

Fashion in Mobile Phone Design

– The Emergence of Beautification, Desirability and Variation through Institutional Collaboration

Abstract: We study if and how fashion values, such as beautification, desirability through symbolic interaction, and high variation, are increasingly visible in mobile phone design. We unpack such possible inter-linkages by interviewing eight representatives of both industries. Their comments allow us to discuss whether a process of fashionization is underway and, if so, how it is taking place. Our findings indicate that fashion values are visible in the design of mobile phones and are accounted for in design. Fashionization can thus be seen as emanating from institutions related to clothing that extend to and become shared with the mobile industry, such as a shared dependency on trend agencies for color selection and joint events. This interaction, ad hoc and heterogeneous, resists being modeled as a “system,” which has been suggested as a way to explain institutional work within clothing fashion. Drawing on Barbara Czarniawska’s institutional theory, we propose conceptualizing the emerging institutional work in terms of “action nets.” This concept makes visible flexible, situated, and ad hoc activities rather than stable and fixed organizational entities.

Keywords Action nets, color trends, Fashion-ology, institutions, mobile phone design

Introduction

In recent years, mobile phones have increasingly been consumed as fashion items. Studies of young people’s purchasing and use of mobile devices show that these items are used to express identity and desire in a way similar to how they use clothing (Ling 2003; Katz and Sugiyama 2006; Kasesniemi and Rautiainen 2002). At the same time, the mobile industry is increasing the pace of new releases, thereby increasing news value and variation (Djelic and Ainamo 2005), and is putting more effort into beautifying these devices (Fortunati 2005). Sociologist Leopoldina Fortunati understands the similarities between the consumption of mobile phones and of ornaments or jewelry as deriving from the objects’ shared location on consumers’ bodies (Fortunati 2005: 41). In this article, we will further investigate the

similarities between mobile devices and clothing fashion and also expand on her explanation of it by suggesting that we are dealing with a case where fashion, understood as social institutions, might be spreading to areas beyond clothing and accessories. We will unpack such potential relations by discussing whether the emergence of aesthetics, desire, and variation are to be found in mobile phones, and if that could be explained by a diffusion of fashion institutions. We will do so by focusing on the production, or “design,” of mobile phones, and discuss the relations between the activities in this area and the final appearance of mobile phones as fashionable objects of consumption. The suggested shift in focus, from consumption to production, is informed by recent studies in fashion theory, in particular, Yuniya Kawamura’s influential theory of “fashion-ology” (Kawamura 2005).

In specific, we conducted in-depth interviews with eight people holding important positions in the fashion and mobile industries, and then performed qualitative content analysis on the interview transcripts. Our findings support the existence of a trend towards aestheticization of mobile design. There are concrete links between fashion industry and mobile design. For example, the study shows how the “color and material design” of mobile phones orient to the trend analyses produced by fashion agencies. The interactions between clothing fashion and mobile design resist being interpreted as a “system” in the sense that Kawamura uses in describing the institutional mechanism of fashion (Kawamura 2005). If we accept that fashion is an institutional construct, it might be fruitful to turn to institutional theory to find alternative interpretations of the organizational influences between fashion industry and mobile design.

In the following, we will firstly present the related literature that influences the framing of such a new topic; secondly, describe how the study was conducted; then present the empirical analysis from our interviews on mobile phones and fashion, which focuses on concrete

examples and quotations; and finally discuss how we might understand fashion in mobile design through institutional theory.

Background and Related Work

Our intention to unpack the specific relations between mobile design and fashion is influenced by the latter's long-standing importance and influence in everyday life. It provides a way of understanding how certain aesthetic values are formulated and spread in society. Fashion is seen as “an *aesthetic* vehicle for experiments in taste” (Wilson 2003:8), which “molds our concept of what is considered beautiful” (Kawamura 2005:79). In clothing fashion, people have a tendency to aestheticize their appearance and are drawn to beautiful looks, desires, and temporal variations (Wilson 2003; Larson 2003). People tend to materialize their desires in the clothing they wear, and the clothing or related items are used to communicate desire to others. Fashion creates desire by evoking and nurturing idealized images to attract consumers and make people form attachments with clothes. As Elizabeth Wilson puts it, fashion is “a way of intellectualizing visually about individual desires and social aspirations” (Wilson 2003: 9).

Fashion is recognized as a highly varied mode of production and consumption. In the clothing industry, the production cycle has become shorter in conjunction with consumers' demands for change and novelty. People aspire to vary between new styles at an increasingly rapid rate (Larson 2003), which requires fashion companies to shorten the product cycle (Brannon 2005: 28). An increasingly shortened production cycle leads to growing variation in products available. This also emphasizes that fashion is a process where the new constantly replaces the old. Many fashion scholars have argued that fashion, especially fashionable clothing, is a particularly modern phenomenon, since the relentless movement of ideas and

styles, and the apparent “speed” at which they change are characteristic of modernity itself (Wilson 2003; Breward and Evans 2005; Sproles and Burns 1994).

Although the phenomenon of fashion is often analyzed on the level of consumption, it is also recognized as arranged and produced before consumption occurs. It is thus the result of strong and influential institutions. For instance, sociologist Herbert Blumer (1969) argues that fashion is a result of “collective selection” and is socially produced by institutional, social, and cultural relations between a number of key players in the industry. In particular, designers choose what garments to show in their collections, while journalists and retail buyers select items as the trend and the fashionable “look” for the next season (Blumer 1969). Kawamura suggests that fashion is constructed by a system which works through complex relations between sub-institutions that handle production, distribution, and consumption, thereby turning garments into fashion. The key idea is that it is the institutional arrangements that transform clothing into fashion (Kawamura 2005). Kawamura’s sociological perspective on fashion has influenced other researchers in fashion studies. For instance, inspired by her theory, Blaszczyk studies how interactions among commerce, culture, and consumers produce different forms of fashion, and argues that fashion is a cultural phenomenon growing out of interactions between individuals and institutions (Blaszczyk 2009:10). Based on ethnographic studies of fashion modeling and retail buying, Entwistle (2009) argues that fashion values are collectively produced by actors within the market. Thus, fashion is the result of interactions between industry players.

Meanwhile, the influence of fashion on aesthetics of everyday life in general is also important. It has been argued that fashion is seeping into the design of other objects, which motivates us to further study fashion and mobile design. Entwistle agrees with Kawamura that fashion is actually a system of stylistic innovation, but unlike Kawamura she suggests that

such concerns are to be found in other domains, such as architecture and product design (Entwistle 2009). Moreover, something similar to the way that fashion nurtures desire is also visible in other fields. For example, Chin argues that consumer electronics are fashionable because “technology has become as conspicuous a statement as fashion itself” (Chin 2010: 35). She states that techy things have acquired symbolic meanings of “hipness, hypermobility and connection, technological savvy, and ‘forward’ thinking” (Chin 2010: 36). The symbolic meanings as such indicate idealized qualities that people wish to possess and project to others. Finally, other areas of product design orient to variation and change in a way similar to fashion. Nixon and Blakley (2012) believe that non-clothing industries are forced to embrace faster manufacturing cycles if they want to tailor products to the needs of well-informed consumers. Therefore, we can see that beautification, desirability and variation are extending to a wider range of products.

Other studies examine how fashion shapes design in other domains. Nixon and Blakley (2012) propose that a form of “fashion thinking,” defined as a means of generating stories, experimentation, and open-sourcing, is used in innovation of a broad range of consumer products and services, e.g. food packaging and automobile design. Some researchers have discussed the role of fashion trend forecasting in, among other areas, the automotive and interior design industries, arguing that fashion trends have significantly influenced design processes (Reynolds 1968; Brannon 2005).

The spread of fashion logics or institutions into new areas motivates us to ask whether mobile phones as fashion objects are being molded by the same, or similar institutions. Is the aestheticization of mobile phones in some way linked to a fashionization of mobile design? If it were, we would have another piece of the puzzle when sorting out the “aestheticization of everyday life” (Featherstone 1991) in general. According to sociologist Mike Featherstone,

since the late 20th century there has been a growing trend whereby many consumer products, such as home ware or technical gadgets, become part of a “constant search for new styles, new sensations and experiences” (Featherstone 1991:84). The topic is also emerging within the philosophy of contemporary aesthetics where the trend is recognized as an increasingly blurred boundary between high art and mass culture. This blurring is visible in the aestheticization of mundane objects and in the experiences of daily life, such as when we prepare a meal (Duncum 2002; Dowling 2010). Fashion scholar Virginia Postrel argues that fashion’s preoccupation with beauty is leaking into many consumer objects, which leads to increased attention to style and fashion in different products (Postrel 2004). This trend has an impact on product design in general, with aesthetic factors becoming an essential dimension of the design attributes (Clarke 1999; Maffei 2013).

In general, this postulation of an “aestheticization of everyday life” needs further attention, since it currently relies on a very general observation made by viewing industrial objects at a distance. It “abounds with folk wisdom but lacks an empirical backing for its theoretical and common-sense view” (Tseëlon 2001: 436). Although such generalizations are important for inspiring new studies, we need more extensive empirical indications and discussions of both how this trend emerges in particular domains and why it happens.

In addition, we follow the trend of seeing fashion as an institutionalized system; it is then also relevant to look at the research on institutions. Institutional theory studies the processes by which structures, including schemes, rules, norms, and routines, become established as authoritative guidelines for social behavior (Scott 2004). According to Kawamura, fashion is generated by “a system of institutions that produces the concept as well as the phenomenon/practice of fashion” (Kawamura 2005:1). Although she talks about interactions between individuals, her approach is mainly one of structural-functionalism, where the

institution has a unified purpose and its constituent elements derive their roles from the overall rationale of the system. They are conceived as “organisms” that work towards the proper functioning of the entire “body” of society (Urry 2000: 23). Developing sub-organizations is “the key factor in the process of institutionalizing” and building the fashion system (Kawamura 2005: 53). However, there are alternative approaches in institutional theory, such as a constructionist view. Constructionism understands reality as socially constructed and contextually dependent (Berger and Luckmann 1991:15). It focuses on the activities that make social interaction and technology sometimes appear like functional machines (Latour 2010). Applied to institutional studies, constructionism understands organizations as heterogeneous and fluid things that are constantly being made and in which multiple actors face new types of challenges. An example is Czarniawska’s action net theory, which emphasizes actions in particular. The concept of action nets aims to illuminate how collective actions are tested, repeated, or dropped in a process where actors make “connections” that either dissolve or are stabilized (Czarniawska 2008). Her “action nets” are intended to display the importance of particular situations, although they do not always develop into stable organizations.

Methodology

In order to investigate if and how fashion influences mobile design, we conducted interviews with a number of people in both industries. The interviewees were selected through “snowball sampling,” a method in which interviewees are asked whom the researchers should meet next. This enables researchers to “follow the patterns of established networks, friendships, and acquaintanceships with like-minded individuals” (Gray et al. 2007:117). It is an invaluable tool for “gaining access to informed and experienced people who may provide in-depth information available nowhere else” (Gray et al. 2007:117). We began in 2008 by

interviewing Jeanna Kimbré, a highly relevant person who at the time was Head of Color and Material Design at Sony Ericsson. In this position she managed important parts of design at a major mobile phone producer at that time. In the mobile industry, “color and material designers” are responsible for making the case of a phone product, which has an orientation to aesthetics, shared with fashion. Based on her recommendation, the next interview was with Louise Klarsten, CEO at Color House, who had sold many trend books to Kimbré’s group. Following this method, we interviewed altogether eight persons with expertise in either mobile or fashion industry, including Erik Ahlgen (Manager of Industrial Design, Sony Ericsson, Lund, Sweden, interviewed in 2008); Niilo Alfthan (Portfolio Designer at Design Research Nokia in Helsinki, Finland, interviewed in 2010); Maryelle Allemand (Senior Marketing Project Manager, Carlin Interactional, Paris, France, interviewed 2010); Grace Boicel (Senior Design Manager, CMD Global portfolio Nokia, London, UK, interviewed in 2010); Meri Laine (Senior Design Manager, Design Research Nokia, Helsinki, Finland, interviewed in 2010); Jeanna Kimbré (Manager, Color and Material Group at Sony Ericsson, Lund, Sweden, interviewed in 2008); Louise Klarsten (CEO and Fashion Consultant, Color House, Gothenburg, Sweden, interviewed in 2009); and Andrea Rosengren (Interaction Designer, Ocean Observations, Stockholm, Sweden, interviewed in 2009).¹ The interviews were kept open and mainly focused on concrete examples and the detailed work of the interviewees.

We used qualitative content analysis to study the interview transcripts. This is a research technique for making valid inferences from texts (or other meaningful matter) to the contexts of their use. It is a method for qualitative data reduction and sense making based on taking a volume of qualitative material and attempting to identify core consistencies and meanings

¹ Listed in alphabetical order.

(Patton 2002). This method enables us to rearticulate the meanings of the empirical corpus in light of the context, thereby allowing research questions and answers to arise together in the interaction between the known literature and corpus (Krippendorff 2004:87).

We are aware of the limitation of selecting a small number of interviewees who are connected to each other. Although the participants all have important positions, we are hesitant to assume that the concrete practices they discussed are valid descriptions of the mobile phone industry in general. The interviews were performed between 2008 and 2010, during which time mobile phone designs changed rapidly and the market was in constant flux. The manufacturers' positions in this market have also changed; e.g. Apple's iPhone has become increasingly popular and Nokia has shrunk enormously. Nevertheless, we focus on understanding the details of concrete interactions and generalizing their relevance for fashion theory, as well as providing anecdotal interpretations of the importance of fashion. It is in this sense that the significance of our interviews should be understood, and it is these visions that underlie the suggested generalizations, despite the dramatic changes taking place in this industry.

Results and Analysis

In this section, we present the analysis of the interview transcripts regarding the relation between mobile design and fashion. We start by addressing whether mobile design in general is picking up fashion mechanics. We then discuss concrete interactions between the mobile and fashion industries, with a specific focus on the shared use of trend agencies, as well as other values in mobile design that reduce the influence of fashion.

The Fashionalization of Mobile Design

The interviewees interpreted the design trend of mobile phones as being infused with fashion values similar to those discussed in previous literature. We will discuss their observations with reference to the three topics of beautification, desirability, and variation. First, our interviewees claimed that a beautification of mobile design was taking place. Jeanna Kimbré, manager of the Color and Material Group at Sony Ericsson, discussed how the mobile's location on bodies generates parallel requirements on design. The orientation towards beauty is likely to have "much to do with you wearing your product ...when the headset hangs like a necklace it's clear that you are more interested in how it looks." Phones being located on the body leads to demands being placed on their design – as both personal and publicly visible fashion objects – that resemble those placed on clothing. Some interviewees gave concrete examples of beautification in mobile design. Grace Boicel, Design Manager from Nokia, mentioned the Nokia C7:

If you think about the form, we have the industrial designer – Thomas is his name. He was obsessed with curves. He said that in nature you don't find any straight lines... So that's one thing. Another is the color-and-material person who was working on this product. It comes in three different colors. The designer, inspired by snow in Finland, was talking about frost silver, a kind of white, which is never really white. And black, inspired by charcoal. Another was brown, as something taken from wood.... These colors have different shades, not just one color, like one color. So we take the example of Thomas' curves together with the ideas of color shades; we work all these together to create a beautiful product.

She talked about aesthetic features such as forms and colors that contribute to a beautiful complete design of a mobile phone. Designers took inspiration from what they could see in life, like nature, and materialized their ideas in concrete design details. Erik Ahlgen, Manager of Industrial Design at Sony Ericsson, described another interesting case – C902 – a phone designed by him. He said the phone was inspired by stripes on clothing, stripes having been

especially popular in Scandinavian countries at the time. The stripes made the phone “look extra thin.” This was an example of using clothing fashion as a way to beautify mobile phones. In sum, the interviewees emphasized aesthetic features such as color and form, and the devices’ physical proximity to fashion items, thereby implying the significance of beautification in mobile design.

Second, mobile phones are designed to generate desires in terms of usage. Senior Project Manager Maryelle Allemand, from Carlin forecasting agency in Paris, said:

Look at the iPod, iPhone, and iPad. They are really desirable objects at the moment. Because they express something of modernity. They express that you are “in,” that you understand the modern world. It’s more about your status than actually listening to the music or whatever. Mobiles can be the same. If you can trade the same kind of desire with something really irresistible, that everybody wants to show, it can be a fashion accessory that exposes to the others.

She explained how digital objects become desirable. They express certain ideals that everyone wants to show to others such as being “trendy,” “in,” or “modern,” and they reflect the user’s social status.

Finally, our interviews discussed the increasingly short production cycles in mobile design. Kimbré, from Sony Ericson, said “we see that things are going much faster in many industries, and this makes people stay up to date more and keeps them interested... the product cycles are faster in all industries, for example interior design and our industry.” Similar to many other industries, the product cycle of the mobile phone industry has become faster.

In sum, our interviewees identified an orientation towards specific design values, such as beautification, desirability and variation, which would also be considered important in fashion. Those observations are similar to those in previous studies of fashion as a driver of

the mobile industry. Still, the comments are valuable because our interviewees express themselves in concrete terms and provide an “insider” view.

Interactions between the Fashion Industry and Mobile Design Departments

Inspired by Kawamura’s argument that fashion is a result of institutional work, we will discuss the possibility of extending her analysis to include fashion in mobile phones. We will do so by identifying concrete interactions between the mobile industry and clothing fashion. As testified by our interviewees, it seems that the meeting points and collaborations between these areas are manifold and varied. In specific, “color and material” designers at mobile manufacturers have various ways of orienting to the clothing industry. These designers are responsible for selecting colors, graphics, and materials, and shaping the digital device into a desirable item. In doing so, they work closely with other designers like interface designers and packaging designers. They get inspiration by keeping tabs on what the fashion industry is doing. For instance, Andrea Rosengren from Ocean Observations said “we buy lots of magazines and talk to people. We have networks in various cities with people we know, and business contacts with people who do trends for us.” Niilo Alfthan, from Nokia, also talked about their cooperation with fashion trend agency WGSN, saying “it’s a typical consultant relationship...they basically give us consulting and their view of what is happening.”

The mobile industry wants to stay close to the fashion industry to better understand how the fashion industry can seduce consumers, and hopes to gain a bit of this effect just by being associated with it, for example by being present at fashion shows. As Kimbré said, mobile phones are “sometimes used on the runway as accessories” and the collaboration is about “simply showing collections together.” Kimbré explained what the mobile industry could learn from fashion shows. First, on the catwalk, “it’s not necessarily just the clothes, but also

the environment they are in.” Fashion shows are presentations of not only clothes, but whole packages of garments, styling, music, and staging, all of which contribute to producing beauty, attraction, and desire. Thus attractiveness may be connected to other things than just physical products, like a particular “environment.” Second, fashion runways could inspire them to learn how to use technology in a comfortable and understandable way. As she said: “Last year a fashion designer made use of holograms on the catwalk... You look at things in a new way. People become more comfortable with technology.” Third, Kimbré believed that these shows were great places to “meet customers” and “obtain consumer understanding.” Mobile manufacturers could use this type of event as a way to communicate with their leading customers. In addition, Kimbré stated that they also maintain a presence in other related areas such as interior design and automotive design.

Trend Forecasting as a Joint Locus

In the following we will focus on one particular instance of convergence between fashion institutions and mobile design, namely their use of shared trend analysis organizations. Our interviews show that such institutions, which grew out of the needs in clothing industry, have become useful for the mobile industry, in particular when it comes to color selection in mobile design.

In general, trend analysis covers a wide range of topics, such as identifying changes in lifestyles and consumer behaviors, but in our analysis we focus specifically on color trends. Color plays an important role in making beautiful things that consumers want and desire. The variation of color palette in every season represents people’s constant pursuit of change and newness (Blaszczyk 2012; Brannon 2005). Color selection is also important in mobile design.

The interviewees described how the mobile and fashion industries are institutionally linked through shared trend agencies. The mobile companies buy trend books and consult

trend agencies. For example, Louise Clarsten at Color House sold trend books produced by the Paris-based agency Carlin to Sony Ericsson in Sweden. Allemand, from Carlin, also said that they sold cosmetics books to Sony in Japan, “because they are inspired by textures and colors of cosmetics in order to make products for women...we think it’s really a proof of intelligence to get inspiration from all the sectors, to mix the competencies.”

In addition, Kimbré discussed how mobile design would adapt the fashion trends to suit their specific needs:

Generally, parts of fashion trends have seasons. And their seasons are getting shorter and shorter. We pick what is relevant to our industry and for our consumers, but have a bit more long-term customer value. So there’s a kind of mixture of long-term and short-sighted thinking.

She pointed out that the two industries have different temporal patterns of production and consumption, which makes it challenging to make shared use of trend analysis. Trend predictions for the clothing industry are usually to be consumed within six months or less, while producing a mobile device usually takes much longer. If the mobile designers want to make use of trend analyses, they have to adapt them by selecting a design that they think is going to represent long-term consumer values. A color expected to be desired in half a year might have lost its appeal in a year or two. The mapping of the trend analysis also needs to account for the novelty value of a particular color. As Kimbré said:

It is easier to imagine yourself buying a top from H&M in some new polarizing fashion color even though you would have thought “God, never in my life” a year ago. But it takes a little longer to consider the new color for a product that you will carry in all contexts. You cannot change it the next day, like a sweater.

People develop their valuation of colors by experimenting with what is made available by the clothing industry. They begin by trying on cheap items, like sweaters from fast fashion brands. Since mobile phones are to be used continuously for a long time, people tend to select

colors that they are already accustomed to. Thus, mobile manufacturers find themselves in a tricky situation. On the one hand, they need to make desirable mobile phones to attract consumers. Polarizing colors are more likely to arouse people's interest in the short term; on the other hand, there are risks if they take the colors that are polarizing at the moment, since these colors might become safe and unattractive in two years. Although the two industries collaborate with particular trend organizations, the mobile industry cannot apply its trend analysis in the same way as the clothing industry does. Most importantly, they need to figure out how to handle the temporal difference between mobile devices and garment in color trends.

What remains to be understood is why the mobile industry orients to these trend agencies in order to get influences for their color design. The answer has to do with how trend agencies come up with their predictions of color trends. In general, there are two perspectives on how they get a result: by identifying trends in the world or by constructing powerful institutions that ensure that a particular trend will occur. Trend analysis can be seen as a way to analyze what way the world is going. Thus it is an analytical process, often referred to as "research," in which phenomena are dissected to achieve an aggregated understanding of their components (Brannon 2005: 68). Our interviewees discuss how this is done. For example, Kimbré said:

We start there, and then if you look at where they currently are in their reality and what triggers them in terms of color... We need to have designers who can look at the micro-groups who are very early arrivers ... far ahead of others, who will enter a particular trend. And then see where they are going and where others will follow.

Trend analysts need to look at the "early adopters" of polarizing colors, who might possibly forge a trend. Analysts need to have the ability to judge who leads a trend and predict what

might attract the masses in the future. It is also important to look at social values and lifestyle changes. As Kimbré further stated:

What we can see are the shifts in consumer perceptions, lifestyles, and values – more generally how these will change in the future. We look about two years ahead. How can we predict people's values? Do they want to communicate in other ways?

Both of the activities described above involve examining what is occurring in the world, the results of which might inform future trends.

The other perspective on the generation of a trend prescription understands it as constructed by social communities or organizations. Diane and Cassidy (2005: 31) point to the decision-making process in color forecasting, and those situations where a color palette is agreed upon at a meeting of specialists who bring their own color boards to discuss with each other. According to Diane and Cassidy (2005: 31), “how these ideas are formulated is never divulged, keeping the process mystical and secret.” If the trends are negotiated in a meeting, it is not far-fetched to characterize them as designed, or constructed, through concrete acts of communication and coordination, rather than as revealing themselves in studies of the world. Our interviewees supported such a constructionist view. Louise Klarsten, from Color House, described how the color trends are constructed as follows:

Sitting in a team that only works with color, it is a blend of competence, experience, education and bench marking. They exist in every country, but not in Sweden. For example, in the U.K. there are creative color groups that meet. They are free to share ideas and discuss them, before everyone goes to their own place. They continue with those ideas in trend agencies, or wherever they work. This becomes a raw sketch of where the taste preferences are moving, and a help to the industry.

This process involves discussions and coordination within a team of people that are assigned to define a trend. Importantly, the existence of such meetings shows that the trend construction is coordinated and synchronized. Furthermore, Klarsten states:

It is obvious that if we are successful in reaching out with this information, it becomes a self-fulfilling prophecy, because you would interpret the direction in the same way. It is possible to opt-out and choose an individual direction. Then you might be more creative, but at the same time you take a much greater risk.

She argues that color forecasting is somewhat “self-fulfilling.” Since color experts are exposed to the same sort of information, it is likely that they interpret trends similarly. If other organizations in the fashion networks orient to this particular forecast it becomes a reality. The orientation to such common resources is also motivated because it reduces the risk of designing objects with undesirable colors. Thus, fashion design needs some sort of joint trend, and that is provided for by the institutional frameworks.

In sum, there are many instances of interaction between the fashion industry and mobile design. The most salient shared activity is that of trend analysis. The two industries are similar in that both of them do trend analysis and share influences from the same institutions. The purpose of this orientation can be understood by examining how color analysis is done and how it influences the design of mobile phones and garments. If color trend analysis is about “research,” then the collaboration might be due to fashion agencies’ specific competence in identifying trends in the world. If trend analysis is constructed by powerful institutions, then the mobile industry has much to gain by interacting with the organizations that decide what colors will be trendy in the future.

Marginalizing Fashion in Mobile Design

Mobile design is also concerned with technology and user experiences that limit the importance of fashion, such as universal design principles, technical demands and material constraints.

First, mobile design is dependent on timeless principles that resist rapidly changing trends. Erik Ahlgen, manager of Industrial Design at Sony Ericsson, said “it doesn’t have to do with trends. It is the value that’s going to last, like the ‘Golden Ratio’.” This value refers to the inner logic through which a thing gains depth in expression, like the Golden Ratio. These aesthetic values have sometimes been summarized as principles for product design, such as contrast, symmetry, and harmony (Noble and Kumar 2010:645). Second, visual design must also be balanced against technical requirements. Ahlgen explained: “It’s extremely difficult to make unique products. The footwear industry can do it, but it’s a bit more complicated when you have antennas... you improve or impair the functionality of the phone.” Whereas the fashion industry could excel in creative visual design, mobile design has to consider many technical problems and device functionality, which may restrict its aesthetic choices. Finally, material technology constrains the choice of colors, as argued by Grace Boicel, Senior Design Manager at Nokia:

Material inspires us. It’s important that we don’t force coloring into technology... For example, if yellow is the most popular color, why would you take stainless steel and force yellow onto it? ...You have to think about technology as well.

Textiles can take a large range of colors, but in mobile phone design the choice is much more limited by the properties of materials. Certain materials can only have certain colors and should not be forced to have other colors. It is also important to consider what material technology is available at that time. Taken together, these concerns show that although fashion logics have some influence on mobile phone design, they have to compete with other values.

Discussion

Our aim has been to investigate whether there are inter-linkages in design between the long-standing and historically successful fashion industry and the new and emerging mobile phone

industry. In particular, we discussed whether an orientation around design aesthetics, desire, and variation is taking place in mobile design, and if so whether it could be explained as diffusion from fashion institutions. Since fashion has been somewhat “ambiguous” from the start (Wilson 2003:15), it is obviously difficult to trace its expansion to other new domains. We have done so from a dual perspective: fashion as an observable orientation in the appearance of the devices and fashion as a product of institutional collaboration.

Observing Fashion in Mobile Design

In previous studies (Postrel 2004; Chin 2010) it has been claimed that various fashion principles have spread to other products, and such an orientation is visible in the design of products in general and digital mobile devices in particular. Based on a theoretical understanding of fashion, we categorized these observations into three themes: increased beautification of devices, orientation to generating desire, and increasing variation through frequent product releases.

Our interviewees strengthened the arguments. They observed an emerging similarity between mobile design and fashion with increased attention to beautification, desirability and variation in the former. They provided concrete examples from their professional experience. For instance, Boicel talked about the color and form of Nokia C7 and Ahlgen introduced C902, which was inspired by stripes from garments. These relate to beautification. Kimbré addressed ways to create desire in mobile products by showing them in fashion shows; she also emphasized the faster rate of development of new mobile phone models. These expert interviewees add additional weight to previous studies in the area. Their observations strengthen the argument that fashion is leaking into a broad set of domains. Moreover, the insider status of the interviewees and their concrete observations make a more empirical approach possible, which could complement previous generalizations (Postrel 2004;

Featherstone 1991). Their observations also motivate moving beyond the identification of industrial resemblance and attempting to discuss how fashion diffuses into wider areas of design.

Fashion Institutions in Mobile Design

Kawamura argues that fashion is produced by cultural mechanisms or institutions (Kawamura 2005: 1). If we want to understand how fashion emerges in other objects than garments, we need to understand the institutions that make this happen. Joint institutions that are engaged in the concrete interactions between the mobile industry and clothing fashion are especially indicative of the role of institutions, since the presence of fashion values in the design objects can then be understood as emerging out of institutional work in the production of said objects. As discussed, these interactions take the form of practical actions, such as when mobile designers attend fashion fairs, or when mobile devices and clothes are shown together on the catwalk. Most salient collaboration occurs through their joint reliance on color trend agencies, which have historically provided guidance for fashion design (Brannon 2005). The mobile industry studies the findings of color trend agencies in a similar way as fashion designers do. Mobile designers also are proud when their devices become part of the agencies' creation of future trends, as trend agencies are beginning to take inspiration from technology. We suggest **a particular reason for mobile** manufacturers to make use of established color trend agencies rather than setting up their own design agencies, which is that they intentionally share the trend agencies with clothing fashion industry to get a sense of fashion in their design. As discussed, these agencies might be especially good at predicting future color trends precisely because they themselves construct the trends. If that were the case, we would have another important difference between what have previously been defined as “**fashion thinking**” and

“design thinking”² (Nixon and Blakley 2012). Fashion institutions would have institutional control over specific aspects different from those of design institutions. For example, fashion institutions decide on the color trends, and others adapt them to their own needs.

In sum, the concrete interactions we found between mobile design and clothing fashion strengthen the argument that we are increasingly experiencing a diffusion of fashion values into other areas of product design. However, these influences follow complicated patterns, which reflect the underlying institutional work. Although mobile designers are involved in multifaceted networks, there are many other competing values in mobile design, which makes incorporating fashion more complicated. This might explain why fashion values are less visible in mobile phone design than in clothing. Furthermore, the interaction that leads to fashionable devices occurs not only between the mobile and clothing industries, but also between mobiles and other products, such as automobiles and interior design.

Fashion as a System or Action Net

The dissemination of fashion into mobile design can be seen as emanating from an increase in shared social practices, for example color trend analysis. This helps us understand where and how the resemblances emerge. If trend analysis is a form of methodologically objective analysis, then its result depends on what is going on among consumers. When it comes to institutional arrangements, the trend agency is an important sub-system, which can be used when designing both clothes and mobile phones. However, if we see trend analysis as a form of construction that creates trends, then we are looking at a social practice where things are molded, like how Kawamura describes the emergence of fashion. The question then is how to understand this particular form of social practice. It is not self-evident that what we are

² “Fashion thinking” prioritizes the articulation and shaping of taste and aesthetics while “design thinking” applies user-centered approaches to solve problems. The differences between the two will be stated later on in the discussion of fashion and product design..

looking at can be understood as a hierarchical “system” in Kawamura’s sense (Kawamura 2005). In this view, each element has a role to play, or a function to fulfill, which makes the system as a whole work properly. In fashion studies, critics have already claimed that the Paris-centric approach is too simplistic and they would add competing systems such as those in Tokyo or Milan (Skov 1996; Volonté 2012). Although such a multi-system view allows for more “parts,” we argue that it is still not well suited to account for the relation between mobile design and fashion.

We have shown how organizational work within mobile phone companies, such as that pertaining to such things as color and material design, interacts with ongoing fashion production in a more ad hoc way, and that the interaction with fashion needs to be balanced against other considerations such as functional and material requirements. Furthermore, the institutions of fashion seem already to be dependent on negotiations and trade-offs, such as when color trends are understood as formed and synchronized in meetings. Thus, mobile design, with its balancing acts, is linked to fashion design, which is also generated in situated constructions. With such a detailed and empirical perspective, we struggle to see a “system.” Instead we turn to Barbara Czarniawska’s concept of “action nets.” Czarniawska sees organizations as assemblages of various forms of activities and interactions, instead of as static institutional objects. Rather than focusing on what will eventually appear to be an independent institutional object, her constructionist view makes visible the actions that make this happen.

This concept of “action nets” is useful in understanding the emergence of fashion in mobile design. First, actions define actors and generate connections (Lindberg and Czarniawska 2006:305). Our study emphasized that actions are important in producing fashion in mobile design. For instance, actions such as checking fashion resources, buying

fashion magazines, and making decisions about colors define the role that color and material designers play in mobile design. Actions are more important than titles or particular persons. Furthermore, the mobile and clothing fashion industries are connected through “translation,” which Czarniawska sees as “a mechanism whereby connecting is achieved” (Lindberg and Czarniawska 2006: 295). This is done by means of texts, images, objects, or actions (Lindberg and Czarniawska 2006). The actions that link mobile design to fashion can be understood as translation, which includes checking fashion blogs, doing trend analysis, and attending fashion shows. The establishment of such translational activities is strengthened by deploying “research” rhetoric. “Action nets” make visible how the future is crafted by such activities, and how these activities merge with mobile design to create an expanded “fashion in all things.” Finally, the concept of “action nets” highlights heterogeneity and flexibility. Our study shows that the action net of mobile fashion is composed of various actors, such as designers at mobile companies, trend agencies, fashion brands, media, and automobile manufacturers, all of whom interact in complex networks.

In sum, although there does seem to be a fashionization of mobile design, this does not mean that the fashion system is being augmented with more sub-systems, or another geographical node, such as Helsinki or Stockholm, that would complement traditional fashion capitals. Instead, fashion in mobile phone design is formed through loose connections generated from repeated actions into which words, images, or ideas can be translated.

Fashion Design vs. Product Design

In teasing out the role of fashion in mobile phone design, it is essential to unpack the differences and similarities between fashion design and other types of design. They are similar on a general and abstract level, where the activity of design is defined as human shaping of the environment in ways without precedent in nature, in order to serve our needs

and give meanings to our lives (Heskett 2005: 5). Design thus contains a wide spectrum of practices, such as interior design, clothing or fashion design, and product design. In this sense, the identification of fashion practices in mobile design is conflated with the argument that mobile phones are becoming increasingly “designed,” which is rather unsurprising. If we define design more narrowly, such as ways of “thinking” or institutional work, we get a different understanding of the overlaps and distinguishing features.

It has been stated that fashion thinking focuses on aesthetics, creativity, and innovation in the domain of appearances, and differs from product-design thinking. The latter emphasizes problem solving and uses a user-centered research method to frame problems (Martin 2009; Pacione 2010). If we understand fashion as a system of cultural arrangements in line with what Kawamura suggests, then we would look for similarities and differences in the institutions involved in fashion design and product design.

From an institutional perspective, mobile design and fashion design differ because they are dependent on different organizational arrangements, but they also overlap in the sense that they draw on shared institutions. Fashion design has a long tradition and is based on rather stable organizations, such as in coordinating color selection. The mobile industry is young and expansive, and has a foundation in engineering. The design of mobile phones is influenced by various institutions, and it is not obvious that a tendency toward beautification derives from fashion institutions. In the mobile industry, many actors who do not relate to fashion are involved in this process, including user interface designers, technicians, phone operators, etc. Many other values serve to marginalize the role of fashion, such as general design principles, materials, and technology. At the same time, we did identify shared institutions, for instance the use of specific trend agencies.

Discussing similarities and differences from an institutional perspective is further complicated by the un-systemic character of this type of organizational work. Instead of being activities constrained by stable and hierarchical systems, fashion institutions in mobile design are rather action-nets that blend with other actions. The similarities and differences must be seen as embedded in heterogeneous and complex situations, which makes it even harder to decide whether we are witnessing a merging between fashion and mobile design.

The Aestheticization of Everyday Life

The interviewees supported the idea of an “aestheticization of everyday life,” saying that this trend is visible in the design of such a ubiquitous and everyday artifact as the mobile phone. Meanwhile the non-existence of stable institutional “sub-systems” and the heterogeneous and ad hoc character of the interaction between the mobile and fashion industries make us hesitate to draw such generalized conclusions. It might be that mobile phone design interacts with fashion in particular situations. The fashionalization, or aestheticization, might then vary over time. It comes and goes from one product to another, and from one period to another. That said, when such design ideals become vaguely visible, their emergence can be seen not only by looking at mobile phones per se, but also by following the action nets. On the other hand, fashion scholars who are equating fashion with systematic institutions might see neither the aestheticization of everyday objects nor the influence of fashion beyond the clothing industry.

Conclusion

Fashion studies have recently turned to institutional theory in general, and the systems approach in particular, to explain how garments become fashionable. Meanwhile, it has been argued that fashion’s underlying values are becoming increasingly important in other design domains. In line with the latter, this study has shown how fashion values such as

beautification, desirability, and variation are increasingly taken into account in the design of industrial objects such as mobile phones. Kawamura's "fashion-ology," which describes a functional hierarchical system that turns garments into fashion, seems inappropriate in this context. Mobile phone fashion does involve organizations, which are then shared between the industries, but the institutionalization hardly seems to fit with the idea of a "system." The importance of actions, translational activities, and heterogeneity points instead to understanding fashion in mobile phone design in terms of action nets. We therefore suggest that a more flexible approach from institutional theory, for instance Czarniawska's concept of "action nets," can better explain the emergence of fashion in non-clothing artifacts. We suggest that in following fashion out of the clothing industry, it is important to scrutinize the underlying theories in fashion studies. Otherwise we risk underestimating both ongoing trends and the influence of fashion on other design practices.

Acknowledgment

The research was made possible by a grant from Vinnova to the Mobile Life VinnExcellence Center, in partnership with Ericsson, Microsoft, Nokia, IKEA and Stockholm City. We would also thank all the reviewers for their constructive comments and precious time.

References

Berger, Peter L. and Luckmann, Thomas, 1991. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. London: Penguin.

Blaszczyk, Regina Lee, 2008, *Producing Fashion: Commerce, Culture, and Consumers*, Philadelphia: University of Pennsylvania Press.

-----2012, *The Color Revolution*, Cambridge: MA: MIT Press.

Blumer, Herbert, 1969, "Fashion: From Class Differentiation to Collective Selection", *The Sociological Quarterly*, Vol. 10. 3: 275–291

- Brannon, Evelyn L., 2005. *Fashion Forecasting*, 2nd ed. New York: Fairchild Publications.
- Breward, Christopher and Evans, Caroline, eds. 2005, *Fashion and Modernity*, Oxford: Berg.
- Chin, Ava, 2010. "Tech savvy: Technology as the New Fashion", in Ron Scapp and Brian Seitz (eds.) *Fashion Statement on Style, Appearance, and Reality*, New York: Palgrave Macmillan, pp. 35–42.
- Clarke, Sally, 1999, "Managing Design: The Art and Color Section at General Motors", 1927–1941, *Journal of Design History*, 12 (1): 65–79
- Czarniawska, Barbara, 2008. *A Theory of Organizing*, Cheltenham, UK: Edward Elgar Publishing.
- Diane, Tracy and Cassidy, Tom, 2005. *Color Forecasting*, Oxford: Blackwell Pub.
- Djelic, Marie-Laure and Ainamo, Antti, 2005. "The Telecom Industry as Cultural Industry? The Transposition of Fashion Logics into the Field of Mobile Telephony", *Research in the Sociology of Organizations* 23: 45–80.
- Dowling, Christopher, 2010, "The Aesthetics of Daily Life", *The British Journal of Aesthetics*, Vol. 50, No. 3: 225–42.
- Duncum, Paul, 2002, "Theorizing Everyday Aesthetic Experience with Contemporary Visual Culture", *Visual Arts Research*, Vol. 28, No. 2: 4–15
- Entwistle, Joanne, 2009, *The Aesthetic Economy of Fashion: Markets and Value in Clothing and Modeling*, Oxford, GBR: Berg Publishers.
- Featherstone, Mike, 1991. *Consumer Culture and Postmodernism*. London: Sage.
- Fortunati, Leopoldina, 2005. "Mobile Phones and Fashion in Post-modernity", *Telektronikk* 101 ¾ : 35–48.
- Gray, Paul S., Williamson, John B, and Karp, David A, 2007. *The Research Imagination: An Introduction to Qualitative and Quantitative Methods*, Cambridge University Press.

- Heskett, John, 2005. *Design: A Very Short Introduction*. Oxford University Press.
- Kasesniemi, Eija-Liisa and Rautiainen, Pirjo. 2002. "Mobile Culture of Children and Teenagers in Finland". In *Perpetual Contact*, James E. Katz and Mark A. Aakhus (eds.). New York: Cambridge University Press, pp. 170–192.
- Katz, James E. and Satomi Sugiyama, 2006. "Mobile Phones as Fashion Statements: Evidence from Student Surveys in the US and Japan", *New Media & Society* 8 No. 2: 321–37.
- Kawamura, Yuniya, 2005. *Fashion-ology: An Introduction to Fashion Studies*. Oxford: Berg.
- Krippendorff, Klaus, 2004. *Content Analysis: An Introduction to its Methodology*. Thousand Oaks, CA: Sage.
- Larson, Kyle. 2003. "The Need to be Fast and First". *Women's Wear Daily*, p. 11.
- Latour, Bruno and Lepinay, Vincent Antonin, 2010. *The Science of Passionate Interests: An Introduction to Gabriel Tarde's Economic Anthropology*, Prickly Paradigm Press.
- Lindberg, Kajsa, and Barbara Czarniawska, 2006. "Knotting the Action Net, or Organizing Between Organizations", *Scandinavian Journal of Management* 22 No. 4: 292–306.
- Ling, Richard. 2003. "Fashion and Vulgarity in the Adoption of the Mobile Telephone Among Teens in Norway". In L. Fortunati, J. Katz, & R. Riccini (eds.), *Mediating the Human Body: Technology, Communication, and Fashion*. pp. 93–102. Mahwah, NJ: Lawrence Erlbaum.
- Maffei, Nicolas P., 2013, "Selling Gleam: Making Steel Modern in Post-war America", *Journal of Design History*, Vol. 26 (3): 304–20
- Martin, Roger. 2009. *The Design of Business: Why Design Thinking Is the Next Competitive Advantage*. Boston, MA: Harvard University Press.

- Nixon, Natalie W. and Blakley, Johanna, 2012. "Fashion Thinking: Towards an Actionable Methodology", *Fashion Practice* 4. No.2: 153–176.
- Noble, Charles H. and Minu Kumar, 2010. "Exploring the Appeal of Product Design: A Grounded, Value-Based Model of Key Design Elements and Relationships". *Journal Of Product Innovation Management* 27, No. 5: 640–657.
- Pacione, Chris. 2010. "Evolution of the Mind: The Case for Design Literacy." *Interactions* 17(2): 6–11.
- Patton, Michael Quinn, 2002. *Qualitative Research and Evaluation Methods*. CA: Sage Publications
- Postrel, Virginia, 2004. *The Substance of Style: How the Rise of Aesthetic Value Is Remaking Commerce, Culture, and Consciousness*, Harper Perennial.
- Reynolds, William H., 1968, "Cars and Clothing: Understanding Fashion Trends", *Journal of Marketing*, Vol. 32, No. 3: 44–49
- Scott, W. Richard, 2004. "Institutional theory", in George Ritzer, ed. *Encyclopaedia of Social Theory*, CA: Sage. 408–14.
- Skov, Lise, 1996. "Fashion Trends, Japonisme and Postmodernism: Or 'What is so Japanese about Comme des Garçons?'" , *Theory, Culture & Society* 13. No.3:129–51.
- Sproles, G., and L. Burns, 1994. *Changing Appearances: Understanding Dress in Contemporary Society*. New York: Fairchild Publications.
- Tseelon, Efrat, 2001, "Fashion Research and Its Discontents," *Fashion Theory: The Journal of Dress, Body and Culture*, 5/4: 435–52.
- Urry, John, 2000. *Sociology Beyond Societies: Mobilities for the Twenty-First Century*. London: Routledge.

Volonté, Paolo, 2012. "Social and Cultural Features of Fashion Design in Milan". *Fashion Theory: The Journal of Dress, Body & Culture* 16. No. 4: 399–432.

Wilson, Elizabeth, 2003. *Adorned in Dreams: Fashion and Modernity*. New Jersey: Rutgers University Press.