Thoughts and reflections on design wisdom: a cross-disciplinary path towards social innovation

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The present article exposes key insights from the field of aesthetic experience, design management and social innovation. Reflections are made in relevant literature and its practical applications in the contemporary scenario for design discipline. Drifting points on each of these fields are exposed together with the paradoxes that emerge from such drifts allowing the continuous self-construction of the knowledge hereby embedded. Reflections are made in directional bridges for Corporate Social Responsibility Programs and Design Philosophy in respect of solving relevant social problems and addressing root causes of human needs by encompassing social changes. Conclusions in this regard are discussed so to build design wisdom.

keywords: aesthetic experience; design management; social innovation; design wisdom.

Introduction

Aesthetics is a fundamental aspect on design, and it yields deep meanings for several scientific fields. Design discipline and the culture that emerges, from designers and the communities they serve, are responsible for their aesthetic and societal developments. Design discipline reaches organizational philosophy and business management becoming a tool of differentiation that firms are incorporating.

Social innovation, in the other hand, exhibits an emergent field of research drawing attention from business and operations management. Social Innovation is broadly defined as the development and implementation of new ideas (goods, product, services, model) to
meet social needs and to create new social relationships and collaborations. The article presents the relations and assumptions in these matters. The first section exposes the importance of aesthetics and human experience to face relevant changes to social structures by solving social problems. The second section presents the importance of design specialized knowledge together with its relevance for causing local development to occur by meeting social and technological challenges. The third section exposes the state-of-art of social innovation in regards of programs of Corporate Social Responsibility and its leveraging with cross-disciplinarity. Conclusions on future directions for research and development are elaborated

Aesthetic and human experience
In this paper, experience will be defined as to know facts by completely giving up to one’s own fabrications, where one directly experiences one’s own state of consciousness and there is no yet a subject and an object defined (Nishida, 1990). In pure experience knower, the object of knowing, and knowledge are completely unified and dualistic views are non-existent. The circularity of mind is not separated from body and such unity is a habit that can be trained and its dissociation a habit that can be bent.

The nature of beauty is a fundamental and clouded substrate in the theory and practice of design. Historical attempts to grasp its objectification have been broadly made. In design discipline attempts are made to the perception and construction of aesthetics of interaction systems. In this domain, simplistic notions of aesthetic experiences in regards of visual appearance and functionality have drifted towards vitalized notions of deeper and newer insights of the environment. In the philosophical scene, aesthetics has been elaborated on a) aesthetic judgements, b) aesthetic emotions, and c) aestheticized ethics; where human experience is the vehicle of its manifestation, appreciation and appropriation.

Aesthetic judgements are judgements of beauty and ugliness, taste and displeasure which are specified by a subjective principle of personal feeling, and a transcendental principle of universal validity emerging from a cognitive mastery (Varela et al, 1991). Aesthetic emotions are the elicited emotional content from that which is related, and the causes of the arousal of such emotional content (Yeh, 2015). Ethics (Von Foerster, 2003) has been linked with aesthetics relatively recently in the Western moral grid of understanding, and the discussion is extensive, therefore it will be mentioned that such unity points out to the notion of living ethically (learning how to act) by living aesthetically (learning how to see). If such unity can be pondered with this article in respect of design discipline, then it shall be said that the perception of beauty is elevated by the number of choices increased by our designs.
In Pragmatic aesthetics (Shusterman, 2000) three core dimensions are identified: a) Socio cultural context; b) designing for mind and body; and c) instrumentality of aesthetics. In this vein, such theories have been applied in the design of products (Ross et al, 2010) and intelligent systems (Petersen, et al 2004). Principles for unfolding design in these matters have been elaborated so to account for these cores.

First, design of aesthetic experiences presents beauty being rewarding by itself and making a practical difference at the same time. Secondly, it has an ethic dimension for design since aesthetics influence and modulate human behaviour through value creation. Third, design of aesthetic experiences considers form of objects to unfold behaviours of interaction thus opening design up to the dynamic of use. Fourth, aesthetic experiences involve the whole of human physiology: sensori-motor coordinations, cognitive and emotional functions and social abilities. The third principle has been elaborated for designing behaviour, and therefore the product architecture maintains a clear societal importance in regards of the structural and organizational change of living social systems. Design of behaviours is design of sensori-motor coordinations that user shall perform.

The drift in aesthetic experience, from arts to other fields and from visual appearance to deeper environmental insights have been approached by design methods such as multisensory design, which directs senses to specific expressions (Schifferstein et al, 2008); synesthetic design, which connects cross-sensational modalities of sensory channels for selecting features of products (Calvert et a, 2004); participatory design which brings users and relevant stakeholders to participate actively in the design process (Wilkinson, 2014), and design of experience framed under the broadly known economy of experience (Pine et al, 1998). Such methods compiled in approaches of Design Thinking (Dorst, 2011) have been used by firms and organizations for increasing the acceptance of a product and therefore its sales revenues and earnings levels. Also, design thinking methods have been used by firms for reducing cost and complexity in a system and optimize a capital binding and time management. The generation of value from service offerings and so building brand identity by using product/service systems as a stage that engage customers and users in a memorable event, has been a successful practice with reported benefits for firms and organizations.

Design of aesthetic experiences embedded in objects (commodities, goods, services and experiences) with a clear value on large-scale societal challenges and social change, have been conditioned mainly to fit economic interests of firms rather than the communities from which objects appear to emerge, and assume objectivity. The question then arises: how such methods and tools can better serve social values while generating business models with architectures and research strategies that construct themselves. Especially
when in such state of affairs a clear majority of the generated design language, design knowledge and design cultures that allows the engagement of such architectures have been framed under moral and differentiated grids of understanding which rejects the essence of key drifting points.

Such drifting points that articulate innovations and are source of creativity, constitute the coordinates for the unity of a collective consciousness on social needs (operations) and societal change (organization). Therefore, design philosophy (which main thought-object is aesthetics), design epistemology (which main thought-object is ethics) and design phenomenology (which main thought-object is experience) oriented to social change should account paradoxes as facts. Paradoxes that yield one meaning when apprehended in one way, and one meaning when apprehended the other.

Such matters for innovators (discoverers and inventors) where design discipline appears as a sophisticated and differentiated self-producing coordination of dealing with the unknown and uncertainty by making it visible and useful, must be directed to build design wisdom.

Table 1  Key drifting points in the fields of aesthetics, design, and social innovation.

<table>
<thead>
<tr>
<th>Field</th>
<th>Focus</th>
<th>Drift</th>
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<tbody>
<tr>
<td>Aesthetics</td>
<td>Pragmatism.</td>
<td>From visual appearance (materialistic reductionism) to deeper environmental insights (non-dualism)</td>
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<tr>
<td></td>
<td>Neuro-aesthetics</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Design Management.</td>
<td>From design of objects (integration) to a way of thinking and doing (holistic)</td>
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<td></td>
<td>Design Thinking</td>
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<tr>
<td>Social Innovation</td>
<td>CSR.</td>
<td>From manufacturing and production technologies (market oriented) to social technologies (value oriented).</td>
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<tr>
<td></td>
<td>Business and operation Management.</td>
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Design Philosophy and Design Culture

Design as mentioned above, has also experimented drifting points that have leverage the discipline. At its foundations, the traditional view of design (Manzini, 2016) considers the engineering of products for serial production by using appropriate industrial technology. The traditional view of design also accounts for the process from which products arrive to the hands of end-users. From the traditional view of problem-based and solution oriented perspectives, design has drift towards a way of thinking which involve a learning-while-doing. The second road of design points out to the generation of meaning, social and economic value while generating methods of quality criteria. Such drifting point grasps the notion of meta-design (design the designing process) (Fischer, 2003) where creating the socio-technical conditions of participation is as important as creating the object itself.

As the creative industry has evolved so has design in its paradigms. Design Thinking as a descriptive view of the discipline (Dorst, 2006) has been broadly acknowledged with extensions in business and operations management. The establishment of a frame between the space of the problem and the solution, implies that applying a working principle on a system a specific value is caused to occur. Since the nature of problems is...
always changing and the knowledge needed to solve them is never complete, they are called ‘wicked problems’ (Buchanan, 1992). The strategy of reframing by constantly challenging the state of affairs present in the problem system shall generate an appropriate and original solution system. Therefore, design consists on the dynamics of complex and not-finite open-ended systems to closed-circular and finite systems and back again. In other words, face the paradox of creating closed-circular solutions to open-ended problems by creating open-ended solutions to closed-circular problems. The core of such paradox is change in conformity with the interests of organizations.

![Figure 2 Symbolic representation of a design paradox. source: Own illustration.](image)

Designers count with strategies with degrees of differentiation and specialized knowledge to do so (Francis et al, 2005), (Verganti, 2003), (Fine, 2000), (Ulrich, 1990), (Meyer, 1997), (Schön, 1983). Such specialized knowledge that accompanied by a solid business and marketing perspective compose the ground of design management, portrays a career pathway for professional designers leading to senior executives and directors that range from academics to consultants. Specific tools and evaluative methods of design management are currently being developed as design drifts from design of objects to a way of thinking and learning-while-doing. Design management is focused mainly on process innovations, where internal and/or external activities of firms and organizations are targeted and improved, especially in regards of time management and strategic planning.

Innovating on external activities can be seen oriented to augment competitive advantages of firms, this by performing market studies, conducting benchmarking, analysis of key competitors to visualize new market acquisitions and business opportunities. Innovating on organizations’ internal activities can be seen oriented to improve quality management, this by performing optimizations on internal logistics and supply chain evaluations, analysis of core competences and strategies of modularization, differentiation and diversification on firms’ portfolio. Companies and organizations report benefits that effectively differentiate their businesses by incorporation of design activities in their operations.

The creative abilities, divergent skills of designers are broad in applications of technology. And as such, designers can hit interests from private and public sectors and fit appropriate and original solutions. A unified and autonomous design wisdom should encompass the closure and opening paradox as fruit from current drifts of design discipline to social empowerment and citizen participation, from where other domains of science such as
Cybernetics, Computer Science and Material Engineering are providing meaningful breakthroughs.

As stated in the previous section, design of behaviors through intelligent product/service systems with emphasis in sensory activity is a promising vein. Furthermore, design management and process innovation are receiving particular attention from adjacent scientific domains, which are complementary to design. Design culture and its core in aesthetics have served so far to interest of large-scale companies and in the current century, with its advances in science and technology such discussion is also experimenting drifting points. Developing societies are striving towards sustainability while the communities from which design cultures emerge, are scouting and experimenting into design activities and initiatives in an endeavour for meeting immediate needs such as education, healthcare, transport and energetic systems among others.

Such communities mainly from South America, Asia, Western Europe and some in North America such as Brazil, Mexico, India, Russia, Romania, Czech Republic and Canada have been introducing design philosophy and wisdom into their local businesses and social innovation programs with a focus on public policies. Such countries have visualized the potential of the drifts in design, and are taking measures into action and thus leaving linguistic consensus to the academic bodies of design, entrepreneurship and innovation.

In regards of facing societal needs, where the same design culture is produced autonomously among local communities the question of identity then arises, in domains of culture, organizational philosophy and territory. A defined identity on these domains is a core on developing technologies that support a collective consciousness so to face universal needs that go beyond the immediacy of experience.

A defined identity on these domains holds positive values on societal change that facilitate transitions and change management. In the same way that design discipline has elevated itself towards important plains and dimensions through the methodologies discussed, so have local communities which sparsely aiming for social entrepreneurship and critical thinking have made their way into new markets and industries. Is clear from these reflections, that design wisdom has a bridging and integral responsibility where innovation and creativity have a task on unification, or in gramscian words to reshape the form of hegemonies into ecological and sustainable settings. Such reflections accompany the critiques made to industrial design and its harmful impact on society (Papanek, 1972).

Social Innovation, Corporate Social Responsibility and inclusive growth.

In the other hand, social innovation (SI) has presented a rapid growth on literature and interest in these early young years of the XXI century (Van der Have et al, 2016). Engaging citizen participation and collaboration from sectors of the population that share common visions of a possible future (Manzini, 2014) is becoming an attractive initiative for companies in desire of address their impact on society. Social innovation, as well as aesthetics and design presents drifting points from where paradoxes emerge that allow the self-construction of the field. For instance, four areas for action of social innovation have been identified by Van der Have:

- Community psychology: Multistep process for systematically producing change in social systems grounded under scientific evidence of effectiveness. Examples in
India with the National Social Assistance Programme (NSAP) in initiatives such as Old Age Pension Scheme, Disability Pension Scheme, Family Benefit Scheme and Annapurna.

- Creativity research: Research in the creative process of innovation and technology as a way to generate and implement new ideas of social organizations and relationships to meet common goal. Authors in these areas elaborate examples as the formation of an International Monetary Fund or Boys scout among others.
- Social and societal challenges: Innovative solutions to societal and technical problems looking for sustainability of climate, environment and health provision. For example, Danish initiatives in the field of design scouting on bringing down the price for clean potable water in Africa through low-tech means using the sun.
- Local Development: Satisfy needs in communities, neighbourhoods, regions, rural and urban settings by empowering and changing the relations between local civil communities and governing bodies. For example, in Hungary the enterprise MOL Nyrt developing the initiatives of THANKS! Program, an alliance between local organizations and education institutions for school community service; and the MOL Greenzone program: a nationwide program for developing and rehabilitating greenbelts with community functions.

SI is based on criticism to dominant business models with narrow economic visions that have been historically present in developing societies hindering meaningful societal change and significant advances of society. SI has the potential for causing change to occur on large social structures in conformity with corporate identities and strategy making by focusing innovations on solving societal problems rather than cutting-edge technologies. The core concepts hereby involved in the paradox of SI consist in encompassing significant societal change in structures by solving a relevant social problem and human need. Therefore, create positive economic and exchange value through business innovations (introducing new objects (i.e products, processes, services, experiences) while at the same time transcending these objectives towards policy making by generating meaningful social value. The paradox hereby involved then it has its origin in the notion of social technologies where meta-design plays a fundamental role. The paradox consists on a bifocal approach to social innovation where social needs are met while encompassing a societal change, and social value is produced by generating business innovations.

![Figure 3](source: Own illustration)
At difference from cutting-edge technologies which main driver is manufacturing, production and information systems oriented to different markets targeted with business innovation, social technology points out to involvement and empowerment of human interactions rather than physical engineering. In social technology, designing behavior and procuring that knowledgeable people coordinates is a key. Therefore, besides coordinating design resources for causing positive economic value to occur, the exchange of knowledge and agreements is fundamental for societal goals.

Such approaches have been incorporated in large and medium scale firms in the concept of Corporate Social Responsibility (CSR). CSR gathers the development of a business ethics in business practice with a voluntary management towards a sustainable development (Szegedi, 2016), where the main challenges for organizations is the implementation of CSR programs that cope with their brand identity. CSR as well as SI is based on the degrees of involvement and empowerment of multi-layered stakeholders where the company’s expression of its awareness to the local communities through development programs (Rudito, 2014). CSR initiatives is on a circular relation with SI, social entrepreneurship and thus conform Corporate Social Innovation (CSI). CSI bridges the paradox between social innovation and business innovation, by making clear the social and economic values to be generated in the background. CSI and CSR are part of an innovation culture, where design culture relates to, and by extension so it does design wisdom.

Firms and organizations by expanding towards CSI and CSR have reported quantifiable benefits as shown in the literature referenced, by empowerment of communities for causing local development to occur and meeting socio-technical innovations of societal change. Design can play a decisive role in this state of affairs, and indeed it seems clear that so it should be done since meaning, social and economic values are key directional drivers for designers.

The challenge for CSR and CSI is to fit value propositions with market preferences and formalize the structures hereby produced. Methods derived from case studies and good practices that account for the unity of aesthetics, design and social innovation are a necessity for the involved actors. Since CSR and CSI programs present numerous difficulties and challenges in developing countries which root causes are the ones hindering local development and societal change. Facing root causes by constructing realities based on common future visions with a validity based on evaluated methods is the main challenge.

Design philosophy and design wisdom should then be oriented to face root causes and by constructing realities through dialogs among actors are factors that may cause Design culture to emerge. Root causes have to do with historical sense and culture, that embedded in moral grids of understanding among the key social actors are the ones causing in communities a resistance to change. Strategic flexibility and fluency are core principles in change and design management, where such principles are present from the ideation of a concept to the manufacturing of a product and its logistics of processes. Therefore, knowledge proliferation oriented to action in regards of flexibility and fluency is a corner stone in design philosophy, since is the creation of focus and structure in the empowerment and engagement among local communities which must provide empirical tools for CSR, CSI, and SI.
The drifts identified in Table 1 are the stable ‘hinges’ from which social innovation can engage into action, and make design philosophy a philosophy-in-action. A practical direction from which such philosophy should be oriented, would be inclusive growth, which points out to reducing inequality and inequity. Inclusion and creativity are two related concepts. These concepts are present in socio historical debates, and hold a possible integration for philosophy and social innovation to act. Inclusion, inclusive design or universal design, acknowledge the need of change in social structures. It addresses more contemporary and local debates present across developing and developed societies such as racial and ethnic discrimination, gender segregation and inequality, exclusion of persons with special educational needs and barriers in access to healthcare systems. And as the same as SI, it seeks an outcome in policy and strategy making.

Inclusion (Author, 2016) and universal design points out to the maximization of access to information, technologies and processes (Rose et al, 2010). Universal design for learning (UdL) proposes principles for designing inclusive processes that can serve aesthetics, design and social innovation to achieve their goals.

The basic three principles are a) provide multiple means of representation; b) provide multiples means of action and expression; and c) provide multiple means of engagement. Such principles are based on another key debate across societies which is the wide range of applications lead by neuroscience, as a science eminently devoted to brain research. An oversimplified division of such field can be described in 1) pattern recognition capabilities in posterior regions of the cortex (mostly attributed to language); 2) motor and executive functions in the frontal regions of the cortex (mostly attributed to ‘higher’ cognitive operations); and 3) affective and emotional capabilities in the medial regions of the central nervous system (mostly attributed to hippocampus, amygdala, and limbic systems). The neuroscientific objectives of UdL in conformity with SI can be described as the innovative development of novel and appropriate technologies (social and cutting-edge) for value generation (meaning, social, and economic) for causing social changes to occur.

CSR, CSI and SI in this regard may find a directional bridge from being corporate discourses to becoming effective business strategies. And design philosophy may equally find a directional bridge from being a linguistic consensus to becoming an effective holistic methodology and transcend the discussions of the academy to the practical field that they can elevate.

**Conclusion**

Social innovation is recent field of research, and furthermore a recent aggregate in design discipline. Design thinking plus business and marketing perspectives become Design Management. Corporate Social Responsibility and Corporate Social Innovation are endeavours from companies and communities to achieve common visions of possible futures. Aesthetics experiences are a prominent foundation that can be tracked to each of the backgrounds of the respective fields called forth.

The article revised briefly reflections in regards the self-construction of the fields with emergent paradoxes from drifting points, and argued that such paradoxes constitute a directional bridge for a philosophy-in-action and furthermore constitute a design wisdom.
Firstly, the article revised the importance of perception and construction of aesthetics experience in respect of its implications on design. Summarizing this point, design of behaviour is a promising direction in developing product and process architectures (commodities, goods, services and experiences). Secondly, the article exposed the evolution of design discipline in respect of design thinking and design management. Synthesizing this point, design discipline and its specialized knowledge can contribute with pertinency to cause value generation in societal changes and meeting socio-technical needs by engaging firms into action with communities. Thirdly, social innovation can leverage sustainable societal changes by addressing social needs with cross-disciplinary insights. Summarizing this section, universal and inclusive design with its convergence with neuroscience present better insights for addressing root causes while at the same time can offer companies, firms and organizations formalization of CSR and CSI programs with its positive benefits.

Nevertheless, because of the recent unification of these fields, there is need of empirical methods and evaluative tools derived from experiences, good practices and case studies that account for validated societal advances on social problems and the unifications hereby employed. The literature and reflections presented offer a directional bridge for: a) CSR and CSI programs, in respect of business innovation with opening to policy and strategy making; and b) design philosophy and wisdom, in respect of relevant and meaningful pathways towards research strategies that support the construction of empirical tools and holistic methodologies of action in the contemporary societal scenario.

References


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