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A Participatory Practice for Designing Inclusive Social Networks in the e-Cidadania Project

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Abstract

e-Cidadania¹ is a research Project inspired by one of the current grand challenges of Computer Science research in Brazil for the next years²: the Participative and Universal Access to Knowledge for the Brazilian Citizen. This Project investigates the potentialities of inclusive social network systems as mediators in the constitution of a digital culture among those digitally illiterate. This work builds on Participatory Design (PD) techniques adapted to an inclusive setting to conduct the 3rd Semio-Participatory Workshop of the e-Cidadania Project and to analyze its achievements. The Workshop aimed at the design of user interface elements for an inclusive social network system. This research report illustrates the participatory practice adapted to an inclusive scenario, presents the main achievements of the Workshop and discusses results that inform the UI design.

1 Introduction

The e-Cidadania research project investigates solutions for the interaction design of systems that make sense to the Brazilian citizens, to constitute a culture mediated by Information and Communication Technologies in our society. This project addresses one of the grand

¹ A Microsoft Research – FAPESP Institute for IT Research funded Project.

² In <http://www.sbc.org.br>.

challenges in Computer Science research in Brazil for the next years, the “Participatory and Universal Access to Knowledge for the Brazilian Citizen” [13]. By studying the relationships established around people in their informal networks and the way they interact with each other and with technology, e-Cidadania aims at the development of an Inclusive Social Network system. To this end, we have been conducting workshops that are built upon techniques from Participatory Design (PD) and that are grounded on Organizational Semiotics (OS) artifacts.

In the First Semio-Participatory Workshop, activities for problem clarification were conducted supplying the researchers with elements for a Semantic Analysis [6] of the problem domain. Artifacts from OS were used to enable the group to clarify the problem and issues surrounding it. After the workshop, researchers gathered together to analyze the material collected and an Ontology Chart (OC) was built. This OC carries the participants’ ideas of what an Inclusive Social Network is and guided the conception of the Second Semio-Participatory Workshop.

In the second meeting, participants shared their life stories by using cards in a game like manner. These cards – PACFILMO categories [5], adapted from a Participatory Practice intended for more homogeneous groups [9] – were meant to elicit the participants’ narratives of their daily interactions, explaining us more about the communities’ social dynamics, amidst their vast diversity. From these stories, as well as from extracts from the 1st Workshop, we were able to identify sets of norms and social patterns regarding the way people relate and interact in their groups.

Once we had mapped a clearer view of the problem (1st Workshop) and acquired an understanding of the articulations that take place in Social Networks in real life practices (2nd Workshop), the next step was to collect ideas for the representation of the visual and aesthetical elements of interaction in the system. That was the goal of the 3rd Workshop. This Technical Report addresses the participative construction of design solutions and user interface elements for an Inclusive Social Network system that took place during the 3rd Semio-Participatory Workshop. It is organized as follows: Section 2 describes the process of preparing the activities, including all the ideas that would be applied in the workshop; Section 3 describes the activities as they were conducted; Section 4 presents the results and discusses them; Section 5 concludes.

2 Methodological References

Participatory Design constitutes a design approach in which users are actively involved in the entire development process through techniques and artifacts that facilitate the representation of design ideas and meaning negotiation among the participants. It has been successfully applied in many different fields as it allows the final result to respond to the users’ cultural, social, emotional and practical needs, making more sense to them. With that in mind, many possibilities for the activities to be applied in the workshop were proposed. In this section we describe the alternatives that were cogitated, including the one to be actually used.

Hedonic evaluation. Since the development of the system had already started and some screenshots were already proposed, researchers thought that a possible activity to be performed at the workshop could be an evaluation of the preliminary emotional responses the system would evoke in the users. The hedonic quality of the system could give us an idea of the expected acceptance of the system. Provided the fact that we are building a system that should motivate the digital illiterate to engage in a technological culture, it would be worth to consider an evaluation that accounts users' feelings with regard.

Chorianopoulos and Spinellis [2] proposed a framework for evaluation of user interfaces for Interactive TV, based on Norman [11], addressing three levels of emotional reactions: visceral (instinctive and automatic responses), behavioral (engagement in daily activities) and reflexive (opinion after some thought). One of the activities that could be applied in this workshop would work towards the collection of data to measure each of these levels. For the visceral level, the SAM (Self Assessment Manikin) iconographic tool [8] could be used to measure user's levels of affection towards the system's interface, as proposed by Hayashi et al. [7].

Image panel. Another activity considered the identification of the universe of vocabulary and themes that make sense in the context in which the target users are immersed, inspired by studies for the alphabetization of adults from Paulo Freire [3]. The proposition involved a game in which groups of users would assemble images, drawings and texts, pasting paper cuts with pictures and scribbling while making their own webpage out of card board panels, as reported in Hayashi and Baranauskas [4].

One expected result from this activity is that the panels would reflect the way users preferably express themselves showing us how they would rather see an image or button to represent the actions or elements of interaction in the system. This activity intended to elicit from users the signs and metaphors most relevant for them. The practice would consist of each group receiving a blank card board panel that looks like an empty webpage (with the framings of a web browse around); pieces of paper with diverse images and words; markers (they should be able to write and draw with the markers and be able to erase as they will), and other art material (i.e., glue, tape, scissors etc.) with which they could freely create their interfaces.

BrainDraw. Similar to the activity with the image panel, this PD technique would result in many design proposals in which every participant would contribute in a democratic way to the final results. This method consists of a graphic circular brainstorming, where participants create user interfaces using paper and colored pens [10,12]. The application of this technique is described in detail in Section 3, as it was chosen to be used in the Workshop.

The main contribution of the BrainDraw is that it generates many design proposals for the system, and each is a cohesive mix of ideas that come from each and every one of the users. That prevents imposing individuals from overwhelming shy ones, granting everyone with equal opportunities for participation. This activity does not demand previous timing preparation, as all it is needed is pen and paper and the results can be very rich.

The choice of the BrainDraw activity over the others does not diminish their importance. The hedonic evaluation was postponed until a more mature stage of the system

development and the exercise with images in a panel had been previously experienced with a similar users group. All exercises are feasible and pertinent to different moments of the design process and could be theme of future workshops or practices in the context of this project. The brainstorming on possible uses of these techniques took place during meeting with researchers, end user representatives and other interested parties.

3 The Workshop

The objective of the workshop was to generate interaction design proposals for the inclusive social network being developed in the context of this project. For this purpose, the BrainDraw technique was elected [1,10,12] and adapted to the context of this Project; i.e., it was adapted for use by a group of participants with diverse knowledge of and access to the information and communication technologies.

The activities lasted three hours and they took place at the CRJ – Centro de Referência da Juventude (Youth Reference Center). 39 people participated in the workshop. From those, 22 participated in the BrainDraw activity, 10 participated as observers during the phase of discussion and consolidation of the groups' design proposals and 7 were responsible for organizing and conducting the workshop. The participants of the BrainDraw activity involved people coming from the local community, from Campinas City Hall, from non-governmental organizations and from the research team.

The dynamics of the BrainDraw activity started with the description of an interaction scenario with the prospective inclusive social network system. In the scenario description we employed a simplified vocabulary in consonance with the target public aimed for the workshop. The original scenario description (written in Brazilian Portuguese) followed by its translation into English are as follows:

“Você está na frente do computador. Na tela está o site (saite³) da Rede Social Inclusiva em que você participa. Você vê um anúncio (um produto, serviço, evento social ou uma idéia) que interessa a você. Você nota que a pessoa que divulgou o anúncio está presente naquele momento no site (saite). Então, você entra em contato com a pessoa imediatamente e faz uma pergunta sobre o anúncio. A pessoa conversa com você logo a seguir respondendo sua pergunta. Você fica feliz e continua no site (saite).”

“You are in front of the computer. On the screen you see the inclusive social network's site in which you participate. You see an advertisement (a product, service, social event or an idea) that interests you. You notice that the person that published the advertisement is online in the site. Thus you immediately contact him/her and immediately ask a question about the advertisement. Then the person talks to you and answer your question. You are happy and remain in the site.”

³ This is the word that matches the phonetics of “site” in the Brazilian Portuguese.

The participants were divided into 5 groups of 4 to 5 members. Each group included people from different contexts (e.g., local community, researchers). All groups participated in the activity in the same room but in different group's tables. Each table had sheets of paper for the drawings, colored pens and multiuse cabinets.

The BrainDraw technique, in this adapted version, was composed of 3 phases:

- Design proposals generation;
- Design proposals consolidation and creation of a unified group proposal;
- Presentation and discussion of consolidations with all workshop participants.

The first phase (see Figure 1) consists of:

- Reading of the scenario description and resolution of eventual doubts;
- Each participant starts drawing his/her design proposal considering the given scenario;
- After a predefined time (1 minute) an alarm marked the end of drawing and each participant passes his/her sheet of paper to the next participant on his/her left, and receives the drawing from the participant on his/her right;
- Participants complement or modify the just received proposal during a new time interval of 1 minute;
- The rotation process is repeated until each participant receives his/her initial sheet of paper at least once.



Figure 1: Phase 1 – Generating design proposals

After the generation of the design proposals, the groups were invited to discuss the design solutions and to construct a new proposal representing the ideas consolidation (see Figure 2). In this phase, each group counted on 2 observers responsible for registering the discussion about the design elements and filling out the Observer Form (see Appendix 1). All the activity was recorded in audio and video.



Figure 2: Phase 2 – Consolidation of groups' design proposals

Finally, the third phase consisted of the socialization of the groups' consolidations (see Figure 3). Each design solution was photographed and presented using a multimedia projector. Then the group members were invited to explain the choices made for the design elements and discuss with the others.



Figure 3: Phase 3 – Socialization of group' consolidations

From the socialization it was possible to identify the elements which are invariants through the proposals and those which had good acceptance from the participants. Therefore it is possible to answer not only questions about layout but in addition those regarding meanings, intentions and social impacts brought by the design elements.

4 Results

After the workshop, the research team analyzed all the drawings obtained with the activity, starting with an analysis to identify design elements and also content and functionalities considered by each group to construct the consolidated drawing. After this preliminary analysis, the presence, location and format of design elements were considered. Finally, the

results of the drawings analysis were used as a basis for the first prototype of e-Cidadania inclusive social network system.

4.1 Analyzing the Preliminary Drawings

In the first phase of the workshop, 22 drawings were generated. These drawings show different interface elements (icons, buttons, links etc.) in different positions. Also, they present different content and functionalities. In the second phase of the workshop, each group discussed and obtained one consolidated drawing, choosing which interface elements (and in which position), content and functionalities they would present and/or even add new elements.

Figure 4a shows two drawings from Group 1 (G1) and Figure 4b presents the consolidated drawing for the same group. Also, some examples of interface elements that were selected by the group are in evidence.

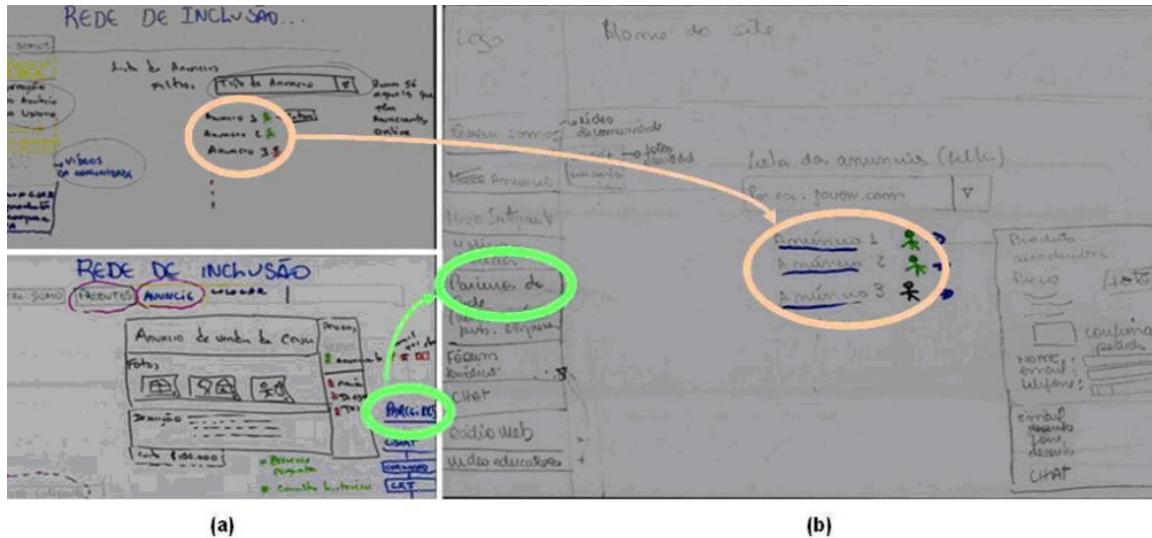


Figure 4: Relation between (a) two preliminary drawings (b) the consolidated drawing of G1

To verify the source of the elements presented in the consolidated proposal, the design team evaluated each of the 22 preliminary drawings and compared with the respective consolidated drawing. Table 1 presents the results for G1. The similar tables for groups 2 to 5 can be found in Appendix 2.

In Table 1 it is possible to see which elements were considered (in which position and from which drawing), as well as those that were not considered and those that were added.

Table 1: Analysis of preliminary drawings vs. consolidated drawing of G1

Group 1	What is in the consolidated drawing	is not in the consolidated drawing	is new in the consolidated drawing
Interaction elements (menu, buttons, icons) [position]	<ul style="list-style-type: none"> - logo [left upper corner] (D1) - name of the site [upper part] (D1, D2, D3, D4) - side menu [left] (D3, D4) - combo box for filter (D3, D4) - colored stick men to represent presence (D2, D3) 	<ul style="list-style-type: none"> - representation of the net (D1) - upper menu (D2) - "+" icon (D4) 	-
Content and/or functionality	<ul style="list-style-type: none"> - who we are (D2, D3, D4) - space for the advertisement of communities and partners (D1, D2) - new member (D1, D2, D3) - news (D2) - educational videos (D3) - list of ads (D3) - description of the product with picture (D2) - details for contact (D1, D2, D3, D4) 	<ul style="list-style-type: none"> - consult the history of the ad (D2) - entrepreneur (D3) - news feed (D3) 	<ul style="list-style-type: none"> - confirm order - radio web - thematic forum - chat

The task of proposing a consolidated drawing was important at this point as they had to decide whether an element would be present or not, and by telling it the group exposed the rationale behind the design, justifying elements that they would like to add. All the consolidated drawings have new elements. Also, it is worth mentioning that some contents appeared with different labels. The menu item “expositions” for example appeared in four drawing of the Group 3, however they chose to label it “events” in the consolidated drawing.

4.2 Analyzing the Consolidated Drawings

In this section we first present individual analyses of each group’ consolidation (see Figure 4); then we summarize the individual analyses and identify potential invariants of interface elements.

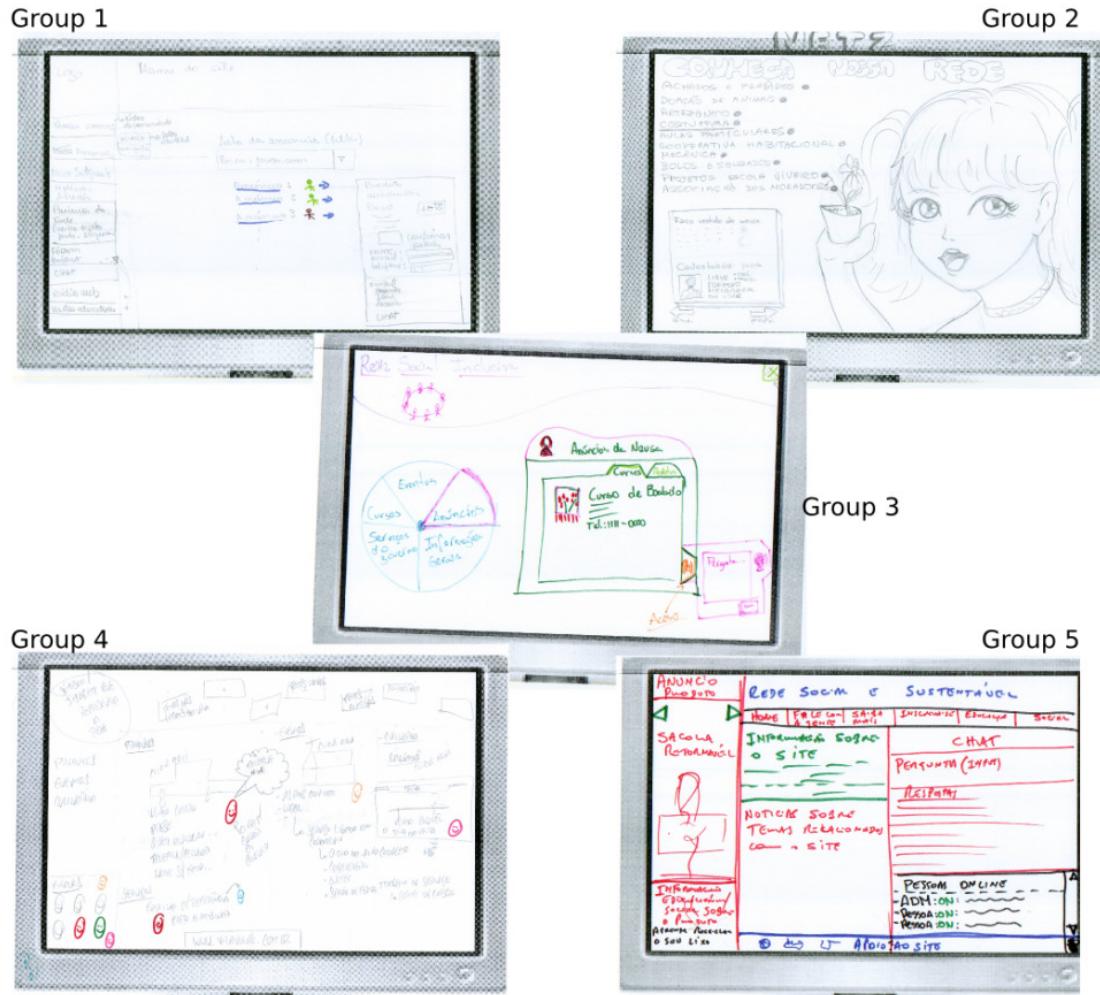


Figure 5: Consolidation of groups' design proposals

For each of the five consolidated design proposals, we performed an analysis to identify and classify the main design elements. Table 2 presents the results of the analysis of the G1 consolidation's design elements. The analyses of the other four groups are presented in Appendix 2.

Table 2: Design elements presented in the consolidation of G1

Element	Is it present?	Location	Format	Comments
Navigation menu	Yes	Left side	Sequential (text)	Below the site logo
Site's name	Yes	Top part	Text	Right side of site logo (located next to the center and occupying almost the entire top)
Logo	Yes	Top part	Picture without predefined format	Left side (above the navigation menu)
Forms of communication	Chat	Yes	Right and left bottom part	Text One option of the navigation menu and as a way to contact the advertiser
	Phone	Yes	Right bottom part	Text As a way to contact the advertiser
	E-mail	Yes	Right bottom part	Text As a way to contact the advertiser
	Forum	Yes	Left bottom part	Text One option of the navigation menu
	SMS	No	-	-
	Message through the site	No	-	-
Presence indication of the site users	No	-	-	-
Advertisement	Various types of media	Yes	Right bottom part	Text and Picture -
	Navigation	Yes	In the site center	Vertical list containing of the advertisement summary with a link to the “complete advertisement” Next to each advertisement image that represents who announced
	Presence indication of the advertiser	Yes	The right side of the brief description of each advertisement	Picture As picture in the format of a person with different colors for each status

Besides the elements in Table 2, some other considerations should be taken into account:

- Use of a combo box widget to represent advertisements' categories and to work as a filter of content;
- From a selected advertisement's category, a set of advertisement is displayed that matches the selection;
- When an advertisement is selected, at right-lower region of the screen a box containing the advertisement's details is displayed;
- Other elements indicating:
 - An area to present information about “who we are” containing community's videos;
 - Newsletters;
 - Website's partners;
 - Web radio;
 - Educative videos.

Table 3 presents a detailed individual analysis of the design elements from the groups' consolidation. From this analysis we are able to rank the occurrence of design elements, identifying their position and presentation style.

Table 3: Detailed individual analysis of the design elements from the groups' consolidation

Element	Groups with the element	Number of occurrences	Place of occurrences	Format of occurrences
Navigation menu	G1, G2, G3, G4, G5	5/5	Left side (3/5)	Sequential (vertical text) (3/5)
Site's name	G1, G2, G3, G4, G5	5/5	Top part (4/5)	Text (4/5)
Logo	G1, G3, G4	3/5	Left top part (3/3)	Picture (3/3)
Forms of communication	Chat	G1, G3, G5	3/5	Right side (2/3)
	Phone	G1, G2, G3, G4	4/5	Near the description of the advertisement (3/4)
	E-mail	G1	1/5	Near the description of the advertisement (1/1)
	Forum	G1	1/5	Near the description of the advertisement (1/1)
	SMS	G2	1/5	Near the description of the advertisement (1/1)
	Message through the site	G2	1/5	Near the description of the advertisement (1/1)

Presence indication of the site users	G4	1/5	Left bottom part (1/1)	Picture (1/1)
Advertisement	Various types of media	G1, G2, G3, G4, G5	5/5	All five were different Text and picture (5/5)
	Navigation	G1, G2, G5	3/5	All three were different Existence of images with arrows pointing for right and left, representing the possibility of sequential navigation (previous and next, respectively) between the advertisements (2/3)
	Presence indication of the advertiser	G1, G2, G3, G4, G5	5/5	Near the advertisement (4/5) Picture (3/4)

4.3 Designing an Inclusive Social Network System

The practice of BrainDrawing held on the workshop enabled us to see the variety of understanding about how the design of an inclusive social networks system should be. In this workshop we had the opportunity to observe and discuss, with the users, five different proposals of solutions (as shown in Figure 5).

Based on the results and especially those summarized in Table 3, a wireframe was proposed for the system (Figure 6), to guide the implementation of the alpha version.

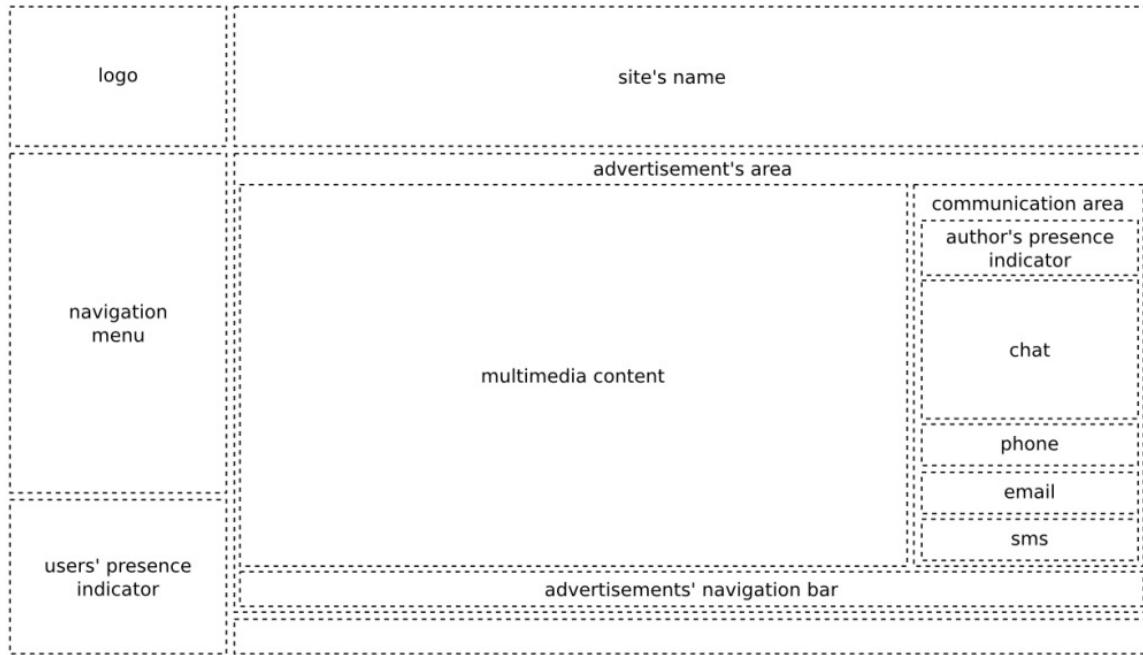


Figure 6: Proposal of wireframe for the alpha version of our inclusive social networks system

This wireframe was assembled based on the most prominent elements and their location areas. Five main areas compose the wireframe: logo, site's name, menu navigation, user's presence indicator and advertisement's area. In turn, this last area is divided into three sub-areas: multimedia content, communication area, and advertisement's navigation bar.

5 Conclusions

This report presented the work done and results achieved related to the 3rd workshop of e-Cidadania Project. The report described the use of a Participatory Design technique, the BrainDraw, with a group of 22 participants, including representative of users, designers and developers, working on design solutions for user interface elements of the inclusive social network system.

At first, 22 drawings were obtained. Then they were consolidated by the participants into 5 different proposals. It is important to emphasize that the task of proposing a consolidated drawing asked the groups to expose the rationale behind the design and improve the design solution. These consolidated drawings were analyzed considering the presence of interaction elements and respective position in the screen layout. From this analysis, it was possible to propose a first approach of the user interface design for the inclusive social network system being developed. The wireframe reflects the main interaction areas presented in the consolidated drawing and also knowledge from the design team.

Besides the syntactic aspects of the interfaces (presence and position of interaction elements), the drawings inform important design issues regarding semantic, pragmatic and

social aspects. The icons and color used can be analyzed considering their meaning. Also, some of the proposals reinforced educational aspects, offering courses or educational and social information related to an advertisement (the subject matter of the ISN). Finally, the social aspect of a networking system was emphasized, for example, with an advertisement to help finding a disappeared person.

Next steps in this research include the implementation and refinement of the design proposal presented here and its evaluation within the community.

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References

1. Baranauskas, M.C.C., 2007. Notas de aula de MO622, MO825 e MC750 (IC/UNICAMP).
2. Chorianopoulos, K. and Spinellis, D., 2006. User Interface Evaluation of Interactive TV: A Media Studies Perspective. In Universal Access to Information Society, Vol. 5, No. 2, pp. 209-218.
3. Freire, P., 1991. A Educação na Cidade. São Paulo: Cortez.
4. Hayashi, E.C.S. and Baranauskas, M.C.C. Facing the Digital Divide in a Participatory Way - An Exploratory Study. Proceedings of the 1st TC 13 Human-Computer Interaction Symposium. Milano, Italy, p. 143-154.
5. Hayashi, E.C.S., Neris, V.P.A., Almeida, L.D.A., Miranda, L.C., Martins, M.C. e Baranauskas, M.C.C., 2008. Clarifying the Dynamics of Social Networks: Narratives from the Social Context of e-Cidadania (Technical Report IC-08-030) Campinas: Institute of Computing at University of Campinas.
6. Hayashi, E.C.S., Neris, V.P.A., Almeida, L.D.A., Rodriguez, C.L., Martins, M.C. e Baranauskas, M.C.C., 2008. Inclusive Social Networks: Clarifying Concepts and Prospecting Solutions for e-Cidadania (Technical Report IC-08-029) Campinas: Institute of Computing at University of Campinas.
7. Hayashi, E.C.S., Neris, V.P.A., Baranauskas, M.C.C., Martins, M.C., Piccolo, L.S.G. e Costa, R. Avaliando a Qualidade Afetiva de Sistemas Computacionais Interativos no Cenário Brasileiro. Anais do Workshop em Usabilidade, Acessibilidade e Inteligibilidade Aplicadas em Interfaces para Analfabetos, Idosos e Pessoas com Deficiência (IHC 2008). Porto Alegre, Brasil, pp. 1-5.

8. Morris, J.D., 1995. OBSERVATIONS: SAM: The Self-Assessment Manikin - An Efficient Cross-Cultural Measurement of Emotional Response. In Journal of Advertising Research, Vol. 35, No. 6.
9. Muller, M.J., 2001. Layered Participatory Analysis: New Developments in the CARD Technique. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. Seattle, United States, pp. 90-97.
10. Muller, M.J., Haslwanter, J.H. and Dayton, T., 1997. Participatory Practices in the Software Lifecycle. In: Helander, M.G., Landauer, T.K. and Prabhu, P.V. (eds.) Handbook of Human-Computer Interaction. Elsevier Science, pp. 255-297.
11. Norman, D.A., 2004. Emotional Design: Why We Love (or Hate) Everyday Things. New York: Basic Books.
12. Rocha, H.V. e Baranauskas, M.C.C., 2003. Design e Avaliação de Interfaces Humano-Computador. 2. ed. Disponível em: <http://www.nied.unicamp.br/publicacoes>.
13. SBC. Grand Challenges in Computer Science Research in Brazil: 2006-2016. Available at: http://sistemas.sbc.org.br/ArquivosComunicacao/Desafios_ingles.pdf.

Appendix

Appendix 1 – Observer Form (In Portuguese)

3^a Oficina Semio-Participativa do Projeto e-Cidadania Etapa: 1º Incremento do Sistema RSI - Foco no Design

Formulário de Observação - Atividade Braindrawing

Dados básicos

Integrantes do grupo: _____
Observador: _____

Tarefa: Edição dos desenhos

Os participantes compreenderam e executaram corretamente a atividade (troca de folhas, completar os desenhos dos demais etc.)? Quais as **dificuldades encontradas?**

Tarefa: Compilação dos resultados

Como foi realizada a seleção dos elementos que foram para a solução do grupo (votação,

soluções mais inovadoras etc.)? Listar os **elementos de interface e como foram escolhidos**.

Houve elemento que alguém do grupo sugeriu e que não foi inserido na solução de consenso? Listar os **elementos de interface discutidos pelo grupo mas que não foram escolhidos** para a solução de consenso. Se possível, apontar quem estava a favor do elemento não inserido.

Os participantes se depararam com **soluções diferentes cujo foco seria atender a diferentes necessidades de usuário** (inserção e/ou apresentação de informações usando diferentes mídias, mudanças de posição, tamanho, cor, diferentes comportamentos/funcionalidades)? Quais?

Os participantes propuseram elementos para indicar a presença e o *status* do autor do anúncio? Quais?

Para outras observações, use o verso da folha.

Appendix 2 – Preliminary Drawings vs. the Correspondent Consolidation (In Portuguese)

Grupo 2	O que foi para a síntese	O que não foi para síntese	O que é novo na síntese
Elementos de interação (menu, botão, ícones) [posição]	- desenho em mangá de uma personagem da comunidade [direita] (D1) - menu lateral [esquerda] (D2)	- metáfora de quadro de anúncios (D3) - fotos das pessoas <i>online</i> (D3) - pessoas divulgando anúncios (D4)	- nome do <i>site</i> [superior] - convite para uso do <i>site</i> [superior] - navegação entre anúncios por setas
Conteúdo e/ou funcionalidade	- descrição do anúncio (D1, D2) - “cadastrado por” com foto (D2) - <i>links</i> para anúncios de costureiras e mecânica (D3, D4)	- meus amigos (D1) - pergunta rápida (D2) - listar anúncios relacionados (D2) - outros anúncios (D4)	- <i>links</i> para anúncios de achados e perdidos, doação de animais, artesanato, aulas particulares, projetos da escola viveiro, associação de moradores, bolos e salgados

Grupo 3	O que foi para a síntese	O que não foi para síntese	O que é novo na síntese
Elementos de interação (menu, botão, ícones) [posição]	- <i>logo</i> [superior à esquerda] (D1, D4) - nome do sistema [superior] (D1, D2, D4) - menu circular (D1, D2) - anúncio apresentado em abas (D3) - símbolo “acesso” de pessoa falando para representar presença (D4)	- menu linear [esquerda] (D3)	-

Conteúdo e/ou funcionalidade	<ul style="list-style-type: none"> - anúncios por pessoa (D1, D3, D4) - detalhes do anúncio com foto (D2, D3, D4) - comunicação com anunciante em mini-aba (D3, D4) - área para digitar pergunta (D2, D3, D4) - <i>link</i> para serviços de governo (D1) <ul style="list-style-type: none"> - <i>link</i> para cursos (D1, D2) 	<ul style="list-style-type: none"> - área separada para cursos (D1) - área separada para tipos de anúncio (D3) - lista de pessoas (D2) - anúncios por pessoa (D2) - pessoas <i>online</i> (D4) - <i>link</i> para feiras (D1, D2, D3, D4) 	<ul style="list-style-type: none"> - <i>link</i> para eventos - <i>link</i> para informações gerais
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Grupo 4	O que foi para a síntese	O que não foi para síntese	O que é novo na síntese
Elementos de interação (menu, botão, ícones) [posição]	<ul style="list-style-type: none"> - carinhas estilizadas coloridas representando <i>status</i> - quem anuncia e quem quer comprar (D2, D3) - endereço do site apresentado na página (D3, D5) 	<ul style="list-style-type: none"> - nome (D1, D2 D4) - figuras ao fundo representando uma vila, ruas, pessoas (D1, D2, D4) - setas para navegação (D2, D3) 	<ul style="list-style-type: none"> - <i>logo</i> [superior à esquerda] - menu [esquerda] - fotos de locais da vila [superior]
Conteúdo e/ou funcionalidade	<ul style="list-style-type: none"> - anúncios espalhados pela página (D1, D2, D4) - área para pessoas <i>online</i> representadas por carinhas estilizadas coloridas (D1, D2, D4, D5) 	<ul style="list-style-type: none"> - destaque para como encontrar o seu filho desaparecido (D3) - anuncio por meio de perguntas (D3) - trocas (D3) 	<ul style="list-style-type: none"> -

Grupo 5	O que foi para a síntese	O que não foi para síntese	O que é novo na síntese
Elementos de interação (menu, botão, ícones) [posição]	<ul style="list-style-type: none"> - navegação entre anúncios por setas (D1, D2, D3, D4) - área para anúncio ocupando 1/3 da tela [lateral] (D2, D3, D4) - menu em abas [superior] (D1, D2, D3, D4) 	<ul style="list-style-type: none"> - <i>logo/banner</i> (D1) - separação de anúncios (serviços, educacionais, últimas notícias) (D1) 	<ul style="list-style-type: none"> - nome do sistema [superior] - informação educacional e social sobre o produto

Conteúdo e/ou funcionalidade	<ul style="list-style-type: none"> - <i>link</i> para <i>home</i> (D1, D2) - <i>link</i> para fale com a gente (D1, D2, D3) - <i>link</i> para saiba mais (D3, D4) - <i>link</i> para inscreva-se (D3) - <i>link</i> para educação (D1) - notícias sobre temas relacionados com o <i>site</i> (D2, D3) - apoio ao <i>site</i> (D1) - pessoas <i>online</i> (D1, D2) - <i>chat</i> (D1, D2, D3, D4) 	<ul style="list-style-type: none"> - busca (D2, D4) - quem está na rede (D2, D3, D4) - área para outros assuntos (D3) - informações sobre moderadores (D4) 	<ul style="list-style-type: none"> - <i>link</i> para social - informações sobre o <i>site</i>
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Appendix 3 – Elements in the Consolidated Drawings (In Portuguese)

Na Tabela 1 é apresentado um resumo dos elementos de interface da síntese do G2.

Tabela 1: Elementos de interface apresentados na síntese do G2

Elemento	Está presente?	Local	Formato	Observações
Menu de navegação	Sim	Lado esquerdo	Sequencial (textual vertical)	Abaixo do nome do <i>site</i>
Nome do site	Sim	Parte superior centralizado	Texto	Ocupando quase toda a parte superior
Logo do site	Não	-	-	-
Chat	Não	-	-	-
Telefone	Sim	Parte inferior esquerda	Texto	Como forma de contato com o anunciante. Apareceram dois tipos de telefones: celular e trabalho
E-mail	Não	-	-	-
Fórum	Não	-	-	-
Torpedo	Sim	Parte inferior esquerda	Texto	Como forma de contato com o anunciante
Mensagem via site	Sim	Parte inferior esquerda	Texto	Como forma de contato com o anunciante

	Indicação de presença dos usuários do site	Não	-	-	-
Anúncio	Mídias variadas	Sim	Parte inferior esquerda	Texto e imagem	-
	Navegação	Sim	Parte inferior esquerda (abaixo da caixa contendo o anúncio)	Existência de imagens com setas viradas para a direita e para a esquerda, representando a possibilidade de navegação (anterior e próximo, respectivamente) sequencial entre os anúncios	-
	Indicador de presença do anunciante	Sim	Em cada anúncio	Texto	Palavra: “on-line”

Quanto ao G2 cabe ainda algumas considerações no que se refere aos elementos de interface apresentados:

- ❑ Imagem para representar o grupo (grande ilustração ocupando a direita da tela, chamada pelos participantes de Laurinha);
- ❑ No canto inferior esquerdo, caixa contendo anúncios da categoria selecionada (apresentando somente um anúncio por vez);
- ❑ No menu de navegação surgem algumas categorias de anúncios, por exemplo, costureira, projetos etc.;
- ❑ Existência de sinalizador – no desenho é representada pelas palavras sublinhadas – para indicar qual a categoria selecionada no menu de navegação.

Na Tabela 2 é apresentado um resumo dos elementos de interface da síntese do G3.

Tabela 2: Elementos de interface apresentados na síntese do G3

Elemento	Está presente?	Local	Formato	Observações	
Menu de navegação	Sim	Lado esquerdo	Circular	Abaixo do <i>logo</i> do <i>site</i>	
Nome do <i>site</i>	Sim	Parte superior	Texto	Do lado esquerdo, acima do <i>logo</i> do <i>site</i>	
Logo do <i>site</i>	Sim	Parte superior	Imagen simulando uma “ciranda” de pessoas	Lado esquerdo, abaixo do nome do <i>site</i>	
Formas de Comunicação	<i>Chat</i>	Sim	Parte inferior direita	Texto ou voz	Como forma de contato com o anunciante caso esteja no momento <i>online</i>
	Telefone	Sim	Centro (no anúncio)	Texto	Como forma de contato com o anunciante
	E-mail	Não	-	-	-
	Fórum	Não	-	-	-
	Torpedo	Não	-	-	-
	Mensagem via <i>site</i>	Não	-	-	-
Indicação de presença dos usuários do <i>site</i>	Não	-	-	-	
Anúncio	Mídias variadas	Sim	Centro (no anúncio)	Texto e Imagem	-
	Navegação	Não	-	-	-
	Indicador de presença do anunciante	Sim	Em cada anúncio (canto inferior direito)	Imagen	Símbolo gráfico que representa que o usuário está <i>online</i> e, por isso, pode estabelecer contato – <i>chat</i> – com o anunciante pelo <i>site</i> . Imagem do perfil de uma pessoa, com cores diferentes

Quanto ao G3 cabe ainda algumas considerações no que se refere aos elementos de interface apresentados:

- Utilização de guias;
- No menu circular visualizou um indicador do item selecionado;
- Área de anúncios no formato de uma caixa, disposta na parte a direita centralizada;
- Título da caixa que contém os anúncios possui o nome do autor dos anúncios (anunciante);
- Dentro da caixa de anúncios existem guias para cada categoria de anúncio;
- Dentro de cada guia da caixa de anúncio existe uma lista de anúncios da respectiva categoria;
- Ao lado do indicador de presença ao se clicar uma caixa de *chat* surge para comunicação com o anunciante, caso o mesmo esteja *online*.

Na Tabela 3 é apresentado um resumo dos elementos de interface da síntese do G4.

Tabela 3: Elementos de interface apresentados na síntese do G4

Elemento	Está presente?	Local	Formato	Observações
Menu de navegação	Sim	Lado esquerdo	Seqüencial (textual vertical)	Abaixo do <i>logo</i> do site
Nome do site	Sim	Parte inferior central do site	Endereço Web	-
Logo do site	Sim	Parte superior esquerda	Imagem sem formato definido	-
Forms de Comunicação	Chat	Não	-	-
	Telefone	Sim	Centro	Texto em forma de balão sobre um ícone que identifica o anunciante Como forma de contato com o anunciante
	E-mail	Não	-	-
	Fórum	Não	-	-
	Torpedo	Não	-	-
	Mensagem via site	Não	-	-
Indicação de presença dos usuários do site	Sim	Parte inferior esquerda	<i>Smiles</i>	<i>Smiles</i> que representam os usuários. Coloridas para representar <i>online</i> e não-coloridas para representar usuário <i>offline</i>

Anúncio	Mídias variadas	Sim	Área central da tela	Texto e Imagem	-
	Navegação	Não	-	-	-
	Indicador de presença do anunciante	Sim	Ao lado da descrição do anúncio	<i>Smiles</i>	<i>Smiles</i> que representam os usuários. Coloridas para representar <i>online</i> e não-coloridas para representar usuário <i>offline</i>

Quanto ao G4 cabe ainda algumas considerações no que se refere aos elementos de interface apresentados:

- Existência de “encadeamento” entre os serviços;
- Na parte superior, disposta de forma lado a lado foram desenhadas caixas que sugerem a disponibilização de fotos contextualizadas de lugares/locais (alguns textos escritos dentro destas caixas são: fotos dos locais da vila, fotos novas, fotos antigas, condomínio);
- A região central foi dividida em seções (categorias);
- Por sua vez, cada seção apresenta anúncios da sua respectiva categoria.

Na Tabela 4 é apresentado um resumo dos elementos de interface da síntese do G5.

Tabela 4: Elementos de interface apresentados na síntese do G5

Elemento	Está presente?	Local	Formato	Observações
Menu de navegação	Sim	Parte superior central	Sequencial (textual horizontal)	Abaixo do nome do <i>site</i>
Nome do site	Sim	Parte superior	Texto	Do lado direito da área de anúncios (localizado mais ao centro e ocupando quase toda a parte superior)
Logo do site	Não	-	-	-
Formas de Comunicação	Chat	Sim Lado direito (ao centro da tela)	Texto	Como forma de contato com o anunciante
	Telefone	Não	-	-
	E-mail	Não	-	-
	Fórum	Não	-	-

	Torpedo	Não	-	-	-
	Mensagem via site	Não	-	-	-
	Indicação de presença dos usuários do site	Não	-	-	-
Anúncio	Mídias variadas	Sim	Lado esquerdo	Texto e Imagem	-
	Navegação	Sim	Parte superior esquerdo	Existência de imagens com setas viradas para a direita e para a esquerda, representando a possibilidade de navegação (anterior e próximo, respectivamente) seqüencial entre os anúncios	-
	Indicador de presença do anunciante	Sim	Inferior direito	Texto	Palavra: “on”

Quanto ao G5 cabe ainda algumas considerações no que se refere aos elementos de interface apresentados:

- Surgimentos de elementos que indicam a existência de área de apoio do *site* (na parte inferior centralizada)
- A área central foi dividida em duas colunas, sendo a primeira contendo informações sobre o *site* e notícias, e a segunda – mais a direita – um *chat*.