRANDA, L. C. ; MARTINS, M. C. ; BARANAUSKAS, M. C. C. . Clarifying the dynamics of social networks: narratives from the social context of e-Cidadania. Technical Report IC-08-30, Institute of Computing, University of Campinas – UNICAMP. 2008.
- [10] ROCHA, H. V., BARANAUSKAS, M.C.C. Design e Avaliação de Interfaces Humano-Computador/. 2ª. Edição disponível em <http://www.nied.unicamp.br/publicacoes>. 2003
- [11] MIRANDA, L. C. ; ALMEIDA, L. D. A. ; HAYASHI, E. C. S. NERIS, V. P. A. ; ; BARANAUSKAS, M. C. C. . A Participatory Practice for Designing Inclusive Social Networks in the e-Cidadania Project. Technical Report, Institute of Computing, University of Campinas – UNICAMP - to be published
- [12] ALMEIDA, L. D. A. ; SANTANA, V. F. ; BISPO, D. M.; BARANAUSKAS, M. C. C.. An

architecture to integrate content management systems and Web applications. Technical Report IC-08-08, Institute of Computing, University of Campinas – UNICAMP. 2008.

[13] HORNUNG, H. H.; HAYASHI, E. C. S. ; NERIS, V. P. A. ; ALMEIDA, L. D. A. ; MARTINS, M. C. ; BARANAUSKAS, M. C. C. . Bringing human-computer interaction to an agile process model. Technical Report IC-08-10, Institute of Computing, University of Campinas – UNICAMP. 2008.

[14] BONACIN, R. ; RODRIGUES, M. A.; BARANAUSKAS, M. C. C.. AIPM: an Agile Inclusive Process Model. Technical Report IC-08-09, Institute of Computing, University of Campinas – UNICAMP. 2008.

Appendix 1

Base questions for the survey: form used by the interviewers.

Roteiro para entrevista

<p>Nome: _____</p> <p>Sexo: F () M () Idade: _____</p>	<p>Entrevistador:</p>
--	-----------------------

1. Questões pessoais

O objetivo inicial de nossa conversa é conhecer um pouco mais sobre você... onde nasceu, o local onde mora, as atividades que desempenha, os serviços que utiliza etc.

1.1 Procedência

De onde você é? **Nasceu** aqui em Campinas/São Paulo?

E sua

família? _____

Em qual **bairro** você mora?

Há quanto **tempo** mora no

bairro? _____

Quantas **pessoas** moram com

você? _____

1.2 Escolaridade

Você **estuda?** () Em que

curso/série? _____

Você estudou? () Até que série frequentou a escola e qual curso

Não estudou ()

1.3 Atividades profissionais

Atualmente, você **trabalha?** () Quais suas atividades?

Não trabalha (), mas trabalhava

em _____

E as **peças** que moram com você trabalham? Em quais **atividades**

Não trabalham ()

2. Recursos / Mídias / TIC

Vamos conversar um pouco mais sobre a utilização dos eletrodomésticos, aparelhos eletrônicos e outras tecnologias disponíveis em sua casa e em outros lugares.

2.1 Mídias de massa

Assiste à **TV** em sua casa? () Quais os **programas** você mais gosta? (Telejornal, Novela, Filme, Documentários, Programas humorísticos...)

Tem algum **artista** preferido? _____

Não assiste TV ()

Quantas TVs você possui em casa? Aonde estão sendo usadas (por exemplo, sala, quarto, cozinha, banheiro, varanda, quintal, garagem etc.)? _____

Você na maioria das vezes assiste TV:

() sozinho(a) () com outras pessoas ao seu lado (por exemplo, família, amigos...)

Quando você assiste TV com outras pessoas ao seu lado quem fica segurando o controle remoto?

Você gosta de usar o controle remoto?

Você sabe para que serve todos os botões do controle remoto da sua TV? Você acha que o controle remoto deveria ter menos botões para facilitar seu uso?

Nos fale um pouco do que você acha do controle remoto da sua TV?

Na sua casa você possui algum outro equipamento que tenha controle remoto (por exemplo, vídeo cassete, aparelho de som...)?

Alguma vez você teve dificuldade para usar algum controle remoto? Nos conte sua história.

E você ouve **rádio**? () Que tipo de **programação**? (Música, notícias, entrevistas...)

Tem algum **cantor/cantora/banda** preferido? _____
 Não ouve rádio ()

2.2 Eletrodomésticos

Quais os **eletrodomésticos** que você mais usa em casa? (aparelho de som, aparelho de DVD, aspirador de pó, batedeira, câmera fotográfica, celular, ferro de passar roupa, filmadora, fogão, geladeira, liquidificador, máquina de costura, máquina de lavar roupa, máquina de lavar louça, microondas, telefone, videocassete, ...)

Quais você **mais gosta** de usar (por quê)

Quais você **não gosta** de usar (por quê)

2.3 Caixa eletrônico

Como você utiliza o **caixa eletrônico** do banco? Sozinho () Com ajuda () Não utilizo ()
 Considera fácil, difícil, por
 quê? _____

2.4 Celular

Utiliza Celular no seu dia a dia? () Sempre () Algumas vezes () Raramente
 Considera fácil, difícil, por quê? _____

Você envia ou recebe mensagens de texto (SMS)? O que você acha disso?

Você acessa a Internet via Celular? Considera fácil, difícil, por quê? _____

2.5 Computador e Internet

Possui **computador** em casa?

() Não

() Sim, e utilizo. Para:

() Sim, mas não utilizo porque

Tem acesso a **Internet**? () Não tenho acesso () Em casa () No trabalho
 () Em outro local Qual?

Tipo de acesso: () Linha discada (lento) () Banda Larga (rápido)

Utiliza a Internet no seu dia a dia? () Sempre () Algumas vezes () Raramente

Para: _____

Não utiliza ()

Você usa **MSN, Gtalk, Skype** ou outro programa de mensagens no computador?

Você usa os recursos de vídeo e voz deles? Gosta?

Há alguma coisa que você gostaria de mudar nesses recursos?

Você gostaria que esses programas fizessem alguma coisa a mais? O que?

2.6 CRJ e uso de equipamentos

Você já conhecia o CRJ da Vila União? Participa de alguma outra atividade desenvolvida no CRJ?

Se sim, utiliza ou já utilizou os computadores do laboratório?

3. Redes Sociais

Vamos conversar um pouco sobre Redes Sociais

4.1 Redes Sociais que identifica

Você conhece alguma rede (real ou virtual) e/ou participa de alguma ? Qual?

Se sim. Tem alguma coisa que você acha interessante nessas redes? O que?
