An overview of "Design" public policies: exploring the cases of India, Queensland (Australia) and the European Union

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Abstract

This paper aims at providing a comparative qualitative analysis overview on a selection of public policies on "Design" within different geographical locations. It is based on the observation that policy makers have been embracing "Design" as an opportunity to promote development in different dimensions (economic, social, environmental, among others), which has led to the research question "How are Design public policies around the globe shaped in regards to their context, aims and structure?". Within the context of this research it is particularly key to take step back and look into the more fundamental question of how is "Design" understood and how multiple, confusing or simple absent definitions can limit the possibilities it represents for growth and jobs. The analysis is focused on the geographical locations of India, Queensland (Australia) and the European Union, which have dedicated public policies on "Design"; these locations are not meant to be exhaustive but a first approach. The originality of the proposed work lies on the possibility to further understand the expansion of "Design" within public policies, by taking a macro-perspective on this subject.

1. Context and Aim

This paper is anchored within a larger research project on the topic of "Design" public policies aiming to develop an improved framework for mutual understanding, both from the perspective of the policy maker and from the perspective of the project developer in search for public funding support (Monteiro 2017). This is done by by looking at each side needs, constraints and aims, focusing on the role that each considers appropriate for Design (Monteiro 2017). This paper intends to provide insights on the perspective of the policy maker.

Within this wider context, the aim of this paper is then at providing a comparative qualitative analysis overview on a selection of public policies on "Design" within different geographical locations, as a way to provide insights for the question "How are Design public policies around the globe shaped in regards to their context, aims and structure?".

This question is also a reflection on the evidence that Design itself has multiple perspectives and practices (Erihoff 2008) and is also undergoing a process of expansion and development onto new fields (Canha 2017) and how policymakers are capturing and pushing that process for the possibilities that Design represents for growth and jobs (Mulgan 2014; Raulik-Murphy 2010; Whicher 2016). Within this context it is then particularly key to take step back and simultaneously look into the more fundamental question of how is "Design" understood and applied

The approach taken therefore focus on the qualitative dimension of public policies to analyse how Design emerges within the selected cases of India, Queensland (Australia) and the European Union and can provide insights into the framework of analysis laid out above.

2. Methodological approach

The analysis of these three public policies documents was developed by taking a two-level and complementary approaches: a first direct comparison between the referenced public policies in regards to their objectives/context, definitions for Design, evidences and assumptions, actions and target-groups; and a second level based on a preliminary comparative content analysis (Krippendorff 1980). The approach details are presented in section 3.

Selection criteria for geographical locations

The selection criteria for the policies under analysis was five-fold:

- The availability of a public policy solely focused on "Design" and not encapsulated in other documents which main objective is not about "Design";
- Ensuring different geographical and political formats, on the assumption that such approach can provide a broader and more distinctive comparison;
- The use of the English language by the policy makers for the development and presentation of such policies as to level the comparison and eliminate translation errors (as this research also deals with the conceptual dimension of "Design");
- "Design" has not been pre-defined but instead an open approach is taken in the sense that possible different interpretations for "Design" and how it can be used emerge directly from the public policies;
- To focus on the framework of such public policies as they are presented (as opposed to their development process, their operational implementation or evaluation).

These criteria converged on the locations of India, Queensland (Australia) and the European Union.

<u>Limitations and assumptions</u>

Comparing public policies must comply with a set of guidelines to ensure that equivalence is achieved between all documents. However, comparing public policies that are developed by different administrations, within different contexts, different approaches to policy making and different timeframes, implies that what is able to be compared is more limited if proper conclusions are to be drawn. As such, the following limitations and assumptions were established, as presented in Table 1.

Table 1 - Limitations and assumptions identified for the development of the comparative analysis.

Administration level: while all three public policy documents were developed at different levels of government, which implies different decision powers, it is considered that independently of the department responsible for its development, ultimately there was one department responsible for such task in each location.

Local policy lexicon: as differences are to be expected regarding the lexicon approach for each strategy / policy, these are taken into consideration by clustering words with similar meaning under aggregated topics ("dimensions") that emerged throughout the analysis.

Timeframe: while the analysed documents were developed in different periods (Queensland (Australia) - 2008; India - 2007; European Union - 2013), they differ at most 7 years, it is considered that such difference is not significative;.

Reference to "Design" in other public policies: an exhaustive research would imply mapping all references of "Design" in public policies that center on other issues (i.e. "environment" or "automotive industry") as to analyse how it's used in those contexts, however it is considered that for practical reasons this would not be feasible at this stage.

Focus on "Design": this research focus solely on public policies dedicated to "Design" as a way to analyse how this discipline is considered when looking at it through its own lenses.

Document versions and evolutions: it should also be noted that each of these locations had one version of its "Design" policy document developed and published as of today. Such consideration ultimately implies that no other documents are available for comparison when it comes to this topic in these locations.

3. Analysis of "Design" public policies in India, Queensland (Australia) and the European Union

3.1. A first glance: direct comparative analysis

Approach

For providing such analysis, a set of topics were defined as to allow a better comparison between strategies / policies. Such topics emerged from a first observation of the different strategies / policies and on the analysis that such documents took different approaches for communicating the established strategy and are as follows: objectives / context, definitions for design, evidences and assumptions, actions and target-groups.

Results

Table 2 presents the available information as is, by selecting the appropriate content fitting to the topic.

Table 2 - Presentation of public policies for Design of India, Queensland (Australia) and the European Union. Extracts were selected according to the topic under analysis.

	India	Queensland (Australia)	European Union
Objectives / Context	"() strengthening quality design education at different levels, encouraging use of designs by small scale and cottage industries and crafts, facilitating active involvement of industry and designers in the development of the design profession, branding and positioning of Indian design within India and overseas, enhancing design and design service exports, and creating and enabling environment that recognizes and rewards original designs"	"The vision of the Queensland Design Strategy will be achieved through the following key objectives: Strengthen the Queensland economy — increase the use of design in Queensland businesses to ensure global competitiveness. Foster a design culture — increase understanding, awareness and recognition of good design and design thinking and its benefits to our economy, society and environment. Build design knowledge and learning — enhance creativity and design in education and learning at all levels and improve the availability of design research to better inform issues, trends and responses by	"The Innovation Union, a flagship initiative of the Europe 2020 strategy, recognises the importance of capitalising on Europe's creative potential, especially the role of design in bringing ideas to the market."

		government and business. Encourage public sector innovation — increase understanding and awareness of the value of design in the Queensland Government, and its potential to enhance the delivery of public services and infrastructure and address Queensland's social, economic and environmental challenges."	
Definitions for Design	No clear definitions provided.	"Good design is sustainable design. It is a process joining creativity and innovation and delivering value. Good design is a quantifiable benefit, not a cost. Its value can be measured economically, socially and environmentally. Creativity generates ideas and innovation exploits them. Good design connects the two. It links ideas to markets, shaping them to become practical and attractive propositions for customers or users. Good design is a verb, not just a noun. It is a process, and not just about products. It is a way of thinking; a set of cognitive skills, methods, tools and techniques that defines problems, discovers solutions and makes them real. It results in objects, systems or services that work aesthetically, functionally and commercially, improving people's lives and making the smallest possible impact on the planet."	"Though still often associated solely with aesthetics, the application of design is much broader. A more systematic use of design as a tool for user-centred and market-driven innovation in all sectors of the economy, complementary to R&D, would improve European competitiveness."
Evidences	"Strategic role of design for	"Good, smart design is an	"Design is increasingly

and assumptions

national and industrial competitiveness is now universally recognized. Value addition through innovations in designs can play a pivotal role in enhancing the competitiveness of both manufacturing and service industries."

"Design is a driver of innovation and is recognized as a key differentiator for providing a competitive edge to products and services."

essential driver of our economy and plays a major role in our everyday lives."

"Design adds value to our community on many levels. It can shelter, inspire and humanise society. We use design to improve products, processes and environments. It impacts on what we experience and how we experience it. Design can also improve everyday life for all sectors of society and give the world a sense of our cultural identity — how our history and place have shaped who we are and how we live. Design provides innovative solutions to human problems — it's a process that's purposeful, systematic and creative. Designers take creative

ideas and transform them into viable, functional and marketable products, recognised as a key discipline and activity to bring ideas to the market, transforming them into user-friendly and appealing products or services"

"Analyses of the contribution of design show that companies that strategically invest in design tend to be more profitable and grow faster "

"Design provides a series of methodologies, tools and techniques that can be used at different stages of the innovation process to boost the value of new products and services.

Actions

"

- Preparation of a platform for creative design Development (...);

- Presentation of Indian designs and innovations on the international arena (...);

- Global positioning and branding of Indian designs (...);

"

"

- Setting up of specialized Design Centres or "Innovation Hubs" for [other] sectors (...);

- Formulation of a scheme for setting up Design Centres/Innovation Hubs in select locations/industrial clusters/backward states (...); - Preparation of a plan for "

systems and communications."

- To implement the Queensland Design Strategy effectively and monitor, report and evaluate the Strategy's performance

- Improve the competitiveness of Queensland businesses through design

- Increase the capacity of Queensland designers to meet future demand

- Develop markets for Queensland design and architecture

- Increase understanding, awareness and recognition of design and its value to our economy, culture, society and environment

- Improve creativity and

"

1. Promoting understanding of design's impact on innovation;
1.1. Advocating design's role in innovation to policy makers across Europe

1.2. Measuring the economic impact of design and its role alongside other intangible assets in value creation
1.3. Applying design methods in multidisciplinary research and innovation

and innovation
programmes that address
complex challenges
1.4. Developing
competencies and
applying methods for
design-driven innovation

training of trainers and for organizing training programmes in specific processes/areas of design and continuing education programmes (...); - Making India a major hub for exports and outsourcing of designs and creative process for achieving a design-enabled innovative economy;

"

- Setting up New Design [education] Institutes;
- Upgrading Existing Design Institutes and Faculty Resources to

International Standards;

- Initiation of Action to seek "Deemed to be University" Status for

National Institutes of Design;

- Encouraging the
 Establishment of Departments
 of Design in Colleges
 of Engineering and
 Architecture;
- Upgrading quality of engineering design, machinery design, process design, design materials, environmentally sound and socially and culturally relevant design;
- Design Training in Vocational Institutes and K-12 education:
- India Design Mark: India's New Design Seal of Quality;
- Developing Strategic Alliances (...) with design firms, institutions, associations and governments abroad;
- Organizing Workshops and Seminars to generate awareness and disseminate information particularly in the small scale and cottage industries sector;
- Training for Craftspeople and Artisans;
- Facilitating the establishment of a Chartered Society for Designers;
- Intellectual Property Rights

design in education and learning at all levels

- Improve the availability of design research
- Increase understanding and awareness of the value of design to the Queensland Government.

in education and training 1.5. Facilitating continuous dialogue among the key stakeholders of designdriven innovation policy

- 2. Promoting designdriven innovation in industries to strengthen Europe's competitiveness 2.1. Creating capacity to deliver support for designdriven innovation for businesses throughout Europe
- 2.2. Strengthening
 European SMEs' ability to
 use design as a strategic
 tool in creating products
 and services with a higher
 value for their customers
 2.3. Enhancing
 cooperation among
 companies that invest in
 design as a competitive
 asset
- 2.4. Promoting new collaborative innovation strategies and practices that enable new business-models
- models
 2.5. Integrating design
 into research and
 development to better
 support commercial and
 societal applications
 benefiting from a strong
 user orientation
 2.6. Investigating the
 needs to update the
 protection of the
 intellectual property rights
 for design
- 3. Promoting the adoption of design to drive renewal in the public sector 3.1. Building the capacity of public sector administrators to use design methods and to procure design effectively 3.2. Enhancing research and development of design-driven innovation

	[framework]; - India Design Council [to establish].		for efficient and user- friendly public services 3.3. Promoting peer learning and cooperation among public-sector actors looking for design- driven solutions
Target- groups	No clear target-groups presented.	No clear target-groups presented.	No clear target-groups presented.

A comparative qualitative analysis for each topic is considered:

Objective and Context:

- While the European Union provides a comparatively broader objective by establishing a relationship between Design and Markets with limited further details at this stage, India and Queensland (Australia) on the other hand provide more details on their objectives with such policies;
- In particular, India establishes as goals the integration of Design in its industry and traditional crafts, expanding and improving Design education and increase the international appeal of Indian designs;
- For the case of Queensland (Australia) objectives are delineated around the region social, economic and social challenges, namely by increasing integration of design in businesses and public, promoting design and supporting design education.

Definitions for Design:

- For India no definition is provided, neither as a clear topic nor placed throughout the document:
- While for Queensland (Australia) there is a dedicated page for a definition of Design, by establishing it as a process and more fundamentally by linking Design to "good" and "sustainability";
- For the European Union while there is no dedicated page to a definition, one is also presented as a tool for innovation applicable to all sectors, going beyond as to what the document refers its usual association with aesthetics.

Evidences and Assumptions:

- An overall similar approach between all three documents can be observed in regards to evidences and assumptions as all establish a relationship between the importance and recognition of Design for value creation and innovation;
- The differences lie essentially on how each policy documents looks into Design, by establishing again the relationship between Design and the objectives of the policy as previously presented.

Actions:

- Overall, it can be observed that India strategy is based on setting-up the necessary structure to
 establish Design as a relevant discipline for its economy, by establishing institutions that can
 connect Design professional to its Industry and Traditional Crafts and by expanding and
 upgrading its Design education capacity;
- For Queensland (Australia), actions are focused on integrating Design into businesses, promoting the value of Design in different dimensions (economy, culture, society, environment and public government) and to increase demand and supply (develop markets and capacitate Design professionals);
- It should also be noted for Queensland (Australia) that there is an indication for a joint vision for Design and Architecture, by not separating the two disciplines in several of the proposed actions:
- The European Union actions focus on three aspects, namely more insights on Design connections to Innovation (through measuring impact and developing and applying Design tools to a variety of areas), on integrating Design into businesses and on promoting the adoption of Design into the public sector.

Target-groups:

- When it comes to target-groups, these are not clearly stated in the available documents, but it can be observed and inferred the main target-groups, mostly by analysing the proposed actions;
- As such, for India target-groups fundamentally include Industrials, Designers and Education institutions:
- For Queensland (Australia), the approach is wider and target-groups includes businesses across different sectors, Designers, Architects, citizens, public officers and servants;
- For the European Union target-groups are fundamentally linked to Designers and Businesses across different sectors and public officers and servants.

3.2. Looking at how "Design" is understood and positioned: a preliminary approach through a content analysis methodology

This sections presents the results of a preliminary content analysis on all three public policies. It's aim is to provide complementary and contrasting insights that emerge directly from the document through a process of keyword identification and clustering.

Approach

For each policy paper document / strategy keywords for each line were annotated, followed by a process of clustering keywords under similar topics, referred here as "dimensions"; this process was repeated for fine-tuning. Keywords not forming any clusters / dimensions were removed from analysis at this stage and are to be considered at future stages. For each document, the table of contents, bibliography and side and footnotes were not considered.

A preliminary analysis was also conducted in regards to the weight that each dimension has comparatively between policies. This was achieved by a keyword count for each dimension and the normalisation of each sum by the total number of words in the document and the highest count.

Results

Through the process of identifying and clustering keywords a set of "dimensions" were defined. Table 2 presents the output of such process, namely the "dimensions" and associated "keywords".

Table 2 - Results of the clusterization process for the three analysed documents.

Dimensions	Associated keywords	
Industry	industry; industrial; industries; manufacturing; manufacturers; machinery; tourism; automobile; transport; transportation; jewellery; leather; soft goods; electronics; IT; hardware; engineering; biotechnology; mining; toys; aviation	
Economy	growth; prosperity; economy; invest; economic; investment; wealth; economically; trade; employment;	
International	globalisation; global; world; universally; overseas; exports; international; outsourcing; abroad; globe; other countries; worldwide	
Society and Citizens	people-centred; social; life; lives; lifestyle; citizen; societal; children; young; people; human; socially; community; population; humanise; society;	
Cities	urban; buildings; cities; homes; architecture; workplaces; housing	
Health, Well-Being and Social welfare	well-being; social welfare; health; healthy; hospitals; healthcare; patient	
Innovation, R&D, Science and Technology	innovation; R&D&I value; research; ideas; technology, science; intellectual property; innovative; original; differentiator; know-how; copyright; protection; proprietary; scientist;	
Education and Training	competencies; education; training; skills; knowledge; university; learning; vocational; academia; mentoring; trainers; educational; campuses; diploma; teaching; curriculum; cognitive; schools; teachers; educators; library;	
Public Sector / Administration	public; public sector; government; administration;	
Environment	environment; green; eco; environmentally; safety; pollution; carbon emissions; ecology; sustainable; climate change; renewable; waste; low carbon; energy efficiency; water	

	conservation;
Market and Competition	competitiveness; market; companies; profitable; grow; SMEs; enterprises; business; productivity; incubator; management; competition; marketplace; business-model; producer; consumer; private-sector; commercialisation; career; entrepreneurship; incubation; venture; financial; startup; entrepreneurial; firms; demand; distributor;
Promotion	awareness; dissemination; promotion; promote; adoption; recognising; advocating; showcasing;
Cultural and Creative Sector	culture; heritage; traditional; arts: crafts; craftsworks; craftspeople; craftsmen; artisans; creative; creativity; cultural; traditions; identity; history; visual arts; film; musem; galleries; games;
Other sectors	all sectors; cross sector; multidisciplinary; other fields; crosscutting issues; crossover; spill-over; many sectors; sectors;

Regarding the quantitative analysis on the keyword count for each dimension, the following was observed:

- For India, a connection between Design and "Industry", "International", "Cultural and Creative Sector" (this one mostly linked to traditional crafts), "Market and Competition", "Education and Training" and "Innovation, R&D, Science and Technology" could be observed;
- For India, there are limited to none references to the dimensions of "Society & Citizens", "Cities", "Health, well-being and social welfare", "Public sector / administration", "Environment", "Promotion of Design" and "Other sectors";
- For Queensland (Australia), connections are established more heavenly to a higher number of dimensions, namely "Society and Citizens", "Cities", "Innovation, R&D, Science and Technology", "Education and Training", "Public sector / administration", "Environment", "Market and Competition", "Cultural and Creative Sectors", "Industry" and "Economy";
- For Queensland (Australia), there are limited connections established with "Other sectors", "International", "Health, well-being and social welfare" and "Promotion of Design";
- For the European Union, Design is essentially linked to "Innovation, R&D, Science and Technology" and "Market & Competition", followed by "Education and Training" and "International";
- For the European Union, references to the other dimensions is limited to non-existing.

4. Reflections

Considering the previously presented results, a set of reflections are provided below that intend to contrast what is observed from the processed data with the rational presented in this paper context:

- The first observation is on how policy makers have been adopting Design to be used in a variety of contexts, thus subscribing to the initial statement on how Design has been embraced by policies independently of location as a possibility to support solving whatever issues may be taking place;
- It is therefore also argued here that the variety of possibilities that these policies present for Design also subscribe the notion that this discipline has been entering into new fields and as such is going through a process of further development and expansion;
- In fact, and while understanding that the proposed dimensions need refinement (see "Future research"), the policies under analysis present their expectations on Design by promoting its application to Industry, Society, Citizens, Environment, Education, Health or the Public Sector;
- The differences among these policies therefore lie fundamentally on where Design is expected to be applied, as all recognise the importance of Design as a methodology, tool or process for adding value;
- It is also worth noting that a definition for Design, when is presented, is essentially based on the notion that Design is a means to an end, and not an end in itself;
- As such, it can be observed that for India there is a proeminence for applying Design in its Industry together with its Traditional Crafts, in Queensland (Australia) there are wider expectations for Design as regular mentions can be found for Industry, Business, Innovation, Environment, Education or Health, while in Europe the link is established directly between Design and Innovation and Markets;
- For the case of the European Union, it could be argued that a broader approach was also taken when looking at innovation as emerging in a variety of sectors, even though that in this case the relationship is mostly linked to business innovation, with limited to no references to innovation emerging in other contexts such as social or cultural or environmental;
- On the content analysis methodology itself, when compared to the first direct analysis previously presented, it can also be observed that the dimensions that emerged directly from the content analysis are in line with each policy document objectives;
- There are however still some limitations, particularly for the case of the European Union which establishes the promotion of Design as one of the three main actions to be taken, while the dimension of promotion emerging from the content analysis indicates that this would not be a relevant topic within the policy document;
- Considering, however, the overall match between the content analysis indications and each policy document objectives it can be said that a content analysis approach can provide usefulness for assessing the general direction of policy in regards to how Design is understood and applied;
- It should also be noted that such observations and conclusions can only be drawn when they are delimited around policies solely focused on Design as at this stage the data for this research does not allow to say that Design is not entirely supported by public policies in non mentioned dimensions, as this research did not focused on analysing those respective policies.

5. Conclusions

A comparative analysis overview on a selection of public policies on "Design" within different geographical locations, namely the European Union, India and Queensland (Australia) has been developed and presented.

A two-level approach was implemented: a first direct comparison between the referenced public policies in regards to their objectives/context, definitions for Design, evidences and assumptions, actions and target-groups; and a second level based on a preliminary comparative content analysis.

Both approaches intended to provide a reflection on the question "How are Design public policies around the globe shaped in regards to their context, aims and structure?" with a particular emphasis on how "Design" is understood and applied as a concept in different locations. The following conclusions were drawn in regards to these three public policies:

- "Design" is first and foremost recognised as a discipline that can aid the competitiveness of each location in different dimensions;
- Which is translated on a set of guidelines and actions through which policy makers indicate their will of integrating "Design" methodologies and tools throughout the value-chain of different sectors;
- Differences in approaches are essentially noticeable on where "Design" is expected to be integrated, subscribing, what is argued here, that Design is also undergoing a process of expansion.

Future research

Based on the established limitation and assumptions and the results, the following corresponds to a set of further research that fundamentally intends to strengthen the analysis presented in this paper:

- Expand the sample of Design strategies / public policies to other geographical locations as to strengthen the model of analysis, through an iteration process based on a wider sample of keywords from which drivers / directions can emerge, eliminated or recalibrated;
- Extend the analysis to a contextual interpretation of keywords, to avoid the inclusion of keywords that can have other meanings in different contexts;
- Develop a visual tool that can support content analysis, namely by visualising the weight that each dimension carries in each public policy document and to understand if such approach is feasible as complementary to the approaches used for this paper as a way to provide a fast and visual method for understanding where public policies on "Design" are heading in regards to its understanding and applicability;
- Compare the drivers / directions that emerged directly from the content analysis with established indexes that analyse similar and other dimensions, which will also support the process of strengthening the model;

- Map and analyse policies focused on other issues to identify where "Design" is considered beyond its own policy as to provide a clear context of each administration priorities and how "Design" is positioned within a wider context.

Reference list

Canha, Anselmo (2017) Uma Geometria de Regeneração, Contributos da criação experimental para o espaço comum. Estudos de caso na cidade do Porto (doctoral dissertation), University of Porto, Portugal

Erihoff, Michael; Marshall, Tim (Eds.) (2008) Design Dictionary, Perspectives on Design Terminology, Board of International Research in Design

European Commission (2013) Implementing an Action Plan for Design-Driven Innovation. Brussels, Belgium

Government of India (2007) National Design Policy. India

Krippendorff, K. (1980). Content analysis. An Introduction to its Methodology. Beverly Hills: Sage.

Monteiro, Rui; Giesteira, Bruno; Boddington, Anne; Farinha, Cristina (2017) Design: lost in translation? How the concept of design is understood and might be clarified within European Union policies when looking at a funding application process, Ciência 2017, Lisbon: FCT/MCTES, July 2017

Monteiro, Rui; Giesteira, Bruno; Boddington, Anne; Farinha, Cristina (2017) Design as a multidimensional concept on european union public policies: Towards a parametric qualitative model for understanding its role through a funding application process perspective, UD17 Conference, Porto, 16-17 October 2017

Mulgan, Geoff (2014) Design in Public and Social Innovation, What works and what could work better, Nesta

Raulik-Murphy, Gisele (2010) A Comparative Analysis Of Strategies For Design Promotion In Different National Contexts (doctoral dissertation). University of Wales Institute, Cardiff

The Danish Government (2007) DesignDenmark. Denmark

Whicher, Anna (2016) Benchmarking Design for Innovation Policy in Europe (doctoral dissertation). Cardiff Metropolitan University, Cardiff