Exercising Users' Tolerance and Solidarity: A Groupware Application for the Modus Operandi AND

Marlon Jonas de Oliveira Lima[1(✉)], Laura Sánchez García[1], and Fernanda Eugênio[2]

[1] Informatics Department, Federal University of Paraná, Centro Politécnico, Jardim das Américas, Curitiba, PR, Brazil
Deoliveiralima.marlon@gmail.com
[2] AND_Lab, R. Poiais de São Bento, Lisbon, Portugal

Abstract. This paper presents the development process of the web application that extends the Question Game giving it support to be played over the internet with a distributed setup. The game scenario is treated as a shared workspace, and the players its users.

1 Introduction

The internet is a crowded place where people can share their opinions at the ease of a click. Given this freedom, manifestations of intolerance are commonly seen over social media and comment sections in all kinds of websites. The virtual nature of communication in social media gives the user a sensation of anonymity, giving the power to say anything without taking the responsibility for those words. Nobody sees who is in the other side of the screen, and that fact helps words of prejudice, intolerance and hate. According to [1] this is the effect of the "online disinhibition" in which an individual behaves differently when using the internet. Among the causes addressed by the author we can highlight:

1. You do not know me (dissociative anonymity): users identity is not always revealed on the internet, and a sense of anonymity provides some type of security to express one's opinions.
2. You can not see me (invisibility): like the anonymity, the fact that in most cases no one is able to physically see a user during an online interaction increases the disnhibition to express one's opinions.
3. See you later (asynchronicity): most Internet communications do not happen in real time, not having to deal a persons reaction decreases the inhibition to say something aggressive or immoral.

Inspired by the primordial question How to live together?, the AND Lab researchers in Lisbon, Portugal, presented the Modus Operandi AND, a set of practices that exercise its users' tolerance and solidarity. This practice can be summed up in one Portuguese word: "reparar"(repair). Which in Portuguese has

G. Meiselwitz (Ed.): SCSM 2016, LNCS 9742, pp. 373–382, 2016.
DOI: 10.1007/978-3-319-39910-2_35

three different meanings that can be translated to "perceive", "stop again" and "repair". First, whenever an event is perceived in your surroundings you must stop your automatic response. Then you must repair your reaction to that specific event. This exercise allows us to analyze situations from different perspectives, allowing a more appropriate and sensible reaction.

The operating mode AND can be exercised by games and workshops. One of the games used by researchers is the Question Game. In this game its participants must interact in a limited scenario with several previously selected objects. Each player can make one modification to the scenario at a time. The game's purpose is to transfer the role of the player for the game itself. Each player must assess how best it can collaborate with the situation presented in the game, then exercising the three steps of "repair".

Up to now, the Question Game can be performed locally with one of the AND Lab researchers. In this context, this paper describes an application that supports the "Question Game", allowing it to be used remotely, distributed and synchronously, maintaining the determinant properties observed in its real world counterpart.

2 Modus Operandi AND

The Modus Operandi AND is a methodology for responsible decision-making, for improvisation contingent sustainable solutions for collaborative composition without a centralized leadership. Created from tools originated from Anthropology and Performing Arts, it has cross-applicability to any area, currently being used not only in the Performing Arts and Human and Social Sciences researches, but also in mediation practices in Clinical Psychology, Education and Pedagogy, Architecture and Urban planning, Political activism. Taking the form of a game with inherent rules from the play itself - that is, situated, provisional, traded act by players and therefore meta-stable - the Operating Mode AND explores the potential of the non-competitive recreational device to exercise the reciprocity skills, the sufficiency of gesture and careful handling, as well as the capabilities of self-observation in the act of sustaining relationships and ethical decision-making in the right timing.

While ethical and aesthetic approach to coexistence and cooperation policies, the Operating AND mode allows anyone to understand and exercise in practice the mechanisms of collaboration, conflict mediation and collective creation - be it in terms of a simple everyday conversation or of a professional design in durational or specific situations.

The present play structure resembles that of a board game, with the difference that in this game there are no predetermined rules, but the rules emerge from the difference in patterns and repetition that appear every time the participants take a position. Thus the game begins by delimiting an area of space, usually with masking tape on the floor to draw an empty square, or using the clean and smooth table top as the "board". This pre-defined space will act as "combined attention zone", allowing to establish an inside (inside the box) and outside (the outside).

The materials with which the game can be played can vary from players own body (with their capacity for action, motion and sound output) to an accidental set of objects, comprising elements in series (office supply, stationery and DIY kits) and unique elements (ornaments, household objects, clothes, toys and used objects).

The game has a minimum of 2 players and no maximum number. Any of the players present can play the game through a "position taking" - that is, the execution of an action within the board with or without the use of objects, duracional or temporarily, with or without trace. The "position taking" is made only through this "mark" on the board, without verbal explanations or direct conversation between the participants, since the conversation will materialize itself through another "position taking" also silent.

From the moment that a "first position" on the board arises, this works as "laboratory accident" for the other participants, and any of them can position himself to establish a relationship with this unforeseen situation - there is no order to the moves, or commitment to everyone to participate. Only the player who has just made a move is restricted and can not do anything in response, thus preventing from controlling the narrative and the unfolding of events. Slowly, with the establishment of the first relationship, then the subsequent relations with this relationship will emerge an immanent pattern. It's complexity depends on the amount of simultaneous relationships that remain between moves. This pattern will be at the same time sustained and transformed throughout the game, working as a common plan of coexistence within which participants negotiate, every round, the balance between their values, opinions and participation in the collective, that is, maintenance of this "material conversation" always alive, fluid and ongoing.

The game is divided in two consecutive phases: "find the game" and "play the game". The phase "find the game" is triggered when a "first position" arises on the board, and is fulfilled when, through the co-positioning, participants can establish together at least one relationship between relations. The minimum number for this to happen is three positions, enabling one first relationship (between the first and the second positions) and then a relationship with this relationship (between the third and the first + second positions). However, the game's starting can be postponed, if player moves do not establish any relationship and/or any relationship between relations. To avoid this risk of breakdown and inherent fragmentation of relationships, the Operating Mode AND proposes that the positions should be as explicit and open as possible, establishing situated and contingent coordinates WHAT, HOW, WHEN and WHERE, avoiding positions based on the response to questions WHY and WHO.

Once found the game, that is, the common plan, the phase "play the game" starts, from at least the fourth position. This phase involves the support of the immanent rules constructed by the collective, preserving its reciprocal character, while avoiding falling into a complementary relationship (that is, stiffening into laws and becoming therefore transcendent rules, with fixed content and predefined roles, features of the "Modus Operandi IS"), or a symmetry relationship

(that is, to shift into a competitive behaviour or disperse into an "everything is allowed" disrupting the group, features of the "Modus Operandi OR"). Playing the game with the Modus Operandi AND involves, therefore, while repeating, changing and maintaining the complex set of relationships relations that make up the common plan, balancing repetition and difference doses every round, taking as a criterion the event itself. This task constitutes the main challenge of the "play the game" phase, to "postpone the end", here understood as a synonym for "living together". The evolution of a session of a real execution of the game can be observed in Fig. 1.

The task of "postponing the end" involves continuous responsible care and fine sensitivity to the right timing to continue or change. The Modus Operandi AND proposes that "postponing the end" is made of a double movement: "accept the end" and "anticipate the end". On the other one hand, it is crucial that the

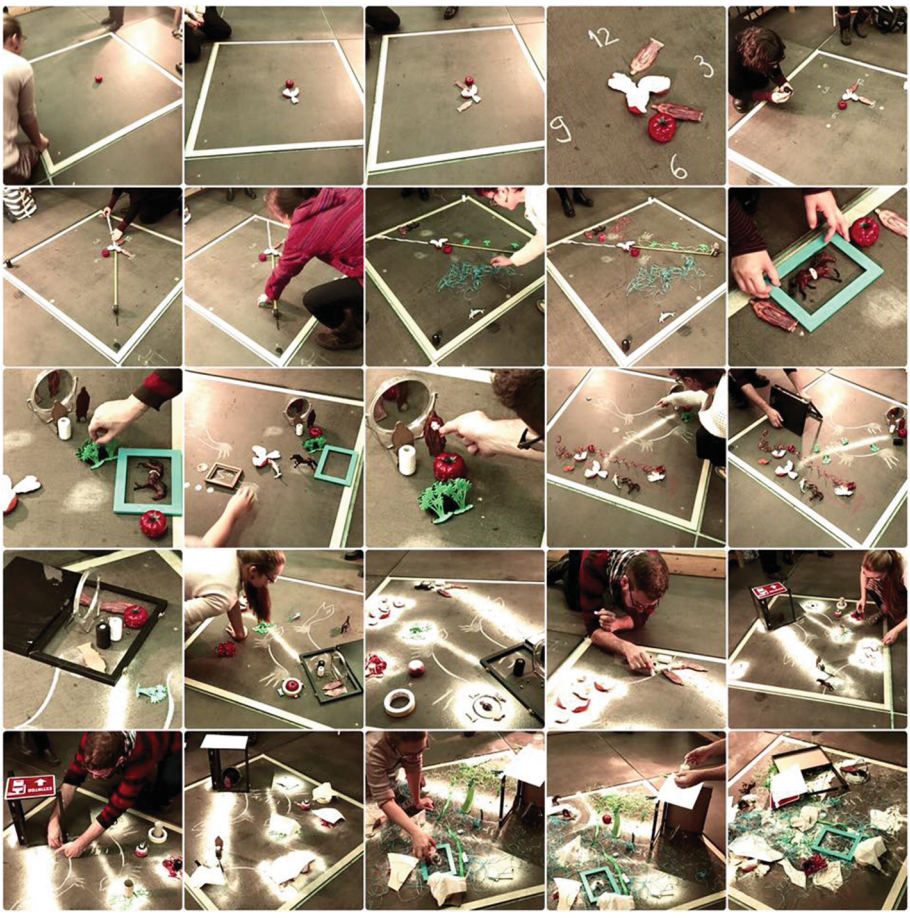

Fig. 1. Question Game session

early phase of "play the game" is marked by "accepting the end", that is, as soon as the "find the game" phase led the group to a common plan, it is essential to understand this will not be endless, using the clarity of the finite nature of things as fuel for a sensitive engagement of the participants in the next phase. At the same time, "postponing the end" will also involve an ongoing effort to "anticipate the end" - not in order to precipitate it, but in order to train attention to the signs of impending accidents or the exhaustion for entering into a loop, in order to take positions that seek to avoid them before they happen.

Thus, through a work bending-and-deploy and direct management of the materiality of events, it is possible to "think with their hands", train the attention to the common, the availability to the unexpected and the pleasure of the community, and to negotiate in practice the golden mean between personal affection and collective events.

Putting on the same plane thinking and doing through the "life model" device afforded by the variable scale board game, the Modus Operandi AND allows direct and experiential investigation of individual and collective mechanisms of coexistence, giving practitioners concrete tools to enhance collaboration processes, peer learning and negotiation of being-together. In particular, it allows each one to realize his own behavioral patterns, contributing to the development of emotional self-regulation skills, self-management of care (selection, focusing and coordination of stimuli), decision making and subsequent implementation. These skills are trained in game mode, to be then "returned" to the human scale of everyday life and social relations, emotional, family and professional practitioners.

3 Methodology

In this section the methodological steps to solve the problem are presented. Due to the great need for fidelity to the original Operating Mode from the Anthropology, regular meetings were held with the researcher that headed the Modus Operandi AND.

3.1 Requirements Specification

During the meetings we discussed how the technological support could assist in the execution of the workshops. As the game requires a complex scenario with various objects available and many possibilities of action, the development of a completely virtual environment proved to be unfeasible as the first approach. Therefore an initial solution was adopted, with the use of a real world scenario, broadcast via video conference to the players, and a mediator in the transmission site to perform the players moves.

To perform an action in the game - "take position" - each participant must answer to a series of questions before acting. The questions to be answered are: "What", "How" and "Where/When." They determine which object will be used and its position in the matrix space time. In a real-world session of the

game all these questions must be answered internally and transmitted through the position taking itself. In the digital instance it has to be transmitted by a structured text to the mediator, who will effectively perform them.

The system requirements specification process was developed in three steps. Initially a preliminary use cases document was written, based on the first meeting held with the researcher from AND Lab. Then a mock-up was developed so the researcher could evaluate the systems functionality. After the final review from the researcher a document with the use cases and the scenarios was produced from the use cases fragment structure presented at [2]. A use case diagram can be seen in Fig. 2. There are two actors, the player and the mediator, each one with an own set of possible actions. Each use case has been established in order to offer the most similar experience as possible to the real-world game one.

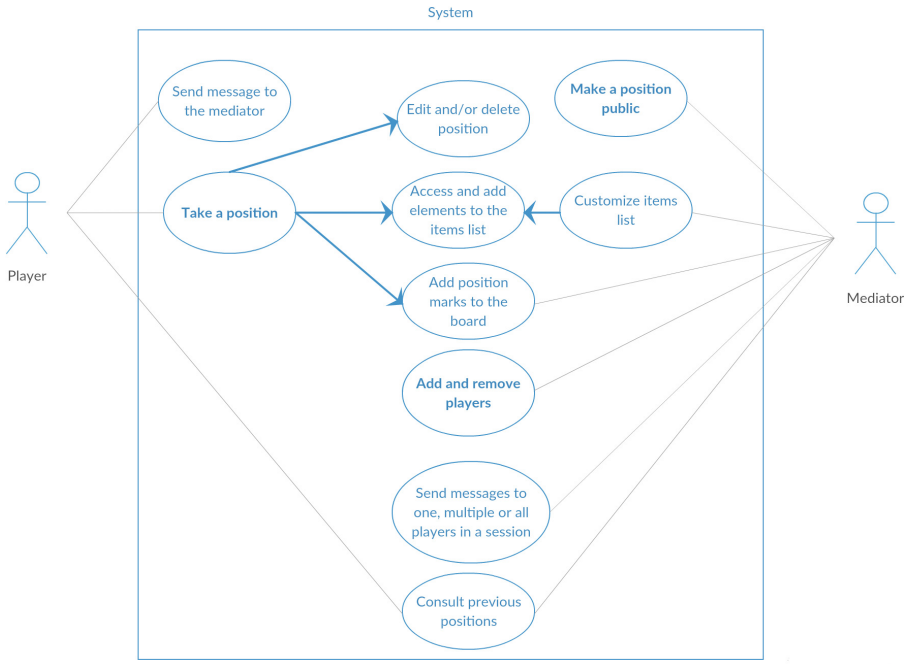

Fig. 2. Use cases

3.2 Background Research

With the use cases document at hands we could then begin our research of technologies and studies to assist our system's needs. Our main goal was to connect the participants and provide them a environment capable to held a session of the Question Game from begin to end. Computer Supported Cooperative Work

(CSCW) is the study of how people use the technology in relation to hardware and software to work together with shared time and space [3]. So it became the core of our research.

Every technology produced by studies in CSCW area is classified by some authors as Groupware. Although there is a fine line between what is considered CSCW and what is considered Groupware. "The groupware term is used to refer to the technology developed by the research CSCW [4]. [5], presents us a classification system based on "Time" and "Space" of the groupware users, as seen in Fig. 3. Our system requires a synchronous distributed interaction between the users, falling into the third quadrant. Same as video conferencing systems, backing our decision at early steps to use video conference to broadcast the game state to the players.

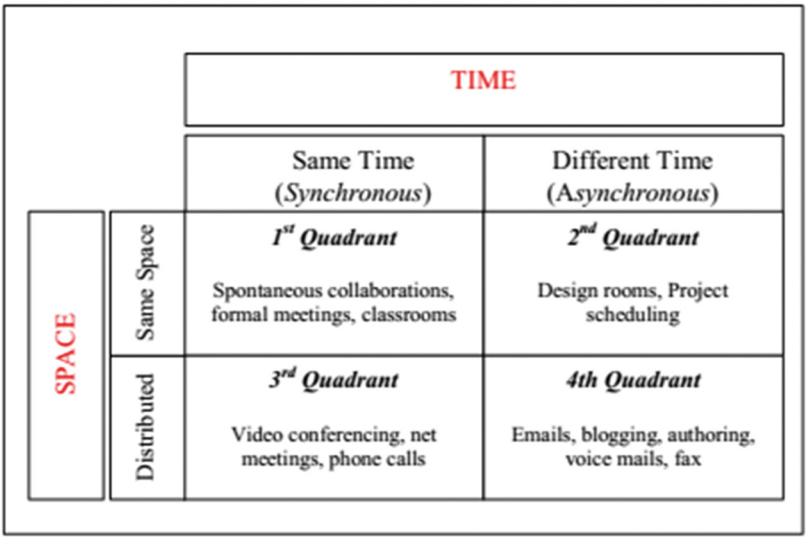

Fig. 3. Space x Time diagram Source:[5]

Cooperation is the main characteristic of a groupware application. As presented by [6], the 3 C model of Collaboration says that to collaborate a group has to perform three main activities: communicate, coordinate and cooperate. Additionally, our system require that all communication was done through the positions, no side talks should be allowed. To prevent them, all audios from the participants were muted, and the only way to communicate became through position taking. This decision was not, in fact, operational, but, instead, an innovative feature of the application, since it introduced in the Game of Questions a possibility no available at the real scenario. The coordination can be achieved through the game mechanics itself, so the system must address that to provide an environment capable of coordinating its users actions.

Various technologies are available to extend video conferences functionality. Webinars are powerfull tools that allow participants to send questions to the streamer and review past content at ease. The key feature of a Webinar is the ability to discuss and share information [7]. But they do not provide native means to manipulate or extend this messaging system. With this constraint all coordination responsibilities would fall into the participants hands, making it unfeasible to use "out of the box" Webinars systems.

3.3 Prototype Development

A survey was conducted to evaluate video conferencing solutions available to use within the application. Among the solutions found, the Google Hangouts[1] and the WebRTC[2] emerged. Given the ease of integration between the application to the video conferencing system, Google Hangouts was selected as the video conferencing solution for the application.

The alpha version of the application was developed as a web application using client-side JavaScript programming language and PHP server-side, with a MySQL database. For integration with Google Hangouts it was necessary to encapsulate the entire application in an XML, for it to work as an plugin to the video conferencing tool.

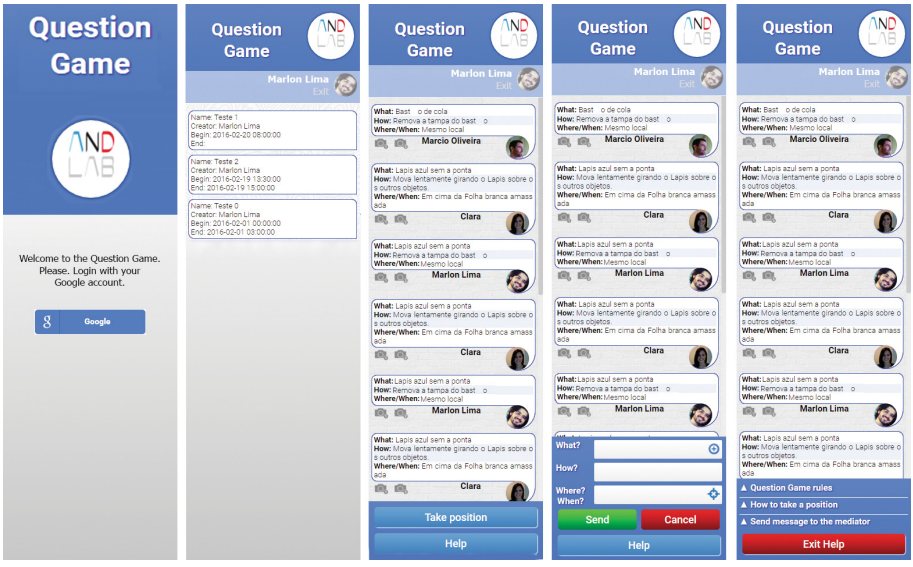

Fig. 4. Application Interface

[1] https://hangouts.google.com/.
[2] https://webrtc.org/.

4 Discussion

The solution adopted here was a simple application to exchange text messages in a video conferencing system. The application's difference is in the structure of each message and the tools to help its writing. All messages have been separated into three fields: "What", "How" and "Where/how." In the "What" the user can access a list of the items available for the position taking, facilitating the specification of the item or items needed. And in the "Where/When" the user has the possibility of instead of describing the positions of its statement, it can simply click on the key points of its movement and enumerate to determine the movement path.

Another feature added to the online version of the Question Game was easy access to previous positions. Feature difficult to assimilate the physical version of the game, it would be necessary to keep a photographic record of each position taken by the participants. Each message in the application approved are assigned two images, recording their initial and final state. Thus all participants can track how the scenario has changed along a session of the game.

All features designed to help the user in writing of the positions have been necessary to address the noise introduced by the use of a technology layer between the player and the game. A list of available objects became necessary because the user can not explore space of the game to find out which objects are at your disposal. The functionality of clicking to determine the positions also became necessary by the inability of the player to explore the scenery.

In discussion with the author responsible for the Operating Mode AND it was established that the introduction of technological layer also brought advantages to the practice of the Modus Operandi. Like any statement of position must be performed by text, the practice of outsourcing their wishes in a clear and structured manner assists in carrying Operating AND mode. The dispersed feature of the online game also assists in the implementation of the questions set by removing the noise introduced by any side discussion among participants. Thus each player can focus on the game and not the other players.

5 Conclusion and Future Work

The developed application meet the needs of a distributed synchronous session of the Question Game. The structural model adopted in messages helps players to describe in clear and cohesive way how the positions should be taken. Extra features presented in the application, such as the possibility to consult earlier positions, the assistance while taking the position, making it a more enriching experience for its participants.

As the developed application focus on providing support to the Modus Operandi AND, allowing it to be applied in remote and distributed manner, their use in other areas is restricted. However by adapting the message structure it can be used in any kind of scenario in real time. Providing support for a writing rapidly and dynamically for a specific context.

Two different groups are being formed: users already familiar with the Modus Operandi AND - to provide insights towards the online version's limitations, and novices to the Modus Operandi AND, to contribute with open questions.

These testes are expected to bring fruitfull information in order to develop a new version significantly closer to the physical one, while still taking advantage of the innovative potentiality of technological solutions.

References

1. Suler, J.: The online disinhibition effect. Cyberpsychol. Behav. **7**(3), 321–326 (2004)
2. Dias, F.G., Schmitz, E.A., Campos, M.L.M., Correa, A.L., Alencar, A.J.: Elaboration of use case specifications: An approach based on use case fragments. In: Proceedings of the 2008 ACM Symposium on Applied Computing, ser, SAC 2008, pp. 614–618. ACM, New York (2008). http://doi.acm.org/10.1145/1363686.1363835
3. Grudin, J.: Computer-supported cooperative work: History and focus. Computer **5**, 19–26 (1994)
4. Nielsen, J.: Multimedia and Hypermedia-the Internet and Beyond. Academic Press, Boston (1995)
5. Rama, J., Bishop, J.: A survey and comparison of cscw groupware applications. In: Proceedings of the 2006 Annual Research Conference of the South African Institute of Computer Scientists and Information Technologists on IT Research in Developing Countries. South African Institute for Computer Scientists and Information Technologists, pp. 198–205 (2006)
6. Fuks, H., Gerosa, M.A., Raposo, A.B., de Lucena, C.J.P.: O modelo de colaboração 3c no ambiente aulanet. Informática na educação: teoria & prática **7**(1) (2004)
7. Verma, A., Singh, A.: Leveraging webinar for student learning. In: International Workshop on Technology for Education, T4E 2009, pp. 86–90. IEEE (2009)