

# SEMINARI SCIENTIFICI

a PhD course coordinated by Prof. Luca Guerrini – PhD programme in Design

POLITECNICO DI MILANO



DIPARTIMENTO DI DESIGN

**DOTTORATO DI RICERCA IN DESIGN**  
POLITECNICO DI MILANO, DIPARTIMENTO DI DESIGN

# Politically DESIGNED

14/7/2014 @Expo Gate. Conversations about political aspects in Design Research

Everything touched by man’s hand, has shaped the form of the future. Our ‘world of dwelling’ is a reflection of how we have conceived, produced, and reproduced things so far. History and methodology of design are built on a set of ideological values that declare how human beings should be viewed and treated. The act of things – material and immaterial – designed for the well-being of society is formed by political ideologies, in this way the function and form of things are designed politically or politically designed.

The political dimension of design research in a context of society, ideology and strategy will be explored and discussed within the four series of tracks. In particular, the seminar will face the following approaches: Individualism VS Collectivity, Top-Down VS Bottom-Up, Standard VS Unique, and Interpretation VS Transformation.



Luca Guerrini (1959) is associate professor at Politecnico di Milano, where he works since 1993. Educated in urban design, he did applied research works in the fields of mobility, environmental requalification, and design of public spaces. On a theoretical level, he works on aspects connected to the conception and perception of space and in the relations between design and figurative arts. He is professor at the School of Design, where he teaches “Interior Design” and “History of Contemporary Art”. He is member of the Doctorate Board of Design Research since 2002. He lectured at Specialization and Doctorate Schools, in Italy and abroad. He is curator of educational exhibits of design and architecture, he was consultant of the National Museum of Architecture of Ferrara from 2000 to 2006. He participated to national and international architecture competitions.

## 1. INDIVIDUALISM VS COLLECTIVITY

[h 14.30] Considering the articulated relationship between Design and Politics this track will pay attention to the connection between the individual, as a distinctive and original person, and the collectivity, as a group of individuals thinking themselves as belonging to an identifiable social unit. *If Politics means realizing (De Gasperi, 1949), Design, by its nature, will have a stronger connection with social and political behaviours. Above all, everything is politics (Mann, 1924) and this is specifically true for design, as a discipline that entails consequences on society and social practices, that inspires actions, behaviours, habits, and suggests models, practices and values. Each speech will investigate both the design and designer’s role during the conception and creation of products, services and experiences. These aspects, relevant and common for design discipline, will be observed from a new point of view in order to demonstrate how each research is linked to Politics and is related with community and individual.*

The speeches express the awareness that there are no methods a priori, but only approaches and strategies that take into account users behaviours, needs and values. In each presentation this approach is translated into a relationship between the individual and the community in its different levels. Some questions intend to provide wider reflections and to open the discussion to new interpretations.

### MEANINGFUL EXPERIENCES WITHIN GAMES FOR CHANGE

**Persuasive games as communication processes to involve and reflect**

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Traditions, local uses and values, culture and social habits are the constitutive elements of the complex and evolving inhabited spaces we live into. They are a system of values and habits which contributes to arrange our frames of reference. As a combination of behaviours and uses, our frames are deeply connected with the socio-cultural context we were grown into and that shaped us as individual, as citizens and as part of a collectivity. The pluralism, the ongoing social changes and the resulting emergent set of needs play a crucial role for the contemporary Designer. Dealing with social innovation, Persuasive Games and Games for Change can involve players in immersive and meaningful experience. By activating a critical reflection, these games can encourage players to: experiment specific perspectives; enhance the dialogue among local communities; facilitate learning

and transferring knowledge; introduce new patterns to foster change; sensitize to sustainable intercultural and transgenerational differences. This intervention investigates the ludic metaphor as a system able to foster awareness, stimulate individual and collective socio-cultural reflections.

### PARTICIPATORY AND DIALOGIC EXHIBITION PROCESS

**The designer role as mediator between individual cultural knowledge and museum**

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Museum was born with a political intention of democratization of knowledge. However for centuries museums have still been an elitist institution representing western cultural production and addressing to intellectual and wealthy publics. Following the traditional distinction between museum as temple and as a forum (Cameron 1971), we can affirm that today museums are more and more spaces dedicated to the dialogue and areas for sharing personal knowledge, closer to the idea of museum forum.

This presentation will focus on the ethnographic museums that from the expression of supremacy of Western countries, during the colonization time, converted to a place for the intercultural knowledge where extra-European cultures became an agent to stimulated dialogue and social cohesion. This identity transformation, stimulated by a rereading of their heritage, brought at new exhibition’s forms that include practises of indigenous curation and participatory exhibition process. This conception concerns the designer role, not only for his specific professional figure, but also for his mediator role among museum staff, heritage and communities.

### MOVING IN THE DIGITAL ERA

**Innovative personal mobility solutions for responsive urban spaces**

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Rapid urban growth underlines the double nature of city which may be considered on the one hand as a pivotal testing ground for technologies and social innovation; but on the other hand, as urban population grows, they also represent a battleground between individual and collective necessities, according to the need of differentiation, the tendency towards

dissimilarity, the desire for change.

As people are called to share the same urban spaces, possible conflicts may take place between personal interests and collective requirements; social life becomes therefore a sort of peace-treaty in which the tendency towards social equality and the individual tendency to stand out ought to find a balance.

This is particularly evident in the field of urban transport, since the individual is called to recast his identity in terms of flexibility, adaptability and instant transformation, in order to adjust his own interests to the social requirement for a more sustainable mobility.

The following dissertation intends to introduce a transdisciplinary overview of good practices, current trends, as well as of their possible evolution in order to suggest a framework for the design and the implementation of ‘tailored’ solutions capable to reconcile personal expectations and collective requirements, fostering at the same time higher transportation standards in our future cities.

### DESIGN IS POWER

**An inquiry on the dark side of design: leadership, conflict and influence**

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Design has explored dimension that do not refer to the way the designers work or research or think but to the power dimension that can be exercised through design, a hidden or “dark” side that deals with the politics and power.

I propose an inquiry into the politics behind the curtains of the design scene, and the manifestation of influence, manipulation and corruption of a given organizational system.

The idea is structured along the following research questions:

- How to acknowledge and harness the power mechanisms present in a system in which design operates?
- How to understand the power thoroughly in order to activate the forces and tensions that generate a change from potential to the manifestation of power?
- What are the consequences of the manifestation of power for the system or reference?

It is important to underline that the argument is based on the premises that act of “change” doesn’t have a positive or negative meaning but is simply necessary and present in each social and organizational system.

The capability to embrace randomness and uncertainty generated by the creation, preservation and destruction of power. ■

## DISCUSSANTS

## 2. TOP-DOWN VS BOTTOM-UP

[h 14.30] Design, in its several shades, often sparkles social innovation. We could refer to many design actions promoting societal transformations; in a way, any kind of design activity, due to their intrinsic innovative attitude, is an act of change. To put it into Herbert Simon’s words, “Everyone designs who devises courses of action aimed at changing existing situations into preferred ones.” During the last years, we are witnessing (facing?) a shift in design paradigms: design is becoming an approach not only to act and transform the society, but also to interpret, understand and analyse it. A great amount of the emerging design approaches (such as participatory design, co-design, Human Centred Design, User Experience & Emotional Design methodologies - to name a few) involve methods and tools to investigate the users’ perspective, which is nonetheless a way to make an interpretation of society. The result is a snapshot, a frame into which the past, present and future situations are designerly organised. In a neither sequential direction, nor opposite, there is the transformative attitude of design, which stays true to its core identity. Rather than opposing, these two approaches should be seen as intertwined. This section of Politically Designed addresses both tendencies in Design Research, as two “political” aspects of design: the dual need of interpretation and transformation that reflects in the empirical / philosophical attitude of politics.

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## 2. TOP-DOWN VS BOTTOM-UP

### SERVICE EVALUATION

#### A decision-making support tool for the public sector

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Evaluating is a complex process that implies responsibilities and a research aptitude. It allows understanding what works (or not) about a program, project or activity in order to replicate or refine it and its main purpose is to support decision-making processes. In this sense it can represent a support tool for private companies, but it is in the public sector that it finds its raison d'être, since public institution have to fulfill people's needs without reaching a competitive advantage. This intervention explores a new role for the service designer as a service evaluation designer, who, through a service design approach can support public actors in designing an evaluation strategy valuable for decision-making processes in the field of public services.

## BEING SOCIAL, BEING SAFER

### Design strategy for reassuring scenario

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The evaluation process of projects carried out by public institutions are able to determine not only the good result of actions systems and influence about the following investments, as the real trends related the answers of the users. The absence of this process creates several fragmented and unconnected operations that increase the distance between citizens and institutions, investing "public spaces", that should be "spaces for all" as a part of the "public city". This intervention describes a series of experiences defined as "practices of urban resistance" (Lambertini, 2013): regeneration processes (punctual or diffuse), developed through self-organized groups of citizens to answer to the needs identified as priorities but not considered as crucial by public authorities.

## DESIGN SCENARIOS

### Approaches and tools for planning innovation into design process

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My research is focused on the scenario building phase within design processes, where designers synthesize in an abductive sensemaking process that they organize, evaluate and filter data, to produce new knowledge. The lack of a specific method for scenario building was identified in the literature review, but there is the presence of different approaches. I propose an interpretative model (matrix) to categorize the approaches according to definitions, objectives, process and actors involved. The second part is focused on the tools used to build new futures to create a theoretical classification/structure to the scenario knowledge and to build a set of toolkits that are adjustable according to the different scenario objective, the used tools and the resources.

## NEW SERVICE MODELS IN A TIME OF CRISIS

### Exploration of strategies for subversion, intervention and resistance

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This applied action-research project focuses on developing a new service model within cities affected by the socio-economic crisis of 2008, using a bottom-up participatory design approach that enables young social entrepreneurs to collaborate and exchange their competences (knowledge, experience, skills, know-how) by applying a complementary currency system to be part of an innovative exchange mechanism between P2P interactions within creative co-working spaces. ■

## 3. STANDARD VS UNIQUE

*[h 14.30] Tangible and intangible aspects of design can be associated with ideological values in terms of customization (products with unique features) and standardization (products with standard features). Standardization has been risen as an effect of political, social and technical situation at the beginning of the 20th century. Standardization is often the consequence of mass production, the search for economy of scale and the satisfaction of widespread needs. On the opposite, the 'unique' tendency has been risen in the last 30 years of the 20th century, with individuals becoming more conscious of their unique traits, needs and tastes. Customization is usually linked with craftsmanship, higher prices for single piece and with the satisfaction of a niche of users.*

*Nowadays the border between standardization and customization, their linkage with technologies, and the resulting products' value are blurrier than before. This is a consequence of several socio-economic and technological factors, as the introduction of new flexible and specialized technologies, the birth of the open-source movement and the identification of new markets. On the other hand, the tendency of the users' involvement created new perspectives on design policies in terms of common good and selective good. The inclusion of the user during the design process can lead to better understanding of users' needs and to an increased usability of the final product.*

*In the framework of the political approaches of customization (unique) and standardization (standard), this track aims to discuss on the level of users' involvement in order to achieve the user inclusion in the final design.*

## +TUO PROJECT

### 3D printing as tool for co-design and co-production of assistive devices with and for persons with Rheumatic Diseases

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+TUO aims at co-designing and co-producing assistive devices for persons with rheumatic diseases. The co-design process is developed inside an interdisciplinary team composed by: designers, end users, occupational therapists and researchers. +TUO is based on the democratization, accessibility and sharing of knowledge and digital technologies such as 3D printing, CNC technologies and also DIY community-based approaches. The goal of +TUO project is to include the end-user during both the creative and the making process, in order to foster functionality

and, in general, acceptance of the assistive device. All physical outputs of this process are open-design and the goal is to deliver these projects in other contexts, characterized by different users, technologies and resources in general. Starting from the first functional prototype we can obtain an open design, that can consequently be copied several times creating a small series of unique projects available from the community. In this way also the design of assistive devices will be freely available to everybody.

## THE SEAMLESS JOURNEY

### A universal design approach to water-based public transit system

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The present research is aimed at studying accessibility issues of water-based transport systems, starting from the needs of persons with disabilities. The research will result in design guidelines and possibly in the transfer of solutions from other sectors, or in the development of new solutions that could allow a wider user base to benefit of the public transport system. The research adopts the Design for All approach, which states that the study of the needs of people with disabilities can result in products that are more usable for everybody. The approach has its roots in the political vision of the "Nordic model", which encompasses a "universalist" welfare state aimed at enhancing individual autonomy, promoting social mobility and ensuring the universal provision of basic human rights. In this perspective, this research has a democratic aim, willing to offer the same service (which in this sense is standardised) to everyone (and in this sense it cares of the unique needs of the different users).

## DESIGNING FOR NONVERBAL COMMUNICATION

### Impact of ICT-enabled design in the framework of non pharmacological therapies in Alzheimer's disease

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The goal of my research is to assist Alzheimer's patients gaining more benefits from the non-pharmacological therapies or, even slowing down the progress of the disease symptoms by merging design, ICTs and nonverbal communication. In order to

## 4. INTERPRETATION VS TRANSFORMATION

### PRODUCT DEVELOPMENT USING VEGETABLE FIBERS

#### An analysis of mechanical characteristics product development

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This research examines how the design of sustainable products can to provide environmental, social and economic benefits while protecting environment and society over the selection of natural material to developing of product design. Historically, environmental policy has been managed by bureaucracies and institutions in a mechanistic manner. However, we believe that if policy concerning product sustainability and natural raw material is managed in this way; and negative unintended consequences are likely to occur. Thus, we propose a social-ecological systems approach to policy making concerning product and raw material sustainability to lead more rapid and meaningful progress. This research explores the merging culture of sustainable raw materials and some strategies being developed within the context of design/sustainable products resulting in opportunities to create innovative, aesthetic, eco-products.

## MULTIMODAL AND MULTISENSORY ROBOTIC SYSTEM FOR CREATIVE SMES

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Most of the Creative Industries, including the design companies, are SMEs that develop their products by means of common IT tools, such as 3D software and validate them by developing real prototypes. However, Creative SMEs co-exist with global players and often face difficulties in adopting state of the art ICT and in accessing finance. The output of the research will be a multimodal and multisensory robotic system, which will transform the interaction of the designer with the product from the initial phases of the product development. This tool will be intrinsically low cost and therefore will be accessible to the Creative Industries thus increasing the quality of the designed products and leading to a reduction of the creative process, of the time-to-market, and of the cost related to the development of the physical prototypes.

achieve this goal, expert user mindset strategy will be applied to highlight the communicative conflicts led by neuropsychological symptoms of AD.

The research focus will be on the patient's nonverbal communication needs in the stage of disease where the patient loses almost or totally his consciousness. At that point, adoption of expert user involvement strategy for the common good of unique user rise as a necessity. Therefore, the engagement of therapists and caregivers as expert users in the design strategy will be the key point to reach the aim of the research.

In this line, qualitative research (interviews with therapist and caregivers and observations) will be conducted; the existing products/devices and objects will be analyzed and accordingly new design concepts will be developed. By focusing on specific needs of people with AD, it is planned to help the patients with other related dementia and with cognitive impairments.

## AESTHETICS OF INTERACTION

### Exploring the grammar of an emotional communication between people and smart system

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The element that makes the difference between two products is not only usability, but also what we might define as beauty and pleasantness of the product itself. In the world of product design, fashion, communication this is a concept rooted and accepted, and it is obviously the engine of the aesthetic research. It produces the variety of shapes, colors and materials that characterize the products surrounding us. This variety is often criticized and labeled as useless, but at the same time allows people to choose, not only from a functional point of view, the right product for them. In the world of interactive solutions, design research is often guided by usability principles rather than aesthetics one. This comes from a purely Anglo-Saxon conception that slavishly follows the user centered design approach, tending to exclude those aspects of intuition and aesthetic sensibility of the designer. We forget very often those that might be aspects of the interaction that characterize the experience, what if we as designers start taking care of the aesthetics of the act of use, metaphors, processes and behaviours involved in the process of interaction.

My research through design explores the use of metaphors and the study of emotions. It aims to enrich the interaction dynamics related to proactive behaviors, implicit interactions, perception of rhetoric and procedures, in the relationship between people and smart systems. ■

### AFFECTIVE GAMING AND EDUCATION

#### Children's development through use of affective toys

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Emotional education is a process through which children understand and manage emotions, feel and show empathy for the others, establish and maintain positive relationships, and make responsible decisions. This kind of learning is recommended for preschool children, for their social skills development. One kind of affective toys is often used to ease this learning process. These interactive toys represent and embody the fundamental emotions, through facial expressions, movements and sounds typical of those emotional states, in order to make children more conscious of their feelings. Thanks to the development of new sensors, these toys evolve day after day. They can autonomously detect children's physiological parameters and their tone of voice. These data, that are typical of each emotional state, are detected and interpreted, and translated into a corresponding emotion. The purpose of this speech is to introduce the concept of emotional education and to present several examples of learning process through affective gaming.

## EXPERIENCE DESIGN

### Methods & tools to interpret cultural and social changes addressing product perception

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During the last decades, Experience Design has been formalized in a structured methodology including contributions from various disciplines, such as sociology, anthropology, psychology & neurosciences. Experience Design can be defined as the design of artifacts focusing on the users' perspective, in order to elicit positive and meaningful experiences within users. To do this, a great number of methods to track & map human experiences and emotions are involved. This presentation brings a classification of the methods and tools used in Experience Design and presents several case-studies. These methods provide designers with a complete pattern of UX in a specific context, which is ultimately a set of information on society and people within it, exploiting the interpretative attitude of design. ■

