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Complexity and Community - The Relevance of the Design Community for Responsible Design Implementation by Consultant Industrial Designers

Norman Stevenson, Vicky Lofthouse, Debra Lilley, Alistair Cheyne, Loughborough University, UK

Introduction:
Industrial design is an evolving profession, but throughout its history, the designer's main role has been constant: to assist in growing profits for companies by designing distinct products which are appealing and desirable to consumers, and which entice them to purchase (Sparke, 1983; Meikle, 2001; Whiteley, 1993; Kotler & Rath, 1984; Cooper & Press, 1995; Heskett, 1980). Today, a growing recognition of the profound issues affecting society calls for designers to address additional goals beyond those associated with profit-making. Issues such as an ageing population, environmental crisis, social inequalities and diminishing quality of life, coupled with an awareness of design's potential to have a more positive influence, have raised a wide felt concern (not least of all by designers themselves) for the implications and responsibilities of industrial design's current role (Sparke, 1987; Whiteley, 1993; Cooper, 2005; Fuad-Luke, 2009; Bhamra & Lofthouse, 2007; Walker, 2006). Design may well be "the most powerful tool yet given to man with which to shape his products, his environment, and, by extension, himself" (Papanek, 1984, p. 102) but the real opportunity for designers to affect positive change is determined by a myriad of complex elements, seldom regarded or accurately accounted for in the existing debates and rhetoric surrounding these topics. In particular, there is a shortfall of knowledge on the actual influence consultant designers can have; what determines it; and what relationship those designers, and the design community as a whole, have with the system of factors within which they must operate. These aspects are the focus of attention for the research study presented and discussed in this paper.

Responsible Design:
In the context of this research, the term 'Responsible Design' is used to broadly encompass the areas of: Sustainable Design, Ecodesign, Universal Design and Design for Social Responsibility. It encapsulates the notions contained within them, and its use here is intended to refer to design which affects a positive change on the greater needs of society. These greater societal needs include issues associated with our ageing and increasing population, environmental crisis, health, disabilities, social inequalities, diminishing quality of life and well-being, crime and poverty.

Methodology:
This paper presents findings from an explorative study carried out in the UK and Ireland as part of a doctoral research project. The study consisted of a workshop and a series of semi-structured interviews with industrial design consultancies, academics, and consultants in related areas. The overall aim of the PhD is to represent the complexity of addressing Responsible Design goals within the commercial remit of the industrial designer, and to establish a sense of what can be reasonably expected from design consultants in this regard. As a move towards that, the main objective of the study discussed here, was to construct a more representative description of the system of factors that affect consultant designers; and to identify those factors which are key in determining the possibility for commercial design to more readily address society's needs.

An examination of literature preceded the main study, from which a preliminary construct of the potential key factors was created. This was used to inform the structure of enquiry for the workshop and interviews. The first phase of the study was a multidisciplinary workshop run as part of a seminar organized by the Sustainable Design Network in the UK. Nineteen participants from design practice and academia; including key contributors to the field of Sustainable Design;

formed three separate groups, each undertaking a set of individual and group tasks directly addressing the research topic. The activities were audio recorded, and the data collected was subsequently analyzed to validate the preliminary theories formed from the literature review, and to provide a pilot data set for the main investigation.

The second phase of the study consisted of a series of semi-structured interviews with a total of 31 participants; comprising of:

> 22 industrial design consultants; of which, 18 were managing directors, directors or sector managers; and 4 were senior or mid-tier designers.

> 4 leading academics in the topic area

> 5 design-related strategic consultants

Of the design consultants who participated, the majority have been practicing industrial design for over 20 years and the sample includes a cross-section of firms who are prominent in the industry or at the leading-edge of industrial design practice in the UK and Ireland. Audio recordings from the set of interviews were each transcribed and analyzed using coding and clustering methods to map industrial design's commercial context; identify the range of factors affecting consultants; and describe the interrelationships of these elements. The goal was not to establish a comprehensive set of the influencing factors, but instead to account for the scope of the factors, and to then identify within it the key determining elements.

Findings:

From the analysis of the data, six key areas were recognized which determine the possibility for consultant designers to address the greater needs of society. Figure 1 outlines how these areas are formed from the system of other determining factors identified, and each of the areas is presented in further detail below. The analysis also highlighted a range of elements intrinsic to the consultant's context which frame the system of factors and these are illustrated in figure 2.

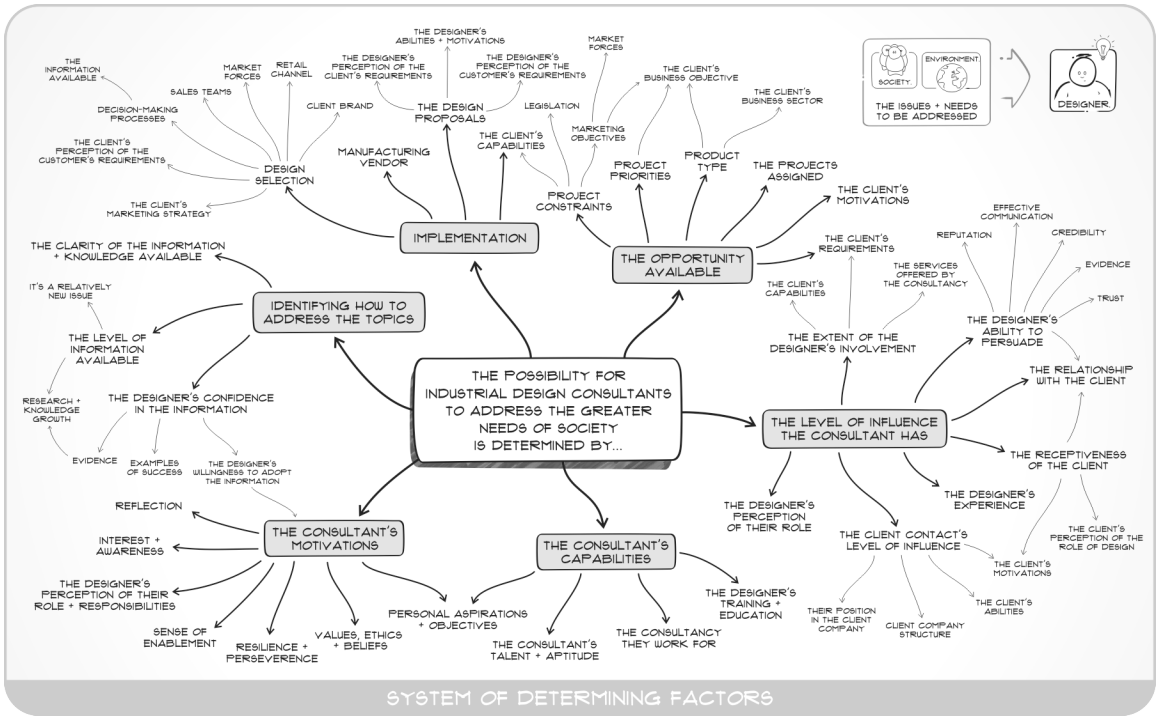


Figure 1. The System of Determining Factors

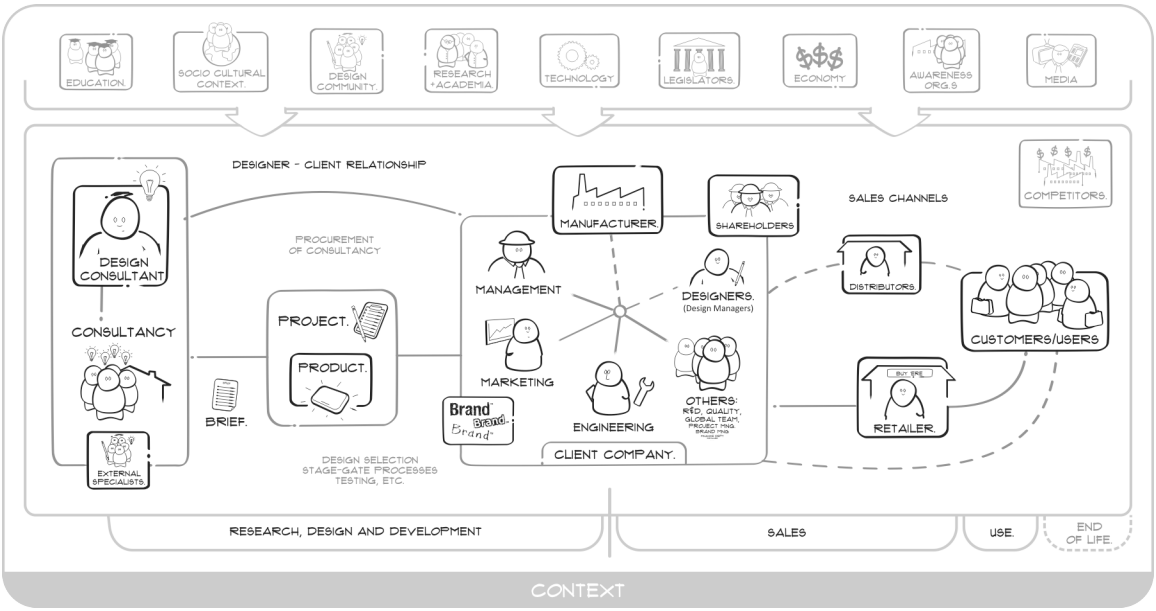


Figure 2. The Consultant's Context

> Identifying how to address the topics:

Paramount to undertaking Responsible Design goals is the need to determine *how* to effectively and positively address them. Woven through the content of the interviews was evidence that designers were uncertain in this matter. While many asserted a confidence in having the design abilities to deal with the issues, there were frequent comments relating to: the availability of suitable information; the clarity and usefulness of that information; and importantly, the designer's confidence in it. Even designers keen to address the topics, were unsure as to where best to start, and how to be most effective.

> *"I want to make sure I'm toiling away in an area that's going to have a -; make a difference. Em, so I want to know where that is, and that's the stumbling block, where I think … the commercial industry, which design is part of, and design consultancy is part of -; I think that's where we're stuck."* (IDC:20, 34)

A commonly felt opinion was that many of the issues have only been highlighted relatively recently, and that it is still 'early days' and our understandings are in flux.

> *"… a similar analogy, I guess would be, when I was a kid we were told to eat a lot of fat because it was good for us. And then, you're not allowed to eat any fat because it's bad for you, and then, actually some fats are quite good for you. It's that sort of -."* (IDC:13, 41)

Participants commented that many of the topics were 'open to interpretation', and that there was a need for uniform and consistent methods of assessment. The existence of numerous variations in approaches and methods of measurement; towards environmental impact, for example; added to frustrations of how to best act. In general, designers were unsure as to what is 'better', and were aware of the difficulties in evaluating the impact (both positive and negative) of their actions. In addition, there was a need for evidence that their actions would, in fact, make a difference.

> The consultant's motivations:

The designer's motivations and interests doubtlessly have a profound effect on whether they wish to aim for Responsible Design. Motivations act as filters coloring a designer's approach, and will include their values, aspirations, interests and objectives, along with their sense of responsibility and enablement. Two directions were identified in the interviews with regard to the consultant's main objectives: in their professional role, there was a strong will to meet the requirements of the

client; while their personal motivations as a designer were typically captured as a wish to do good (or great) design. However, what constituted 'good design' naturally varied according to the designer. How the consultant perceived their role was also a cogent factor. Consultants typically remarked on the flexible nature of their role and its dependence on the client's needs. The majority explained their main function as that of advising, directing, or supporting clients; while for some, this was summed up as being a 'gun for hire'. For most consultants, 'having an opinion', 'challenging the client', 'questioning information' and 'pushing boundaries' were considered vital. Importantly, however, there was a sense of caution as to what the appropriate level was for these; designers were aware of needing to offer options which clients, and the market, would be willing to accept. Gauging this seems crucial to their effectiveness, and also to their business prospects, given consultancies are reliant on the quality and duration of their client relationships. In relation to Sustainable Design, for example, this was considered particularly true, with some consultants feeling *"if you do come in too hard, you kind of scare clients off at the minute"* (IDC:17, 37).

The consultancy's agendas, interests and culture were also indicated as a factor affecting the designer's motivations. In general, there was a strong suggestion that consultants place their own objectives below those of the client and those of the consultancy. One mid-level designer remarked: *"As a working consultant, I am ultimately reliant on the philosophy of the company; the design consultancy, that I work for"* (IDC:02, 37); commenting later: "*… your ambitions are always mitigated by your responsibilities to the client's perspective"* (IDC:02, 70). With regard to addressing society's greater needs, consultants acknowledged to varying degrees that it was incumbent on them to address these goals, however, there were strong sentiments that they are restricted in what they can achieve. Furthermore, a number of participants remarked that many of the issues require top-down influence or depend on factors far outside their role and remit. Ultimately, the consultants were very aware of the limits to their remit, stressing that while they can have a lot of influence, they were not the final decision makers.

> The consultant's capabilities:

The skills, abilities and knowledge of the designer determine their capacity to create proposals which could address society's needs and issues. These capabilities are formed by the education, training and experience they gain, and are also subject to the individual designer's talent, aptitude and character. Consultants spoke of acquiring a broad scope of skills and experience based on the variety of work they typically undertake. This affords them diverse knowledge (in materials and processes, for example) and rich insights into social trends, while also enabling cross-fertilization of ideas. The designers highlighted, however, that it is not unusual for a consultancy's client base to be dominated by one sector or client; or similarly, for a designer within a consultancy, to be 'typecast' in their work. Regardless of this, the ability to adapt was distinguished as a key aspect of a consultant's capabilities. Also distinct among a consultant's skills is their capacity for creativity. Participants commented that this, coupled with their ability to visualize and 'propose seductively' enables designers to envisage alternatives.

> *"The power of the designer is to envision, to visualize alternative futures. That's what the designer can do, because they can make -. They have the ability and the skill and the creative process to be able to tangibly manifest alternatives ... They can make it real so people can respond to it."* (ACD:02,14)

As a means to create proposals, however, the designer needs to resolve or balance the requirements and compromises of a project, and recognize which are the important or influential bits of information. For many, the ability to effectively combine elements and produce compelling options despite the restrictions, was the crux of being a design consultant, but there are limits.

> *"When you're doing highly innovative products, quite often, just trying to create something's hard enough and then you pile on all this other stuff on to it."* (IDC:19, 22)

It was also recognized that designers demonstrate a unique deftness to think holistically and look at the big picture almost simultaneously to the small detail. Moreover, as an outside party, consultants are ideally positioned to challenge and query the requirements and underlying assumptions informing new product solutions.

> The level of influence the consultant has

Given the nature of the consultant designer's role, their possibility to affect change is primarily dependent on the level of influence they can exercise, and this is determined by a number of pivotal factors. Along with the designer's perception of their role, how others involved perceive the role of design, and their receptiveness to the designer's influence, were considered greatly important. This is particularly relevant for the main point of client contact. Consultants discussed that client contacts varied in terms of their approach to design, and in how empowering they were; some offered a lot of freedom to explore, while others had their own agenda and were simply looking for a means to realize it. Further to this, the level of influence which the client contact themselves had was underscored. Many of the participants stressed the value of cutting through layers of management and getting in at a higher level in the client organization.

> "*So, the higher we can get involved within a company, the quicker we can help to make a difference, and if you get a director who buys into what you're doing, then things move very quickly."* (IDC:22, 13)

Central to the consultant's level of influence is their ability to persuade, and those interviewed were clear that this is a crucial aspect of performing their role. From their comments, a number of approaches to persuasion were identified, including: seeing through the client's eyes; having evidence, research or back-up; bringing the client along; and relying on reputation and credibility. However, there was a noted questioning as to whether a consultant should actually have more influence, and whether this would truly benefit the commercial quality, or Responsible Design outcomes. The quality of the relationship with the client was also emphasized as a key area of influence. In this regard, consultants spoke about the relevance of compatibility, good communication, reassurance and mutual trust; also commenting on the importance of aligning the expectations of the stakeholders as early as possible in a project. Further to this, participants discussed how longer-term relationships afforded them greater influence, and enabled them to be more effective. However, one design director remarked that they perhaps compromise more in the initial involvement with clients in order to help build long-term relationships.

> The opportunity available

The extent of the possibilities for a consultant designer to affect change is limited to the opportunities available to them. From the analysis of the data it was apparent that for the majority of a consultancy's work (excluding proactive work or private ventures) those opportunities are predominantly determined by the characteristics of the client, the project, and the product; as well as the phases and duration of the consultancy's involvement. A number of the participants commented that early involvement on a project is valuable for gaining greater affect on the final outcome, but some remarked that further on in the process is where the compromises tend to occur, so lengthier contact is also beneficial. Furthermore, it was explained that in the early stages of some projects, when the requirements are still undefined, it can be difficult to successfully introduce additional targets, such as Responsible Design goals. Consultants also advised how the priorities of the project are a key determining aspect. These primarily result from the type of project it is; which can range from discontinuous 'blue sky' ventures to continuous incremental work; along with the project's business objectives; for example, to cement a current market position with a 'core' product offer. The priorities are also affected by the client contact's personal objectives or motivations for the project. Similarly, the relevance of the product type was raised. Consultants discussed different product sectors, and it was apparent that the priorities,

and opportunities, varied according to the category of the product; whether it was medical, FMCG or industrial, etc. In addition, the influence of the product's intended market was underlined.

> *"… if you're working on consumer products, you know, with a targeted -, a targeted demographic of between 18 and 22, OK, you can treat it inclusively within a bracket of 18 to 22. But actually what people are very often after are ... exclusive products, so it's not always easy in that situation."* (IDC:13, 37)

The interview participants also highlighted the project constraints typically at play, including: time to market, the product price point, resources, and legislative requirements. Backed by feelings that many of the issues required top-down intervention, the relevance of legislation and policy was stressed by many. Consultants also highlighted the challenges inherent to industrial design, and to consultancy work. They commented on demanding workloads and tight timescales, remarking that they seldom have the time to fully reflect on issues such as Responsible Design.

> Implementation

The main effect a consultant can have on the greater needs of society is ultimately determined by what is actually implemented. The first steps towards this are the proposals the designer offers during the process, and consultants were very conscious that the options they provide are their main voice. However, as mentioned previously, they were also aware of the need to meet the project requirements and to be 'on brief' or within the expectations of the client. The procedure of selecting designs; internally by the designer and the consultancy; and afterwards by the client organization, is possibly the crux of the design process. The interviews emphasized that there are numerous related factors, including the range of parties involved (see figure 2); the motivations and objectives of each; and their processes of decision-making. The sales and manufacturing channels, for example, can have a substantial impact on the final outcome. Designers recounted cases where vendors had made dramatic changes to intended designs, identifying that this can be a key stumbling block to achieving a quality final result.

> *"We could do a lovely eco indicator and just tell them where to spend their time on materials, we could do all these -; but the Chinese manufacturer will go 'well, I've got this grade material' or 'I'll just use this reground material over here - oh, it failed!'. It's, it is still 'wild west'-like in these areas, however hard you try." (IDC:19, 20)*

Furthermore, a client's sales channels can carry dramatic weight in determining what will be implemented. Consultants discussed how sales teams, along with the background and histories of other related products, can have a huge influence. Input from the retailer or retail outlet can also be a major factor. Driven by revenue potential and their perception of the market's requirements, they typically decide product placement opportunities, and their approval can be the main determining aspect in whether a product is actually produced. While alternative sales strategies, such as company own web outlets, offer the possibility to loosen the hold of the retailers, overall, the designer can only affect change by means of what is actually made available, and it will only have an effect if it is purchased and put into use. In these regards, participants also stressed the effect of consumer demand and market behavior.

Discussion - Opportunities for the Design Community's Influence:

The findings presented here identify a set of six key areas which collectively determine the overall possibility for industrial design consultants to address the greater needs of society. It is suggested that these could inform a more focused and effective effort towards improving the current situation for the consultant, and a number of the main opportunities relevant to the design community's influence, are discussed in this section.

From the study, it was evident that clear and useful information on how to effectively address the topics is not easily available to consultants, and this is an obvious and important opportunity for the design community's influence. It is crucial, however, that the information is: clear and relevant

for the industrial design consultant; sufficiently proven so they can have confidence in it; and easily available in a format appropriate to their needs. This is challenging given the wide variety of product areas consultancies work in; and even more so, if the consultant's preference to work with broad understandings and blunt approaches is to be gratified. Considering consultancies are typically small (Design Council, 2010) and often work to capacity (or beyond) it is not surprising they have limited resources to attend to these topics. The consultancies interviewed had differing approaches to any gaps in knowledge they had. Some were not actively addressing it, or felt there was not sufficient demand as yet to justify having specialists employed; while others made use of internal champions; allowing them a percentage of their time to expand their personal interest in the area. With this in mind, another opportunity which the community could address is to enable stronger networks among those active and interested consultants, to assist with information transfer and knowledge sharing; while also easing the way for others.

Evidence that the consultant's actions will make a sufficient difference is a key issue which the study identified. Designers need to know where to focus their efforts and how to make well-informed decisions if they are to affect any positive change. Similarly, it was conveyed that they feel under-equipped to backup or argue the case with clients and others involved. More pertinent evidence and greater availability of valid case studies and examples would greatly benefit these matters. Design managers commented that it can be difficult to formally create case studies in practice due to insufficient time, and the constant drive towards the next project. Furthermore, there is likely to be a lack of good examples of Responsible Design. For these reasons, the design community should consider assisting the preparation of case studies related to Responsible Design, and also making those examples readily available to other consultancies. There is a clear benefit to pooling the evidence and examples distributed among the members of the design community for the benefit of the whole community. It would not only offer badly needed evidence and examples, but also provide a source of inspiration.

As discussed earlier, the consultant's ability to influence a product can be largely affected by the client party's perception of design and its role in the process. Communicating the value of design is another area for the design community to influence, but one which is already widely recognized, for example, by the IDSA. However, it is worth highlighting that a wider awareness of design's value and potential would also benefit the goal of achieving more Responsible Design, if coupled with the right motivations from consultants. Beyond this, there is also an opportunity as a collective community for stronger relations with other parties. One example highlighted in the interviews, is liaison with vendors to address the lack of readily available recycled material. Working collectively towards this goal will doubtlessly afford greater influence.

Given the significance of the consultant's motivations and moral compass, this is a pivotal point for the design community's influence. From the interviews there was clear evidence that designers are struggling with the moral conflicts of their situation. This is further exacerbated by how challenging it is to satisfy their own aspirations as a designer alongside the requirements of the client and the consultancy they work for. Selection and judgments are intrinsic to design and it is reasonable to expect that the community of designers can influence consultants to be more considered in these activities. One avenue of approach is the consultant's perception of what constitutes good design, and the significance of the community's opinion and representation of good design as an influence on this. Another avenue is a code of ethics, however, there is controversy and debate surrounding the extent of their usefulness (http://ethics.iit.edu). The analysis of the interviews suggested that a better focus may be the consultant's sense of enablement towards the issues, followed by the corresponding sense of responsibility. Designers need to feel they can have a bigger role in these matters, understand where they have leverage, and appreciate the importance of individual responsibility.

Lastly, but certainly of no less significance, is the positioning of industrial design as a profession. This topic receives plenty of attention and was broached frequently in the interviews. Participants had positive opinions on the general advantages it would offer designers, and also the benefits it would extend towards addressing Responsible Design issues. From one perspective, it was conceived as a way to establish standards of practice, professional structure, and provide ethical guidance to designers; while from another, it was considered as a way to improve the credibility of industrial design, and the respect and regard for it. But in all, it was acknowledged we are a long way off achieving an industrial design profession. On that basis, we should look instead to maximize our potential as a community, and this means finding a way to increase involvement despite the barriers and the individualistic nature of designers. Perhaps the difficulties and challenges facing industrial design today, such as Responsible Design, provide as good an opportunity and reason to come together as any.

Conclusions:

The challenges facing our society today, coupled with design's potential to address them, suggest that industrial designers should be providing more products which contribute positively to the greater needs of our society. However, it is clear that this is not a simple or straightforward goal given its apparent conflict with commercial objectives, and the myriad of complex factors surrounding it. Furthermore, consultant designers are struggling to resolve these challenges and find an effective way to incorporate them into their role. The study presented here, identifies a set of six areas which are pivotal in determining the possibility for industrial design consultants to address more responsible goals within their commercial role. Among those key areas identified, are numerous opportunities for the design community to assert itself and offer effective assistance towards these aims. However, it requires an informed approach and a collective effort if it is to have sufficient influence. The challenge to address these issues may indeed be considerable, but so are the reasons to address it, and design's potential to change it.

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