Improving User Experience: Designing an Intuitive and Visually Appealing Interface for University First Contact and Ombudsman Services for the Centro Universitario del Sur

Daniel Aréchiga, Adriana L. Iñiguez-Carrillo*, Neri A. González-Soto, Daniel Duarte

Abstract

In an unprecedented effort to comprehensively address the issues of gender violence, harassment, and bullying, the University of Guadalajara has implemented a support structure that involves the University Rights Ombudsman (DDU, Defensoria de los Derechos Universitarios, acronym in Spanish), the Unit for Equality (UI, Unidad de Igualdad, acronym in Spanish), and the First Contact offices (PC, Primeros Contactos, acronym in Spanish). Furthermore, The University of Guadalajara has established the Protocol for the Prevention, Attention, Sanction, and Eradication of gender violence (PPASE, Protocolo para la Prevención, Atención, Sansión y Erradicación de la Violencia de Género, acronym in Spanish) [1]. The University of Guadalajara has a network of university campuses throughout the state of Jalisco in Mexico. The Centro Universitario del Sur is one of these campuses, commonly referred to as CUSur. Despite these significant advancements in the implementation of the PPASE, the university community at CUSur generally faces challenges in understanding the processes, situations, and characteristics of these entities and regulations, placing victims or potential victims in a vulnerable situation. It is essential to expedite the information and attention processes for potential victims, and in this regard, technology can play a pivotal role. We are developing a technological intervention strategy to facilitate access for the university community, especially for victims who need to utilize the resources offered by the University of Guadalajara. To achieve this goal, we research user experience and identify the current usability of the webpage, focusing on understanding specific needs and challenges. The goal is to design an intuitive and appealing user interface that provides clear and accessible information about the available processes, services, and resources. Leveraging best practices in Human-Computer Interaction (HCI) is expected to enhance the visualization of the attention processes and foster trust in the entities responsible for providing support.

Aréchiga, Daniel., Iñiguez-Carrillo, Adriana L., González-Soto, Neri A., Duarte, Daniel.

Universidad de Guadalajara

Ciudad Guzmán, México.

Email: [vdaniel@cusur.udg.mx, adriana.carrillo@cusur.udg.mx, neri.gonzalez@cusur.udg.mx, eric.duarte@alumnos.udg.mx]

Through the implementation of a technological intervention, the aim is to streamline information and attention processes, thus facilitating access to existing resources. Technology can be crucial in optimizing communication, visibility, and understanding of services and processes related to the PC entities and the DDU. By enhancing the user experience, the goal is to develop an interface that meets the objectives of increasing trust, improving process visualization, and facilitating access to resources offered by the University of Guadalajara, especially for potential victims of gender violence.

Keywords:

User Experience; Gender Violence; Web Prototyping.

1 Introduction

In an increasingly digitalized world, user experience has become a critical aspect in the design of web interfaces, especially for services that deal with sensitive and highly significant issues such as gender violence, harassment, and bullying. The University of Guadalajara, recognizing the growing need for a proactive approach to address these delicate matters, has taken the initiative to improve the accessibility and effectiveness of its support services through technology. The university seeks to offer a haven and a straightforward process for those in its community seeking help. This article details the development of a user-centered technological intervention strategy aiming to enhance the experience of the university community members, especially potential victims of gender violence when interacting with the university's online services. Through careful research and application of best practices in Human-Computer Interaction, this project aims to design an intuitive and visually appealing interface that allows for simple navigation and access to crucial information, increasing trust and support in the entities responsible for providing these vital services.

2 Violence Prevention

Violence prevention is a process that has several components. Prevention is the only way to stop violence, even before it occurs. Olivares et al. [2] recommend four actions to prevent and address violence and harassment: educate the academic community about types of violence, have reliable reporting channels, provide guidance, and support, and promote the creation of academic societies. Another strategy is using social media to spread

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prevention messages [3]. Various academic institutions have implemented protocols in Mexico to prevent and eradicate harassment and violence. Table 1 shows some examples. While they have been a step towards creating safe, inclusive, and respectful academic environments, we still have much work to do to ensure that these protocols effectively prevent and address these issues. Institutions must continue evaluating and improving their protocols to create safe and inclusive environments for all students, faculty, and staff.

Table 1. Examples of universities that have implemented protocols to prevent and eradicate violence.

Institution	Protocol	Year of creation
Universidad Veracruzana	Protocol to Address Gender Violence [4]	2020
Universidad Autónoma de San Luis Potosí	University Protocol for the Prevention, Attention, Sanction, and Eradication of Harassment, Sexual Harassment, and Gender Violence [5]	2020
Universidad Autónoma de Chiapas	Action Protocol for Situations of Violence, Gender Violence, Harassment, Sexual Harassment, and Discrimination [6]	2021
Universidad de Guadalajara	Protocol for the Prevention, Attention, Sanction, and Eradication of Gender Violence [1]	2022
Universidad Nacional Autónoma de México	Protocol for the Comprehensive Attention of Gender-Based Violence Cases [7]	2022

Tlalolin [8] mentions the challenges related to university violence, highlighting three crucial aspects:

- Habituation and socialization normalize violent behaviors among university community members. This normalization hinders people's perception and awareness of these forms of violence.

- Experts emphasize the difficulty of establishing clear boundaries between acceptable and violent behaviors in the university environment. The subjective perception of social actors and the consideration of context, intention, and power relations are fundamental for this assessment.

- Many forms of violence in the university setting have a symbolic dimension, which makes identifying and reporting them challenging.

Students and other actors may not recognize these forms of violence due to their subtle and symbolic nature. These challenges underscore the need to address violence in universities, considering normalization, subjective boundaries, and the symbolic nature of these behaviors. The complexity of these challenges underscores the importance of studying and addressing violence from multiple perspectives. Among the measures established in the protocols are the definition of mechanisms, formats, and guidelines to guide and assist people who believe they have suffered violence, guidance to authorities on behaviors that constitute gender violence, training and sensitization of university staff, the creation of a registry of gender violence cases, the implementation of precautionary measures to protect affected individuals, the processing of the complaint in cases of gender violence, and the generation of dissemination and information actions so that everyone who joins the university knows the contents of the protocol.

The University of Guadalajara is committed to the prevention of violence and the integration of gender equality across all areas. With the goal of transforming the culture that generates exclusion and violence, it has been charged with designing and executing institutional policies on matters of equality, prevention, and care, as well as support throughout the process in cases of gender violence (Figure 1).
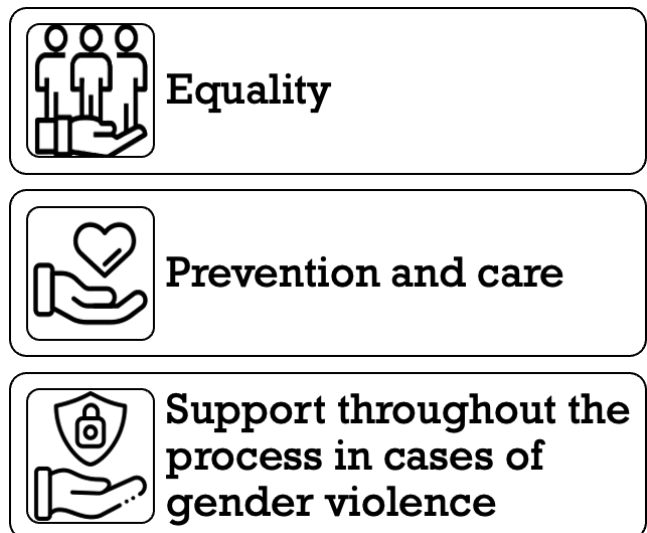

Figure 1. Topics in which institutional policies are designed and implemented.

3 Technology in violence prevention

Academic institutions need to ensure that their protocols are widely known and accessible to all members of the university community. These protocols can help prevent violence and ensure that people know how to report and seek help if they believe they are victims

of violence. Academic institutions mainly use websites to publish related information to disseminate the protocols. These sites primarily focus on showcasing the protocol document in a PDF format, providing links of interest mainly from support or reporting associations, the location of the support area within the university, dissemination of activities carried out by the responsible unit, information from the area manager and their team, as well as instructions for filing a complaint or report. People have also used social media to disseminate prevention and awareness messages about violence. While these technological interventions have contributed to the dissemination of the protocols, it is possible to use technology not only for dissemination but also for the prevention and detection of violence, such as:

- Surveillance cameras: Implementing security cameras in places within the institution can act as a deterrent for criminal or aggressive activities and assist in identifying and capturing criminals or aggressors.

- Social media monitoring: Tools that analyze posts on social media for language or behaviors that indicate threats or violent intentions.

- Panic button: Some apps allow users to alert authorities or trusted contacts in an emergency. Some even share the user's real-time location.

- Anonymous reporting platforms: Websites or apps that allow people to report suspicious activities or crimes without revealing their identity.

- Online platforms: offering courses and workshops on violence prevention, conflict resolution, and communication skills.

- Virtual reality simulations and games: Simulating risk situations, allowing users to identify risk behaviors and learn how to react to violent situations in a controlled environment.

- Chatbots and online helplines: Offer counseling and support to the university community, allowing them to seek information or request help anonymously.

These examples demonstrate the variety of ways technology can be applied to prevent violence and enhance safety in different contexts. These tools must be used ethically and responsibly, always respecting individual rights.

4 Objetives

The project aims to enhance the user experience when interacting with the website for the PC services and the DDU at the CUSur. This objective involves designing an intuitive and visually appealing interface that facilitates navigation and access to relevant information. Specific objectives include:

1. Identify the current usability of the page, focusing on understanding specific needs and challenges.

2. Design a website that conveys professionalism, transparency, trust, and accessibility.

3. Implement an information technology development plan to improve the user experience.

5 Research Questions

The project focuses on enhancing digital engagement with information and services, aiming for a seamless blend of functionality and an intuitive, visually engaging design. With this purpose in mind, the research questions are as follows:

1. What is the current usability of the page, and what specific needs and challenges do users face?

2. How can a website be designed to convey professionalism, transparency, trust, and accessibility?

3. What information technologies can be developed and implemented to enhance the user experience on the website?

6 Methodology

We employ a 4-stage methodology, as shown in Figure 2. Each stage aims to ensure that the new user interface meets the needs and expectations of the First Contact services and University Ombudsman users. We focus on deeply understanding the users, their goals, and challenges to design solutions centered on their needs. We will conduct qualitative research, such as interviews and surveys, to gather detailed information about users' expectations, preferences, and difficulties when interacting with the current website. We will analyze this data and use it to design the new interface, ensuring it is intuitive and user-friendly. We will conduct iterations and tests with real users to obtain feedback and validate the design. These iterations will allow continuous adjustments and improvements based on user feedback, ensuring the new interface satisfies users effectively.
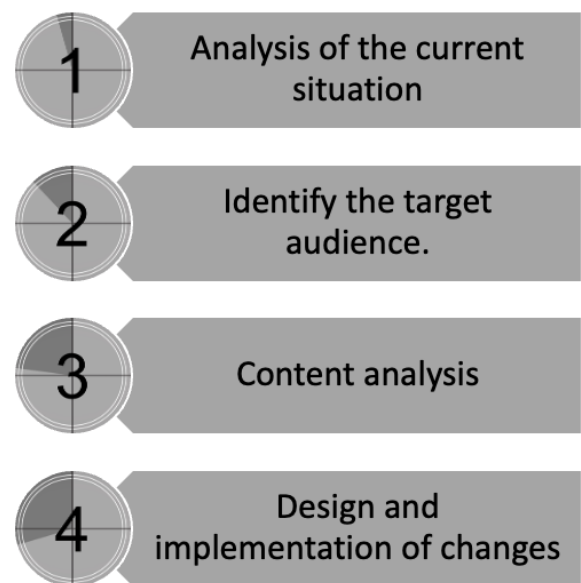

Figure 2. Project Stages.

Stage 1 - Analysis of the current situation. We evaluate the current state of the website. We review metrics such as current traffic, bounce rate, and average time on the site. We evaluate the current usability. We interviewed some experts in the field to obtain more detailed and qualitative information on improving the website.

Stage 2: Identify the target audience. We aim to understand who they are, their needs, what they are looking for, and what they need on the website. We conduct surveys to understand their experience on the website, what they dislike, and what they would like to see improved. We conduct usability tests to evaluate how they interact with the page and the obstacles they encounter.

Stage 3 – Content analysis. We review other similar websites to determine what they do well and what we could implement in the website update. We also evaluate the current content of the

page. We check that the information is relevant, useful, structured, and attractive, contrasting with the information we obtain from experts and potential users.

Stage 4 - Design and implementation of changes. We implement the necessary improvements to the website based on our findings. We conduct evaluations to measure the impact of the changes we implemented. We intend this stage to be iterative.

7 Research Status

We conducted a usability evaluation of the First Contact page. Five web design experts participated and applied Nielsen's usability heuristics [9] to identify potential usability problems in the design and interaction of the page. Some of their observations were:

- *The page contains much text; I believe we should include a design with images or a submenu to help users understand the site's content without reading everything and to help them find any information they need more straightforwardly.*

- *The page is static, presenting information to users in a flat list with, in my view, a lot (and only) of text. Although it follows the format of the entire site, it contains too much information and can be tedious to review the first few times.*

- *It is a very flat page without services or links.*

- *We should structure a web layout where the contents, in addition to consulting on the First Contact area, provide clarity in the processes they carry out and how they work with them when necessary, through content of interest for the intended audience.*

We interviewed people guiding the protocol to obtain more detailed and qualitative information on improving the website. Table 3 shows some of the functionalities they find convenient to implement on the website.

Table 2. Functionality.

Element	Functionality
Mail Box	Communication resource to receive and address all recommendations, complaints, compliments, and suggestions regarding the service provided.
Digital appointment system	Tool for managing an in-person or virtual appointment with the advantage of being able to confirm, cancel, or reschedule it.
Chatbot	Real-time chat system to answer frequently asked questions and provide guidance in case of incidents.
Promoter registration	Online registration and information for promoters wishing to volunteer in violence prevention and eradication programs, as well as promoting a culture of peace.

24-hour service	Automate support services in case of an emergency or crisis.
National directory	Include information about the services offered by different social assistance, psychological, medical, or legal institutions for comprehensive follow-up care.
Training Guide	Raise awareness with different promotion and prevention strategies in the face of gender violence.
Care pathway	Information about care processes, as well as guiding and informing about the services offered.

Currently, we are conducting a usability test using the System Usability Scale (SUS) instrument [10]. SUS is a recognized and widely used tool for measuring users' perception of the usability of a system or product. Participants evaluate their experience through a series of statements, providing their perspectives on the system's ease of use, efficiency, and overall satisfaction. This information is essential for identifying areas of improvement and ensuring an optimal user experience.

8 Expected Results

To achieve better dissemination of the Protocol for the Prevention, Response, Sanction, and Eradication of gender-based violence. Similarly, to ensure that the university community can easily identify the steps to follow in a risky situation and make a complaint quickly and efficiently if necessary. Technology should facilitate the processes by developing an interface that enhances trust, improves process visualization, and facilitates access to available resources.

9 References

[1] Universidad de Guadalajara, Protocolo Para La Prevención, Atención, Sanción Y Erradicación De La Violencia De Género En La Universidad De Guadalajara. México, 2022. [Online]. Available: https://secgral.udg.mx/sites/default/files/Normatividad_general/PPASEVG%20%28Abril%202022%29.pdf

[2] S. L. Olivares Olivares et al., "Me preparo para prevenir la violencia y el acoso en estudiantes de medicina en México," Investigación en Educación Médica, no. 40, pp. 86–96, Oct. 2021, doi: 10.22201/FM.20075057E.2021.40.21388.

[3] Observatorio de Derechos Humanos de la Mujer y Violencia de la UCAM. Estrategias para prevenir la violencia en la Universidad Libre de Barranquilla - Digital Mujeres. https://digitalmujeres.com/estrategias-para-prevenir-la-

violencia-en-la-universidad-libre-de-barranquilla/ (accessed Jul. 30, 2023).

[4] Universidad Veracruzana. "Protocolo para Atender la Violencia de Género en la Universidad Veracruzana" 2021 [online] Available: https://www.uv.mx/uge/files/2021/04/PROTOCOLO_080421_comprimido.pdf

[5] Universidad Autónoma de San Luis Potosí. 2020 "Protocolo universitario para la prevención atención sanción y erradicación del hostigamiento y el acoso sexual y la violencia de género". [Online]. Available: https://www.uaslp.mx/ViolenciaGenero/Paginas/Consulta-el-protocolo/3339#gsc.tab=0

[6] Universidad Autónoma de Chiapas. ¨Protocolo de actuación ante situaciones de violencia, violencia de género, hostigamiento, acoso sexual y discriminación". 2021 [Online]. Available: https://defensoria.unach.mx/images/documentos/protocolo_de_actuacion_ante_situaciones_de_violencia_UNACH_.pdf

[7] Universidad, Nacional Autónoma de México, "Protocolo para la Atención Integral de Casos de Violencia por Razones de Género en la UNAM". 2022 [Online] Available: https://www.defensoria.unam.mx/web/documentos/protocolo-atencion-integral-de-violencia-por-razones-de-genero.pdf

[8] B. F. T. Morales, "¿Violencia o violencias en la universidad pública? Una aproximación desde una perspectiva sistémica," El Cotidiano, vol., no. 206, pp. 39–50, 2017, Accesso: Aug. 08, 2023. [Online]. Available: https://www.redalyc.org/articulo.oa?id=32553518005

[9] J. Nielsen, "Finding Usability Problems through Heuristic Evaluation," in Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, in CHI '92. New York, NY, USA: Association for Computing Machinery, 1992, pp. 373–380. doi: 10.1145/142750.142834.

[10] J. Brooke, "SUS : A Retrospective," J Usability Stud, vol. 8, no. 2, pp. 29–40, 2013, doi: 10.1074/jbc.R115.675280.