'Outfit-centric Accessory' Design in Mobile Innovation

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Abstract Mobile phone design and use is a good case for studying aesthetics in human computer interaction, since this technology provides intimate consumer interaction. Still, the ways in which such technology could attract to fashion oriented people, has been under developed. The industry is making efforts to approach this group by treating phones as accessories. However, to design a mobile phone as an accessory does not just mean to make a phone "beautiful" in a static way, but should allow for matching its appearance with users' outfits in a dynamic and interactive way. In this paper we present the concept of outfit-centric accessory and explore a possible way of realizing it in design practice. We present a demo of designing a 'match' application and discuss the advantages and problems of the app. This study provides valuable insight on how we should design mobile experiences to enhance aesthetics close to our body.

Keywords: outfit-centric accessory, mobile design, aesthetics, match application

1. Introduction

Mobile phone design and use is a good case for the study of aesthetics in human computer interaction, since it provides us with intimate consumer interaction. Still, the ways in which such technology could interact ambiently to provide for aesthetically pleasing experiences among fashion oriented people, has been under developed. The industry is making efforts to approach the groups by treating digital devices as accessories. We argue that these attempts are superficial and that the industry has not yet allowed the phone to succumb to the elaborated aesthetics as it is expressed in users' selection of clothes made available by the fashion industry. Designing a mobile phone as an accessory means more to make the visual appearance of a phone 'beautiful'. In this paper we present the concept of outfit-centric accessory and explore a possible way of realizing it in design. We will present a demo of a 'match' application and discuss the advantages and problems of the app.

2. Outfit-centric Accessory

In previous studies, we have found a mismatch between how the telecoms sector approaches fashion as a resource for design, and how the fashion oriented people

themselves approach such designed objects. In fashion, an accessory is something that adds to the outfit or the clothing. It is often a watch, a bag, or piece of jewelry[1]. Designing for the mobile phone as an accessory implies that it should be an integral part of the outfit or the whole look. However, in the mobile phone industry, it is often the device that is the center of attention. It can be called 'phone-centric' accessory. Accessories then become things that are attached to the phone, such as cases, charms etc.[2].

The co-existence of these perspectives might lead to the conclusion that mobile phones have already been used as fashion accessories but with incompatible meanings in the two industries. We argue that treating an object as part of a style has other implications than selecting objects to match the phone. For instance, accessories in the outfit-centric view need to fit with variations in clothing styles which have a much faster turnaround than how often a device is changed. We suggest that mobile design expand on the idea of outfit-centric accessories, which then would focus on matching the visual appearance of the digital device with the outfit of a person.

Given the previous study[3], we identify two further requirements on such an application, i.e. it should draw upon a visual aesthetics and in such a way that it is publicly available. First, we argue that the aesthetical considerations should focus on visual, since this would fit with the appeal of the users whose comments on the aesthetic of the phones were on visual expressions. Second, the visual features should be publicly available. This argument is grounded in the observation that the parts of the phones that attracted their aesthetic interest were often the back and the sides, and those parts are also visible for others. This is also in line with fashion theory, since fashion is necessarily "public" and "secret fashion is a contradiction in terms"[4], and making visual features publicly available will be a critical problem if a user wants to make a fashionable statement with the phone.

3. Experimenting the Concept

3.1 Current design

Currently, there are some designs that fit the concept of outfit-centric. For instance, mobile skins and covers, people can customize the phone by wrapping it with artistic-designed skins. It is an easy way to change the look of a phone according to your clothes. The covers have the same function as match the colors or prints to your clothes. Another example is to make a phone into a wristwatch or necklace etc. The strategy here is to transform the form of a mobile phone into a wearable kind.

From the current designs, we find that there exist some problems: first, it can be inconvenient to change the hardware of a mobile phone. You need to buy extra

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[1] Olivier Gerval, *Fashion Accessories*, London: A. & C. Black, 2009.

[2] Oskar Juhlin, Yanqing Zhang. Unpacking Social Interaction that Make us Adore – On the Aesthetics of Mobile Phones as Fashion Items. In Proceedings of ACM Mobile HCI 2011, Stockholm Sweden, 2011.

[3] Ibid.

[4] William H, Reynolds, Cars and Clothing: Understanding Fashion Trends, *Journal of Marketing*, *28*, American Marketing Association (1968). 44-9.

products which you like in order to change the look. Second, the concept of 'match' here is completely up to the user, as it is the user that changes the settings or hardware as he wishes. Then the sense of fashion and aesthetic taste of the users matter a lot in the quality of matching between the phone and the clothes.

3.2 Match application prototype

Fig. 2 prototype of Match application

Figure 2 shows the simple demo of the Match application. This application prototype shows our idea of matching in design. First, it creates a large data of the consumer's clothes, categorized into dress, skirts, shorts, trousers, tops, blouses etc. Second, when you decide which outfit to choose, you can choose the patterns which you are interested in on the clothes, then the application could make it into an optimized picture which you can set as the background of the phone or print out a sticker for the cover of the phone. You can make the decision on what to match. For instance, you can match the phone with your top, your jacket or your trousers.

Our ambition is to design an application that can make a phone aware of the change of matching automatically which can show on the hardware. The current demo is a first step to reach that goal.

There are things that can be improved:

First, more options: if you want to match the colour of the top, the pattern of the shorts, then the app should be able to integrate the requirements into one picture. Another option is that it does not necessarily look the same as the pattern you have chosen, the application can give you a different image but with the same style, based on the judgement of the style of the clothes you have chosen, e.g. navy, nature, nude, bright, floral etc. If two outfits share the same style, the image shown could be the same.

Second, match mechanism: there are many reasons and ways for people to match the outfit. They may talk with their friends, family, community over the phone, by sending pictures, messenger etc. People also care about colour, weather and occasions etc. All of these can influence on what they will wear and how they match the phone with the outfits.[5] The demo basically decides the 'match' for you. However, if we

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[5] We have also conducted a questionnaire asking people how they match their clothes and got a lot of valuable data, but we are not talking in detail here. The materials we have got will lead to another new study in the future.

take into consideration of other options or ways to decide 'match' in a more social sense, the application will be more interesting.

Third, better solutions on the output of the images: after you have created the new image on the application, you need to make it public available as a fashion statement. So far, it is not possible to change the cover automatically since the materials used to make phones are limited in this aspect. Printing out sticker is a simple way to explain our idea but it is limited to connection with printing machine and suitable paper for making stickers, thus not very practical at this stage.

In conclusion, the prototype demos the outfit-centric concept well and it has almost solved the two problems of the existing design: one is the inconveniency of changing the covers all the time, the other one is the importance of subjective taste. In this prototype, you don't need to buy new covers, but just need to have new stickers; and you don't decide how the phone will look like, but the system chooses the right image for you to match the outfit. However, the demo also has many problems that need to develop. For example, the chosen image could be more diversified; how to create a more efficient cover change in order to match the variation of the clothes is still a problem.

4.   Conclusion

In this paper, we see mobile phone design as a good case to study aesthetics of Ambient Intelligence. We think it is important to take the concept of 'outfit-centric accessory' more seriously, paying attention to the concept of 'match'. We explored a possible way to use the idea in design practice. We presented a demo of designing a 'match' application which has shown the two features of the outfit-centric view, but we also have discussed the problems of the application. In the future study, we look forward to improving the application. This demo can be seen as a first attempt to design the concept of outfit-centric accessory. Although it has flaws, it still provides new insight on how we should design mobile experiences to enhance aesthetics close to our body.

References

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