

The Word Game: a Social Design research tool to visually communicate values, beliefs, and intrinsic motivation

O Jogo de palavras: uma ferramenta do Design Social para comunicar visualmente valores, crenças e motivação intrínseca.

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word game, research tool, intrinsic motivation, social design

This paper describes a simple analytical technique, referred to as the Word Game (WG), used in the practice of Social Design, a user-centred, intrinsic-motivation-oriented co-design methodology developed in Brazil in the early 1980s.

This technique allows for the construction of new symbolic meanings for both users and designers involved in the process, and aims at a better understanding of project parameters. It allows for concepts to be explored and developed further within a visual organisation, so that designers can identify their interlocutor's intrinsic motivations. These can then be used as a starting point to define the main objective, and allow a meaningful design solution to be constructed.

The aim is to describe the technique and how it has been used by graduation students as a research tool, and to discuss its possibilities within a Social Design context.

jogo de palavras, ferramenta de pesquisa, motivação intrínseca, design social

Esse artigo descreve uma técnica simples de análise de dados, conhecida como Jogo de Palavras (JP), utilizada na prática de Design Social, uma metodologia de co-design centrada no usuário e orientada para a motivação intrínseca, desenvolvida no Brasil no início dos anos 1980. Essa técnica permite a construção de novos significados simbólicos tanto para os usuários como para os designers envolvidos no processo, e tem como objetivo um melhor entendimento dos parâmetros projetuais. A técnica permite que conceitos sejam explorados e desenvolvidos em uma organização visual, auxiliando os designers na identificação da motivação intrínseca dos usuários, que, por sua vez, podem ser então utilizadas como ponto de partida para definir o objetivo principal de projeto para permitir que uma solução de design com significado seja construída.

O objetivo é descrever a técnica e como vem sendo utilizada por estudantes de graduação como uma ferramenta de pesquisa e para discutir suas possibilidades dentro do contexto do Design Social.

1 Introduction

In collaborative design, understanding what truly motivates users is a very important part of the process, and several techniques and tools have been developed in order to enhance communication between the designers and the stakeholders in a project. Within the methodology of Social Design—a user-centred intrinsic-motivation-oriented collaborative design methodology developed in Brazil since the early 1980s—a simple yet effective low-cost data analysis technique called the Word Game (WG) has been created, adapting from previously existing techniques of visualisation. This particular technique allows users to structure and talk about their understanding of their own actions in a visual way.

Social Design is a design methodology that uses an approach of co-design, as defined by Sanders and Stappers (2008:2):

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By co-design we indicate collective creativity as it is applied across the whole span of a design process (...) Thus, co-design is a specific instance of co-creation. Co-design refers, for some people, to the collective creativity of collaborating designers. We use co-design in a broader sense to refer to the creativity of designers and people not trained in design, working together in the design development process.

Projects are developed within external groups or organisations, and an interlocutor is identified within the group. The interlocutor is a potential user with an intrinsic motivation, engaged in an action or series of actions already in place, with whom the designers will interact primarily throughout the process.

The differentiating characteristic of Social Design from other co-design methodologies is the need to identify of intrinsic motivation from the interlocutor, as defined by Ryan and Deci (2000:56):

Intrinsic motivation is defined as the doing of an activity for its inherent satisfaction rather than for some separable consequence. When intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external products, pressures or reward.

The correct identification of an intrinsic motive is of great importance in Social Design, as it will shape the objective of the project, with a direct involvement of the interlocutor. Social Design proponents believe that the user's pre-existing action—intrinsically motivated—coupled with a meaningful connection to the objective is what will stimulate the user to adopt the solution when it's fully developed. Once the objective is defined, the development process is similar to what takes place in conventional user-centred design methodologies, with experimentation and prototyping leading to the refinement of the solution (PACHECO and TOLEDO, 2012).

This paper aims to describe how this specific technique, referred to as the “word game”, has been used by design graduation students as a research tool designed to facilitate communication with the interlocutor in the project, and to discuss the possibilities of the technique within a social design context.

2 The technique

The WG is a visualization technique, used to assess the relevance of the data collected in the field and to gain insight on the interlocutor's perspective. The term visualization refers to a graphical representation of data and concepts, and it allows for the perception of emergent patterns that were not anticipated, which can lead to new insights; it also reveals information not only about the data itself but about the way it was collected (WARE, 2012).

The WG technique consists of gathering everything that has been observed in the field—discourse, impressions, actions, behaviours, emotions, comments, interviews, and reactions—and summarising them in words and phrases, which are, in turn, registered on separate cards, with no distinction or indication of hierarchy. There is no limit to the number of cards. Additional information collected through other means of research outside of the field can also be included in the same set of cards.

The cards are then taken to the interlocutor, who is asked to arrange them in a way that makes sense to them, using only the cards that they believe actually describe what they do, and their thoughts on the subject. The interlocutor is also encouraged to create new cards with words that might be missing in order to convey the entire picture, and to organise the cards into diagrams, in order to better describe their actions and their underlying meaning. In this way, the interlocutor can create and structuring new ideas or representing already existing concepts into the diagrams:

Diagrams are used to plan, design things, and structure ideas. Architects, computer software designers, engineers, and scientists use them as essential cognitive tools. Artist's notebooks are often full of diagrams that differ fundamentally from their sketches in that they are not visual prototypes for a finished piece of art; rather they are expressions of concept structures. (WARE, 2008:155)

When the interlocutor is satisfied with the arrangement of the cards, the designers can register the resulting image—by taking photographs or registering the entire process on video—and ask questions in order to understand the arrangement, and even propose new organisations.

As the interlocutor translates their perception of the situation into a tangible diagram, it is interesting to notice that, while many users show great clarity about how they perceive their own

actions, some are surprised by the insights obtained into themselves and their situation. Because of its fluidity and constantly changing nature, the WG technique also allows for creative thinking to take place and insights to be obtained by the arrangements. Elements of organization —such as spatial proximity (which can indicate groups), similarity (of shapes or meaning), connectedness, symmetry and direction, among others— reveal patterns and may convey meanings that hadn't been noticed by those collecting the data.

In order to develop competencies directly related to the quality of the observation of the user's universe and their activities and responses, the WG has been used for more than 15 years in Design undergraduate courses both at PUC-Rio (Pontifical Catholic University of Rio de Janeiro, Brazil) and UFES (Federal University of Espírito Santo in Vitória, Brazil), by students from the first to the last year in their design projects. When the technique is applied by the students, it helps them to communicate with the users and connect information in a way that would normally take longer for such an inexperienced observer.

Often, the words are organized by the interlocutor into lines, columns, piles or geometrical shapes; sometimes they create structures based on analogies, such as a body with limbs and a head, a heart or players distributed in a field, grouping concepts in consistence with the analogy. It is also common for the interlocutors to add new cards giving names to groups they created, making patterns and newly established categories more visible. In other instances, interlocutors have created more than one arrangement with the same words, separating them in distinct chronological moments, explaining the reasoning behind it, and disclosing new information that originated in moments other than when the observation took place.

Once the words are organised, a dialogue between the designers and the interlocutor can take place, in order to reassess the information collected and discuss the hierarchy of information, helping to define both the project goal, as well as design parameters which are based on what is important for the future users of the solution. By spatially reorganising the words, the designer can ask direct questions about the concepts, while verifying assumptions and incorporating newly found knowledge.

Similar popular techniques

Visualization techniques have always been used as an aid to cognition in different fields, from classical science and education to business and the arts, either in the form of diagrams, notations or models.

Visualizations are an increasingly important part of cognitive systems. (...) Indeed, we acquire more information through vision than through all of the other senses combined. The 20 billion or so neurons of the brain devoted to analysing visual information provide a pattern-finding mechanism that is a fundamental component in much of our cognitive activity. (WARE, 2012:2)

In fields related to creative thinking, there are a number of techniques designed to create and develop ideas, such as Mind Mapping and Brainstorming, from which the WG was derived. Although the WG is used in a very specific way in Social Design, it still bears some resemblance to these techniques.

Mind Mapping —also known as Idea Mapping or Concept Mapping—, made popular by British psychologist Tony Buzan, is a term that describes the process in which information is visually outlined by the graphical organization of ideas and concepts via links or association. It is usually, but not necessarily, organised in a radial tree-like structure, with a single word placed in the centre of a sheet of paper or board, which will be the starting point for the whole structure, with the rest of the information branching out of the centre. In design processes, Mind Mapping is often —but not restricted to— used to organize data and identify patterns which may lead to insights, similarly to the WG technique. They differ in the sense that the WG has no suggested organizational structure, and is organized not by those who collected the data, but by those who supplied it. It is in the different roles that lies one of the singularities of the WG, which is to verify the relevance and the underlying meaning of the data collected, and how the data connects from the point of view of those involved in the activity, bringing the designers closer to the perspective of the interlocutor. Also, because it doesn't have a conventional structure of organisation, it allows more freedom in the creation of analogies that might bring new insights or a greater understanding of the whole context.

As well as with Mind Mapping, the WG shares similarities to traditional brainstorming techniques, where emerging ideas are registered in separate cards and later organised spatially, according to their similarities or differences, enabling groups to communicate and organise their ideas, so that decisions can be made later. Both Brainstorming and WG work without a pre-existing structure and both tools enable users to visualize emerging patterns from the organization. Their main difference lies within the fact that brainstorming techniques are primarily used for creative thinking, while the WG is better utilised to analyse and organise research data, at the same time incorporating some creative thinking in the process, in the expectation of producing insights.

As with any analytical tool, the WG can be dynamically adapted to incorporate characteristics of other techniques, so that it becomes more effective in the processing of the data, as long as it preserves its main characteristics, which are to re-evaluate the quality and importance of the collected data and to gain insight on the perspective of interlocutor. In the same way as is commonly done with Mind Mapping and Brainstorming, images and drawings can be added to the structure, conveying a wider range of ideas in a more direct manner.

4 Conclusion

The adaptation of prior techniques into what came to be referred to as the Word Game was a natural development of the issues brought forth by Social Design, a methodology which characteristically looks for the intrinsic motivation of users and the flow of actions they are engaged in. Social Design takes into consideration how users structure their beliefs and how their actions can be leveraged to have a greater positive impact in the lives of the stakeholders involved. As a methodology created to educate future designers into creators of meaningful possibilities for society and, at the same time turn passive users into co-creators of their own reality, Social Design aims to add meaning and symbolic value to design solutions, so that new objects, services and products that are deeply connected to what users want can be created, and as a consequence, greater value will be created in their lives.

When all the information —both verbal and visual— that makes up this structure of meaning is turned into something that can be seen, touched and manipulated, it enables better communication and a deeper understanding of all the abstract ideas involved in the project, expanding possibilities and making it possible for meaningful innovation to take place.

As a dynamic tool present in a co-creation environment, it is expected that the Word Game will be adapted and merged with other techniques into new tools, so that it can yield greater results and the processes of co-design can be even more inclusive of the users in the co-design process

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