

# DESIGN AND SOCIAL INNOVATION: RESEARCH ON THE INTERACTIONS BETWEEN SOCIAL ACTORS AND OBJECTS DESIGNED IN EMANCIPATOR PROCESS TO GENERATE AUTONOMOUS KNOWLEDGE IN DESIGN

*DESIGN E INOVAÇÃO SOCIAL: PESQUISA SOBRE AS INTERAÇÕES ENTRE ATORES SOCIAIS E OBJETOS PROJETADOS EM PROCESSO DE EMANCIPADOR PARA GERAR CONHECIMENTO AUTÔNOMO EM DESIGN*

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## Key Words

Design; Research; Social innovation; Autonomous knowledge; Emancipatory process

## Palavras Chave

Design; Pesquisa; Inovação social; Conhecimento autônomo; Processo emancipatório

## ABSTRACT

Traditionally Design research begins with a double movement: in one movement, there is the theoretical knowledge to enlarge and consolidate our professional working practice, and in the other movement, there is the research through design from a practical intervention, which is, in turn, reinterpreted in the Design theoretical knowledge field. These two movements, reciprocal and asymmetric, lead us to reflect about our vocation and talents, concerning ourselves as designers and our activities in contemporary Design. In this way, a new research quality through design should be considered: one that predicts the construction of autonomous knowledge in relation to the traditional aforementioned movements. On the other hand, dealing with Design practice brings us to face the question of the planet's sustainability. Considering most products nowadays are not ecologically sustainable, we need to understand how product design may contribute to this issue. Since knowledge is materialized in products, we can magnify and value the qualities of such products towards the results we expect with our projects. Designers must create a bridge between the external and internal conditions that enable change through local experiences, presenting innovative knowledge and possibilities. That process has important implications for Design. In this logic, Design must create "networks" with meaning in people's relations, aiming at increasing these relations quality, and change the focus from product to the results in which this product is inserted.

## RESUMO

*Tradicionalmente, a pesquisa de design começa com um duplo movimento: em um movimento, há o conhecimento teórico para ampliar e consolidar a nossa prática profissional profissional, e no outro movimento, há a pesquisa através do design de uma intervenção prática, que é, por sua vez, reinterpretado no campo do conhecimento teórico de Design. Esses dois movimentos, recíprocos e assimétricos, nos levam a refletir sobre nossa vocação e talentos, referentes a nós mesmos como designers e nossas atividades no Design contemporâneo. Desta forma, deve ser considerada uma nova qualidade de pesquisa através do projeto: uma que prevê a construção de conhecimento autônomo em relação aos movimentos tradicionais mencionados. Por outro lado, lidar com a prática de Design leva-nos a encarar a questão da sustentabilidade do planeta. Considerando que a maioria dos produtos hoje em dia não são ecologicamente sustentáveis, precisamos entender como o design do produto pode contribuir para esse problema. Uma vez que o conhecimento é materializado nos produtos, podemos ampliar e valorizar as qualidades de tais produtos para os resultados que esperamos com nossos projetos. Os designers devem criar uma ponte entre as condições externas e internas que permitem mudanças através de experiências locais, apresentando conhecimentos e possibilidades inovadores. Esse processo tem implicações importantes para Design. Nesta lógica, o Design deve criar "redes" com significado nas relações das pessoas, visando aumentar essas relações de qualidade e mudar o foco do produto para os resultados em que este produto está inserido.*

## 1. INTRODUCTION

How can Design produce knowledge about ecology and society by means of situated projects? This question aims at the understanding of how such knowledge is generated, considering knowledge as the result of a dialogic and relational dynamics. In this respect, the theoretical model is intended to explain the dissemination of social innovation, seen from a perspective of mutual approach to knowledge regarding the advance of the role of actors during the action research. It involves the use of open and dynamic languages, which will help maintain existing relations and advance in the reciprocal actions between design, innovation and university extension, thus expanding the horizon of this work within the concept of Autonomous Education in Design.

In articulation with the theme Innovations in Education and, in methodological terms, with the maturing and continuity of projects conducted by Laboratory of Design, Innovation and Sustainability (LABDIS) the concept of a network named Autonomous Network was constituted as a research and extension project in 2008, with a Long-Term Scholarship granted by CNPq (CNPq, process no. 310735/2009-2, DT-2009).

Given these points and the development of actions based on the extension activities performed by the Laboratory of Design, Innovation and Sustainability (LABDIS) throughout its first ten years of work on teaching, research and extension in the field of Design, an emerging domain is now being organized in the School of Fine Arts of the Federal University of Rio de Janeiro.

Through the Autonomous Network, we intend to give visibility to initiatives produced in the everyday life of social actors that interact with the university by means of University Extension, translate these interactions into visual language, and facilitate communication and their transformation into innovation, besides making design an accessible tool for these same actors. In this context, design presents itself as a process that opens up in the form of dialogues and encounters. That poses important challenges in terms of methods, but, likewise, challenges related to a dialogic procedure, previously unknown in this field. This dialogue must ensure that the appropriation of the method by other actors involved in the situation will be a valuable experience, making sense in local terms, and transferrable to other situations. That is, this dialogue must guarantee the translation of a solution or an instrument from a situation to another. For this dialogic opening and this situational basis, the action of the designer can be seen as a process of social innovation (MONTEIRO, 2011).

## 2. THEORETICAL FRAMEWORK

The theoretical model for this research has as its main references authors like Lévy (1999), Guattari (2012), Liu (1997), Morin (2004), Zaoual (2005), Mulgan (2006), Manizini (2007 e 2008), Guedes Pinto (2014).

From the perspective of this theoretical framework, the proximity between people and the relations constituted by means of symbolic interactions and successive practices, and by means of what we experience before understanding conceptually, demarcates the limits of the intersubjectivity that stands between the problem and the solution. It establishes, thus, the field of action of Design for Social Innovation. This limit is a shared challenge, but not a projected one, for sharing demands that people be together and speak. An encounter with someone is the result of free acts detached from a utilitarian and instrumental view.

By opposing value, substantive and situated rationality to instrumental rationality, Zaoual (2005) proposes the notion of symbolic sites of belonging, and affirms that each problem that presents itself to a community will have an unpredictable and unexpected outcome. This unexpectedness results from the creative action of persons who form the community. As a corollary, human development in the form of situated development will be plural intrinsically, and the existence of diversity is the strongest indicator that alterity is preserved and reinforced as an ethic value. In his book "The Three Ecologies", Guattari (2012) refers to a social ecology which is expected to work towards rebuilding human relations at every level of the socius. This social ecology should never lose sight of the fact that capitalist power has been de-localized and deterritorialized, in extension, by extending its influence over the social, economic and cultural life of the planet, and also in 'intension', by infiltrating the most unconscious subjectivity. Therefore, it is not possible to take up a position of opposition from the outside, by means of trade union and traditional political practices.

If reality is understood as a process or group of processes grounded on relations and whose dynamics is produced by the contradictions which are an essential part of these processes, then the truth, something necessarily connected to this moving reality, will never be either finished or absolute. Quite the contrary, it will be relative, because it is a process, it is historic and dependent on the level of conscious reflection upon the laws of objective reality movement (contradictory), or even on the stage of material development process" (In: GUEDES PINTO, 2014, pp.51-53).

According to Manzini (2007), the designer plays the role of mediator and translator between the result as an articulator of new, autonomous knowledge, that is formed transverse and asymmetrically, in a process of social learning. This result goes beyond the scope of problem-answer and the designer becomes a mediator between the internal and external conditions of social transformation, as the result of social innovation. The designer is at times the co-author of these transformations and at times their sculptor, one that promotes and facilitates local experiences and the emergence of innovative knowledge and possibilities originated from these experiences in other contexts. At the basis of this research lies the understanding of relations established between persons, their work and the interfaces available for these interactions; the understanding of how these interactions are considered in the design of these interfaces, preserving the possibility of encounters that overcome the utilitarian view of systems and considering the complexity that involves them. This research has as its main references three projects managed by the Laboratory of Design and Innovation of the School of fine Arts/UFRJ: 1. Design in Popular Enterprises; 2. Footprint at Schools; and 3. Autonomous Education Network in Design. They received the following governmental grants: FAPERJ (E\_14/2012 - Support to Extension and Research Projects - EXTPESQ Type: Support to Basic Research, file no. E-26/111.503/2012); CNPq (Young Researchers, file no. 566444/2008-9 and CNPq Grant/Call: Productivity in Technological Development and Innovative Extension - DT 2009 File Number: 310735/2009-2); CAPES (New Talents Program, no. 046619/2013, 17/2013-CGV/DEB/CAPES) and MEC (PROEXT 2015 Edict, protocol 2213.2.411.26042014).

This approach is innovative in relation to the state of the art in the science of Design, cognitive science, ecology, social studies, creative analyses, and other approaches, since it has originated from academic initiatives named extension projects, in Brazil. Extension activities form a tripod structure with research and teaching, having as their main proposal the creation of a two-way, reciprocal and asymmetric communication channel between social actors, their knowledge, approaches and references, in order to build a common knowledge that be applicable to the solutions proposed in these actions.

### 3. OBJECTIVES

1. To develop a platform that will enable social actors - the target of extension projects - to work, with autonomy and solidarity, in the construction and

dissemination of social innovations that promote quality of life in everyday contexts.

2. To delimitate the field of action of design for social innovation, considering the levels of subjectivity and autonomy of knowledge in this field, and the integration to local contexts.

3. To strengthen and disseminate among partners the use of appropriate technology - applicable products, services and methodologies - developed in the interaction with reality, and which represent effective solutions to socioeconomic and environmental demands posed by partner communities.

4. To develop, implement and maintain a platform to give visibility and facilitate communication about the social innovations produced by the target groups of projects conducted by the Laboratory of Design, Innovation and Sustainability (LABDIS).

5. To implement an international laboratory where it is possible to set a cooperation agreement between the partners in this program, with possible exchanges in the fields of university teaching, research and extension.

### 4. METHODOLOGICAL APPROACH

For this approach relevant is the creation of cooperation networks that preserve the autonomy of actors in the generation of knowledge - and allow new cooperation agreements between different countries. That is an important part of this mission on the part of the Design Programs at the Federal University of Rio de Janeiro. For university extension in Design, networks that can strengthen the existing ones and guide them towards areas related to Design for Social Innovation and University Extension constitute an emerging domain for research and teaching in Brazil. That can apply to the School of Fine Arts of the Federal University of Rio de Janeiro (EBA/UFRJ), but also in another institutions. UFRJ adopts the concept of university extension, defined by the Forum of the Deans of Extension of Brazilian Public Universities: "University Extension, under the constitutional principle of inseparability of teaching, research and extension, is an interdisciplinary process of educational, cultural, scientific and political nature that promotes transforming interaction between the university and other segments of society". The directives that guide the formulation and implementation of University Extension actions, as stated by the FORPROEX (RODRIGUES & MONTEIRO, 2014), are:

1. Dialogic interaction
2. Interdisciplinarity and Interprofessionality
3. Inseparability of teaching, research and extension.

4. Impact on student's education
5. Impact on social transformation.

The proposal is to deal with each one of these directives by means of lectures and workshops, linking each one of them to teaching and research activities, within the graduate program.

**First workshop:** The first workshop will deal with dialogic interaction as a basis for social inclusion and participation of different social actors interested in the actions performed, with special focus on actors outside the university. In this workshop, we will also treat the appropriation and democratization of authorship in productions resulting from extension activities and the participation of each partner in the actions developed in the public university space. Finally, we will approach the ethical dimension of University Extension processes.

**Second workshop:** The second workshop will deal with ways of overcoming the dichotomy that separates the social fact as an experienced fact, a complex whole that is entwined with the subject, from the view of the specialist that tends to generalize problems and to fragment questions in order to treat them according to their own technical competencies. The basis for these workshops will be the combination of models, concepts and methodologies that can integrate Interdisciplinarity and Interprofessionality to give university extension actions the theoretical and operating consistency it depends upon to be effective in social transformation.

The three lecture themes proposed relate to the University Extension directives and to the role of design in social innovation:

1. Inseparability of Teaching - Research - Extension
2. Impact on student's education
3. Social Transformation

These themes approach the perspective of people's education, generation of knowledge (research), participative methods and action research, autonomous knowledge, curriculum flexibility and the accreditation of credits obtained from extension activities.

The proposal indicates that the organization of an international laboratory should be in compliance with the six structural axes established by the Forum of the Deans of Extension of Brazilian Public Universities – FORPROEX. The choice of axes to guide the organization of this laboratory resulted from the consideration that this way it would be possible to advance towards a concrete and pragmatic proposal to foster dialogue between several national and international institutes. What guides the choice is the belief in the importance of extension to students' education

and in the relevant role played by the University in social transformation. The structural axes are:

Axis 1: intends to give legitimacy to extension and acknowledge its position in university management.

Axis 2: deals with the academic insertion of extension, considering the actions already in progress in teaching units.

Axis 3: deals with the validation of extension, by means of the creation of extension and research groups with Institutes and funding bodies.

Axis 4: understands the necessity of university extension internationalization.

Axis 5: aims at the production of qualitative and quantitative evaluation indicators that encompass the nature of extension, that are measurable and auditable, and that allow evaluation and monitoring of the impact caused by extension actions.

Axis 6: aims at the strengthening of publications about theoretical-methodological reflections in the practice and knowledge relative to Extension.

Considering the aforementioned axes, autonomy is a central element in this laboratory, having as references the action research methodology and the participatory research methods to transform problems.

#### Summary of the Research plan

##### 1. Triggering

1.1 Admission to the host laboratory

1.2 Training on the use of the research project methodological instruments

1.3 Workshop 1 / Evaluation and triggering 35 days for the initial activities

1.4 Impact activity (event)

##### 2. Grace period

2.1. Identification and analysis of the results of the previous step (Triggering)

2.2. Proposal of new ideas

2.3. Identification of new problems

2.4 Workshop 2 / Consolidation of the results of steps 1 and 2 for paper publication

##### 3. Maturing and continuity

3.1. Planning, implementation and evaluation of the new laboratory

3.2. Series of lectures

3.3. Reorientation and new publications

##### 4. Evaluation and reproposal

4.1. Launching event at the international laboratory

4.2. Evaluation

4.3. Reorientation and organization of routines.

This research summary is based on the following

points, which complement those of other research teams involved in the proposal:

1. To develop an enabling platform that allows the advance of interactions between the social actors of University Extension, in order to contribute with the interactions within and between different universities in Brazil and in other countries.

2. To design this platform within a concept of open network so that the autonomy of actors is preserved and new platforms can be generated from the same principle, but with new interaction purposes.

3. To implement an international laboratory engaged in the three axes - teaching, research and extension in Design - making it possible to internationalize extension and to open up for new fields of research and action in Design.

The expansion of the horizon for teaching, research and extension in Design points to the opening of new fields for the practice of Design and Social Innovation in the country. In the School of Fine Arts/UFRJ, two undergraduate subjects – Introduction to Extension in Design and Extension in Design – are based on this research and on my academic experience acquired between 2006 and 2015 as coordinator of the Laboratory of Design, Innovation and Sustainability (LABDIS/EBA/UFRJ) and, since 2011, as Associate Director of Extension at the School of Fine Arts.

## 5. CONCLUSIONS

The creation of cooperation networks that preserve the autonomy of actors in the generation of knowledge - and that allow new cooperation agreements - is an important part of this research in view of the start of the Graduate Program in Design at the Federal University of Rio de Janeiro. As for university extension in Design, networks that can strengthen the existing ones and guide them towards areas related to Design for Social Innovation and University Extension constitute an emerging domain for research and teaching in Brazil. In the School of Fine Arts of the Federal University of Rio de Janeiro (EBA/UFRJ), that domain relates to University Extension, in compliance with strategy 7, target 12, of the National Plan for Education, as described in the proposal.

The participation of undergraduate and graduate students in extension actions and the accreditation of credits according to their level of participation is of extreme importance for these future professionals, in educational, social and pedagogical terms, regardless of their major at university. In the specific case of Design, the student can have a broader view of its social role, as has been shown

by the LABDIS in its ten-year experience in Design extension actions. As stated in the definition adopted by the UFRJ, “University Extension, under the constitutional principle of inseparability of teaching, research and extension, is an interdisciplinary process of educational, cultural, scientific and political nature that promotes transforming interaction between the university and other segments of society”.

These issues will be considered in the workshops proposed and discussed in theoretical classes, to allow the identification of local problems that can be adopted as references for practical approaches. This result goes beyond the scope of problem-answer and the designer becomes a mediator between the internal and external conditions of social transformation, as the result of social innovation.

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