How do designers respond to changing social and cultural context in the styling of their products?

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Abstract

Many goods are purchased based on emotional decisions, not just rational decisions relating to function and performance. A key aspect of this emotional response is that products should have an up-to-date contemporary form. Consumers don’t necessarily know what they will desire in the future, so how do designers account for the changing social and cultural context in which their products will be perceived? A literature review found there to be six categories that contribute to a product’s context: other products, technology, commercial activity, socio-economics, people and media; and these factors have differing lifespans and amount of influence. Semi-structured interviews were undertaken with ten British creative professionals from a variety of design disciplines to talk about their work, and the external factors that influence the form of their products. The interviews helped to validate and develop the literature understanding and produced some emerging theories about the contextual content of different products.

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Introduction

This paper forms part of an ongoing doctoral study into design trends and evolving product forms. In recent years appearance has become a key driver of preference in consumer products (Cappetta, Cillo, Ponti, 2006). In order to compete in an often crowded marketplace, companies look to designers to style their products so that they are attractive to the target consumer for the duration of the product’s shelf life. This task is by no means easy since styles: combinations of colours, shapes, materials, textures, and decoration periodically go in and out of fashion and also vary between regions and cultures (Robinson, 1975). Consumer research can only identify the tastes and influences of which the current market is aware. Designers are dealing with tomorrow’s tastes, which are partly shaped by the changing social and cultural factors of their target market (Sproles, Burns, 1994).

Historical evidence shows how social and cultural change can be related to the popularity of products and styles in fashion and product design. For example, the relaxing of sexual and social norms in the 60s and 70s can be associated with the success of the miniskirt (Sproles, Burns, 1994), and the transition of the Jacuzzi from an “appliance for the infirm to a sensual hot tub” (Molotch, 2003). It is easy to retrospectively pin successful products and styles to the mood of an era of the past. However, to predict how the present and future social and cultural forces might influence design is more difficult.

Consultancies, websites, and books exist that identify current, emerging and future trends and some also provide recommendations for how designers and brands should respond in the development of their products. The trends are identified from a diverse range of sources: anecdotal evidence, statistical data, content analysis in the media, consumer research, informed speculation etc. (Woudhuysen, 2006). But to date no direct, rigorous academic investigation into trends and their contribution to product design has been identified by the authors. However, some answers can be found in adjacent fields such as fashion theory (Robinson, 1975; Sproles, 1981); consumer response (Bloch, 1995; Crilly, Moultrie, Clarkson, 2004); diffusion of innovation (Midgley, 1977; Rogers, 2003); taste (Lloyd Jones, 1991); and product semantics (Demirbilek, Sener, 2003; Karjalainen, 2006; Krippendorff, Butter, 1984).

In order to confront these issues, this paper will first review the adjacent literature to develop a theoretical framework of the external factors that contribute to product context and their behaviour over time. Then, through exploratory interviews with 10 designers and researchers from creative roles in industry, the framework will be tested and evolved. This will be followed by a discussion of the implications, emerging theories and recommendations for the continuing study.
Background Theory

What makes a product seem relevant – how does it fit within a changing context? This section draws on a variety of literature fields; exploring the theoretical forces that might influence the evolution of product form. The authors undertook a previous literature review (Muir Wood, Moultrie, Eckert, 2008), the findings of which have been developed to find that product context can be seen as an instantaneous snapshot of dynamic forces from 6 directions:

- **Existing Products**: the familiar forms and styles that exist on the market provide a new product with comparisons or reference, although not necessarily from the same product category (Crilly, Moultrie, Clarkson, 2004). E.g. the Apple iMac popularised translucent plastic and this was replicated across domains such as consumer electronics, automotive and interior design.

- **Technology and materials**: Emerging and evolving technologies, materials and manufacturing processes can often enable novel form factors (Cagan and Vogel, 2002). E.g. smaller displays and power supplies, surface finishes and improved manufacturing quality.

- **Commercial activity**: the strategies and promotions of brands and markets can create new imagery and familiarity as well as affect the product milieu (Karjalainen, 2006; Verganti, 2006). Trade shows, collaboration, brand image, marketing campaigns, sponsorship, retail spaces, headquarters etc. all have an influence.

- **Socio-economic change**: activities, events, politics and legislation affect the mood and attitudes in domestic and foreign cultures which can influence consumption, create new symbolism, and lead to the creation or evolution of product forms (Miller, McIntyre, Mantrala, 1993; Sproles, Burns, 1994). War, religion, the environment and the economy are examples of influential factors.

- **People**: this category explores the internal motivations of individuals or groups of consumers toward the consumption of products. This can be a desire for uniqueness or newness in the products that they buy, or it may result from the influence of trend-setting individuals or groups (Rogers, 2003; Sproles, Burns, 1994; Vejlgaard, 2008).

- **Media**: TV, movies, music, the internet and magazines deliver their audience products, styles and aesthetic imagery (Cagan and Vogel, 2002). According to McLuhan and Fiore (1967), the delivery of the content is as important as the content itself – this can be seen today with YouTube, blogging and other online content changing the way that we consume and partake in media.
There is definitely some overlap between categories, for example: a website might be seen as media or a product; a famous designer might be seen as an influential person while his or her designs might also fit into the product category. Moreover, these are not static influences; contextual factors have different lifecycles, degrees of relevance to a particular product, and breadth of influence on society. Drawing from the perspectives of taste (Lloyd Jones, 1991), design history (Ferebee, 1970) and fashion (Sproles, Burns, 1994), this study found it useful to classify 3 levels of trend with increasing durations and scope of influence.

**Details:** micro-trends, transient fads, with rapid growth and decline, duration of weeks to a few months, and a narrow influence.

**Fashions:** evolving behaviour that changes more slowly over several months or years and has a wider influence, but still a finite lifetime.

**Movements:** long-ranging, slow moving macro-trend that affects entire societies over a period of years.

The literature understanding led to the creation of the framework in figure 1, which categorises the dynamic external factors that influence the evolution of product forms. Consequently, it does not directly include internal factors such as the individual abilities or tastes within the design team (Crilly, Moultrie, Clarkson, 2008), or the company or clients’ brand strategy (Karjalainen, 2006). The framework sees all contextual references as fitting into equivalent short, medium and long time frames.

![Figure 1: A framework illustrating the contextual factors surrounding a new product](image)

This framework was created from emerging theories, and hence it is expected to evolve with the research, the layout may change completely, and categories may be removed or replaced or
identified as not relevant for particular types of product. The next stage is for it to be used to interpret the interviews.

**Approach**

This paper forms the exploratory phase of a design research approach that uses multiple methods (Blessing, Chakrabati, Wallace, 1995). A synthesis of adjacent literature resulted in the creation of a preliminary conceptual framework, which was then developed through 10 semi-structured interviews. The interviewees were British designers from a diverse group of consultancies and product sectors and 2 trend researchers (see table 1). The interviews varied in length, but averaged at around 40 minutes. The interviewees were encouraged to talk about their design experience, current projects, design process, and opinions about trends and product form evolution. The interviews were recorded and transcribed, except in one case (TR02) where detailed field notes were taken when recording was not possible. In addition to the interviews, archival materials on past projects were collected as secondary sources.

<table>
<thead>
<tr>
<th>Code</th>
<th>Position held</th>
<th>Location</th>
<th>Interview duration</th>
<th>Interview date</th>
<th>Transcribed</th>
</tr>
</thead>
<tbody>
<tr>
<td>D01</td>
<td>Industrial Design Manager at a medium sized consultancy</td>
<td>Cambridge, UK</td>
<td>31 minutes</td>
<td>29/03/07</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D02</td>
<td>Industrial Designer at a small consultancy</td>
<td>Cambridge, UK</td>
<td>22 minutes</td>
<td>27/03/07</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D03</td>
<td>Industrial Designer in a medium sized consultancy</td>
<td>Cambridge, UK</td>
<td>21 minutes</td>
<td>17/08/07</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D04</td>
<td>Furniture Designer at a small consultancy</td>
<td>London, UK</td>
<td>85 minutes</td>
<td>28/02/08</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D05</td>
<td>Senior Architect whose practice specialises in sustainable public buildings</td>
<td>London, UK</td>
<td>43 minutes</td>
<td>07/03/08</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D06</td>
<td>Fashion Designer of bespoke outfits for individual clients</td>
<td>Cambridge, UK</td>
<td>24 minutes</td>
<td>20/03/08</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D07</td>
<td>Freelance Industrial Designer</td>
<td>Cambridge, UK</td>
<td>55 minutes</td>
<td>18/04/08</td>
<td>Verbatim</td>
</tr>
<tr>
<td>D08</td>
<td>Design Manager at a consumer electronics manufacturer</td>
<td>Bristol, UK</td>
<td>60 minutes</td>
<td>30/05/08</td>
<td>Verbatim</td>
</tr>
<tr>
<td>TR01</td>
<td>Senior Trend Researcher at a large design and foresight consultancy</td>
<td>London, UK</td>
<td>42 minutes</td>
<td>04/10/07</td>
<td>Verbatim</td>
</tr>
<tr>
<td>TR02</td>
<td>Freelance Trend-spotter working for fashion brands and magazines</td>
<td>London, UK</td>
<td>~25 minutes</td>
<td>19/10/07</td>
<td>Field notes</td>
</tr>
</tbody>
</table>

Table 1: Interview candidates
Limitations of Approach

This study aims to focus on the product as the unit of analysis, with the contextual factors existing independently of the designer’s taste and experience. However, interviewing as a data gathering technique is hampered by factors such as mood, language, comfort, and shared understanding etc. between interviewer and interviewee. The coding and analysis of the interviews, and fitting them to the framework is also a qualitative process, which was undertaken by a single author. Hence, this paper has tried to make the process as transparent as possible, while taking an interpretive approach to exploring and extracting value from each interview.

Case Summaries

This section examines 4 of the interviews in detail and relates them to the framework in figure 1. These interviews were particularly selected because they talked in detail about a single product or design discipline – rather than a diverse set of projects. Their project description was analysed to identify the contextual factors that affected the form of their products. Figures 2-5 below are constructed from the factors and concepts that the interviewees mentioned, grouped into the best fitting category and timescale.

D04 – Furniture Designer

The majority of D04’s work is developing furniture for large hotels, with a short lead time of as little as 4 months for a full manufacturing run in their factory in China. Different hotels have different strategies and target consumers, but the products must be durable in both construction and appearance to last for lifespans of up to 12 years, and fit with the image of the hotel. Sometimes the client hotel will provide sketched ideas that need to be finalised and drafted for manufacture, other times the project will be open ended and D04 would need to come up with the ideas. Figure 2 shows the contextual factors that influence a typical furniture development project that D04 would do for a hotel.
The whole spectrum of products is influential on the form of D04’s furniture. But otherwise, his product forms largely respond to short to mid-range contextual factors. Often it seems the items in each category enable each other – for example a design trade show (like 100% Design or the Salone Internazionale del Mobile in Milan) will showcase new products and technologies; highlight key designers; and will be reported online, on TV and in print. Or in the mid-range, hotels whose strategy is to focus on the business segment must evolve their rooms to fit the popular products (iPhones, laptops, suitcases, business shirts etc.) that business people use regularly.

**D05 – Architect**

The architectural work of D05’s firm is more functionally than aesthetically focused, specialising in innovative, low energy public buildings. Instead of air conditioning systems, the buildings use structural techniques to stabilise the internal environment so that it requires little energy to either heat or cool the building. This approach can give the buildings a striking, unique appearance because of the shapes and materials used. These large scale projects take at least a year to complete, and the buildings must last for decades. This timescale contrasts with many consumer products, yet there is a relative parallel with the need to create an enduringly attractive item that will fit within a dynamic context (its location) for a certain period of time. Figure 3 shows the factors that affect the form of D05’s buildings.
Because D05’s typical clients are large governments or corporations, it stands that his products should be influenced more by long term socio-economic and commercial forces than short term consumer behaviour, media, or product trends. However the location context of the building does affect its form – decisions have to be made as to how the building should look relative to other nearby structures, and also whether to use local materials and styles. This is not necessarily a purely aesthetic decision – often the local style will have evolved to respond to its climate and resource availability.

D08 – Design Manager

With its origins in electronic chess and bridge computers, D08’s company now mainly develops PC gaming, audio and input devices (mice and keyboards). Recently they have introduced a successful “lifestyle” range of input devices, aimed towards contemporary homes, and more fashion conscious consumers looking to escape from the traditional black, silver and beige. The Christmas market is their most profitable, so their product development process is timed to ensure that their products are ready for the festive season. Figure 4 focuses on the contextual influences on the development of a typical PC input device.
The idea of electronic devices as fashion items is not new and is certainly well established in consumer audio and television products, especially at the prestige, high-value end of the market (e.g. Bang and Olufsen; Mission). In the last decade this has trickled down into the younger PC, mobile phone and MP3 player markets, with much of the credit going to Apple for their colourful contributions to the appearance and symbolic value of consumer electronics. D08’s company identified this trend early, and created the PC input devices with colour schemes that fit their final customers’ lifestyles, and that can also be rapidly manufactured to respond to short term demand or fashions.

TR01 – Trend Researcher

TR01 and her team engage with clients and create tailor-made strategies or, when collaborating with her company’s in-house design team, product solutions. The methods of probing consumers, cultures and markets included desk research, surveys, ethnography, and consulting a network of experts. While the information from each method is applied to the specific project at hand, it also enters a central bank of information for the consultancy, and furthers the experience and knowledge of the researchers, so that it can be revisited in parallel or future projects. TR01 also emphasised the importance of having research data as evidence to justify strategic or product form decisions to clients. Figure 5 shows the factors that contributed to the development of a design strategy for a global consumer electronics manufacturer.
Figure 5: Design strategy for a consumer electronics firm

It was interesting to apply the framework to this project, because it treats the entire brand as a product, and focuses on establishing a unified “design language” that bridges across the different product families within the brand. This contrasts with D08 and D04 whose companies developed product families, but with no shared identity between each family. Creating a continuous brand identity has a long term impact and serious consequences if it goes wrong – which may explain TR01’s thorough distribution of medium and long term factors as justification for the strategy.

Other Cases

Some of the other cases are discussed here in brief. It should be re-emphasised that no judgment is being made about the ability of the designers, the key point is that different product strategies are successful – there is no single correct approach.

For example D06’s bespoke dress-making deliberately steers clear of mainstream fashion trends – in particular the seasonal variation of colours and details that appear in magazines and the high street. His pieces are intended as classics that can be worn again and again, and his personal influences, such as Japanese Manga cartoons and Victorian furniture, are different from the norm but also familiar enough to create a durable look that isn’t tied to a transient style that will fade quickly.
In contrast **TR02** is one of many cool-hunters around the world working on a very near-term timescale. She photographs fashion innovators on the street, at parties, on beaches and in nightclubs in order to pick up on the newest and coolest clothing forms and modifications. She sends these photos to a client or agency where they are rapidly turned into reports or directly into clothing in fast-following high street stores like Zara and Topshop.

The consultants **D01-03** vary their approach for each project. The contextual content of their products depends on the timescales, budget and requirements of their clients, the type of product and end-consumer. For example, some new products benefit from being similar to existing and competitive products on the market because there is an established format that the user can understand. Other times the designer must conduct extensive research in order to ensure that the contextual content of the product is relevant to the target consumer.

Meanwhile, the freelance designer **D06**’s products have a striking, futuristic appearance that is an expression of his own taste aligned the latest materials and technologies. This integrity-preserving approach has resulted in mixed success with some designs never reaching production, while others have resonated greatly with consumers and are still popular after being on the market for 15 years.

**Discussion**

**Context**

The interviewees required their products’ appearance to be attractive to the consumer for a certain period of time, after a certain lead time. Whether this was for a hotel room desk to look stylish for 10 years, or a GPS system to be understood by its user first time, or a building to fit within its location for its life span, they needed to take a dynamic view of the product and its surroundings throughout its lifetime. Whether it’s a tacit, internal process, or it physically happens on paper, the designers translate these contextual factors into tangible trends that influence the form of their products.

Once a trend has been identified, the designer then has to decide how to respond to it. This is where their personal emotions – such as taste, inspiration and judgement come in, as well as the strategy of their client or brand. Some possible responses that appeared in the interviews are as follows:

- *Follow the trend directly*: fast following street fashions (TR02); replicating the format of an existing product (D01).
- *Modify or reinterpret the trend*: applying established colour and detail to a different product category (D08)
• *Ignore the trend completely:* ignoring catwalk fashion to pursue own influences (D06)
• *Oppose the trend:* building in load-bearing brick when everyone else is using structural glass (D05)

**The Framework**

The framework was created from a literature understanding and so benefited from being aligned with real industry practice. Categorising the contextual factors in a circle helped to break them down into manageable chunks, and to see possible relationships between each of them. The time dimension in each category provided another axis along which to distribute and interrelate the factors. The framework made it possible to examine a diverse selection of products and make conclusions about their contextual content. It needs further development to ensure that the format and categories are appropriate – they may require redefinition or further segmentation. However once it is completed, the framework has the potential not just to classify or analyse existing products, but rather to proactively plan the contextual content of future products.

**Conclusion and Further Work**

This study has examined product context from both a literature and a professional perspective. It has looked at the types of contextual factor that contribute to product form, and how they change over time. Categorising these factors helps to simplify the mass of external influences on product context, and to start to see possible relationships between each of them. This paper presents an emerging understanding that will benefit from exposure and feedback from a wider audience.

The doctoral study is continuing: further interviews are planned with designers in additional disciplines and in different countries to ensure a comprehensive coverage. After processing all of the interviews the study plans to revisit the interviewees with the analysis for feedback and to further develop the framework.

**References**


