

# Mobile Fashion Applications: A Sociological Perspective

**Yao Nie**

Department of Human Studies and Cultural Heritage

University of Udine

Supervisor: Prof. **Leopoldina Fortunati**

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## Introduction

The aim of this research is to explore how the fashion system has been reshaped by mobile fashion applications. Much research has been carried out on many aspects of the fashion system at the interface with web 2.0, such as fashion e-commerce, fashion blogging, and so on. However, so far no study has illustrated the dynamics of the fashion system through the lens of fashion applications. In my research, I explore the role that fashion applications play in the current fashion system both in Western countries and in China. Mobile Internet applications generally nourish the discourse fashion bloggers and communities of interest in fashion elaborate for expressing their own points of view on fashion at various levels.

Inspired by Actor Network Theory (ANT) (Latour 2005) and domestication theory (Silverstone 1996), this study focuses on the new possibilities mobile Internet provides to support the adoption of fashion products. Compared with the univocal manner in which traditional media have presented and explained new fashion designs to the public, mobile Internet introduces diverse approaches which enable people to understand fashion, adapt abstract fashion proposals to their needs, and communicate about fashion with other users as well as with the fashion system (Nie 2013). Moreover, mobile phones share

some attributes with the Internet, such as easy accessibility, interactivity, and potential networking, which are very suitable to respond to the needs of grassroots users.

Before presenting my analysis, and given the fact that my research objective is at the intersection of several complex fields of study, let me delineate these fields of research showing at which point the debate has developed them. In order to gain a more complete understanding of the world of fashion on the smartphone, it is necessary to contextualize the background. Considering this aim, it is useful to review the basic literature and the status of mobile fashion applications, by examining separately the three fields of research: fashion, mobile phones, and fashion applications. Let me begin with fashion.



# 2

## Contextualizing the background

### 2.1 Conceptualization of fashion

Drawing on a range of theoretical approaches, from Barthes, Baudrillard, and Marx to psychoanalytic and feminist theory, Barnard (2002) addresses the **ambivalent status** of fashion in contemporary culture. Echoing the discourses built in the field about fashion and identity by several other scholars, such as Diana Crane (2000), Susan Kaiser (2011), and Joanne Entwistle (2000), Barnard introduced fashion and clothing as ways of communicating and challenging class, gender, sexual and social identities. On the one hand, fashion is part of social practices; choosing our clothes is the nearest most of us get to practical aesthetics. Fischer-Mirkin (1995, 5) writes specifically that:

*The act of deciding what to wear on any given day has repercussions that go far beyond simply reaching into the closet and putting together an outfit ... Whether your selections are made out of impulse or calculation, your choices are always profoundly revealing—whether you know it or not.*

On the other hand, fashion is an industry whose development has contributed to shaping the modern world. Fashion is not only big business but also big news. From problems of eating disorders and sweated labour to the glamour of a new

season's trends, statements and arguments about fashion and the fashion industry are disseminated in newspapers, consumer websites, and fashion blogs. From a sociological point of view, fashion is also explained in terms of the body, or fetish, or gender, or cultural shaping.

According to Roach-Higgins and Eicher (1992), dress involves more than just clothes; it encompasses all body modifications and body supplements. Thus, any definition of dress or fashion includes hair, makeup, accessories, posture, and other aspects of personal appearance. The first key element of fashion is the concept of change over time. While historians chart the change in dress styles over time, sociologists view fashion as a form of group behaviour in contemporary societies but also over time. Fashion adoption by groups of people is the second key element of its definition. Veblen (1899) interpreted fashion as conspicuous consumption. George Simmel (1957) saw it as a trickling down process from the elites to the masses. Roland Barthes (1969) viewed it as a silent form of communication. More recently, scholars such as Entwistle (2000, 135) have investigated the bodily experience of fashion, that is, "*the dressed body as a situated object within the social world.*" In its first editorial of *Fashion Theory*, the founding editor-in-chief Valerie Steele stated that the journal approaches fashion as "*the cultural construction of the embodied identity*". Craik (2009, 21) broadens fashion's embrace by claiming that "*clothing behaviour of many cultures and societies exhibits fashion in how clothes become part of social performance.*"

The third key element of fashion is that it is place-specific. To have a fashion system a society needs certain components: a market economy, adequate technology and innovation system, a system of distribution, and fashion adoption and consumption. The couture system formalized a cyclical style-setting calendar while advancements in production and diffusion – industrialization of apparel assembly, the development of department stores and magazines – brought fashion to most of the populations in Western countries starting from the 1860s. Democracy and the rise of individualism promoted the idea of distinguishing the self through appearance (Lipovetsky 1994). Another perspective regarding the relationship between fashion and place considers fashion solely as a Western phenomenon. By contrast, Niessen (2003) and Craik (2009) argue that it is elitist and Eurocentric to associate fashion only with Western civilization, relegating the rest of the world to so-called traditional, slowly changing dress. Change occurs in all cultures, so why not consider non-Western dress in terms of fashion as well?

Schneider (2006) claims that the elitism of courtly societies generated the fundamental elements of fashion, and that these are not restricted to the West. Psychologists see fashion as a tool for the presentation of the self. Anthropologists study dress as a material manifestation of culture, often synchronically. They view fashion as one of several systems of dressing. Eicher and Sumberg (1995) use the terms “*world fashion*” or “*cosmopolitan fashion*” to indicate the global spread of the fashion system. Eicher, Evenson and Lutz (2008, 52) distinguish between “*world dress*” and “*world fashion*”. World dress is “*similar types of body modifications and body supplements worn by many people in various parts of the world no matter where the types of dress or the people themselves originated*”. It recognizes the ubiquitous nature of garments such as denim jeans and business suits. World fashion is defined as “*quickly shifting styles of dress worn simultaneously in many worldwide locations*” (Eicher, Evenson and Lutz, 2008, p.168). Another approach to fashion is through the lens of the urban-rural dichotomy. Thus, according to Welters and Lillethun (2007), fashion is defined as changing styles of dress and appearance that are adopted by a group of people at any given time and place. This definition allows fashion to exist among multiple cultures simultaneously. The definitions of fashion are often contested or problematized. Paradigm shifts have resulted in the recognition that fashion operates in diverse cultures, both past and present.

The fourth element is the relationship between fashion and modernity. “*Fashion is essential to the world of modernity,*” wrote Wilson (2003, 12), “*the world of spectacle and mass-communication. It is a kind of connective tissue of our organisations.*” Lurie (1991) also tries to set out to restore *clothedness* to the modern world, especially to the modern city, of which fashion itself is the offspring. She stresses especially the aspect of freedom connected to fashion: “*Fashion is free speech, and one of the privileges, if not always one of the pleasures, of a free world.*” (Lurie, 1981, 36) On the contrary, Wilson (2003, 14) introduces a reflection about sweatshops and factories; in her vision, fashion “*expresses the ambiguities of an economic system which manufactures dreams and hope as well as squalor, devastation and death*”. As an activity associated with looking at and choosing from the abundant displays of goods on sale in the great cities of the industrial revolution, fashion is the result of mass production, and of the capitalist system. In particular, Wilson (1985) explores the big cities, London, Paris and New York, the characteristic cities that have created new classes of people living in a similar way, accordingly. For these somehow fixed classes, appearances associated with dressing and consumption styles are extremely important for their identity. Furthermore, she argues that, although the

## 2 Contextualizing the background

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*“serious study of fashion has traditionally been a branch of art history”* (Wilson 1985, 48, see also Lipovetsky 1994, 64-74), *“to view fashion through several different pairs of spectacles simultaneously – of aesthetics, of social theory, of politics – may result in an obliquity of view, or even of astigmatism or blurred view, but it seems we must attempt it.”* Moreover, Wilson considers Baudrillard’s account of fashion consumption *“oversimplified and over-deterministic”* because it reduces fashion to class emulation through consumerism and *“grants no role to contradiction ... or pleasure”* (p. 53). Again, according to Wilson, *“fashion writers have never really challenged Veblen’s explanations”* (Wilson 1985, 52). This is because Veblen (1899, 13) is one of the first writers who suggested that fashion has to be explained in terms of struggles over prestige between different social classes.

The fifth element of fashion is its being a language. The human being *“is doomed to articulated language”* and thus, Barthes (1992) argues, without discourse there is no fashion. The fashion text, he says, is a technique for *“opening the invisible”*. Description is *“speech without static”*. Fashion is least literary when dealing with the garment itself; it reserves *“the luxury of connotation for the world, for the garment’s elsewhere”*. Because it always *“feels guilty of futility”*, fashion opposes this guilt with an insistent rhetoric. Like a novel in which nothing happens, fashion is *“defined by the infinite variation of a single tautology”*. It is *“a kind of machine for maintaining meaning without ever fixing it”*. This meaning *“is distributed according to a kind of revolutionary grace”* (p. 288). At the same time, Barthes identifies economics as the underlying reason for the luxuriant prose of the fashion magazine: *“Calculating, industrial society is obliged to form consumers who don’t calculate; if clothing’s producers and consumers had the same consciousness, clothing would be bought (and produced) only at the very slow rate of its dilapidation.”* (p. 6)

In the essay, *“Fashion and the Social Sciences”*, Barthes (1992) utilizes Kreuber’s work on the historical fluctuations in dress to invoke a multi-layered approach to time, in which dress at a particular moment can be seen as a confluence of varying time scales that he describes as situations, conjunctions and structures. Barthes’s description of fashion as a meaning-making activity, at once bound up within language and yet existing beyond it, is a fascinating paradox. The *“words”* that make up the language of fashion include hairstyles, makeup, jewellery, shoes, clothing, and accessories. Just as words are put together to create sentences, the building blocks of the speech of fashion are put together to create

outfits or certain looks. Some people have a very large vocabulary of clothing and can create a plethora of outfits to communicate different things at different times. Others have a limited vocabulary, whether because of economic restrictions or by choice, and have limited options for conveying messages using clothing. Fashion, just like any other language, has its own grammar. There are unspoken rules about what matches, what is appropriate, what to wear in certain situations and what is unacceptable. And while every language has different accents and dialects, so does fashion. Different cultures, religions, and groups of people have different ways of constructing outfits to communicate their beliefs, customs, and histories. Similar to spoken language, these rules are learned from family, friends, groups to which people belong, and the media.

Scholars hold different positions on the nature of fashion. One of the most notable disagreements developed between Barnard (2002) and Baudrillard (1993). In the conclusion of his book, *Fashion as Communication*, Barnard shows that there is one way to treat the matter of fashion as a social instrument similar to language. By contrast, Baudrillard suggests that, unlike language which aims at communicating directly, fashion does aim at the social, but in a theatrical way. In Baudrillard's words, language "*aims at communication, fashion plays at it*" (1993, p. 94). In a certain sense, Baudrillard seems to underestimate the value of fashion world to communication.

According to Baudrillard, language plays the fundamental part in constructing the meaning of sociality. That is to say, language has in itself an effective mechanism to produce meanings for its users, whereas fashion has a rather less effective one and could be less meaningful. Unlike Baudrillard's underestimation of the communicative value of fashion, Barnard shows in his book (2002) that fashion has in itself a system of identification and expression, which realizes and even gives meanings to people's desires. By affirming that "*fashion is meaningful if only at the level at which it is recognizable as fashion*" (p. 188), Barnard takes the position that the fashion system is a system independent of other social systems. Fashion has in itself a unique mechanism to produce meanings. No matter whether it is the issue of expressing desires or seeking social identity, fashion has both verbal and nonverbal value no less than language does.

The argument between Barnard and Baudrillard is worthy of notice for two reasons. One relates to the question of how to understand the duality of fashion when is taken as a communicative system (see section 2.2 below). In the first place,

however, the debate highlights that the fashion system works in a way similar to language. Fashion deals with expressing actions. In the traditional fashion world, expressing actions are demonstrated or symbolized by fashion items, i.e., clothes or decorations. These items could be the vowels and consonants of the fashion world, and they certainly follow the word formation of social identification. Taking the traditional fashion world as the case, Barnard's position can be easily justified. People seeking social mobility display themselves in certain kinds or forms of fashion. They are unsatisfied if their efforts are acknowledged merely by words. The goal of 'bra-burners' (a feminist demonstrations in the late 1960s-early 1970s), which is freedom from the fixed formation certain social identification of the fashion items, in this case bra for women, could only be realized in the long run through huge temporal and spatial gaps, the same as goals of other members of society who display themselves in carefully chosen fashion items, just sometimes not in such huge gaps perhaps. Fashion has influence through time and space, while language works with instant feedback. Fashion facilitates communications, but always with time-lapse.

Baudrillard and Barnard are not the only ones to look into the intensive relationship between language and fashion. Barthes and Stafford (2006) shows another way to understand this relationship. Media plays a significant role when it comes to fashion. Information and communication about fashion are disseminated in many ways: fashion journalism, editorial critique, guidelines and commentary on magazines and newspapers, on fashion websites and social networks and in fashion blogs. As Roland Barthes noted, in fashion magazines there are always images accompanied by texts, which are the image-clothing and the written-garment. While the so-called "*real clothing*" presents intricacies that cannot be revealed in the visual images or verbal messages, the image-clothing expresses itself through iconic structures and the written-garment through verbal structures. Barthes has structured the analysis of the literariness of fashion by decoding the links between image and text. "*Language ... conveys a choice and imposes it ... The image freezes an endless number of possibilities, words determine a single certainty*" (Barthes 1983, 13). This quotation shows that the written-garment freezes interpretation of the image-clothing through a number of strategies: endows the garment with a system of functional oppositions or isolates portions of the garment through "amputations". Fashion, as an abstract notion, which "*at best has nothing to be said about it, and at worst invites pure tautology*" (Barthes 2006, 124), has its own internal logic, indifferent to outside concerns such as history or

utility or even aesthetics, and is completely bound up with its own representation (something is fashionable because fashion says it is). This is what fashion cannot any longer allow to itself: this indifference to any outside concern or criticism, because users – until yesterday obedient adopters – are the actual missing piece of the puzzle.

The sixth feature of fashion is sustainability. The general definition of sustainability refers to an ecological system that is designed to maintain balance, meaning that no more should be taken from the environment than can be renewed (Tsan-Ming 2014). The term “sustainable fashion” is typically used to encompass a scope of fashion production or design methods that are environmentally and/or ethically conscious – but it does not have a standard definition (Joy et al. 2012). “Sustainable” is often used interchangeably with other words, such as “eco”, “green” and “organic”. A general absence of environmental standards within the fashion industry adds to the confusion. It is nearly impossible for the fashion industry to be truly sustainable. Fashion is guided by a cycle of style change, in which the old is rapidly replaced by the new. Employing an expanded definition of sustainability that also considers ethical issues, Farley and Hill (2014) explore each stage of the fashion production cycle, from the cultivation of raw fibres to the shipment of the finished garment. The debate on sustainable fashion discusses major issues such as recycling and repurposing of labour practices, treatment of animals and long-standing negative production practices within the fashion industry. As a consequence, the urgency of incorporating sustainability into contemporary fashion is made apparent. However, according to some design theorists, sustainable fashion is inherently paradoxical, as sustainability cannot fit easily within such a system of planned obsolescence. As Black (2008, 46) argues, *“at all stages of design and production decision-making there are trade-offs to be made, reconciling fashion and style with available materials, costs and time constraints.”* Although there are a number of obstacles facing those who seek to implement environmentally friendly practices, awareness of the ways in which fashion may be produced, disseminated and discarded allows designers, manufacturers and consumers to make informed choices.

These six features inspire several definitions of fashion. Some other concepts are also used to complement that of fashion. One is style, which can be seen as the combination of silhouette, design, fabric, and details that distinguishes an object from other objects in the same category and thus, a classic style is one that enjoys

long-term acceptance. Haute couture is high-priced, custom-made women's clothing originally from Paris, and is made almost entirely by hand. Ready-to-wear is factory-made fashion in a range of sizes. A brand is an identity concept associated with a person or a company (Barile 2005). A trend is a direction in which fashion may be heading and in this framework someone who is fashionable is conforming to current fashions. Yet, according to Ted Polhemus and Lynn Procter (1978, 17) "*in contemporary Western society, the term fashion is often used as a synonym of the terms 'adornment', 'style' and 'dress'.*"

Fashion is thus "*a rich and multi-disciplinary subject and a point at which history, economics, anthropology, sociology and psychology could be said to meet*", states (Tickner 1977, 56). Alison Lurie (1991, 15) supports Tickner's point of view by writing that "*In dress as in language, there is a possible range of expression from the most eccentric statement to the most conventional.*" By contrast, Wilson looks at the economic and anthropological theories of fashion, argues that all are reductive or "simplistic" (1985, 56). Lipovetsky (1994) comes into the debate by echoing Wilson's perspective by proposing that fashion has "*provoked no serious theoretical dissension*" (p. 4). Fashion is fickle or superficial and it may be fully explained in terms of fashion's role in "*class rivalries*" and in the "*competitive struggles for prestige that occur among the various layers and factions of the social body*" (p. 3). Lipovetsky (1994, 3) adds, in the introduction to his book, *The Empire of Fashion*, that "*Dress is the frontier between the self and the not-self*", indicating some of the genuine strangeness of her subject, with its anthropological links with magical ritual and its almost metaphysical connection with the notion of the individual.

## 2.2 Fashion system

Kawamura (2005) argues that fashion can be treated as an institutional system which embodies a persistent network of beliefs, customs, and formal procedures forming together an articulated social organization with an acknowledged central purpose. The minimum requirement of a fashion system is a network of proposers and adopters. Proposers introduce or propose changes in dress and adopters adopt at least a portion of the proposed changes. Communications between these two parties have traditionally existed via mass communication. According to Major and Steele (1999), "fashion system" is a concept that embraces not only the business of fashion but also the art and craft of fashion, and not only production



but also consumption. The fashion designer is an important element, but so is the individual consumer who chooses, buys, and wears clothes, as well as the language and imagery that contribute to how consumers think about fashion. The fashion system comprises all the factors that are involved in the entire process of fashion change, but it is widely accepted that, inside this, the most important factors are two: proposers and adopters, or designers and consumers.

Another reason for us to pay attention to the debate between Baudrillard and Barnard is that their different positions towards the fashion world differ not only in the different functions and facilities of fashion and language, but also in the question of how to understand its duality when fashion is taken as a communicative system, like language. Fashion always has two faces. The proposer-adopter/designer-consumer exchange is just one way to describe the duality of fashion, while another could be that the fashion system works, according to Baudrillard, slowly and inefficiently compared with language. Even so, the fashion system still works on a temporal and spatial scale. Following Kawamura, *"change is the essence of fashion"* (2005, 51). Thus, the main feature of the fashion system is always that of constant change.

Kawamura quotes Roach-Higgins: *"awareness of change by members of a collectivity is a requisite for fashion"* (Roach-Higgins 1985, 394), and continues to discuss the process of how fashion world works. Kawamura focuses on the recognition of fashion users, and how, when change of fashion takes place, it is always users' *"collective recognition, acceptance and use of a particular form of dress, which they eventually replace with another form, [that] makes it fashion"* (2005, 51). It is empirically acceptable for Kawamura that users' collective recognition plays a decisive role in fashion world. But this recognition cannot be independent and totally voluntary. Following Roach-Higgins's conclusion, Kawamura (2005) continues to define a fashion system as an *"institutionalized, systematic change produced by those who are authorized to implement"*. Henceforth, it is recognition and acceptance that make things "fashion", while the designer-consumer relation shapes the recognition and acceptance. To be more specific, in Kawamura's model, there are certain fashion leaders in the interactions between designers and consumers. Influential individuals and the institutions behind them create fashion, and the media spread it. While Baudrillard tries to make a distinction between fashion and language, Kawamura tries to distinguish fashion items as material production from fashion itself as a production of belief and ideology. In his own words, a *"fashion system is about fashion production and not clothing*

*production*" (2005, 88). That is to say, a fashion system is distinguished both from its communicative function and from outward material appearances.

Fashion studies tries to distinguish fashion from material fashion productions. The traditional fashion system meets two difficulties. One of these difficulties deals with the mystical figure of the "fashion designer" and the other deals with the individual puzzle of users. Taking material production aside from the core feature of the fashion system has entailed several efforts to solve or at least find ways to solve the difficulties here. Whether or not these two difficulties are solved by confining the fashion system to its own domain, in modern information technology these difficulties become much more manifest than ever, as mobile applications combine textual communication and material items displayed together.

The first difficulty is the legitimacy of the fashion designer as fashion leader. According to Arnold Hauser (1968), craftspeople play an unimportant role in the integration of social recognition towards craftworks until something changes and designers come into existence in the history of art. That is to say, being a social animal, the individual is not born to accept the dominance of designers. Designers started to gain social prestige when they made rules of fashion standards with fashion stars, which was a relatively new phenomenon, yet also relatively passed history recently.

The second difficulty arises at the level of individuals who represent the contradiction between mass production and self-identity. The fashion world creates and spreads its concepts, ideas, and eventually material items. These fashion productions, whether in material form or not, are never designed to fit any specific single person, nevertheless they are functional as a tool for the individual to fulfil his or her identity. To explain how mass production can make individual identity possible, Barnard reflects upon Simmel's dialectic, and revises Simmel's position. It is only mass production that makes the identity of the modern individual possible, because "*identity can only be constructed according to a network of differences which are already understood and common to a whole community*" and henceforth, "*identity shades into difference and difference into identity*" (Barnard 2002, 190).

To summarize, the fashion system has an ambiguous profile; it is always a two-fold system. There are several contradictions in its innate structure: designer-consumer, and mass production-individual identity. There are also intensive

pulses in the history of fashion: the effort to distinguish fashion from language and clothing production/display as well as the trend for modern fashion technology to combine all these factors together. It is obviously difficult for the traditional fashion world to take the field of domestication seriously. Considering Simmel's analysis (1957) that fashion functions itself as class differentiation, Blumer (1969) makes a further analysis that the fashion world functions through collective selection. By elaborating his conception of what the "fashion world" is about, Blumer draws a conclusion that might seem opposed to most of the user-data studies, since they try to interpret fashion consumers' acts in the category of rational choice. Blumer's view, in contrast, is that "*fashion is not guided by utilitarian or rational consideration*" (287) and "*where choices can be made between rival models on the basis of objective and effective test, there is no place for fashion*" (287). Thus far, it has been acknowledged that the fashion world does not operate merely through the rational choices of its participants. Besides the choice of consumer, what consumers do with the fashion items that come to them through their choices, is far from explored. This question could be answered in the scope of domestication theory, and perhaps draw inspiration from recent studies on the analysis of rational and irrational behaviours of fashion consumers.

### 2.3 Mobile phones

After fashion, the second field of research that intersects in the object of my study - mobile fashion applications - is the mobile phone. It is worth devoting some attention also to the transformations that this device has undergone in the last few years and that have enabled fashion to address users through it.

Today, mobile phones have increasingly been displaced by more and smarter mobile devices equipped with advanced hardware and software that facilitate not only communication but also the production and consumption of media. These personal and portable mobile devices provide ubiquitous connectedness through computer-like functionalities (Fortunati and Taipale 2014). Facilitated by developments of computing and hardware, smartphones offer a touchscreen interface with a mobile ecosystem loaded with customized applications and responsive sites. A "smartphone" is a mobile phone with an advanced mobile operating system, which combines features of a personal computer operating system with other features useful for mobile or handheld use, with more advanced computing capability and connectivity than a basic mobile phone.

“Mobile Internet” is wireless access that can transfer from one radio tower to another, while a device is moving across the service area. The mobile web has also been called Web 3.0, drawing parallels to the changes users have experienced and produced themselves while Web 2.0 websites were proliferating. (See the Internet sources). The success of mobile access to the Internet is well illustrated by the figures concerning Internet access globally, which show that access through smartphones is much higher than access through personal computers (Vincent and Harris, 2008).

For several years, the demand for smartphones has outpaced other products on the mobile phone market. More than 1 billion smartphones will ship in 2015. The proportion of smartphone owners among mobile phone owners is soaring. According to a 2015 survey, around half of mobile phone consumers in the USA own smartphones. By 2015 March, the number of smartphones rose to around 77% of all mobile devices in the USA; in the 25–34 age group, smartphone ownership is reported at 89.4%. The European mobile device market, as measured by active subscribers of the top 50 networks, is 860 million. By August 2015, in UK, two thirds of people own a smartphone, using it for nearly two hours every day to browse the internet, access social media, bank and shop online. The rate of smartphone adoption was soaring: smartphones have become the hub of our daily lives and are now in the pockets of two thirds (66%) of UK adults, up from 39% in 2012. The vast majority (90%) of 16-24 year olds own one; but 55-64 year olds are also joining the smartphone revolution, with ownership in this age group more than doubling since 2012, from 19% to 50%. In China, the total shipments of China smartphones were 389 million in 2014, representing 80.6% market share of total mobile phone shipments. After this glance at the diffusion of smartphones, more attention should be paid to the applications that make smartphones function.

According to data from Comscore<sup>1</sup>, Apple had 42.6% of the US market share in the first quarter of 2015, up 1.3 percentage points from the same quarter of 2014. Apple sold about 61 million iPhones globally in the last quarter of 2014 alone, a 40% jump year-on-year. By contrast, Android lost about 0.7 percentage points in the USA, although it is still the market leader globally with a 52.4% share. With about 25% of the US market not using smartphones, there seems to be a chance for Apple to overtake Android as the biggest smartphone provider in the USA. Yet it

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<sup>1</sup> BI Intelligence, <http://www.businessinsider.com>

may not be happening any time soon, as late smartphone adopters tend to choose the cheaper Android alternatives over the more expensive iPhones. Apple CEO Tim Cook stressed during its most recent earnings call that Apple is seeing a higher number of “switchers”, that is, people swapping their Android-powered smartphones for iPhones. In fact, he said the current iPhone line up had the highest Android switcher rate in “*any of the last three launches in the three previous years*”. The latest US smartphone market data seem to prove him right. On the 2015 Apple Worldwide Developers Conference, an app which helps users to transfer data from Android devices to iOS devices will probably hasten this process.

In addition to smartphones, tablets have also gained significance in the market, offering largely similar affordances (although typically not traditional voice calls), but with slightly larger screen sizes. Situated between smartphones and tablets, tablets offer affordances from each category that thus blur the boundaries further. “Phablets”, larger phones that are in effect half phone and half tablet are taking over in sales. Apple paid \$10 billion to developers of “phablets” in 2014. All of these mobile devices offer instant and personalized access to search engines, social networking sites, games, news, applications, and so on. Ultimately, there has been a tremendous shift from mobile handsets being designed primarily for communication towards them having more versatile communication and information functionalities.

The penetration and adoption of mobile phones has significantly changed people’s everyday lives. From a communication perspective, many studies have demonstrated the changes mobile phone use brings to people’s communication patterns. In some studies, researchers focused on different local contexts to provide more local perspectives for mobile phone studies. Archambault (2012) examined the ways in which young men in the city of Inhambane in southern Mozambique harness communication to express and address experiences of constrained physical and social mobility. Starting with an analysis of a highly valued form of oral communication, *bater papo*, which the youths used on a daily basis before the mobile phone, Archambault found that when mobile phone communication builds on pre-existent forms of communication, it takes on particular aesthetic qualities that speak of, rather than resolve, exclusion. She argues that, while helping bridge distances in significant ways, mobile phone communication nonetheless, and somewhat ironically, also betrays young men’s

immobility. Archambault provided a reflective angle to mobile phone communication, especially when mobile communication is built directly on pre-existent forms of communication. James (2014) analysed a large new data-set on patterns of mobile phone use in 11 African countries. This study supported his hypothesis that mobile phone technology will be most widely used in countries lacking viable alternatives to the use of mobile phones, e.g. those where public transport is weak or roads are poor.

Another study on mobile Internet is about how tablet computers change people's usage of television (TV). Since 2011, tablet computers have become increasingly popular devices. In particular, Apple's iPad and its accompanying apps rapidly dominated the tablet market. Tablet technology enables users to accomplish a variety of tasks, including viewing TV programmes and other video sources on the device. Based on media uses and gratifications, Greer and Ferguson (2014) undertook an exploratory study which examined whether the iPad was replacing traditional TV viewing. The results showed that, rather than displacing TV viewing time, the amount of TV viewing on an iPad was positively related to the amount of time the user spent consuming TV via a conventional TV set.

Two main trends in describing the features of mobile phone users regard their motivations and concerns. In particular, Ran Wei (2008), and Frizzo-Barker and Chow-White (2012) researched these trends. The following categories may be used to describe the motivations and concerns that accompany the use of mobile phones: (1) fun and pleasure, (2) convenience, (3) security, (4) social relationship management, and (5) family membership management. Besides, for other mobile application users, we might also add: (6) helpfulness for certain tasks and (7) self-acknowledgement. Emerging patterns of sociability facilitated by the Internet and mobile technologies, characterized by personalization, portability and ubiquitous connectivity, recall the well-known theory of "*networked individualism*" (Wellman, 2012). I will address this new kind of individualism later on in my study.

Some other studies have conducted by digging through the usage of mobile phones to understand certain aspects of users' lives. Eagle et al. (2009) collected data from mobile phones in order to provide insight into the relational dynamics of individuals. They found that observational data from mobile phones and standard self-report survey data are overlapping but distinct. They also demonstrated that it is possible to infer accurately in 95% of cases the friendship relationships based on the observational data alone, where friend dyads

demonstrate distinctive temporal and spatial patterns in their physical proximity and calling patterns. These behavioural patterns, in turn, allow the prediction of individual-level outcomes such as job satisfaction.

Aoki and Downes (2003, 352) reviewed the research literature and made a categorical description of the effects of mobile phone use which I find useful:

*In summary, the researchers in the past have studied the effects of cell phone use and found that: (1) there are intended and unintended uses of the technology; (2) cell phones are forming particular subcultures among youths in many different countries; (3) the use of cell phone is blurring the boundary between work and private life as well as the boundary between public and private space; and (4) the cell phone can make the user susceptible to social control by friends, family and businesses.*

The use of the mobile phone is so massive and pervasive that recently mass media and researchers have begun to take an interest in the excessive dependence on smartphones. Their interest, however, has largely focused on the description of the phenomenon (i.e. severity of the addiction, current status of the addiction) or the development of measurement scales to assess the addiction. Ahn and Jung (2014) asked a fundamental question about smartphone addiction: what is users' shared sense of dependence on smartphones? More specifically, employing a core-periphery analysis of social representations, Ahn and Jung explore how the younger generation has a different understanding of this addiction from the older generation. Their findings provide a rich knowledge about users' perceptions of and attitudes towards smartphone addiction. In my study, the addictive usage of game applications relating to fashion will echo many aspects with these researches. I will elaborate this issue in the result part of this thesis.

The increasing global ubiquity of mobile phones has called into question their efficacy as dynamic tools for engagement and participation in daily life. While there is little argument as to their growth as primary communication tools, scholars have actively debated their role as conduits for dynamic and diverse information flow. Mihailidis (2014) explored how an international cohort of university students used mobile phones for daily communication and information needs, pointing to a population tethered to their mobile devices primarily through social networking apps, to the extent that they find it increasingly difficult to distinguish relationships that exist in their pockets from those that exist in their physical surroundings. While the participants acknowledged the diverse and participatory capacity of mobile devices, their dependence on the phone for

connecting to peers left them sceptical of the phone's efficacy for productive connectivity, vibrant communication, and diverse information consumption in daily life. The study concludes with suggestions for more inclusive and active engagement in the dynamic potential of phones that is not necessitated by a response to large-scale political or civil injustices. Nevertheless, Niels van Doorn's essay (2013) tells a story about how an ethnographic researcher confessed, "*indeed, I really trusted my Smartphone*", which created a strange and strangely intimate "*object-oriented dependency*" in using a mobile phone during ethnographic research. Although he used "*intimacy*" instead of dependency, this intimacy still can be considered as another form of dependency.

Finally, Park et al. (2012) dealt with social capital, mainly investigating loneliness and happiness in terms of: trust, organizational participation, political participation, and network resources. The results demonstrated that usage of smartphones and social network services (SNS) have direct effects on all dimensions of social capital. In addition, the intensity of smartphone usage has an indirect effect on various dimensions of social capital, except organizational participation. These results provide evidence that smartphone and SNS usage is not intrinsically harmful to one's social capital and may in fact broaden social capital among its users. This research also gave my study another perspective to understand the social networking aspect of fashion applications.

The mobile phone, especially the smartphone, has facilitated people's lives from many different aspects, such as financial services, civic activities, individual relationships and industrial communication. But there are of course not only pros but also some cons. Some researchers in fact are concerned with mobile phones and financial services in developing countries, which have undergone rapid growth in recent years. Duncombe and Boateng (2009) reviewed the content of 43 research articles on this issue. Using a lifecycle model that incorporates financial needs, design, adoption, and impact, they developed a framework that differentiates research activity. They also focused on measuring the value and usefulness of mobile services. Bruns and Jacob (2014) applied a repertory grid method to capture value-in-use through theoretical assumptions, based on service-dominant logic of marketing and empirical testing in a qualitative study on smartphone usage. They showed the link between value creation and the usage processes. Even though there is no universal method to capture usage processes, in their research, Bruns and Jacob developed a specific value-in-use scale. The following quantitative study revealed the promising future of this adapted repertory grid method in capturing usage processes and measuring value-in-use.



On the research about usefulness, Daim et al. (2014) conducted a series of field studies to explore the process of adoption of value-added mobile services. They found intention, attitude, and usefulness are significant factors, and personalization, mobility, user experience, and content are indirect determinants of attitude via usefulness.

The considerable growth in the number of “smart” mobile devices with rapid Internet connectivity provides new challenges for survey researchers. Mavletova (2013) compared the data quality of two survey modes: self-administered web surveys conducted via personal computer and those conducted via mobile phones. Data quality is compared based on five indicators: (a) completion rates, (b) response order effects, (c) social desirability, (d) non-substantive responses, and (e) length of open answers. No difference was expected in the level of reporting in sensitive items and in the rate of non-substantive responses. The study found that the mobile web was associated with a lower completion rate, shorter length of open answers, and similar level of socially undesirable and non-substantive responses. However, no stronger primacy effects were found in mobile web survey mode.

Palmer et al. (2013) explored methods for gathering and analysing spatially rich demographic data using mobile phones. They describe a pilot study (the Human Mobility Project) in which volunteers around the world were successfully recruited to share GPS and cellular tower information on their trajectories and respond to dynamic, location-based surveys using an open-source Android application. The pilot study illustrates the great potential of mobile phone methodology for moving spatial measures beyond residential census units and investigating a range of important social phenomena, including the heterogeneity of activity spaces, the dynamic nature of spatial segregation, and the contextual dependence of subjective well-being.

There is a specific issue regarding the use of the mobile phone that deserves a careful analysis and this is the relationship that develops between developers of mobile phone applications and consumers. In 2013, the global mobile app market was estimated at over US\$50 billion and was expected to grow to \$150 billion in the next two years. Software work is often depicted as a “sunrise occupation” consisting of knowledge workers who are able to craft stable careers in this sector.

It is now widely accepted that the use of mobile phones has contributed heavily to shape the organization of our everyday lives and lifestyles as well as our identities. The idea that consumers use brands to express their identities has led many companies to reposition their products from focusing on functional

attributes to focusing on how they fit into a consumer's lifestyle (Barile 2009). This repositioning is welcomed by managers who believe that by positioning their brands as a means for self-expression they are less likely to be in direct competition with their rivals. Chernev, Hamilton and Gal (2011) argued that these companies expose themselves to much broader, cross-category competition for a share of a consumer's identity. Thus, they proposed that the need of consumers for self-expression through brands is finite and can be satiated when consumers are exposed to self-expressive brands. Moreover, they argued that consumers' need for self-expression can be satiated not only by a brand's direct competitors but also by brands from unrelated product categories, non-brand means of self-expression, and self-expressive behavioural acts. The authors examined these propositions in a series of five empirical studies that provide converging evidence in support of the notion that the need for self-expression can be satiated, thus weakening preferences for lifestyle brands.

Batheja and Agarwal (2014) reported that the "mobile ecosystem" has shown an unparalleled growth in the past few years, with more than 6 billion people have access to mobile phone out of an estimated 7 billion people in the world. They cited recent data from India's largest mobile network provider indicating that people are spending 1.8 hours per day on average on consuming mobile media, more than on TV and personal computers. The mobile phone has created a paradigm shift in technological advancements. More and more users are accessing the Internet via mobile devices. Recent estimates suggest mobile Internet traffic is 15% of total global Internet traffic. It is essential for organizations to leverage mobile technology to elevate the customer experience to the next level. The research article by Batheja and Agarwal (2014) aims to shed light on the latest trends and practices in the mobile technology field and its effects on building modern-day organizations and consumer brands. The methodology is case based and data quoted from authentic sources. This research provides data and cases to illustrate the importance of brand building on mobile phones. Selvi (2014) also found that travel agencies mostly use mobile phones and mobile computers for increasing sales and direct marketing.

With the development of mobile technology, mobile advertising has become popular worldwide. It seems that almost every user who owns a mobile device receives advertisements from various service providers. However, most consumers hold negative attitudes towards such "mobile advertising". Gao and Zang (2014) investigated the factors that influence consumers' adoption of mobile advertising in China. Based on a literature review from previous research, they

proposed a research model which they empirically evaluated using survey data collected from 302 receivers of mobile advertising in China. Consumers' attitudes towards mobile advertising and incentives explain about 80% of consumers' intention to receive mobile advertisements. In addition, entertainment, credibility, personalization and irritation all have direct effects on consumers' attitudes towards mobile advertising; the effect of entertainment is quite strong. Both theoretical and practical implications of this research are discussed.

Fortunati (2013) in her research first identified the tension of the inter-relationship between design and fashion and of the underlying tendencies that this pair of notions carries: gender differences or even conflicts in modern society. On mobile Internet, SNS are still among the applications most used by smartphone users. Many empirical studies have investigated different perspectives regarding SNS usage on mobile phones. Ghose and Han (2011) quantified how users' mobile Internet usage relates to unique characteristics of the mobile Internet. In particular, they focused on examining how the mobile-phone-based content generation behaviour of users relates to content usage behaviour. The key objective is to analyse whether there is a positive or negative interdependence between the two activities. They combined individual-level mobile Internet usage data, including individual multimedia content generation and usage behaviour, with data on user calling patterns, such as duration, frequency and locations from where calls are placed, to construct their social network and to compute their geographical mobility. They found that an increase in content usage in the previous period has a negative impact on content generation in the current period and vice versa. The extent of geographical mobility of users has a positive effect on their mobile Internet activities. Researchers also found that the social network has a strong positive effect on user behaviour on the mobile Internet.

Lee (2011) published another interesting research study on SNS use, quantifying the heavy use of smartphones and Facebook among African American college students. This study examines the major predictors of smartphone and Facebook overuse, including demographic and personality traits. It further explores the effect of heavy utilization of smartphones and Facebook on the academic performance of African American college students. Younger and female users spent significantly more time on their smartphones. However, excessive Facebook use was not related to gender. In terms of the prevalence rate, about 11% of the sample showed a high level of smartphone addiction and 10% scored a high level of Facebook addiction. Among personality and psychological traits,

social interaction anxiety was the most important predictor of heavy utilization of smartphone and Facebook, not extroversion, agreeableness, neuroticism or conscientiousness. As expected, multitasking was significantly and positively correlated with excessive smartphone and Facebook use. Surprisingly, multitasking behaviour and frequent checking of smartphones did not harm academic performance.

Facebook has just launched a new description of users' status, "*at work*", which makes the tension between social network usage and ethics in the work place even tighter. Research by Clark and Roberts (2010) showed that the Internet has drastically changed how people interact, communicate, conduct business, seek jobs, find partners, and shop. Millions of people are using SNSs to connect with others, and employers are using these sites as a source of background information on job applicants. Employers report making decisions not to hire people based on the information posted on social networking sites. Few employers have policies in place to govern when and how these online character checks should be used and how to ensure that the information viewed is accurate. In this article, Clark and Roberts explore how these inexpensive, informal online character checks are harmful to society. Guidance is provided to employers on when and how to use these sites in a socially responsible manner.

Mobile devices, such as smartphones, altering the way people communicate and collaborate (Spikol and Milrad 2008): the popularity of these devices has, in part, led to explosive growth in mobile gaming. This unprecedented growth coupled with other factors, such as the anytime-anywhere flexibility that mobile devices offer (Hashim, Hamid, and Sabri 2008), has opened new opportunities for researchers and practitioners to examine how mobile games can be used in the digital age as a means to support intellectual activities, social skills (Whitney 2011), and learning (Facer et al. 2004; Rogers and Price 2009). Given the potential benefits of video games, the need to explain why and how people are deeply immersed in this type of play has become an important topic. Seok and DaCosta (2015) presented a study (with a sample of 1,995 people) which investigated whether the Big Five Inventory personality types - agreeableness, conscientiousness, extroversion, neuroticism, and openness - can be used in explaining mobile game play. They found relationships between certain personality types and willingness to embrace technology and mobile phone ownership, yet little research has examined personality and mobile games. These games lend themselves naturally to problem-solving challenges and are believed to aid with learning. Findings revealed that agreeableness was the most significant

personality type in predicting frequency and number of hours spent playing mobile games, while openness was the most consistent predictor of mobile gaming as a whole. However, the overall strength of associations was weak, suggesting care in using personality, as it may be a poor predictor.

Location-based mobile games are games that people play while moving through physical spaces (Licoppe 2013). Research has shown that they can impact individuals' experience of their surrounding space and their mobility decisions. Frith (2013) extended the research in this direction, examined the gaming elements of the location-based social network Foursquare, and analysed how Foursquare's gaming elements can impact people's mobility decisions. Through an analysis of qualitative interviews, this study draws on the concepts of hybrid space, spatial legibility, and gamification to show how Foursquare's gaming elements can add a playful layer to physical spaces and discusses the impacts of the application designers' goal of turning "*life into a game*".

Since online retail allows users to shop anytime anywhere as they wish, e-commerce has transformed the business model and changed how shoppers approach retail. Einav et al. (2014) documented some early effects of how mobile devices might change Internet and retail commerce. They presented three main findings based on an analysis of eBay's mobile shopping application and core Internet platform. First, early adopters of mobile e-commerce applications appear to be people who were already relatively heavy Internet commerce users. Second, adoption of the mobile shopping application is associated with both an immediate and a sustained increase in total platform purchasing (purchases done on certain mobile Internet commerce platforms), with little evidence of substitution from the core platform. Third, differences in user behaviour across the mobile applications and the regular Internet site were not dramatic at that stage. Crowe et al. (2010) investigated the reason why mobile payment (generally refer to payment services operated under financial regulation and performed from or via a mobile device.) was not widespread in the US. This study suggests that, even in marketing studies, policy should be taken into consideration beforehand, which resonates with Hestres (2013). The question is thus, if we accept the model of a bi-polar user-designer system, then how should we justify the whole mobile fashion world as a free world without value-discriminations and tendencies?

### 2.3.1 Mobile phone applications

We now turn to the last among the functions and services of smartphones: mobile applications. These are pieces of software designed for mobile devices. Nearly all mobile applications adopt an immaterial form and a distribution platform as their only means of access. The traditional fashion industry involves both the public and the domestic sphere, which means that the activities connected to one fashion item are always both visible and invisible at the same time. On the contrary, mobile applications, though in themselves invisible, are always sold, accessed and discussed from a concrete distribution platform for mobile applications. Accessing and understanding immaterial software requires a user to travel through the material and visible elements of the dedicated platform.

Mobile applications (apps) started to appear in 2008 and are typically marked by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Store, and BlackBerry App World. Some apps are free, while others must be bought. Usually, they are downloaded from the platform for a target device, but sometimes they can be downloaded for laptops or desktop computers. For the apps with a price, generally a percentage, 20–30%, goes to the distribution provider (such as iTunes), and the rest goes to the producer of the app. The same app can therefore cost a different amount to smartphone users, depending on whether they use iPhone, Android, or BlackBerry 10 devices.

By July 2015, there are about 1.5 million iOS apps and almost 1.6 million Android apps available in leading app stores. This means that in total there are 3.1 million applications available. The Apple App Store figure in 2015 was nearly double the amount of apps that were available two years before. Flurry, an analytics and advertising company that specializes in apps, recently reported that the average number of apps launched daily by iOS and Android device users grew from 7.2 at the end of 2010 to almost 8 different applications downloaded daily per user by the end of 2012. To visualize the tremendous volume in app downloads, and how easy it is to get lost in the crowd, the top 200 free apps in the US for Apple's App Store have generated an average of 6 million downloads per day during May 2013. That was up from 4.5 million per day in May 2012.

In June 2013, in China, there were 130,000 applications and over 50,000 developers on Umeng (Umeng is the biggest and most professional mobile application service platform in China), a platform with a continuously increasing monthly growth rate. I can calculate that 10,000 applications appeared on the

Umeng platform in June 2013. Meanwhile, in China, the frequency of mobile application use increased 16 times during 2012, and the average length of usage grew by 12 times in the same year. The use of smartphone applications has become ingrained into Chinese people's daily lives. Generally speaking, there are four main distribution platforms for mobile applications worldwide: App Store, Google Play, Windows Phone Store, and BlackBerry App World. Each of these platforms has a browse system; customers who seek a new application must type a keyword in one of their search engines to find out the related applications that are available and compare them through customers' reviews and commentaries. After the user enters keywords, the browse system returns to the user's request pages a list of all the relevant available software (in mobile phone, apps, especially). Each of these search results includes a link that would lead the user to the application forum where both praise and criticism from consumers are displayed to facilitate the search and help users to make a quick decision. In these applications, the results are shown in ranks with stars. After accessing the forum debate or reading the rank, the user is able to choose the desired application, download and use it. Becoming a user is not the end of the story because automatically this means a strong connection with the platform. Once using applications on the mobile phone, the user is inevitably notified of updates of the applications. To enjoy smooth and user-friendly experience of an application, inevitably users are required to interact with the designers of the application. It is these activities that make the identity of users of mobile fashion applications significant. Given the fact that Apple's iOS App Store and a host of Android app markets, spearheaded by Google Play, lead the charge in mobile app market growth, these two mobile application platforms are the places where my main research has taken place.

To give an idea of the market involved in mobile applications, the Apple App Store spent \$500 million on iOS apps in the first week of January 2015; billings for apps increased by 50% in 2014; cumulative developer revenues were \$25 billion (making 2014 revenues 40% of all app sales since the App Store opened in 2008); 627,000 jobs have been created in the US; the iOS catalogue of 1.4 million apps is sold in 155 countries. Putting these data together with others from previous releases depicts a fairly clear picture of the iTunes app store: 70% of the App ecosystem payments are transferred directly to developers and Apple reports the 30% remaining as part of its revenues. This scale of ecosystem in the iTunes shows the impact of apps relative to the other media types. When measuring the

payments to the content owners, one can see that apps also dominate: the cost of sales (payments to developers) adds up to approximately \$25 billion in total paid to developers. This view of the payments to ecosystem contributors shows how apps are now a digital content business, and a bigger business than music, TV programmes and movie rentals and purchases put together.<sup>2</sup>

Put another way, in 2014 iOS app developers earned more than Hollywood did from box office takings in the US. App revenues per year now exceed Hollywood's revenues per year. Although the totals for the domestic (US) box office are not the only Hollywood revenues, Apple's App Store revenue is not the complete app revenue picture either. The apps economy includes Android, advertisements, service businesses and custom development. Including all revenues, apps are still likely to be bigger than Hollywood. It is also likely that the app industry is healthier. On an individual level, some app developers earn more than Hollywood stars and I would guess that the median income of app developers is higher than the median income of actors. The app economy sustains more jobs than the movie sector (627,000 iOS jobs in the US vs. 374,000 in Hollywood) and it is easier to enter and has wider reach. The app economy is also growing far more rapidly.<sup>3</sup>

As of the third quarter of 2014, Android owned more than 80% of the smartphone market around the world, but this is split between the dozens of different companies that produce Android phones. About 12% of devices around the world run on iOS, but that money goes straight back to Apple. When it comes to the platforms for mobile e-commerce, though Android is the most common smartphone operating system in the world and enjoys bigger market share and more apps retention, Apple's iOS continues to beat Google's offering in online shopping. An observation from Localytics<sup>4</sup> shows how often an app is used on Android and Apple's iOS devices. It ranks app retention by how often an app is used, ranging from once to 11 times or more. Android has a greater percentage of users opening an app 11 or more times. In 2013, both Android and iOS had the

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<sup>2</sup> [www.apple.com](http://www.apple.com)

<sup>3</sup> [www.asymco.com](http://www.asymco.com), which is run by Horace Debiu, who has eight years of experience as an industry analyst and business development manager at Nokia, preceded by six years of software development and management in a startup environment, two years of IT management and five years of computer science research in an industrial laboratory.

<sup>4</sup> Localytics is a closed-loop app analytics and marketing platform that helps brands acquire, engage, and retain users. Localytics currently supports more than 6,000 customers and reaches 37,000 apps, 2.7 billion devices and 120 billion data points monthly.



same percentage of apps (34%) with 11 or more sessions. In 2014, Android surpassed iOS in app engagement by increasing to 45%; nearly half of Android apps are opened 11 or more times, whereas only a third (34%) of iOS apps are. A potential reason for this discrepancy is that iOS users may be suffering from app overload. With the relatively larger number of apps installed on iOS devices, competition for an iOS user's time increases and can weaken retention. Android devices also have a greater variety of features including larger screen sizes, making them better to consume gaming and news content, which may contribute to higher retention. Finally, Android has a remarkably small 16% of apps opened only once, whereas iOS has 23%.

Mobile apps were originally offered with the promise of increasing general productivity and facilitate information retrieval such as emails, calendars, contacts, stock market and weather information. However, public demand and the availability of developer tools drove rapid expansion into other categories, such as those handled by desktop application software packages. Following a rich wave of software development, the explosion in number and variety of apps made finding them a challenge for users, which in turn led to the creation of a wide range of reviews, recommendations and curation sources, including blogs and magazines dedicated to online app-discovery services. In 2014, government regulatory agencies started to regulate and curate applications, particularly medical applications.

The popularity of mobile apps has continued to rise, as their usage has become increasingly prevalent among mobile phone users. A May 2012 study reported that, during the previous quarter, more mobile subscribers used apps than browsed the web on their devices: 51.1% vs. 49.8% respectively. Researchers found that usage of mobile apps strongly correlates with user context and depends on the user's location and the time of day. An analyst report estimates that the app economy creates revenues of more than €10 billion per year within the European Union, while over 529,000 jobs have been created in the 28 EU states due to the growth of the app market. There are more than 2 billion smartphones possessed by users and this number is predicted to double in the next five years. Furthermore, the smartphone and the mobile app are together becoming the remote control for users' entire digital lifestyle, enabling them to book holidays, get from A to B and make sure they are getting healthier every day.

Google's chairman Eric Schmidt refers to the so-called "*Internet of things*", in which Internet-enabled devices from phones to watches to thermostats and light bulbs are increasingly programmed to be able to work on their own, for efficiency's sake. Schmidt believes our interactions with these devices will eventually be totally seamless.

With the rapid penetration of mobile Internet, an enormous amount of activities which used to happen on PC are now shifting onto smartphones, such as SNSs. Based on company data, Facebook logged an average of 890 million daily active users in December 2014, an increase of 18% year-on-year. More than 80% of those active users were accessing the site from mobile devices like phones and tablets. That is very impressive when you consider that Facebook only launched app, as well as its mobile platform, in 2007. In seven years, the platform has been built into a thriving and lucrative mobile community for its 1.39 billion monthly active users.<sup>5</sup> Yet, another trend, which cannot be ignored, is that messaging apps are becoming more popular than SNS apps. Based on the various messaging and social networks charted by BI Intelligence, messaging apps added users faster than the social networks over 2013 and 2014, and will probably eclipse social networks later on. To complete the whole picture of mobile communication apps, it is important to note that Facebook, which owns two of the most popular messaging apps today - Facebook Messenger and WhatsApp - as well as two of the biggest social networks, Facebook itself and Instagram, is occupying a lot of the territory of the mobile world.

The total number of apps people are using has not changed much over the past few years. This means users are consolidating their app choices, and spending more and more time with a few favourites. This creates added pressure to stand out in the app stores, and to develop apps that can gain and keep a loyal audience. A recent report from BI Intelligence (2015) discusses why it is becoming increasingly important that developers make a competitive app-marketing strategy for triggering downloads, encouraging sustained use, and retaining users. There are a number of different tactics that marketers might use. Here are a few key data points on user behaviour and recommended marketing strategies:

- Per capita downloads are stalling: US app users downloaded an average of 8.8 apps per month during 2014. This is nearly identical to the average monthly download volume in 2011.

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<sup>5</sup> Data from Facebook.

- Encouraging retention and usage remain challenging: In June 2014, users spent about 70% of app time in their three most-frequently-used apps. About 52% of all apps lose at least half of their peak users after three months.
- The cost of acquiring and retaining users is soaring. The iOS and Google Play app stores are overcrowded, and competition to stand out is at an all-time high. The cost-per-install on iOS soared 59% year-on-year in October 2014, while the cost to retain a loyal user – defined as a user who opens the app at least three times in a two-week period – is even higher than acquiring a new one, and was up 33% year over year.
- User retention tips: Developers should focus on marketing their apps just ahead of major new phone or operating-system launches. App-marketing costs go up after a new device launches, because lots of apps are competing for the attention of consumers downloading apps to their new phones. Apps that are at the forefront of users' attention when they first get their phone are likely to retain an advantage, without paying a premium for post-launch promotion.

Advertising of applications (app-install ads) have become a popular way to drive new downloads while other app-store optimization (known as ASO) tactics can help increase visibility through unpaid means. In the study by Haaker et al. (2006), context awareness was introduced to point out certain kinds of mobile applications, which would be important to manifest the different nature of mobile SNSs from traditional SNSs. A service is called context-aware if in its operation it uses context information other than explicit application logic related input (Abowd et al., 1998). Context awareness refers to one basic feature of mobile phone applications that helps scholars to identify the certain kind of applications accordingly.

Mobile applications markets with app stores have introduced a new approach to defining and selling software applications with access to a large body of heterogeneous consumers. Lee and Raghu (2014) examined key seller- and app-level characteristics that impact success in an app store market. They tracked individual apps and their presence in the top-grossing 300 chart in Apple's App Store and examined how factors at different levels affect the apps' survival in the top 300 chart, used a generalized hierarchical modelling approach to measure sales performance, and confirmed the results with the use of a hazard model and a count regression model. They found that broadening app offerings across

multiple categories is a key determinant that contributes to a higher probability of survival in the top charts. App-level attributes such as free app offers, high initial ranks, investment in less-popular (less-competitive) categories, continuous quality updates, and high-volume and high-user review scores have positive effects on apps' sustainability. In general, each diversification decision across a category results in an approximately 15% increase in the presence of an app in the top charts. Survival rates for free apps are up to two times greater than that for paid apps. Quality (feature) updates to apps can contribute up to a threefold improvement in survival rate as well. A key implication of the results of this study is that sellers must utilize the natural segmentation in consumer tastes offered by the different categories to improve sales performance.

Decision-making theories have argued that many daily decisions are the result of heuristic rather than systematic processes. Given the ubiquity of smartphones as mobile communication and computing devices along with the vast smartphone app market, Dogruel et al. (2015) tried to understand how heuristics guide smartphone app selection. Observing 49 smartphone users from the US and Germany viewing a total of 189 apps from three predetermined categories, they identified five decision-making heuristics used to download a variety of smartphone apps. Of these, four were variants of a "Take the First" (or "TtF") heuristic that allowed smartphone users to navigate quickly in the app market, bypassing a good deal of other informational cues in order to download apps that were simply highly rated or ranked. Reliance on heuristic processing is useful in helping navigate the app market, but it also results in smartphone users overlooking potentially important app information.

Using the tracking data of 1,645 smartphone users from the Nielsen KoreanClick panel, Jung, Kim and Chan-Olmsted (2014) examined the degree of concentration in smartphone application use in South Korea. The findings from this study are consistent with those from previous research on usage concentration and selective repertoire in a multichannel and multimedia environment. Overall, the levels of concentration in app usage are high, particularly in the communication and social media categories. Empirical evidence also suggests the existence of network externality in mobile app communication.

Smartphones facilitate the potential adoption of new mobile applications. Michael Chan (2013) applied subjective well-being theory to analyse the social

needs of mobile application users. In his study, an accurate description of the current state of development of mobile applications is given: *“the mobile phone is no longer just a device that facilitates communication between two individuals; it is also a hybrid technology that integrates audio, video and text with a display screen.”* It is worth mentioning once more that mobile applications are not merely textual. Verkasalo et al. (2010) studied users and non-users of three selected mobile applications, and found that perceived technological barriers negatively affect behavioural control; behavioural control is directly linked to perceived usefulness (except for games) and perceived enjoyment; perceived enjoyment and usefulness were generically found to explain intention to use applications for both users and for non-users. Meanwhile, Falaki et al. (2010) and Toole et al. (2012) both researched the usage of mobile phone applications. The concept of *“use”* is the core feature to understand the behaviour of mobile phone social activities. Use, as a concrete conception, contains several actions within itself. *“Use”* refers to (1) choice to buy the apps, (2) adoptions of apps, (3) communication to designers, (4) social activities. These four kinds of actions share some content with the conception of *“domestication”*, but also exceed its extent. In other words, under the influence of mobile technological innovation, the meaning of *“domestic”* has been greatly enlarged. This enlarged conception of *“domestic”* would give new scope to the research aiming to understand the motivation of mobile phone application users.

Agger (2011), for example, stated in his research that

*We are now online anytime/anywhere, requiring new theoretical understandings of time and place. This starts with the young, who are inseparable from their phones, and has now spread to their parents. Smartphones use us, bending us to their compulsive rhythms and demanding our attention. In a good society, we would be the masters of technology, retaining the connectivity and global reach of our smartphones, but not enslaved to them as many of us are today.”*

This could be an additional feature for us to understand the usage of mobile applications and *“alienation”* might be helpful in clarifying the new definition of the *“use”* of mobile applications.

Bergvall-Kåreborn and Howcroft (2013) analysed the experiences of mobile applications developers, with a focus on Apple and Google platforms. As they stated, *“changing market structures have given rise to increasingly precarious working conditions and unstable labour markets”*. A combination of various Internet social media are taken into consideration. These indexes, used in the study by Bergvall-

Kåreborn and Howcroft, self-control, self-commercialization and self-rationalization, are very helpful in describing users of Apple or Google social platforms. It is more effective to trace and observe participants if their actions are measured by products and their needs are measured by commercial success. Henceforth, following the commercial needs and attributes of the whole social platform and its components, viz. application designers, consumers, etc., the picture of the social world build through the mobile phone is profiled. To be more specific, this is a world not only concerned about the personality of consumers, but also the personality of designers and producers.

In short, the study of the mobile application market has three attributes relevant to the present study. First, the classical mode of market study deals with the consumer–designer interaction exchange, while when self-identity is taken into consideration, this new element needs to be added into the classical mode. Consumers seek to fulfil their personalities, in order to gain a better self-identity; the same for the designers and developers. Thus self-control, self-commercialization and self-rationalization are necessary indexes to give a full understanding of app-publishing platform owners and the application designers.

Second, application designers can be divided into two general groups: freelance designers and employees. The former might not suffer the same burden as the employee-designers from certain application platforms. These two kinds of designers have different perspectives on their work; the freelance designers are more like application-consumers, who have no strong bonds with the application platform. In contrast, employees are more positive contributors to the development of mobile application society. The same conclusion should be possible if we confine mobile application society to the limit of the mobile fashion world/society.

Third, the success of employee-designers is not merely measured by economic success, but also by feedback from clients or app consumers. It is quite an obvious trend that mobile applications platforms are more and more promising to be consumer-preferred. Compared with a successful profit model, how to develop, keep and cultivate a loyal community of app users means much more to mobile phone producers, and also to mobile app producers. For this reason, the self-identification of app producers is no less explicitly demonstrated by feedback from consumers than through economic success.

Holzer and Ondrus (2011) reported,

*Major software companies, such as Apple and Google, are disturbing the relatively safe and established actors of the mobile application business. These newcomers have caused significant structural changes in the market by imposing and enforcing their own rules for the future of mobile application developments.*

In this research, the perspective of developers of mobile applications about the meaning of these structural changes to them is expressed. Four trends are mentioned: portal centralization, technology openness, device variety and platform integration. Ghose and Han (2014) built a structural econometric model to quantify the vibrant platform competition between mobile (smartphone and tablet) apps on the Apple iOS and Google Android platforms and estimated consumer preferences towards different mobile app characteristics. They found that demand increases with the in-app purchase option wherein a user can complete transactions within the app. On the contrary, demand decreases with the in-app advertisement option, where consumers are shown advertisements while they are engaging with the app. The direct effects on revenue from the inclusion of an in-app purchase option and an in-app advertisement option are equivalent to offering a 28% price discount and increasing the price by 8%, respectively. This study also found that a price discount strategy results in a greater increase of demand for apps in Google Play compared with Apple App Store, and app developers can maximize their revenue by providing a 50% discount on their paid apps. Using the estimated demand function, they discovered that mobile apps have enhanced consumer surplus by approximately \$33.6 billion annually in the US and they discussed various implications for mobile marketing analytics, app pricing, and app design strategies.

Ghosh and Rao (2014) examine the effects of consumer confusion on two consumer behaviour variables, word of mouth, and buying decision, in a confusion-prone product market like smartphone and mobile applications (apps). Additionally, the study examines the moderating influence of a personality trait variable pertinent to information processing needed for cognition, on the aforementioned relationships. Their data were collected via a survey of 254 post-graduate students and were analysed with the help of structural equation modelling. Research findings indicate that the dimensions of the consumers' proneness to confusion demonstrate differently in terms of their linkages with consumer behaviour. Further, as expected, the consumer's need for cognition also plays a major moderating role, which helps to fathom the concept of consumer

confusion in the context of mobile and smartphone applications. Academic and managerial implications as well as scope for future research are also discussed.

The widespread uptake of mobile technologies has witnessed a re-structuring of the mobile market with major shifts in the predominance of particular firms and the emergence of new business models. These sociotechnical trends are significant in the ways that they are influencing and shaping the working lives of software professionals. In this context, Bergvall-Kåreborn and Howcroft (2014) conducted research investigating the persistent problems and practices of systems development. They examined the development and distribution of mobile applications. A qualitative study of 60 developers based in Sweden, the UK and the US was analysed around the interrelated problems of diversity, knowledge and structure. The analysis revealed how platform-based development in an evolving mobile market represents significant changes at the business environment level. These changes ripple through and accentuate ongoing trends and developments, intensifying the persistent problems and challenges facing software developers.

Boudreau. (2012) studied the effect of adding large numbers of producers of apps to leading handheld computer platforms, from 1999 to 2004. To isolate causal effects, he exploited changes in the software labour market. Consistent with past theory, he found a close link between the number of producers and the number of software varieties that were generated. The patterns indicate that the link is closely related to the diversity and distinct specializations of producers. They also highlight the role of heterogeneity and non-random entry and sorting. Later cohorts generated less compelling software than earlier cohorts. Adding producers to a platform also shaped investment incentives in ways that were consistent with a tension between network effects and competitive crowding, alternately increasing or decreasing innovation incentives depending on whether apps were differentiated or close substitutes. The crowding of similar apps dominated in this case; the average effect of adding producers on innovation incentives was negative. Overall, adding large numbers of producers led innovation to become more dependent on population-level diversity, variation, and experimentation – while drawing less on the heroic efforts of any one individual innovator.

In order to question the software developer as rising profession, Bergvall-Kåreborn and Howcroft (2013) analysed the experiences of mobile applications



developers, with a focus on Apple and Google platforms. The analysis is situated in the context of wider socioeconomic trends and developments in product and technology markets, since these structures frame the working practices of software developers. Drawing on qualitative fieldwork in Sweden, the UK and the USA, the study reveals how changing market structures have given rise to increasingly precarious working conditions and unstable labour markets.

One of the most crucial aspects of mobile applications is their close connection to the market, especially the fashion market. Shopping habits are changing; as shopping shifts to the web and mobile devices, so increasing mindfulness of the different e-commerce channels and how services and sites are increasing is becoming more and more needed. A few key performance indicators (KPIs) allow retailers to benchmark themselves in specific areas of online commerce. Identifying the right areas for improvement can help businesses adjust and capture a larger share of the e-commerce and retail market. Applications are also of particular interest for e-commerce.

BI Intelligence measured retailers on a variety of KPIs, including desktop and mobile site performance, app ratings, and the number of payment and shipping options offered to online customers. The key findings include: shopping behaviour continues to shift to the web and apps, but many top retailers underperform across a series of important e-commerce metrics, including load times for web pages on mobile Internet. On PCs, where most online sales still occur, the average site takes about three seconds to load. Mobile is the breakout trend in e-commerce, but many retailers' mobile sites are still far slower than their desktop versions. The average mobile site loads in seven seconds. Retailers that do the best job of leveraging their apps typically update them frequently, and this, in turn, often translates into higher app ratings. Some e-commerce start-ups are the most frequent updaters and enjoy the best ratings. Many retailers are under-leveraging social media during the holidays to drive traffic and sales. Offering multiple shipping and payment options is proven to boost conversions and increase sales. Some other findings include the data that 20% of apps are only opened once, improving from 26% in 2010.

During the same 4-year period, the percentage of apps used 11 or more times increased 13% and in 2014 comprises nearly 40% of all apps. Sports and games apps have the highest abandonment rate of all categories, whereas weather and social networking apps have the best rates of retention. Sports and games apps

have an abandonment rate of 23% and 22% respectively, which is slightly higher than the 20% average across all apps. This is probably due to the variety available and competition among these apps. Both of these categories rely heavily on first impressions to engage users or risk losing them to a competitor. According to recent research by Localytics, games apps in particular have a nearly 50% chance of never being opened again if a user does not return to the app within 12 hours. Social networking and weather apps have the smallest percentage of apps only used once. These apps rely more on outside content that is constantly updated (either friends' activities or the temperature outside). For social networking, the tremendous influence and addictiveness of social networks bring in repeat users. As for utility apps, an app does not need to be especially engaging; it just needs to perform one important function, such as telling the weather.

Android might have a major advantage in market share and enjoy better retention, but iOS is still where the money is. Adobe, IBM, and Custora released their numbers from Black Friday in 2014; based on data from those companies, iOS claimed the lion's share of e-commerce revenue – more than double that of Android, across the board. Most of that was due to the iPad, as iPhone users mainly use their devices for browsing, leaving purchases for later on tablets or PCs. Monetate analysed a random sample of over 7 billion global online shopping experiences, tracking various metrics in the UK, Germany, the US and globally. Android devices are closing the monetization gap with Apple but iOS still drives higher sales and revenue. The data from the UK and Germany shows that revenue per session is higher with iPads than Android tablets but that Android apps are starting to catch up in how well they monetize users. Interestingly, Kindle Fire's revenue per session was flat in the UK and decreasing in Germany year-on-year.

Monetate also measured the amount spent when using a traditional device (PC) compared with tablets and smartphones. It found that Apple's iPad generated the highest revenue for tablets at 160 US dollars per order but that Kindle Fire was in second place at \$122 in the March 2014 quarter. Android tablets were third at \$107. Apple's iPhones had the lead in orders placed from smartphones but the value was still smaller than iPads. iPhone's average order size was \$118, with Android in second place at \$112 and Windows phones third at \$101 per order. The same pattern is seen not only in e-commerce, but also in app store revenue. Google's Android mobile operating system has 1 billion users – more than twice the 470 million people on Apple's iOS equivalent – yet Apple pays out twice the amount of revenue to app developers on its system. According

to Andreessen Horowitz analyst Benedict Evans, this is because Google is aggressively going after lower-income users on a global scale. The company recently launched Android One in India, which allows device manufacturers to make \$100 smartphones. Apple, by contrast, prefers to sell its iPhones for more than \$600.

Hence, although it is crass to say “Android is for poor people”, on a global scale this is exactly how it is being used. Remember, both companies are seeking to create user-bases composed of hundreds of millions or billions of people. There are fewer than 1 billion people in the USA and Europe, but more than double that number in India, China and the rest of the developing world. iPhone sales in China have even surpassed the USA with the success of a deal done between Apple and China Mobile – the largest network operator in China. To put this in perspective, per capita income in the USA is about \$47,000 annually, compared with \$3,560 in India, according to the World Bank (see Internet sources). We have seen this platform/income split a couple of times before, both globally and within the USA. And app store revenue reflects that split. Evans estimates that Apple paid developers \$10 billion in the last 12 months after taking its 30% cut from app download revenue in the App Store. Google paid out \$5 billion in the same period, Evans believes.

### 2.4 Mobile fashion applications

To describe what is being studied in this research, I propose a new concept, *mobile fashion society*. A mobile fashion society is constituted by people who engage in social activities about fashion through mobile phones. To justify the proposal of this new concept, I present a brief review of how other scholars study mobile Internet activities and what conclusions they have drawn. Fortunati (1998) is the first scholar to have discovered the relevance of the factor “fashion” in studies on mobile phone use. Ling (2003) followed Fortunati, with empirical research about the role of fashion regarding mobile phones among adolescents in Norway. Katz and Sugiyama (2006) entered this debate with research in Japan and the USA on mobile phones as fashion statements. Aoki and Downes (2003) showed that subcultures are formed through young people’s use of mobile phones, and Lobet-Maris (2003) reported how young people making use of the same mobile operator configure like a tribe, to use Maffesoli’s (1995) expression.

Verkasalo et al. (2010) categorized people into users and non-users according to their motivations, which explicitly set up the borderlines of a mobile phone application society. Hence it is possible to target a mobile phone application society, in which people's needs can be examined and the social activities connected to these applications explored and measured, as a research object. Certain doubts remain, however, about why the mobile fashion world should be studied in a "social" model rather than a "market" one. It is true that many scholars treat the mobile application world as a huge market. Their analyses on the mobile application world are based upon one important factor: use and the practices of use. The works carried out by Falaki et al. (2010) and by Bauer et al. (2012) are examples of this trend. Both studies concern the usage of mobile phone applications. It is indeed true that the conception of "use" is the core feature to understand the behaviour of mobile phone social activities. Use, as a concrete conception, contains several actions within itself. "Use" refers to (1) choice to buy, (2) adoption, (3) communication to designers, (4) social activities. Once a full examination is made of the whole content of "use", it would not be difficult to find that the notion of "use" has exceeded the definition of "market" as an economic and legal world.

While it is important to understand the logic of how the traditional fashion world develops its grammar, it is not sufficient to know this logic in a fashion world built through modern information technology, for example, with mobile phone applications. Mobile phone applications have combined social language, fashion sociality and digital technology. The world formed by application designers and users and the forums they provide are not only the world that promotes, consumes, and displays fashion items, but also the world that judges, comments, and receives feedback. Language and fashion, once upon a time, might have been two compared and competing worlds, in Barnard and Baudrillard's argument, but nowadays the rules of social appearance and the norms of social language construct the multi-layer structure of the fashion world. In mobile phone fashion applications, technology, language, and matters of fashion work together in the new sociality they create. Hence, it is more worthwhile to ask if the mediated fashion world brings complexity to a digital theatrical sociality that needs to be scrutinized.

To summarize, theoretical works on fashion have paid attention to its communication function. In the material support of mobile phone applications, communication through fashion applications has embraced the advantage of the

digital language. This trend means that the fashion world on mobile phones has become both textual and visual. Thus the communication of the fashion world comes to be both instant and time-lapse. How to understand the textual and visual features of mobile phone fashion application should be one of the questions that need to be answered firstly following Baudrillard's and Barthes's concerns. While the fashion system works, according to Baudrillard, slowly and inefficiently compared with language, this situation could be ameliorated since mobile phone fashion applications bring instant textual communication and item display together. In the age of modern information technology, two main questions are worthy of note: the changing role of the fashion designer and the kind of community that has been constructed through mobile phone applications.

Given the two-fold nature of the fashion system, in mobile phone fashion application research the users also play an important part. As the users matter in understanding the fashion system, scholars tend to find ways to collect data about fashion participants' behaviour. Take the research from Verkasalo et al. (2009), for example, which measures the actual usage of mobile applications in a panel study of 579 Finnish smartphone users. This research explored utilitarian or hedonic motivations with the purpose of understanding users' behaviour. This research treats users' behaviour mainly as a question of "using" or "choosing to use". Besides the limitations they mentioned, this research also neglects the fact that what makes fashion users so meaningful is not merely their will to use or not. In the picture of the fashion world that is no longer designer-polarized, it is domestication that gives sense to the whole structure and makes it complete.

As the title of this research indicates, two important elements - mobile/Internet and fashion - and their relationship are studied in the background of the increasing innovation of media technology. Taking design and use as two basic grounds to embed in the investigation, it will be helpful to apply Latour's Actor Network Theory (ANT) (2005) and the domestication theory from Silverstone and Haddon (1996). In particular, there are two phases of these theories relevant to this study. In order to achieve an ANT scope in this research, translation is one of its fundamental notions that has to be borrowed here. Actor indicates any element bending space around it, making other elements dependent upon it, and translating their will into the language of its own. In this framework, each actor has an interest to convince the others to create an alignment. The heterogeneous network of aligned interests is the so-called actor network. Translation is the creation of an actor network, during which innovators attempt

to create a forum, a central network in which all the actors agree that the network is worth building and defending. According to Callon (1984), this process consists of three stages: problematization is the first moment of translation during which a focal actor defines the identities and interests of other actors that are consistent with its own interests and establishes itself as an obligatory passage point (OPP). Any focal actor broadly refers to a situation that has to occur in order for all the actors to satisfy the interests that have been attributed to them by the focal actor. The focal actor defines the OPP through which the other actors must pass and by which the focal actor becomes indispensable, thus "*rendering itself indispensable*" (Callon 1986). Interest is the second moment of the translation, which involves a process of convincing other actors to accept the definition of the focal actor (Callon 1986). The third stage is the enrolment, which is the moment in which another actor accepts the interests defined by the focal actor.

Silverstone and Haddon (1996) depicted the characteristics of technological innovation and its distinction from the traditional industrial products. They have noticed that the traditional boundary between production and consumption has been greatly changed through technological innovation. This is because technological innovation is not only a matter of engineering or production, but requires to be seen as a process which involves both producers and consumers in a complex interweaving of activities (Silverstone et al. 1996). Two instances are taken into consideration in their research: the user's perspective and the question of design as well as other more concrete elements. In the zone of "*design*", three activities are included, which are "*creating an artifact, constructing the user and catching the consumer*". If we treat commoditization as the first contact between users and technologies, conversion is the reconnection, a process of "*the perpetuation of the helix of the design-domestication interface*", a process reflecting users' struggle to deal with the essential tensions between benefits and risks they encounter when new technologies are introduced into their households. These essential tensions can be specifically described as follows: enhancement of the quality of their everyday lives vs. destabilization; extension of personality and power vs. disruption of identity; freedom from the constraint of community vs. complete dislocation from the moral order of society. The conceptualization and adaptation of these tensions makes the analysis of the conversion process clear.

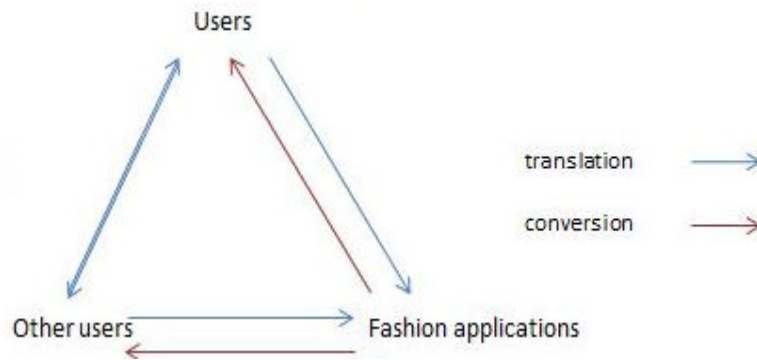


Figure 1. Model of interactions among users and apps

As fashion applications have two faces – fashion and mobile technology – the process of translation is always accompanied by persuasion of users in order to reach some agreement or understanding. Conversion consists of the adoption, acceptance and internalization of new technology or new fashion concepts. As Figure 1 shows, the conversion process occurs from fashion applications to users, while the process of translation takes place usually from users to fashion applications and users to other users.

Henceforth, fashion applications should not be simply categorized as context-aware, because fashion applications also work on the system of display of fashion items. However, fashion applications involve themselves in social communications, which is context-aware. It is an interesting question whether fashion applications mainly function as context-aware applications or not. In this work, I will assume that, for designers and fashion producers, fashion applications work as non-context-aware, while for consumers and fashion users the most attractive part of fashion applications is their context awareness. Thus, the asymmetrical structure of mobile fashion applications should be the basic structure for both scholars and fashion producers to understand the whole mobile fashion-social world. Fashion mobile applications deal with the complex phenomenon of digitalization. Fashion, along with millions of other documents and images, has been untethered from its place, “removed”, drawing on John Berger’s words, “*from any preserve*” (Berger 1972, 185). Is fashion really adapted to being digitalized? As Neil Postman (1998) reminds us, technological change is not cumulative but is a “*Faustian bargain*”, in which something must be sacrificed in order for something new to be gained. George Ritzer (2011) has demonstrated the inevitable nothing-destiny of modern individuals from the five unified indices that are used to measure newborn babies in modern hospitals. The digitalization of fashion has some analogy with a newborn baby. From the initial acceptance of

the standardized editing online, fashion is destined to face the same. The loss of substantial, local context makes the digitalization of fashion a process of nothingization, after which fashion disappears. Thus, digitalization does make the production of fashion content online more efficient, more calculable, more controllable and more predictable, but at the same time more dislocated from the local human context, the absence of human service and human attachment. Seen from this point of view, the process of fashion digitalization appears to be rather irrational.

Haaker et al. (2006) also reported that *“in the earnings logic component, users’ willingness to pay is considered limited. Advertising is considered to be a significant (new) revenue source. Some experts advocate the use of multiple revenue models simultaneously, i.e. the subscription model, the transaction model and the advertising based model.”* What the fashion world could learn from this conclusion and how the fashion industry benefits from this conclusion is far more unclear. In order to reach a better understanding of this phenomenon, this work will provide an empirical study, to be considered as a first step to picture the structure of the mobile fashion world.

The notion of *“domestication”* has also been applied in Fortunati’s work (1981). Applying this concept of *“domestication”* in fashion studies is an effective way to sort out different kinds of labour towards fashion products. In an essay published in 2014, Fortunati mentioned that the invisible labour is that *“the labour done in everyday life to buy, wash, iron, clean, and mend clothes”*, and in my understanding, actions which include *“wash, iron, clean and mend”* are the so-called *“continuous labour”* which aims to keeping fashion products at a high level of quality. These actions are also called *“domestic labour”*. So the concept of *“domestication”* in fashion study should be defined in three principles.

First of all, domestication refers to the process in which certain labour is carried out towards fashion products after the labour of *“purchase”*. This labour, traditionally in the field of clothing or dressing, is thought to maintain or improve the quality of clothes. In Simmel’s analysis, the labour of *“buying something”* does not make that thing personal: the fashion industry encourages people to buy the same products from the assembly line, while it has to inspire them to make the faceless product *“personal”* through their invisible labour alone. And this labour, as mentioned above, is understood as so-called *“continuous labour”* or *“domestic labour”*. To sum up, in traditional fashion studies, domestication refers to the



performance of domestic labour in the household, aiming at improving the quality of clothes, however, the quality of clothes is still something that needs to be clarified. Moreover, in fashion studies, domestication is usually concerned with one object: the fashion product.

The second principle of domestication in fashion study is the changing quality of clothes. The quality of clothes can be sorted out in their extrinsic features easily: a clean and tidy fashion item requires washing and ironing; newness and fitness require sewing and mending; in some cases, it might be also usual for people to alter their clothes to keep them in fashion. These features might conveniently be collected as data from samples, though they do not cover the whole process referred to as the changing quality of clothes. To understand more completely what happens in “*domestication*”, in the following part of this thesis, I will bring three important features. The first concerns also the changing nature of clothes after they are bought, intrinsically, but not the exterior features. As Simmel has found out, fashion persuades people to construct their personality with the same fashion products from one assembly line. Accordingly, how does mass production become the supporter of people’s personality? The answer is obvious: in the domestication of those fashion products, since the promotion by advertisements only produces illusions. Thus a proper analysis of fashion should also contain an emotional or even psychological index to give full measure of a fashion product. Ownership, uniqueness, and social class-recognition are the core intrinsic features a fashion product gains through domestication. In Web 2.0, these three features are no longer invisible. The next step is to explore the six features I mentioned above: cleanness, newness, fitness; ownership, uniqueness, social class-recognition, in order to build the whole theoretical structure about how these features complete a fashion product, and how their roles have changed in recent decades.

In addition to the two principles discussed above, there is also the third principle of domestication, which means a confinement in space. That is to say, domestication usually refers to activities at home. Yet the concept of home has been reshaped in mobile phone technological innovations. To re-identify the concept of home, to understand its boundaries, is also an interesting issue that I will try to clarify by answering the following questions: (1) How do outsourcing clothes services influence domestic labour? (2) Where is the borderline between online advertisement of fashion products and an application of fashion products?

(3) To what extent do users of fashion mobile applications think of their use as “domestic”?

A new fashion phenomenon that has affected the domestication process of fashion products is fast fashion, which is an important industrial trend. Fast fashion refers to the concept of shortening lead time (production, distribution, etc.) and offering new products to the market as fast as possible. Nowadays, this phenomenon is commonly adopted in the fashion apparel industry (by brands such as Zara, Topshop and H&M). In order to establish efficient fast fashion systems, research has been undertaken over the past few years in areas including: optimization of fast fashion systems by conventional analytical approaches, use of information in fast fashion models, optimization models of the fast fashion multi-echelon supply chain, fast fashion systems under competition and game-theoretical analysis, intelligent forecasting techniques in fast fashion systems, statistics-based empirical analysis of fast fashion strategies, etc. Despite the abundance of both classic and new research results, there is a lack of a comprehensive reference source that provides state-of-the-art findings on theoretical, empirical and applied research on fast fashion systems. The present work hopefully will lead to a better understanding of this new phenomenon analysed through the lens of fashion domestication processes.

Let me begin by saying that the level at which fast fashion is performed is glocal. The debate about glocal has replaced the old-fashioned conception of cultural imperialism. However, what should not be missing from the concept of glocalism is a notion that was central to the conception of cultural imperialism: repression. Said (2003) depicted how discourse hegemony has constructed itself by distorting the role of the periphery and of minorities. The Frankfurt School in general, but specifically Marcuse, depicted how the advanced industrial society has eliminated the power of refusal when the individual faces choices. The positions of Said and Marcuse concerning the capitalistic system are consistent, because culture asks for pluralism, not for centralism and dictatorship.

Ritzer (2003) is among those concerned about this point. He found a way to re-orient the approach by re-interpreting the role that technology is playing in globalization. Ritzer postulated another version of globalization, which shared the idea that different nations and resources were united through modern technology, but without a hegemony structure, and named it “glocalization”. The possibility of glocalization comes from the combination of both global and local elements. To

demonstrate the possibility of “*glocalization*”, Ritzer adopted the dichotomy of culture phenomenon as “*something*” and “*nothing*”. Being “*nothing*” for him means to lose one’s own identity through the carbon copy of other successful examples. Technology, as Ritzer has analysed, has endowed modern mass production with competitive characteristics such as efficiency, calculability, and predictability. Taking the assembly line as an example, on the one hand, this cuts costs considerably and thus helps the manufacturer to dominate the global market. On the other hand, the whole process of standardization guaranteed by modern mechanical techniques obliterates the individuality of each product since the spirit of standardization is to make every product identical.

Fast fashion is very closely connected to e-commerce, the possibility to buy online. As I have mentioned before, given the use of the the web and mobile devices for shopping, a more mindful attitude about the different e-commerce channels and services is more and more needed. Companies able to improve their e-commerce channels have the potential to significantly increase their sells, or at least their marketing strategies with their targeted public. In this scenario, applications are of particular interest for e-commerce also. According to BI Intelligence, many top retailers underperform across a series of important e-commerce metrics, including load times for web pages on mobile Internet. On PCs, where most online sales still occur, the average site takes about three seconds to load. Despite the growing importance and use of mobile instruments to check web pages, many retailers’ mobile sites are still far slower than their desktop versions. The average mobile site loads in seven seconds. In order to compensate this problem in speed, some frequently update their apps; those who do that, typically receive higher app ratings. Another usually successful strategy to boost conversions and increase sales consists in offering multiple shipping and payment options.

Studies on mobile phones and mobile Internet are mainly empirical and adopt quantitative approaches. A limited number take fashion into consideration, but they do so from a marketing and branding perspective, that is, from the producers’ point of view. In my research, I will contribute to fill this gap by investigating the dynamics of the fashion world on smartphone, such as the usage of fashion applications and how users consume fashion contents on mobile Internet. With these aims, firstly I will quantitatively map the fashion application landscape, and then adopt a qualitative approach to get in-depth information about users’ usage processes, attitude, experiences, etc.

The literature I have reviewed has provided me inspiration and reference points, such as: the research about mobile phone dependence and SNS addiction, which could help me to understand certain fashion application usage patterns shown in my research; studies on mobile phone games, which gave me some references to analyse game applications on fashion; studies on e-commerce, which drew the background for my research on fashion, which is firmly linked to e-commerce. From the literature analysis above, I draw the following conclusions: first, the studies on mobile phones are wide ranging, yet still do not cover the subject of fashion on smartphones, which is the gap my research aims to fill. Second, as to the research emphasizing fashion, very little has been published in the context of mobile Internet, or from the fashion user's perspective. Hence, the aim of my research is to try to answer two research questions:

RQ1: What are the characteristics, functions, and dimensions of mobile fashion applications?

RQ2: How has the fashion system been changed by the users of mobile fashion applications?

At this point I wish to clarify that I intend to explore the fashion system in a virtual world from the dimensions of mobile applications. The quantitative description of the mobile application landscape and the interviews I conducted led to an important finding - that many fashion-related activities are actually taking place outside of fashion applications and within social network service (SNS) applications. This means that there is a dislocation of fashion activities. Noticing this, I decided to adjust my research and move my attention from fashion applications to some SNS platforms.

# 3

## Methods

The present study combines quantitative and qualitative methods in order to map and analyse the applications related to fashion on smartphones. The use of various strategies to enhance construct validity may be understood as a form of methodological triangulation, which is now advocated by many methodologists (Brewer and Hunter, 2006). In short, integrating research strategies is now a common feature of good research. Mixed methods research includes the mixing of qualitative and quantitative data, methods, and methodologies, in a research study (Creswell, 2003). The design of this study is a quantitatively driven approach, as it has at its core a quantitative study which is supplemented and improved by qualitative methods (Johnson, Onwuegbuzie, and Turner, 2007). The qualitative methods provide added value and deeper answers to the research questions.

In particular, **five** different methods were adopted for investigating different aspects of mobile fashion applications. The first is a **survey**, the quantitative method *par excellence* in the sociological tradition. Measuring the phenomenon was the first thing to do in order to get the necessary information about the magnitude and the main features of fashion mobile applications. Their main characteristics, such as content typology, number, and average scores of ratings, as well as number of reviews posted by users and their content, were scrutinized. To give a sense of the data collected, mainly descriptive statistics were applied. In

2012, a search in the App Annie database, one of the biggest databases of mobile applications, using “*fashion*” as a keyword, gave 1,188 fashion applications in iTunes App Store and 1,376 in Google Play stores. In total, 2,564 fashion applications were available to users. Of these 2,564 fashion applications I selected those that have received the most downloads and reviews, because these embody the most vivid interest by users. This sub-sample consisted of 684 apps from the iTunes store and 505 from the Google Play store (in total 1,189).

This survey is also a longitudinal survey, because in 2014 I ran another round of data collection looking at the same variables and applying the same data analysis strategy (Lynn 2009). I found it necessary to produce another collection of data given the speed with which the world of mobile Internet is changing, in particular, the different balance between its various features. For example, social media and apps are in fierce competition to provide users with more and more appealing services and functions. I collected basic data from fashion applications selected from Apple and Google Play application stores. The new data consisted of 250 fashion applications from Google Play, 200 from the Chinese Apple application store, and 200 from the US Apple application store. These new data allowed me to detect the changes that happened in the framework of fashion applications on smartphones in this period of time. The research was not done at the level of individual fashion applications, but on the whole fashion applications market, because of the swift change in the application market landscape.

The second method I adopted is qualitative content analysis of the reviews posted on the websites of the 42 most popular applications. Among the three major approaches to qualitative data analysis – interpretative approaches, social anthropological approaches, and collaborative social research approaches – I decided to adopt the interpretative approach, which is the most suitable when the study involves texts and expressions posted online (McMillan 2000). Qualitative content analysis was used here as a lens to bring the meaning of the message content into focus, as “*any technique for making inferences by systematically and objectively identifying special characteristics of messages*” (Holsti 1968, 608). The main idea of the procedure of this analysis is thereby to preserve the advantages of quantitative content analysis as developed within communication science and to transfer them to the qualitative-interpretative steps of the analysis and then to develop them further. I decided to apply this method in order to get the point of view of users, which is very important for understanding their living experience of fashion mobile applications.

The third method that I applied is cross-cultural comparison (Ember and Ember 2001). For this purpose, I took into consideration the different languages used in these applications and I set up a sub-sample of 20 Chinese fashion apps from Google Play and 25 from iTunes to be compared with the 21 most popular English-language applications as samples from the iTunes store and the 23 most popular ones from the Google Play store. The aim was to conduct qualitative content analysis on the fashion applications belonging to this different language environment and then to make a qualitative cross-cultural comparison study between the most popular fashion applications in the Chinese context and in the English context. The reason that convinced me of the need to produce this kind of analysis was that from a preliminary observation of the fashion mobile applications in China and in the Western world I noticed many differences that deserved to be investigated systematically.

The fourth methodological tool is represented by the 21 semi-structured interviews that I carried out in order to understand better users' reception of mobile fashion applications. This method allowed me to understand users' behaviour and opinion patterns by revealing their intentionality and implications. In 2014, I conducted 12 semi-structured interviews with Chinese users, using a snowball sampling method, and in 2015 I conducted 9 additional interviews with English-speaking interviewees. Through these interviews, I gathered more concrete data on users' behaviours and gained more substantial data for deeper analysis. While statistics rely on the use of probability theory to estimate population inferences, qualitative analysis uses theory to decontextualize the raw data in segments and recontextualize them in categories to generate concepts, identify relationships, and formulate hypotheses for theory development. Qualitative analysis may be conducted inductively by identifying conceptual categories directly in the data, or deductively by applying predefined theoretical notions onto the material. An abduction approach to analysis - when both induction and deduction are used in different points in time in the analytical process - is increasingly popular since it makes use of the researcher's theoretical sensitivity and allows space for meaning making and category generation. This qualitative content analysis method helped me to investigate different levels of content, themes, and main ideas of the interviewees, including latent content (Becker and Lissmann 1973).

The fifth method I applied was **non-participant observation**. After the interviews, I realized that mobile Internet users actually consumed fashion

content mainly within SNS applications, rather than specific fashion applications. The recognition of this dislocation caused to me adjust my research and place more attention on users' activities and content in SNS mobile applications. To investigate this field, given the limited time remaining, I decided to focus mainly on China's fashion blogging, since fashion bloggers are the most read fashion media on the mobile Internet, according to the interview results. In order to gain a direct understanding of China's fashion blogging in its natural context (Liu and Maitilis 2010), from 2014 I started to conduct non-participant observation on the activities of four of China's fashion bloggers - Gogoboi, Pomegranate, Hanhuohuo and Yuxiaoge - on two major mobile Internet platforms, Weibo and WeChat, which are adopted by many Chinese mobile Internet users. In this case, as my purpose was to offer an interesting and particularly revealing picture of China's fashion blogging, I used an information-oriented sampling, as opposed to random sampling, in order to fulfil the requirement of representativeness. Hence, I chose Gogoboi, one of the leading fashion bloggers who are with the most recognizable and distinctive personal style and lead the China's fashion blogging atmosphere; the data I collected come from his most popular and most personalized posts. In 2015, I continued this observation and meanwhile conducted a four-month (4 May to 4 September) qualitative content analysis on the posts of these bloggers on the two platforms mentioned above. Combining this content analysis with the background and context analysis over these bloggers, I could depict a general picture of China's fashion blogging. In total, 377 posts on WeChat and 434 posts on Weibo were gathered and analysed.



# 4

## Results

### 4.1 The longitudinal survey

In this part, I introduce the results of the longitudinal survey on the fashion applications conducted in 2012 and 2014. My purpose in this study was to map the landscape of fashion applications in the context of the whole application market in these two precise moments.

#### 4.1.1 Fashion applications in 2012

In 2012, to operationalize the concept “fashion application”, I searched in the App Annie database, one of the biggest databases of mobile applications, using the keyword “fashion”. With this keyword it was possible to search any possible applications relevant to “fashion”, from fashion information publishers to games featuring fashion design. Only 1,188 fashion applications were found in iTunes and 1,376 in Google Play stores. In total, 2,564 fashion applications were available to users. Thus, the first important result is that **fashion applications play only a small role in the applications available for smartphones** (Table 1).

Table 1: Overall mobile applications and fashion applications in 2012

	iOS	Android	Total
Overall mobile applications	775,000 (52.5%)	700,000 (47.5%)	1,475,000 (100%)
Fashion mobile applications	1,188 (46.3%)	1,376 (53.7%)	2,564 (100%)

Among these 2,564 fashion applications I selected those that have received the most downloads and reviews, because these embody the most vivid interest by users. This sub-sample consisted of 684 apps from the iTunes store and 505 from the Google Play store (in total 1,189). Of these applications, I analysed their main features: content typology, number, and average scores of ratings, as well as number of reviews posted by users and their content. These features arise from the necessity for iOS and Android stores to build taxonomy of the applications available to potential customers with the purpose to organizing application searches in a rational way and orienting users. The categories listed here only include those related to fashion and also meet specific assigned categories, in the sense that they are classified on the basis of the specific way in which they deal with this topic. I decided to keep this taxonomy to simplify the check and reliability of the present study by other scholars.

#### 4.1.2 Categories of fashion applications

Let me start with the first feature of the analysis: the content typology. As Table 2 illustrates, the most popular categories in iOS are Lifestyle and Games, while in Android Games comes first, followed by Lifestyle. Notwithstanding this reversal, it seems that the majority of fashion applications (71.9%) are classified under playfulness and forms of social life (for instance, applications may be about how to dress for particular social occasions: for a party, for a painting exhibition, or a funeral). This convergence between fashion and games is a very important element that needs to be stressed. Fun has always been a structural feature of the fashion world, but more as a latent aspect than one officially declared. On the contrary, as the results of my study show, the fashion application world makes fun visible and evident. In fashion game applications, fun might be regarded as the main content.

## 4 Results

Table 2: The areas of everyday life covered by fashion applications in 2012

iOS		Android		Total
Area	N and %	Area	N and %	
Lifestyle	325 (47.5)	Lifestyle	117 (23.0)	442 (100%)
Games	188 (27.5)	Games	147 (29.0)	335 (100%)
Entertainment	50 (7.3)	Entertainment	28 (5.5)	78 (100%)
Photo & Video	21(3.1)	Photography	18 (3.6)	39 (100%)
Books	18 (2.6)	Books & Reference	6 (1.2)	24 (100%)
Catalogues	12 (1.8)			12 (100%)
Social Networking	12 (1.8)	Social	10 (2.0)	22 (100%)
Business	11 (1.6)	Business	7 (1.4)	18 (100%)
News	10 (1.5)	News & Magazines	21 (4.2)	31 (100%)
Reference	9 (1.3)			9 (100%)
Education	8 (1.2)	Education	15 (3.0)	23 (100%)
Travel	5 (0.7)	Travel & Local	4 (0.8)	9 (100%)
Health & Fitness	4 (0.6)	Health & Fitness	3 (0.6)	7 (100%)
Productivity	3 (0.4)	Productivity	1 (0.2)	4 (100%)
Utilities	3 (0.4)	Tools	2 (0.4)	5 (100%)
Music	2 (0.3)	Music & Audio	3 (0.6)	5 (100%)
Navigation	1 (0.1)			1 (100%)
Sports	1 (0.1)			1 (100%)
Weather	1 (0.1)			1 (100%)
		Communication	2 (0.4)	2 (100%)
		Personalization	17 (3.4)	17 (100%)
		Libraries & Demo	8 (1.6)	8 (100%)
		Media & Video	3 (0.6)	3 (100%)
		Shopping	92 (18.0)	92 (100%)
<b>Total</b>	<b>684 (100%)</b>		<b>504(100%)</b>	<b>1,188 (100%)</b>

NB. In Android the missing value is 1.

Consequently, however, in these applications the fashion element risks being comparatively weak, as within the game users practise fashion in a virtual way, without seriously discussing with other users about fashion concepts or the adoption of fashion in their everyday real lives. As we will see below, from the reviews of game fashion applications, in fact, it is possible to infer that few users would connect these graphic games to the real fashion world. How to incorporate more fashion content into these mature technology-adopted applications will be a task for the fashion world in the near future.

The popularity of games among fashion mobile applications is also due to the fact that they usually offer a well-developed mobile technology interface, are very easy to access and use by most mobile/Internet users, even children. This feature makes game fashion applications very successful as a way of passing time and as a “baby-sitter” to keep children amused. Furthermore, they represent a pleasant answer to the widespread need among fashion users to increase their capacity to combine different fashion items and transform them into a pleasant outfit. This “*ars combinatoria*” is not so widespread in the fashion practices of everyday life and thus it needs to be strengthened with a continuous exercise that with these game applications also becomes amusing. On the other hand, though users who cannot experiment with fashion and outfits in practice in their everyday lives can do so vicariously through the games apps. So by substituting the virtual for what is probably unattainable in real life, the fashion practical ability is strengthened.

The second important element that must be stressed is that fashion games allow socializing to develop among users. While in the offline world the socialization of fashion practices of use has been limited so far, fashion games enable users to socialize inside them.

### 4.1.3 Price of fashion applications

Most fashion applications are free of charge, and this makes them very attractive to users. It is worth noticing that the percentage of free fashion applications among the Android sample is higher than in the iOS sample (see Table 3).

Table 3: Free and paid-for applications in 2012

	<b>iOS (Base=684)</b>	<b>Android (Base=505)</b>
Free	384 (65.1%)	395 (86.1%)
Paid-for	206 (34.9%)	64 (13.9%)
<b>Total</b>	<b>590 (100%)</b>	<b>459 (100%)</b>

NB. In iOS there are 94 missing values, while in Android this number is 46.

As we have seen, my study confirms a fact that probably is true for all mobile applications: the most popular applications are those that users can get for free. In the particular case of mobile fashion applications, however, many of these are also important doors to enter the fashion market, especially in China.

#### 4.1.4 Popularity of mobile fashion applications

All these applications claim a high number of downloads (installs) and this gives a sense of the large numbers of users who access them. Table 4 gives an idea of the phenomenon, at least regarding Android – similar data for iOS is unavailable.

Table 4: Number of downloads (installs) of Android mobile fashion applications in the past 30 days in 2012

No. of downloads (installs)	No. (%) of apps
0–100	91 (18.6)
101–500	75 (15.3)
501–1000	34 (6.9)
1,001–5,000	87 (17.8)
5,001–10,000	47 (9.6)
10,001–50,000	66 (13.5)
50,001–100,000	16 (3.3)
100,001–500,000	51 (10.4)
500,001–1,000,000	13 (2.6)
1,000,001–5,000,000	8 (1.6)
5,000,001–10,000,000	2 (0.4)
<b>Total</b>	<b>490 (100)</b>

The missing data here are 15.

Table 4 shows how the downloading of fashion mobile applications is structured. Measuring the downloading activity is important as it explains the extent to which an application is successful. Given the high number of mobile applications and the fierce competition among them to gain good visibility, the number of downloads appears to be crucial to measure.

Almost half of the fashion mobile applications reveal less than 1000 downloads (in a 30-day period), which is quite modest on average for a mobile application. A third of the fashion applications reach an intermediate range with 1,000–10,000 downloads; another third reach an higher range with 10,000–500,000 downloads, while only 4.6% can boast more than 500,000 downloads.

Downloading is, however, just one of the measures that indicate the frequency users download one mobile fashion application. The second important source of data to explore is that related to rating. It is in fact rating that gives an idea of users' appreciation of the single application. It is clear that the more ratings an application receives the more interest it has succeeded in creating among users.

My research shows that the majority of the applications on Android received below 100 ratings and only a fraction received more than 50,000 ratings, as Table 5 shows. This means that the overall interest displayed towards mobile fashion applications is quite tepid.

Table 5: Number of user ratings of mobile fashion applications in 2012

<b>iOS (Base=684)</b>		<b>Android (Base=505)</b>	
No. of user ratings per app	No. (%) of apps	No. of ratings	No. (%) of apps
0–100	316 (68.2%)	0–100	386 (76.8%)
101–1000	101 (21.8%)	101–1000	60 (11.9%)
1001–10,000	35 (7.6%)	1001–10,000	48 (9.5%)
10,001–50,000	7 (1.5%)	10,001–50,000	7 (1.4%)
More than 50,000	4 (0.9%)	More than 50,000	2 (0.4%)
<b>Total</b>	<b>463 (100)</b>	<b>Total</b>	<b>503 (100%)</b>

The missing data are 221 for iOS and 2 for Android.

After downloading an application, users are usually asked to rate the application, from “one star” to “five stars”, on the webpage of the application store. One star means “hate it”; two stars mean “don’t like it”; three stars mean “it’s OK”; four stars mean “it’s good”; and five stars mean “it’s great”. Rating scores correspond to the average star rating given by users after having downloaded these applications. Among the applications which have been rated, on Android 89.2% are above 3 (“it’s OK”). On iOS, the percentage is a little lower, at 64.5% (see Table 6).

Table 6: Average ratings received by mobile fashion applications in 2012

<b>iOS (Base=684)</b>		<b>Android (Base=505)</b>	
Ratings	No. (%) of apps	Ratings	No. (%) of apps
1	5 (1.1%)	1	7 (1.8)
1.5	7 (1.5%)	1.5	1 (0.2%)
2	35 (7.7%)	2	2 (0.5%)
2.5	52 (11.5%)	2.5	8 (2.0%)
3	62 (13.7%)	3	25 (6.3%)
3.5	74 (16.3%)	3.5	50 (12.6%)
4	99 (21.9%)	4	93 (23.4%)
4.5	75 (16.6%)	4.5	123 (31.0)
5	44 (9.7%)	5	88 (22.2%)
<b>Total</b>	<b>453 (100%)</b>	<b>Total</b>	<b>397 (100%)</b>

NB: On Android missing data are 108; in iOS, 231.

This is also reflected in the general average rating score on iOS of 3.563 (SD=0.9436) and on Android of 3.977 (SD=0.7952). The fact that users' appreciation is higher in Android probably means that this operational system represents a better infrastructure for applications.

The remarks I would make in this part are that through this system of showing downloads and ratings, users can easily get an impression about the application they are scanning while they are searching for certain applications. The rating system, together with a reviewing system, by activating users who actually have the experience of downloading and using the applications, builds an effective communication bridge to connect developers and users and vice versa.

#### 4.1.5 Classification of mobile fashion application content

As to the classification of fashion application content, iOS and Android have different regulations and adopt slightly different systems. iOS explicitly suggests the age from which an application is suitable for users: 4+ (suitable for children older than 4 years); 9+ (older than 9 years); 12+ (older than 12 years) and 17+ (older than 17 years). Android distinguishes the maturity of content and privacy issues, as follows: Everyone; Low maturity; Medium maturity and High maturity. In the iTunes store, 83.3% of fashion applications are suitable for users of 4 years or older. On Android, 83.9% of the contents are suitable for most users: 43.2% are classified in the category of "Everyone" and 40.7% "Low maturity" (see Table 7).

Table 7: Content classification of fashion mobile applications in 2012

<b>iOS (Base= 684)</b>		<b>Android (Base= 505)</b>	
<b>Classification</b>	<b>No. (%) of apps</b>	<b>Classification</b>	<b>No. (%) of apps</b>
4+	530 (83.3)	Everyone	209 (43.2)
9+	22 (3.5)	Low maturity	197 (40.7)
12+	73 (11.5)	Medium maturity	52 (10.7)
17+	11 (1.7)	High Maturity	26 (5.4)
Total	636 (100.0)	Total	484 (100.0)

NB. In iOS the missing data are 48 and in Android, 21.

## **4.2 Survey carried out in 2014**

Considering the rapidly changing world of the mobile Internet and in particular the rapidly changing landscape of mobile fashion applications, I considered it necessary to carry out another survey two years later, in 2014. I undertook another round of data collection and used the same quantitative approach to analyse these new data. As mentioned above, the aim was to produce a comparison with the data collected previously in 2012 in order to detect the changes in the map of fashion applications on smartphones. I collected the same descriptive data on fashion applications selected from Apple and Google Play application stores. The new set of data is composed of 250 fashion applications from the Google Play application store, 200 from the Chinese Apple application store, and 200 from the US Apple application store.

### **4.2.1. Categories of fashion applications**

In this section, I will focus on the 2014 data in comparison with the 2012 data. I will follow the same sequence of presentation of data as for 2012 and thus I will start from the analysis of the categories of mobile fashion applications. The first important result is that within three years the overall number of mobile fashion applications had almost halved (see Table 8). This leads us to think that we are facing an evanescent interest by users towards this topic. This interest, probably due to novelty, succeeded in capturing a large number and broad range of users in 2012, but this proved to be an ephemeral success as users' interest did not endure.

As to the categories, in 2012, the most popular categories in iOS were lifestyle and games, while in Android games came first followed by lifestyle. In 2014, the most popular categories are still games and lifestyle, but games came before lifestyle in both iOS and Android. In particular, in 2014 lifestyle had halved in iOS and in Android it had grown a little, while games had more than doubled in iOS and sensibly increased in Android. This means that by 2014 games had become the prevailing dimension through which fashion is able to capture users' attention. There is an easy explanation for this: fun, coming with games, is more attractive than lifestyle, probably because lifestyle applications are often about releasing information and educational tutorials.



Table 8: The categories covered by fashion applications in 2012 and 2014

iOS			Android		
Area	2012 No. (%)	2014 No. (%)	Area	2012 No. (%)	2014 No. (%)
Lifestyle	325 (47.5)	93 (23.3)	Lifestyle	117 (23.0)	75 (30)
Games	188 (27.5)	248 (62.2)	Games	147 (29.0)	110 (44)
Entertainment	50 (7.3)	17 (4.3)	Entertainment	28 (5.5)	6 (2.4)
Photo & Video	21(3.1)	12 (3)	Photography	18 (3.6)	18 (7.2)
Books	18 (2.6)	1 (0.3)	Books & Reference	6 (1.2)	2 (0.8)
Catalogues	12 (1.8)	1 (0.3)			
Social Networking	12 (1.8)	4 (1)	Social	10 (2.0)	6 (2.4)
Business	11 (1.6)	0 (0)	Business	7 (1.4)	1 (0.4)
News	10 (1.5)	4 (1)	News & Magazines	21 (4.2)	6 (2.4)
Reference	9 (1.3)	4 (1)			
Education	8 (1.2)	5 (1.3)	Education	15 (3.0)	2 (0.8)
Travel	5 (0.7)	0 (0)	Travel & Local	4 (0.8)	0 (0)
Health & Fitness	4 (0.6)	3 (0.8)	Health & Fitness	3 (0.6)	0 (0)
Productivity	3 (0.4)	1 (0.3)	Productivity	1 (0.2)	1 (0.4)
Utilities	3 (0.4)	3 (0.8)	Tools	2 (0.4)	1 (0.4)
Music	2 (0.3)	1 (0.3)	Music & Audio	3 (0.6)	0 (0)
Navigation	1 (0.1)	0 (0)			
Sports	1 (0.1)	0 (0)			
Weather	1 (0.1)	2 (0.5)			
			Communication	2 (0.4)	0 (0)
			Personalization	17 (3.4)	5 (2)
			Libraries & Demo	8 (1.6)	0 (0)
			Media & video	3 (0.6)	2 (0.8)
			Shopping	92 (18.0)	15 (6)
<b>Total</b>	<b>684 (100)</b>	<b>399 (100)</b>		<b>504 (100)</b>	<b>250 (100)</b>

NB. In the year 2012, Android the missing value was 1.

### 4.2.2. Price of fashion applications

In respect of the price of mobile phone applications, the percentage of free mobile fashion applications in 2014 was higher than in 2012, rising to nearly 100% (Table 9). The possible explanation is that, after three years of observation, the developers have realized that the free-of-charge strategy is the right one to make the applications more accessible to users and thus more popular, considering their decrease.

Table 9: Free or paid-for applications in 2012 and 2014

	<b>iOS 2012 (Base=684)</b>	<b>iOS 2014 (Base=399)</b>
Free	384 (65.1%)	388 (97.5%)
Paid-for	206 (34.9%)	11 (2.8%)
<b>Total</b>	<b>590 (100%)</b>	<b>399 (100%)</b>

NB. In the iOS there were 94 missing values in 2012.

### 4.2.3. Popularity of mobile fashion applications

The popularity of fashion applications in 2014, compared with 2012, is proportionally increased. To conceptualize and measure the popularity of mobile fashion applications, in 2014 I used also downloads, rating numbers and average rating score as major variables.

All these applications claim a high number of downloads (installs) and this gives the sense of the large amount of users who access them. Table 10 gives an idea of the phenomenon, at least regarding Android, as only Android data is available. In 2014, I only selected applications from the first 250 among the search results, so applications with low uptake are probably not included. As shown in table 10, the installs of fashion applications are shifting into the higher end. Comparing 2012 and 2014, the fashion applications with fewest downloads were proportionally decreasing, which suggested that the least downloaded fashion applications were either diminishing or they had successfully attracted more users to download them already.

Table 10 seems to tell a narrative about the Darwinian selection that has taken place within three years in the mobile fashion application world, in which evidently there was a tendency to eliminate those apps with few downloads because they had been proven unsuitable to run. The same trend can also be seen in users' behaviour on ratings (see Table 11).

Table 10: Downloads (installs) of Android mobile fashion applications in the past 30 days in 2012 and 2014

Android (2012)		Android (2014)	
No. of downloads (installs)	No. (%) of apps	No. of downloads (installs)	No. (%) of apps
0–100	91 (18.6)	100 and below	0 (0.0)
101–500	75 (15.3)	101–500	3 (1.2)
501–1000	34 (6.9)	501–1000	6 (2.4)
1,001–5,000	87 (17.8)	1,001–5,000	34 (13.6)
5,001–10,000	47 (9.6)	5,001–10,000	17 (6.8)
10,001–50,000	66 (13.5)	10,001–50,000	70 (28.0)
50,001–100,000	16 (3.3)	50,001–100,000	28 (11.2)
100,001–500,000	51 (10.4)	100,001–500,000	65 (26.0)
500,001–1,000,000	13 (2.6)	500,001–1,000,000	20 (8.0)
1,000,001–5,000,000	8 (1.6)	1,000,001–5,000,000	6 (2.4)
5,000,001–10,000,000	2 (0.4)	5,000,001–10,000,000	0 (0)
10,000,001–50,000,000	0 (0)	10,000,001–50,000,000	1 (0.4)
<b>Total</b>	<b>490 (100)</b>	<b>Total</b>	<b>250 (100)</b>

The missing data for year 2012 were 15.

For 2012, in general most of the applications received less than 100 ratings; only some of them (0.9% of iOS, 0.4% of Android) received more than 50,000 ratings, as Table 11 illustrates.

Table 11: Number of user ratings of mobile fashion applications in 2012 and 2014

No. of user ratings	iOS		Android	
	2012 No. (%)	2014 No. (%)	2012 No. (%)	2014 No. (%)
<b>0–100</b>	316 (68.2)	92 (23.1)	386 (76.8)	79 (31.6)
<b>101–1000</b>	101 (21.8)	139 (34.8)	60 (11.9)	106 (42.4)
<b>1001–10,000</b>	35 (7.6)	119 (29.8)	48 (9.5)	57 (22.8)
<b>10,001–50,000</b>	7 (1.5)	36 (9)	7 (1.4)	7 (2.8)
<b>More than 50,001</b>	4 (0.9)	13 (3.3)	2 (0.4)	1 (0.4)
<b>Total</b>	<b>463 (100)</b>	<b>399 (100)</b>	<b>503 (100)</b>	<b>250 (100)</b>

The missing data in 2012 for iOS were 221 and for Android were 2.

The changes show that rating numbers are shifting into the second and third scales from the first scale, which means that, comparing 2012 and 2014, the fashion applications with the lowest rating and review numbers were disproportionately decreasing. This suggests that the less highly rated fashion applications were either diminishing or their rating scores had become higher.

Along with the number of ratings, another source of data used in 2012 also has to be considered in 2014: the rating scores that correspond to the average stars, which are given by users after they had downloaded these applications. In 2014 on Android, 98.4% of the applications that were rated had a score of above 3 (from "It's OK") and 86.9% in iOS. In 2012, on iOS, the percentage was lower at 64.5% and 88.7% on Android (see Table 12). This is also reflected in the average of rating scores which was 3.563 (SD=0.9436) for iOS apps and 3.977 (SD= 0.7952) for Android apps. In 2014, the satisfaction of users seemed higher than in 2012, as the rating scores had shifted upwards. Comparing 2012 and 2014, fashion applications with lower rating scores were a smaller proportion, which suggests that the less highly rated fashion applications were either diminishing or they had succeeded in gaining better feedback from users.

Table 12: Average ratings received by fashion applications in 2012 and 2014

Ratings	iOS		Android	
	2012 N and %	2014 N and %	2012 N and %	2014 N and %
0–1	5 (1.1)	0 (0.0)	7 (1.8)	0 (0.0)
1.1–2	42 (9.3)	2 (0.5)	3 (0.8)	0 (0.0)
2.1–3	114 (25.2)	54 (13.5)	33 (8.6)	4 (1.6)
3.1–4	173 (38.2)	210 (53.6)	140 (36.6)	176 (70.4)
4.1–5	119 (26.3)	133 (33.3)	199 (52.1)	70 (28.0)
<b>Total</b>	<b>453 (100)</b>	<b>399 (100)</b>	<b>382 (100)</b>	<b>250 (100)</b>

NB: For 2012, for Android missing data were 108 and 231 for iOS.

#### 4.2.4. Classification of mobile fashion application content

As Table 13 describes, in 2014 the percentage of fashion applications which were classified as suitable for most users was higher than in 2012 and consequently the percentage of those containing high maturity content was lower. The more applications belong to the more accessible content classification, which

is “suitable for everyone”, the more accessibility these applications have. This is also an important element of their potential popularity.

Table 13: Content classification of Android mobile fashion applications in 2012 and 2014

<b>Android classification</b>	<b>2012</b>	<b>2014</b>
Everyone	209 (43.2)	146 (58.4%)
Low maturity	197 (40.7)	77 (30.8%)
Medium maturity	52 (10.7)	24 (9.6%)
High maturity	26 (5.4)	3 (1.2%)
<b>Total</b>	<b>484 (100.0)</b>	<b>250 (100%)</b>

NB.: For year 2012, the missing data on Android were 21.

### 4.3 Qualitative cross-cultural comparison between Chinese and English-language fashion mobile applications

In this part I will introduce the cross-culture comparison that I carried out on the most popular fashion applications in the Chinese and US market. Taking into consideration the different languages used in these applications, and given the fact that the two biggest application markets in the world are China and the USA, I set up a sub-sample of 20 Chinese fashion apps from Google Play and 25 from iTunes to compare with the 21 most popular English-language applications as samples from the iTunes store and the 23 most popular ones from the Google Play store. Conducting qualitative content analysis on these 89 fashion applications from different language environments, I gathered ethnographic data on the most popular fashion applications in the Chinese context and in the American context. Furthermore, I can have an initial picture the Chinese localization of certain popular English-language fashion applications.

The sub-sample of US fashion mobile applications is reported in Table 14 and that of the Chinese fashion mobile applications in Table 15.

Table 14: Sub-sample of US mobile fashion applications

iOS	Category	Android	Category
1) Fashion Story	Games	1) Clothing	Lifestyle
2) Fashion Icon	Games	2) Cool Guy – Style App for Men	Lifestyle
3) Jojos Fashion Show 2 Lite	Games	3) Dress Up Prom Night – Girls Game	Games
4) Fashion Design World	Games	4) Dress Up Soap Bubbles Princess	Games
5) Stylish Girl – Your Fashion Closet and Style Shopping app	Lifestyle	5) ENCHANT U	Games
6) Fashion Star Boutique	Games	6) Fashion Freax Street Styles	Lifestyle
7) Style Studio: Fashion Designer Lite	Games	7) Fashion Icon	Games
8) Ralph Lauren Collection – Spring 2013/Fall 2012 Fashion Shows	Shopping	8) Fashion Kaleidoscope	Lifestyle
9) Emily's Fashion & Shop	Games	9) Fashion Ladies	Games
10) Cool Guy – Fashion Closet and Style Shopping App for Men	Lifestyle	10) Fashion Queen	Games
11) Fashion City – World of Fashion	Games	11) Fashion Story	Games
12) Modern Fashion: Dress Up and Make Up	Games	12) Fashion Style	Lifestyle
13) Jojos Fashion Show 2	Games	13) Fashion Style (Men's version)	Lifestyle
14) Disney Fairies Fashion Boutique	Games	14) Glam Life	Lifestyle
15) Fashion Channel Summer 2010	Lifestyle	15) H&M	Lifestyle
16) Fashion Network Original	Lifestyle	16) makeup game (FREE)	Games
17) Pose	Lifestyle	17) Makeup	
18) Girl Tale	Games	18) MyCloset	Lifestyle
19) Dress up! Fashion	Games	19) Pose	Lifestyle
20) Fashion Fix Lite	Games	20) Street Style Look Book	Lifestyle
21) D&G Fashion Channel Summer 2010	Shopping	21) Style Me Girl	Games
		22) Snapeee – Fashionable Photo	Photography
		23) Top Girl	Games

Table 15: Sub-sample of Chinese mobile fashion applications

Chinese iOS	Category	Chinese Android	Category
1) YOKA 时装-人人都是时装精 (YOKA fashion dresses)	Lifestyle (shopping guide with e-commerce links)	1) Fashion City by Hangame	Games
2) 明星衣橱 (wardrobe for stars)	Shopping	2) 指甲设计 (nail design)	Photography
3) 网易女人时尚杂志 (women fashion magazine)	Lifestyle	3) 世界街拍时尚女孩 (Fashion girls on street)	Photography
4) 时尚壁纸-2012 高清版 (fashion wallpaper - 2012 HD)	Lifestyle	4) 街拍时尚风格高清 (Fashion on street HD)	Photography
5) 蜜友衣橱-衣橱时尚及时分享 (best friend's wardrobe – fashion and instant share)	蜜友衣橱-衣橱时尚及时分享	5) 韩国时尚女孩 (Korean fashion girls)	Photography
6) YOKA 时尚网 (YOKA fashion network)	Lifestyle (shopping guide with e-commerce links)	6) YOHO! e-fashion	Lifestyle
7) 杂志《时装 L'Officiel》 (L'Officiel magazine)	Lifestyle	7) YOKA 时尚网 (YOKA fashion network)	Lifestyle
8) 微时尚限时免费杨幂的时尚修炼心经 (macro fashion, fashion tips from Yang Mi)	Lifestyle	8) 蘑菇街—淘宝微博最 In 购物精选 (Mushroom – most popular macroblog shopping guide)	Shopping
9) 美丽说-时尚女生逛淘宝必备 (beauty tales – guide for online fashion shopping)	Lifestyle (shopping guide with e-commerce links)	9) 衣度-凡客时尚搭配推荐 (Yidu – fashion assistant)	Lifestyle
10) 时尚先生 – YOKA 精彩呈现 (Mr. Fashion)	Lifestyle (shopping guide with e-commerce links)	10) Fashion Girl 时尚美图 (Fashion Girl, fashion pictures)	Photography
11) YOHO!E 潮流, 随行而至. (YOHO!)	Lifestyle (shopping guide with e-commerce links)	11) 淘宝购物街 (时尚主题) (Tao Bao e-commerce, fashion theme)	Shopping
12) 时尚·男人装 (fashion, dresses for men)	Lifestyle (shopping guide with e-commerce links)	12) 时尚街拍-搭配达人分享与点评 (street style – share and comments)	Photography
13) 微博图购-女生最爱的时尚搭配导购 (macroblog – fashion assistant for girls)	Lifestyle (shopping guide with e-commerce links)	13) 优购时尚商城 (Yougou Fashion e-shopping mall)	Shopping
14) 我的衣橱 (my closet)	Lifestyle	14) 热杂志 (Hot magazine)	Lifestyle
15) 时尚·芭莎	Lifestyle	15) 指阅·时尚 (finger reading,	Lifestyle

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(fashion, bazaar)		fashion)	
16) 时尚家居 (fashion lifestyle)	Lifestyle	16) 时尚减肥 (fashion, lose weight)	Lifestyle
17) 精品购物指南 (shopping guide)	Lifestyle (shopping guide with e-commerce links)	17) 淘宝夏季时尚 (Tao Bao, fashion for summer)	Shopping
18) 时尚健康男士-YOKA 精彩呈现 (fashion and health for men)	Reference	18) 汇搭--时尚潮流服装服饰搭配 (Huida, fashion matches)	Shopping
19) 净辣衣橱 (hot closet)	Lifestyle	19) M18 麦网-时尚购物第 E 站 (Mai wang – fashion e-shopping)	Shopping
20) 口袋购物 (pocket shopping)	Shopping	20) Fashion (Font for FlipFont)	Photography
21) Fashion Decoration	Games		
22) 听薇美丽说 (Xin Wei beauty tales)	Lifestyle		
23) Fashion Design World (China)	Games		
24) Fashion Story (China)	Games		
25) Closet	Lifestyle		

Among the sub-samples, there are several categories: Games, Lifestyle, Shopping, Photography.

Analysing the most popular fashion applications chosen from the Chinese and US iTunes stores, I noticed first that in the US market fashion applications that can be categorized as games and lifestyle are among the most popular, whereas in the Chinese market the applications which are the most popular are those combined with e-commerce functionality. Second, I observed that the most popular international applications are not as popular in the Chinese application store, even though they are available in Chinese versions – at least in the iTunes store. This is probably connected to the long tradition in China of “nationalizing” technologies: for example, *shanzhai* culture (imitation and pirated brands and goods), QQ (imitation of MSN), Renren (imitation of Facebook), and so on. The strong preference for localized versions continues even among the generation who were born in the 1980s.

I choose to illustrate two examples of mobile fashion applications to give the reader a sense of the diverse reception on the part of users: one is called “Fashion Story” and is the most popular fashion application among games applications; the other is “Closet”, one of the most popular fashion applications among lifestyle applications. Table 16 offers a comparison between the numbers of ratings and



reviews in the US and Chinese iTunes applications stores. The comparison shows the relevant difference between ratings and reviews of these fashion applications.

Table 16: Comparison between two fashion applications in US and Chinese iTunes app stores (“Fashion Story” and “Closet”)

	US	China
<b>Fashion Story</b>		
ratings	73,024	8584
reviews	30,631	4566
Scores (means)	4	4.5
<b>Closet/MyCloset</b>	<b>Closet</b>	<b>MyCloset</b>
ratings	424	10
reviews	183	7
Scores (means)	3.5	3

By contrast, Chinese applications which clone the most popular international ones have more downloads, more reviews, and enjoy higher average rating scores. Taking the clone version of “MyCloset” as an example, in the Chinese iTunes App store, an application developed by a Shanghai company called “我的衣橱”(the literal translation is exactly “my closet”) enjoyed much more popularity than the official “Closet” or “MyCloset” (see Table 17).

Table 17 我的衣橱 和 “MyCloset” in the Chinese App Store

	我的衣橱	MyCloset
Ratings	636	10
reviews	523	7
Scores (means)	4	3

I will quote here two reviews taken from the Chinese “MyCloset” website to illustrate the reasons why Chinese users prefer 我的衣橱 (pirate version of “Closet”) to “MyCloset” (the translated version of “Closet”):

“非常好用。界面简洁美观，一目了然，操作易上手，不需要额外注册账户也可以使用。用来管理衣柜的衣服再好不过了。可惜没有 iPad 版本，iPhone 版通用还好” (“Very easy to use. The interface is simple and pretty, easy to catch up, do not need extra account to log in. Very suitable for managing the wardrobe. Pity they do not provide iPad version, yet with iPhone version is already good.”) MF728 – 27 Oct, 2013.

“蛮好的山寨。中文版本真心比英文的好用，反正我能看懂” (“Good cloning. Chinese version is really more useable than English version, at least I can understand completely.”) *flowerfall* – 28 Apr, 2012.

From the reviews posted on the webpages of the original international applications it is possible to understand that there are at least two main obstacles to a fluent experience on the part of Chinese users: language translation and accessibility, including at the level of e-commerce. If we consider a mobile fashion application as a cultural object, it turns out that, according to Schudson (1989), one of the main features of cultural objects is accessibility. In other words, “*culture works better if the cultural object is brought into the physical presence of a potential audience...*”

This result shows that local Chinese users may need some sort of mediating factor in order to tame and domesticate fashion (Silverstone and Haddon 1996), as fashion itself is still a novelty after the long period of Maoist uniformity in dress. Fashion in itself for Chinese is newer than for many Western users. In China, in fact, two novelties are combined and intertwined at the same time with fashion mobile applications: technology and fashion. This double novelty coming together would explain the particularly strong need for cultural translation regarding international fashion applications among Chinese users as a domestication and translation strategy. It is also an important sign of the efforts e-users are making to domesticate fashion and the mobile Internet in their everyday life.

### 4.4 Observing users’ behaviours through their reviews

The study I will introduce in this section is an analysis of users’ reviews from a sample of the 42 most popular mobile fashion applications. To engage in close scrutiny of the way in which users experience and evaluate mobile fashion applications, I analysed the reviews posted by users on the fashion application webpages.

In this study, I adopted a combination of quantitative description and qualitative content analysis. First of all, in 2012 I conducted a survey of the reviews collected in this sub-sample of 42 applications in order to gain a sense of their quantity and to map their main features (Table 18 and Table 19). I selected the 100 most recent reviews from the webpage of each of the fashion applications; for those with less than 100 reviews, I took all the reviews into consideration. In

total, 3,491 reviews posted on the Google Play and iTunes stores were collected and investigated.

#### 4.4.1. Quantitative features of the selected reviews

Let me start by reporting in Table 18 and Table 19 the main features of reviews for the selected apps in the sub-samples. I analysed on iOS and Android. These data were collected to complete the framework in which to situate the analysis of the reviews selected.

Table 18: Ratings of sub-sample of fashion mobile applications on iOS and the main features of the apps to which they refer

iOS	Category	Content classification	No. of user ratings	Average rating
Fashion Story	Games	4+	64,605	4
Fashion City by Hangame	Games	4+	40,436	4.5
Jojos Fashion Show 2 Lite	Games	4+	31,308	3.5
Fashion Design World	Games	4+	26,784	4.5
Stylish Girl - Your Fashion Closet and Style Shopping app	Lifestyle	4+	11,217	2.5
YOKA 时装-人人都是时装精	Lifestyle	17+	2862	4.5
蘑菇街—微博时尚，精选淘宝，口袋里的 fashion 购物志	Shopping	17+	64,552	4.5
Fashion Star Boutique	Games	4+	9780	4.5
Style Studio : Fashion Designer Lite	Games	4+	9737	3
Ralph Lauren Collection - Spring 2013/Fall 2012 Fashion Shows	Lifestyle	4+	8944	3
Emily's Fashion & Shop	Games	4+	8526	3
Cool Guy - Fashion Closet and Style Shopping App for Men	Lifestyle	4+	7727	2.5
Fashion City - World of Fashion	Games	4+	5502	4
Dress Up! Fashion	Games	4+	5222	3
Modern Fashion: Dress Up And Make Up	Games	4+	4974	4
Jojos Fashion Show 2	Games	4+	4529	4
H&M	Lifestyle	4+	590	3
Snapeee - Japan Kawaii Fashionable Photo	Photo & Video	12+	538	4
Fashion Network Original	Lifestyle	4+	1529	3
Pose	Lifestyle	9+	2315	4

Of the 20 applications of the iOS sample illustrated in Table 18, I report the category to which the fashion mobile application belongs, the classification of the content, which means the age range of the users to whom the application is addressed (for example, 4+ means users from 4 years old and over), the number of rating scores received by the application and the average score rating. Table 18 illustrates that the most frequent categories to which the selected mobile fashion applications belong are games and lifestyle; the public to which they are addressed is almost everyone from 4 years up. The number of rating scores varies enormously, from 64,605 to 538 with an average of 15,584, showing the different degrees of success and different implications of users. Finally users' appreciation is quite positive for almost all these applications with an average rating score of 3.6.

Of the 22 applications in the Android sample reported in Table 19, I report the category to which the fashion mobile application belongs, the number of downloads (installs) the applications received, the classification of the content, which means the age range of the users to whom the application is addressed, the number of rating scores received by the application, and the average score rating. Table 19 shows that these applications nearly all belong to two categories - games and lifestyle -; the number of installs they received varies from 10,000 to 10 million; they are addressed to almost everyone; the number of user rating scores they received ranges from 87,918 to 515 with an average of 14,193 and the average rating score is 4.10, which means a very positive evaluation.

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Table 19: Ratings of sub-sample of fashion mobile applications on Android and the main features of the apps to which they refer

Android	Category	Installs	Content classification	No. of user ratings	Average rating
Clothing	Lifestyle	100,000–500,000	Everyone	1525	4.2
Cool Guy - Style App for Men	Lifestyle	100,000–500,000	Everyone	681	4.2
Dress Up Prom Night-Girls Game	Games	1,000,000–5,000,000	Everyone	6174	4.1
Dress Up Soap Bubbles Princess	Games	1,000,000–5,000,000	Everyone	6765	4
ENCHANT U	Games	100,000–500,000	Low maturity	34,985	4.3
Fashion Freax Street Styles	Lifestyle	100,000–500,000	Medium maturity	1098	4.3
Fashion Icon	Games	1,000,000–5,000,000	Low maturity	41,814	4.3
Fashion Kaleidoscope	Lifestyle	500,000–1,000,000	Medium maturity	1271	4
Fashion Ladies	Lifestyle	100,000–500,000	Everyone	2497	4.2
Fashion Queen	Games	100,000–500,000	Low maturity	3808	3.8
Fashion Story	Games	5,000,000–10,000,000	Everyone	87,918	4.3
Fashion Style	Lifestyle	500,000–1,000,000	Everyone	1492	4.3
Fashion Style(Men version)	Lifestyle	100,000–500,000	Everyone	515	4
Glam Life	Lifestyle	100,000–500,000	Low maturity	4339	4.4
H&M	Lifestyle	1,000,000–5,000,000	Low maturity	6765	3.8
Makeup game(FREE)	Games	500,000–1,000,000	Low maturity	7638	3.9
Makeup	Lifestyle	500,000–1,000,000	Everyone	3813	4.2
MyCloset	Lifestyle	100,000–500,000	Everyone	1568	3.6
Pose	Games	1,000,000–5,000,000	Everyone	16,301	4.4
Street Style Look Book	Personalization	10,000–50,000	Low maturity	900	3.4
Style Me Girl	Games	100,000–500,000	Everyone	42,870	4.4
Top Girl	Games	1,000,000–5,000,000	Medium maturity	37,521	4.2

The general quantitative features of these reviews are illustrated in the following series of tables from 20 to 25. Let me start with the ratings received by the applications considered in these reviews (see Table 20).

Table 20: Rating of the 42 mobile fashion applications in the reviews analysed

Rating stars	No. (%)
0	1 (0.01)
1	502 (14.4)
2	181 (5.2)
3	297 (8.5)
4	559 (16.0)
5	1949 (55.9)
<b>Total</b>	<b>3489 (100)</b>

The missing values here are 2.

As Table 20 shows, the majority of the applications received high scores. This is mirrored also by the high percentage of positive comments on these applications, as illustrated in Tables 21 and 22. Considering that 84.2% of reviews contain some comment, the majority of these (69.5%) are positive. In the positive reviews I included complimentary expressions, suggestions and recommendations and other obvious expressions of appreciation. By contrast, I included in the negative reviews those reporting strong criticism, words of refusal, and other obviously negative comments. I allocated to the category “neutral reviews” those reviews that did not clearly express an opinion, or that were very balanced.

Table 21: Reviews posted on the sub-sample of the most popular 42 fashion applications

Reviews	No. (%)
No comment	552 (15.8)
Positive reviews	2427 (69.5)
Negative reviews	471 (13.5)
Neutral reviews	41 (1.2)
<b>Total</b>	<b>3491 (100)</b>

It is worth noticing that among these reviews, only a few of them (1.4%) mentioned the word “fashion” directly or indirectly, as Table 22 reports. This result raised an important point: those who use fashion applications on mobile phones do not make reviews on the topic “fashion”. In other words, the popular reviewing system for fashion applications tends not to generate discourses about

fashion, and fashion application users tend not to give feedback explicitly related to the fashion content to developers or to convey fashion communication to other users through the reviewing system. Hence, reviewing fashion mobile applications is not an activity that generates fashion discourses on mobile Internet.

This result might be surprising and it requires some effort to explain. In my opinion, the reason could be that among the sub-samples game applications are the majority and in these applications “fun” is usually the main focus, while fashion as a specific topic is obscured. Users are probably more interested in playing these games as a time-passing activity.

Table 22: Reviews mentioning “fashion”

Mention of “fashion”	No. (%)
Yes	47 (1.4)
No	3444 (98.6)
Total	3491 (100)

If conversing about fashion is not the main purpose of these comments, what are the main topics users discuss or post in these reviews? A third of users share their experience of the fashion application with other users, while a very few post their own game ID to find friends to play with, and even fewer advertise some kind of product (see Table 23).

Table 23: Main topics of reviews

	No	Yes	Total
Experience sharing	235 (66.9%)	1156 (33.1%)	3491
Finding friends	3402 (97.4%)	89 (2.6%)	3491
Advertising communication	3484 (99.8%)	7 (0.2%)	3491

The most often shared experiences are those related to the content of the application, the functions, the assessment of how easy it is to adopt the applications in the users’ everyday lives, and in very few cases even advertising information (Table 24). Users sometimes share more than one experience in a single post.

Table 24: Experience sharing on different topics

Experience sharing	Base=1156
On content	487 (42.1%)
On function	316 (27.3%)
User friendly	185 (16.0%)
Using pattern	218 (18.9%)
Advertisement	34 (2.9%)

There are also some users (but not many) who raise suggestions for the applications' developers in their reviews. The aspects these users are mostly concerned with are reporting bugs, the design of the application, content improvement, and updating feedback. These aspects show users' willingness to interact with developers and to contribute to the improvements of the applications they like (Table 25).

Table 25: Suggestions and aspects of most concern to reviewers regarding development

Development concerns in reviews	No. (%) Base=3491
Suggestions	378 (10.8%)
Bug reporting	168 (4.8%)
Design	164 (4.7%)
Content improvement	6 (2.2%)
Updating	90 (2.6%)

#### 4.4.2. Qualitative content analysis on the reviews

After the introduction of the quantitative features, in this section I present some qualitative interpretations. As I mentioned before, game is one of the most popular categories for fashion applications on Smartphone. Among fashion games, dressing-up games are the most popular. These are graphic games setting up a virtual social occasion, giving users a role, and asking them to choose an outfit for a certain occasion by using different shoes, jewellery, skirts, and hairstyles or makeup. Another type of popular fashion game is "Fashion World", which describes itself as a game for users to design a fashion boutique; including choosing and stocking the most fashionable items, it allows them to visit their friends' boutiques, and to send "like" tags to their friends. Hence, not only does it convey a stylish combination of clothes, but also a fashionable decoration, as well as a social network which might play an important role in building a virtual community. Dressing-up games are a gendered typology of fashion applications



since they are mainly addressed to children and girls and mainly used by them, as can be understood by their reviews.

In order to analyse fashion game applications, here I divided reviews into different categories, such as game, lifestyle, street style and e-commerce. In this process, several interesting types of content emerged in various categories. The objective of this part of the research was to explore more deeply the opinions and attitudes of users towards mobile fashion applications through the reviews they posted on application pages. Thus, a very open coding standard was adopted in order to grasp their meaning.

### 4.4.2.1 Game fashion applications

Fashion games are considered addictive by many users. Many reviews reveal that with this type of fashion applications it is very easy for users to become “addicted”.

*“I always find time to play this every single day. It's addicting '(sic)'!” Mary Ann Baleva May 8, 2013*

*“I did get into it but after a while it gets boring waiting for the clothes. However u can get addicted to it.” Courts Cornes May 7, 2013*

*“Terribly addicted to this game lol.” Amanda Curry May 7, 2013*

*“Love it, VERY ADICTTING '(sic)' .” Sanya Mahajan May 7 2013*

*“Love this game. It's addictive.” mabel alubo May 6, 2013*

*“So addictive. Such an amazing game but sometimes when I reload the app I've lost the majority of my savings but I won't let that stop me from playing.” Mairi Edwards October 7, 2013*

*“best i love this game it is so addicting. At first i was all like this is a weird game i dont know how to play but as i played more it made more scense '(sic)' and as i reached a new level the clothes got cuter!!! i have never been thiss '(sic)' addicted to a game '(sic)'!!!” A Google User (anonymous) November 21, 2012*

*“Love this game I'm addicted. I haven't experienced any issues with the game except i have noticed that at times, the countdown on clothes in my catalogue stops for a while, yet others count down correctly an smoothly. Runs smoothly otherwise so this is a small glitch for me.” Fiona King January 2, 2013*

*"I love this game! It is so fun to play, I am addicted!! Got to get back to my game!!"*  
Taylor Seymour May 5, 2013

A second observation is that fashion games seem to enjoy particular popularity among girls under 18 years old, but in reality the related reviews are mostly posted by those who babysit for them. It came out quite clearly that the target users of these games are children. Our conclusion is that these fashion games help with childminding, amusing children so they do not annoy adults or to keep them out of trouble, echoing Frizzo-Barker and Chow-White (2012), who report that interviewees state they use smartphone game apps to juggle domestic tasks with parenting. Leaving aside speculation on the carers' motives, these fashion game applications do have a function to attract and entertain young children and teenagers, and even make them "addicted", as many of them reported themselves.

*"GreatThis is a brill game it is its great for girls aged from 9-19"* Hannah Okeeffe  
May 6, 2013

*"Excellent game!! My daughter and I love it!!"* Sheila Lawson May 7, 2013

*"Very entertainment. Is a game I can play with my daughter."* Yasmin Toro May 5, 2013

*"i love it its very good i like fashion good for kids like me."* Chiara Vasquez May 4, 2013

*"Addictive. My kid got me hooked!"* barb ocana May 2, 2013

*"Best game ever. My daughter got it on her cuzins tablet so she would have something to play so we have it on my phone for her and she loves it."* Kelly Howard May 2, 2013

*"My daughters love the game so much."* Jing Alcantara May 2, 2013

*"Be a business owner... My daughter and I adore this game."* Tameka Dixon May 2, 2013

*"Its really funny games the children tinager and womens can play i really love it."*  
Hanen Abdallah April 30, 2013

A large number of "haters" also appear on the application web pages, who post negative comments on these applications, describing them as "childish, ugly,

*and boring*". These negative posts provoke the defenders of these games, with the consequence that a clear boundary in this specific kind of applications has been drawn between haters and defenders. The boundary is traced by putting the pros in a section and the cons in another. Some of the most typical haters' comments are listed below:

*"This is the stupidest game ever created!!!!!! Dont waste your time even going into it!!!!!!!" Vanessa Marques May 6, 213*

*"Hate game so much Terrible game I hate it too much have to Wait hours and hours for a simple dress y would u waists precious time on a unlikable game weirdos if u like it" Sandra Toubia October 12, 2013.*

By contrast, some users post defensive reviews, like this anonymous user:

*"Guys it awesome...p.s NO MORE BULLYING IF U BULLYING A KID U GOT GO THREW ME FRIST I MEAN IT GOT IT!!!" November 11, 2012*

In the world of fashion games, as mentioned above, players need other users to be their friends in order to gather more "like" tags to increase their reputation inside the game. Hence, a considerable number of reviews are posted with the simple aim of publicizing their user ID in the hope of making new friends. Besides friendship, users also need to make virtual income to buy new clothes or adopt a new style of decoration for their fashion boutique. In this case, some users spend real money in order to purchase the virtual money to gain advantage in this game. How to make virtual money is also a hot topic among these reviews.

*"Ciao ^o^ Lala love this game & Bakery Story, but had to start over because I got a new phone haha :) Overall, I'm happy. Add me for gifting and likes! ID Cinnyo" May 6, 2013*

*"My favorite of them all!Plz add me: MichiNiiNii i play nightclub story, bakery story and restaurant story :)" May 6, 2013*

From the features of users' reviews that I captured, fashion games are in reality connected to the core concept of fashion. Showing one's own taste and winning appreciation from other users are two major achievements of users in this kind of social fashion game. This behaviour resonates with the basic dynamics of fashion, as depicted by Simmel (1957) and based on two opposite aspirations:

being like others and being different from others. The core of the fashion system is creating originality and difference inside a shared framework. As a serious form of entertainment for children and a way of passing time for grown-ups, fashion games also serve as a tool of enjoyment. On the basis of this enjoyment, fashion games probably have a positive effect on the adoption of fashion proposals (Kim et al. 2007) and may lead users to a better understanding of fashion itself in everyday life. Yet, for this step, fashion games may need more concrete fashion content.

### 4.4.2.2 Lifestyle fashion applications

Lifestyle is another very popular category for fashion applications, as shown above. Here it must be recalled that while Android distinguishes between fashion and shopping applications, on iOS there is no “Shopping” category, and thus this category is included in the “Lifestyle” category.

“Makeup” is a typical example of this category. This application allows users to engage in virtual makeovers. After uploading or snapping a photo, users can choose from thousands of lipstick, blush, foundation, mascara, eye shadow, and liner colours they would like to try, and can receive the perfect colour combination to their preferred email address. This gives users a platform to experiment with makeup on their own photos. Even though this application is not frequently updated (the latest version was released on 27 November 2014), the reviews are quite up to date, with the latest (at the time of writing) posted on 19 December 2015. Users appreciate the creative idea of this application and some of them report that they can really practice their cosmetics skills.

*“I can do peoples makeup, and it looks real! So before applying makeup u dont use, test it on here! Love it! Its simple, fast, and useful! Other makeup apps DO NOT compare to this one. SUPER AWESOME SO U BETTER GET IT OR I WILL COME TO UR HOUSE AND KILL YOU. O.O Im kidding! But I highly reccomend :)” Henessey Martinez, April 27, 2013.*

*Great I'm a makeup artist and I never know how to be sure on hairstyles, eye shadow mixtures or lipstick colours but now I'm always sure. Kim , November 29, 2014*

Some users have developed new usages of this application, as the following reviews show. Users use this application, for instance, to enhance portraits of themselves, or to experiment with makeup on others:

*"AMAZING!!! u can make ur ugly pics beautiful by this amazing app!! i can rate 100 stars on this amazing app!!!!" Angel Aquino, March 26, 2013.*

*"I can be beautiful! I enjoy everything but the face colors. I'm 60 so I need coverage and a light reflecting finish. But, goodness I've used it on my granddaughters & once on a guy with a beard. Funny." Judith Asheli, April 2, 2015.*

In the negative reviews users seem to focus instead on technical limits or defects, such as the fact that the facial recognition points are difficult to adjust to the position of makeup:

*"Works great but I wish adjusting the parts for the face was easier." Cindy Van Acker May 1, 2013.*

Moreover, the development team on this application usually replies almost immediately to reviews which give the application only one or two stars (one star means "hate it"; two stars means "don't like it") (most of these replies appear a day or two after the negative reviews are posted online). From this point of view, our findings support the idea raised by Aguado and Martinez (2015) that on these mobile application platforms, audiences can be directly accessed by professional and amateur content producers, while the traditional over-sized, cost-increasing cultural intermediaries fade.

*"Before it was nice but now very bad face detection." farheen arshad May 2, 2013*

The team replied on the same day:

*"Hi Farheen, We're really sorry to hear that you had a negative experience with our app! When you say that before it was nice, do you mean that on a different device it worked well? Are you using the same image? Have you tried using the adjustment options to correct the automatic detection? We would really like to hear back from you soon! Thanks :)" ModiFace replied on May 2, 2013*

Some users crave male fashion applications:

*"MODIFACE ..doing a grt wrk.*

*"I really enjoy n hve fun with this apps...my wish is if thre is a makeup for men werein one can set diff hairstyle for men along with accessories i ll b really glad." A Google User - April 25, 2013*

Digital fashion magazines, such as *Elle*, *Harper's Bazaar*, *Vogue*, and *Cosmopolitan*, are also issued as applications on smartphones. Applications for release of fashion information have also been adopted by some design houses, such as Chanel, Dior, Gucci, Ralph Lauren, and others. Mobile applications are also used as platforms to publicize new shopping information by H&M, Zara, and Forever 21. These applications are mostly based on picture or video content and users are eager for updating and faster downloading of content. Branding applications seldom receive any reviews: for example, on the Chanel and Dior applications in the US iTunes store, no reviews have yet been posted. Most of these applications are facing serious technical difficulties. Some comments reported below will indicate the problems, as in the case of *InStyle Magazine*, where one user posted:

*"Not so bad after all.*

*"Had a lot of trouble since the August issue, until then it was perfect. Have had to re-install to the app several times. But otherwise it is easy to navigate and read." Rchodagam Sep 21, 2013*

One iOS user posted on *Elle Magazine US*:

*"It's a fail.*

*"Like the other reviews mention, this app just isn't working. I sign in, but it won't recognize my subscription which is valid for another year. I don't want to download every past issue, but It's not giving me an option to download just the new issues unless I do all of them, yet if I select that option it goes into buffering purgatory.*

*They have some big subscription service issues to work out. As of right now, I either have to purchase an individual issue to get the new one (which makes no sense) or just be denied access. I'd wait to download until they fix this app." Fairmont1955 Nov 10, 2013*

It is worth noticing that while fashion games enable users to socialize, on the contrary, this socializing effect does not occur in the digital version of traditional fashion media, such as fashion magazine applications. These in effect convey rich fashion contents, yet they usually face several technological challenges on mobile

devices. Updating, speed of download, force quit, and interaction with developers and other users are the main problems that have emerged from my observation. Although they offer excellent fashion content, these fashion applications cannot enjoy high popularity. The clumsy technology they offer to potential readers will be the main reason. From the analysis above, a simple conclusion can be drawn that good fashion content needs to be presented on a mature mobile-technology platform.

Another popular kind of application is wardrobe applications such as “MyCloset”, “Closet”, and “Cloth”. These allow users to upload photos of their items along with notes and tags, and then organize them according to the weather forecast and the occasion on the next day. Here users can get recommendations and share photos of outfits and individual items with their friends on Facebook and Twitter. The wardrobe management applications are also highly appreciated, according to users’ reviews, although some design and technical problems need to be fixed.

### 4.4.2.3 Street style fashion applications

Applications focusing on street fashion – how people are dressed in the street – are equally popular. “Pose” is a very successful example. On “Pose”, users can find not only top fashion bloggers, celebrities, and stylists; they can also upload their own favourite outfits and share their favourite fashion item (or outfit) with their friends. Users can also provide shopping information on the items they wear to enable other users to trace their favourite fashion items. On the “Pose” webpage, users posted:

*“Great*

*“I like that you can actually see average people being stylish in their everyday life... Unlike those famous fashion gurus with clothes you could never afford. Anyway, just 5 stars.” A Google User Nov 3, 2012*

*“best app for trend setters*

*“I enjoy creating my own design & expressing my own unique creativity, this app is the best I recommend it for those who are creative or just to post your own artwork best app I have as I’m a person who loves fashion design” Daniel Gonzalez Dec 16, 2012*

Although most of the reviews of “Pose” are positive, the most often noted problem is shopping links to fashion items: some of them are not available, or the

shops are impossible to reach. For example, “Pose” is not as popular in the Chinese iTunes app store as it is in the US store, because the in-app links do not work well for users of the Chinese mobile network, as the links mostly direct to American shops.

These reviews show that “Pose” matches the grassroots enthusiasm for street style fashion and it is in fact the essential step from fashion design to everyday practices. “Pose” recalls the exhibition organized by Ted Polhemus on street style in London several years ago. As Polhemus stated in his book (1994), more than the price tag which distinguishes the genuine article from its chic reinterpretation, street style is a question of context. Every age group uses dress and body decoration to make their own identity marks, and the authenticity which the street style represents is a precious commodity that everyone wants and can acquire and wear with pride without spending too much.

Following this approach, “Pose” has incorporated social networking and online shopping, which makes users’ fashion experience complete. Adopting mature social networking technology on mobile devices, “Pose” presents considerable fashion content and provides a platform for users to communicate and to practise their favourite fashion discourse immediately through the online shops linked to the application. All these elements make “Pose” a popular fashion application on smartphones, and according to the reviews users have posted on the webpage, large numbers of users are loyal to this application as they can generate steady patterns and habits in using this application.

#### 4.4.2.4 E-commerce

Finally, there are some other popular applications, such as “蘑菇街 (Mushroom Street)” in the Chinese iTunes app store, which integrates e-commerce information from different platforms and provides it to users through regularly updated, eye-catching visual content. According to a McKinsey survey released in 2011, 16.5% of people in China stated that they built their wardrobe around different occasions and needs, and 28.0% of people said they kept abreast of the latest fashions. The awareness of fashion is awakening in China. The role fashion applications play in the current smartphone world in China is thus becoming strategic, especially in the process of integrating fashion into everyday life there.

The huge success of mobile commerce in China and in particular of the market for e-commerce fashion applications brings the topic of online shopping to our



attention (IRCE 2013). Today's connected consumer does not purely rely on bricks-and-mortar stores, or even a desktop computer, to make purchases. For example, in the USA, 11% of all discretionary dollars were spent online in Q1 2013. Desktop retail e-commerce continues to grow, up 11% versus Q1 2012 (in Q1 2013, the e-commerce dollar sales reached 78 billion US dollars, including a 13% gain for retail (50 billion US dollars). Online shoppers also rely heavily on mobile devices, as nearly half of all digital time spent on retail now occurs via smartphones and tablets. Multi-platform Internet usage has led to a doubling of digital media consumption in the past three years. In the Chinese iTunes store, this category of applications is very popular, normally they are associated with different online shopping platforms, and provide users with pictures of certain fashion items which have been linked to online shops in order to expose users to a feasible shopping environment to purchase the fashion items that interest them. Usually, these fashion items are the cheaper alternatives to the original fashion items shown in the pictures.

It is easy to understand the popularity of these fashion e-commerce applications, given that by the end of June 2013 the number of Internet users in China had reached 591 million with 464 million mobile Internet users and that 78.5% of Internet users are now using their mobile devices to access the Internet. Compared with Europe, for example, this constitutes a remarkable percentage (CNNIC 2013). It is also remarkable what is happening to the Internet as it falls under the regime of mobile communication, of which it assumed there are pros and cons. One of the pros on which we focus our attention in this study is that the Internet has been ferried across the folds of everyday life through the mediation of the mobile phone.

Turn over the Chinese mobile Internet scenario, and unfold the fashion, it might be noteworthy that in China the era of the all-purpose Zhongshan suit has been over for several years. Over the last few years several fast fashion retailers have aggressively expanded in China. H&M opened 52 stores in 2012 and Zara opened 37 stores. Gap has plans to open 35 stores in 2013. China remains the top apparel market due to its market size and strong growth in clothing sales. Three trends have shaped China's apparel market: the rise of e-commerce, a boom in fast fashion, and the evolution of the luxury market. According to Althea Peng, A.T. Kearney partner and study co-author, in most emerging markets e-commerce is less than 1% of total sales: in China, it is 6% which is higher than in the USA. More than three-quarters of online sales in China concern apparel. China's luxury

market remains strong – China surpassed Japan to become the second largest luxury market in the world in 2012 – but it is not growing as fast as in the past. A key reason is that a large portion of luxury purchases are made abroad to avoid China’s high luxury products tax and strong currency.

### 4.5 Semi-structured interviews

This study consists of 21 semi-structured interviews which I carried out in order to explore users’ reception of mobile fashion applications. This approach enabled me to understand more deeply users’ behaviour and opinion patterns by revealing their intentionality and implications. As I discussed in the last chapter, the analysis of reviews of fashion applications led me to conclude that users do not discuss “fashion” in the reviewing system on fashion application pages. Given this result, in order to understand more about how users connect with “fashion”, maybe through other fashion-related activities on mobile Internet, in 2014 I started to conduct some semi-structured interviews. Using the snowball sampling method, I identified 21 fashion application users from Chinese and US app stores. I carried out 12 interviews in 2014 with Chinese interviewees and, 9 interviews in 2015 with English-speaking interviewees.

#### 4.5.1 Preliminary information

Let me start to illustrate the results of the interviews by reporting first some general data that the interviewees gave and that form a preliminary framework useful to understand the general context in which fashion mobile applications are experienced. One of the first things stressed by the interviewees is their brand preference. This explains, for example, why users, especially in China, express a different relationship with the iOS and Android stores. The majority (18 out of 21) of the interviewees use iPhones. The fact that iPhones are user friendly is the main reason for users to choose this brand and consequently the iOS store. For the Chinese interviewees, the block of Google services in China makes the Android system very difficult to access.

*“My first smartphone was iPhone 4, and I got it when I came to the US. I had played [with a] friend’s smartphone before, and plus iPhone is user friendly, so when I got my iPhone 4, it wasn’t too hard for me to get started.”*

*"I used to use Android, but the system was too messy, especially that Google service is blocked in China. You need to break the original system or you must use some strange applications store instead of Google Play, to get applications. The breaking of the original Android system is too annoying for a person like me, because I am no geek!"*

The second important result that comes out from my interviews is that their favourite apps occupy almost all the users' mobile time. Smartphone users spend more and more time in apps and less time using their browser. The interviewees stated that the majority of their usage of mobile phone is on social applications and messaging applications.

*"The apps I use daily assist my life and make it easier by saving my time (check weather, fitness track and learning). Some of them keep me comfortable and relaxed (watching videos and listening to music) and connected with friends (communication) and outside world (information) to sustain the psychological security. I use weather, sleep alarm, communication (WeChat, email, Twitter, Weibo, Facebook, etc.), news and information, fitness track, learning (Duolingo), video and music (YouTube, Pandora, Duomi, etc.). However, I installed plenty of apps, just in case under some circumstances I might need them, but it seems these circumstances are rare. In fact, I spend most of my leisure time on my mobile phone in WeChat and Weibo."*

*"I like to go through the updates on Facebook and Instagram to pass the time when I am on the metro or the bus. The stuff people share on them is funny."*

This result agrees with the usage data already known in the literature. For example, according to the data from Yahoo's mobile analytics subsidiary Flurry,<sup>6</sup> people have already begun to turn away from browsing the web on their phones. From 2013 to 2014, the average amount of the time Americans spent on their smartphones every day grew dramatically, from 2 hours 38 minutes to 3 hours 40 minutes, but the amount of time they spent browsing the web shrank from 32 minutes (20% of total time) to 22 minutes (10%). In other words, the mobile web is already fading as people spend more time in apps like Facebook and Twitter. However, not all the apps are equal: US smartphone users spend 78% of their time in their three top apps, and almost 96% of their time in their top ten. They barely open any other apps at all (see Comscore 2015<sup>7</sup>). Social, messaging and entertainment apps (including YouTube), account for 51% of time spent on mobile

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<sup>6</sup> <http://flurrymobile.tumblr.com/post/127638842745/seven-years-into-the-mobile-revolution-content-is>

<sup>7</sup> <http://www.comscore.com/USMobileAppReport2015>.

devices. Messaging and social apps grew from 28% of time spent (45 minutes per day) in 2014 to 31% of time spent (slightly more than 68 minutes per day) in 2015.

This result has important consequences for my research topic given that it turned out that my interviewees dedicate much more time to consuming fashion content not on specific mobile fashion applications, but within SNS applications. While in Western countries the preferred social networks are Facebook and Instagram, in China WeChat and Weibo are the most popular platforms. Chinese users read news and information about fashion in social media, such as WeChat and Weibo, by following different public accounts, official accounts from fashion brands or fashion bloggers. Before continuing my analysis of the interviews, let me introduce briefly WeChat and Weibo, because not all the readers may know these Chinese social media.

WeChat is a mobile messaging app that was released in 2011. After four years, it had become the most popular application in China, in the sense that it is able to attract much more attention and time from users than any other application. According to the 12th national reading survey released by China Press and Publication Academy, over 60% of Chinese adult mobile users read on WeChat in 2014. WeChat is a complete and self-sustainable ecosystem. It has an instant message system, chatting groups, personal post board with specific privacy control, payment and WeChat business. Some interviewees reported that, thanks to these full functions, they almost do not need any other applications to fulfil their social needs. With public accounts covering information from almost all fields, WeChat has built an information supermarket. On average, a Chinese adult reads on WeChat twice a day for over 40 minutes. Furthermore, most mobile users reading on WeChat like to chat and browse WeChat Moments, which accounts for 80% of the time consumption. According to China Press and Publication Academy (2015), reading news, shared articles on WeChat Moments and articles published on WeChat official accounts represent 72.9%, 67.1% and 20.9% respectively. The most popular types of accounts followed by users in China in May 2014 were, not surprisingly. Those of celebrities (with a 26.3% share of users) or brands (with a 17.7% share of users), but the news media accounts for a 41.5% share of respondents (China Internet Network Information Centre). Even the traditional news applications on mobile phone have lost readership because of the news media accounts on WeChat. The most frequent users of WeChat are young adults. In the third quarter of 2014, 40% of WeChat users worldwide were aged between 25 and 34. In comparison, only 2% of WeChat users were aged between 55 and 64.

Among the other popular social applications in China, Weibo is also one of the most popular microblog platforms, but in recently years, in the competition with WeChat, Weibo has lost some users' attention. According to the China Internet Network Information Centre (CINIC), the number of microblog users in China dropped by 31.94 million in 2014. The proportion of microblog users among all Internet users was 38.4% at the end of 2014, but it dropped by 7.1% compared with 2013. The number of microblog users with access to the Internet via mobile phones reached 171 million at the end of 2014, but they were 25.62 million fewer than at the end of 2013.

In the interviews, all the interviewees from China mentioned their use of Weibo and WeChat. Of the 12 interviewees, 10 stated that they use WeChat as a major instrument to communicate with friends and peers, they would check WeChat very often, almost all the time when they are free from work or other obligations, and they are following several famous Chinese fashion bloggers and the WeChat official accounts of big fashion magazines or brands. The majority of these WeChat accounts actually have synchronous Weibo accounts, and the push messages indicating updates on WeChat would appear regularly, normally at least once per day. A huge amount of messages flood the interviewees' mobile phones and, most of all, many of these messages are actually interesting to them. One of the interviewees reported *"reading the updates in WeChat Moments to relax before sleeping is the interesting ending of my day"*. The content can extent to wearable fashion items, interior decoration, fitness, skincare, makeup and even entertainments, such as films and travel photos.

This shift of the fashion discourse from specific mobile fashion applications to social media is an epochal phenomenon that mirrors a profound change of strategy by users towards the entire web environment. Social media have very persuasive ways to attract users' attention. It is worth mentioning at least one of these, which is the **"red bag" fashion**, mentioned in many interviews. Out of the 12 Chinese interviewees, 10 had sent or received "red bags" or have done both in WeChat. To complete the story about "red bags", here I will have to introduce Alipay, a competitor of WeChat in the field of payment on mobile Internet, which is a member of the Alibaba empire. Alibaba is a Chinese e-commerce company that provides consumer-to-consumer, business-to-consumer and business-to-business sales services via web portals, and Alipay is the biggest third-party payment platform. In the festival season of the last few spring festivals, WeChat revived the Chinese tradition of the "red bag", whereby during the spring festival

people prepare red bags with different amounts of money inside for friends and family. On WeChat, users can send virtual red bags to chat groups where members of these groups can draw the money from the “red bag”. WeChat made “red bags” a craze that flooded over this platform. In order to send money through the “red bag” function (similar to sending a picture), the user needs to charge his or her WeChat payment account and has the option to link a bank card or credit card to the user’s WeChat payment account. In this way, WeChat also succeeded in accumulating a large database of its users’ financial details when they made payments. Based on this payment database, WeChat also organized a market for small business owners on WeChat, which is quite similar to Alibaba. In this way, as the Chinese interviewees shared, for the first time, they started to use real money on WeChat..

WeChat attracts users and maintains their loyalty. The interviewees expressed concerns about group chatting in WeChat, complaining, for example, that it is addictive:

*“I cannot sleep properly when I have joined an active chatting group. I feel the push to reply and to join all the topics. And this harms my sleep.”*

*“Chatting groups expanded my WeChat friend circle enormously. Since in the same group, sometimes you barely know each other. Like the chatting group about fashion I joined, I only know the founder of the group, which is a famous fashion blogger. But after joining this group, and after several conversations, I received dozens of friend requests. This expansion obviously deepened my involvement level into this chatting group even more.”*

### 4.5.2 A special type of account: Storyteller

Another feature of social media that attracts Chinese fashion users is the fact that here fashion discourse is conveyed by means of a particular genre, which is **storytelling**. My Chinese interviewees stated that they use WeChat as the major source for getting fashion information and reading fashion news, mainly by following fashion bloggers, fashion brands, fashion magazines and some other storytellers. What are storytellers? Storytellers are those who edit information, news or advertisements into a narrative. These people do not focus on single topics, as their only criterion is that the content must be interesting. All storytelling acts are uniquely tailored to specific circumstances that they also help constitute (Schegloff 1974; Garfinkel 1977). In other words, storytelling or

narratives are, from a conversation-analysis perspective, fragments of behaviour by which both tellers and recipients collaboratively display their understanding of – as well as create – the socio-communicative logic of a context for interaction (Ryan 2004).

Among these storyteller accounts those mentioned the most in the interviews were: 英国那些事儿 (everything about Britain), 金融八卦女 (gossip girl in financial world) and 新先聚品 (the freshest and newest collection). Some of the interviewees said:

*“These accounts are among those I would not miss, most of the stories are fun or interesting, sometimes they are even thought-provoking. These accounts are updated very regularly, and they are the best time-passer for the metro or the bus.”*

*“Most of the posts are just for entertainment, but sometimes I can also read controversial and hot social issues over these accounts. So basically you can say these accounts are not just fun, but also an excellent news editor, only the news which interests you or news you should know.”*

*“I like 新先聚品 (the freshest and newest collection), it is an information source shared among all my friends. It provides us common topics to discuss and gossip. We all like the way this account edits the content, such as the most expensive villas in the world or the best Michelin restaurants in the world, these kind of titles makes you understand the content immediately and give you the feeling that you can know everything about the world.”*

*“These accounts are covering all kinds of audiences; they gather popular content on the Internet, edit it and publish it. They are among the most expensive accounts on WeChat, and they charge the most for one single piece of advertisement.”*

To conclude, more than serious and accurate information or news on fashion, the group of people I interviewed like storytelling on fashion, as a more glamorous and appreciable dimension of the public discourse on fashion.

### 4.5.3 Visual content

Social media are particularly attractive for fashion users because here they can satisfy easily their passion for visual content. The interviewees declared they prefer fashion content in social media because these are normally full of pictures, which make them easily readable, more eye-catching and less time consuming.

To illustrate the nature of visual contents, Herbert Simon explained it through “poverty of attention” (Simon 1971, 40-1); characterized by speed, the regime of the blink has produced a veritable explosion in the availability of information, moving faster than the human ability to process it, requiring new techniques of attention to manage the flow. This describes how the regime of visual content influences our attention spans, how after getting used to this rapidly changing visual content, our brain is more and more used to content that only needs short attention, and this has caused the “poverty of attention”. As the interviewees reported:

*“On the mobile phone, I am so used to read short text and many images that long text makes me sick? I simply cannot concentrate on long text anymore.”*

*“I always prefer to read posts with lots of images and very short text just to make necessary explanations of the images.”*

For these interviewees, visual content is less demanding of time and cognitive engagement and is also a good way to pass fragmented pieces of leisure time. One of the interviewees described her preference for visual content with the following words:

*“When I read on my phone, I would like to watch some pictures, but the video will consume many megabytes; text is too demanding for attention. Sometimes I just want to be updated or just use my phone to fill in the gaps between two appointments.”*

Some interviewees also mentioned they use Instagram as a source of fashion information and inspiration. Instagram has more than 400 million monthly active users (MAUs), while Twitter had around 300 million MAUs in 2014. Instagram’s reliance on images has translated into a more engaged visual practice by users.

*“I like to check Instagram for scanning through photographs with enjoyable bodies, apparels. Good quality photographs are always enjoyable for me to pass time.”*

Another interviewee mentioned the convenience of sharing pictures when he wants to share certain issues of fashion style or certain atmospheres. He said:

*“Sometimes I simply cannot put my feeling or the style I have in mind into words, in these cases, I need to find the picture to send to my friend or to express my feelings through posting a picture...”*



#### 4.5.4 E-commerce and mobile fashion applications

The last important issue the interviewees raised is the relationship between mobile fashion applications and e-commerce. Bound to mobile fashion applications, users expend an increasing amount of money to make purchases. However, to be effective, fashion shopping applications must be more technologically user friendly and more attractive than shopping centres. It is worth noticing that fashion apps are not just source of information but, combined with promotion notifications and updated online status, they can be also powerful instruments for purchasing. As one of the interviewees declared:

*“With my mobile phone shopping applications, once I received the pushing news for promotions, I can immediately go online with my phone and easily do shopping. In this way, every day is black Friday!”*

All the interviewees declared they have shopped on the mobile Internet. Since online retail allows users to shop anytime and anywhere as they wish, e-commerce has transformed the business model and changed the way in which shoppers approach retail. However, shopping online is not always satisfactory. For example, all the Chinese interviewees described their online shopping experience with the Alibaba platform. Two of the interviewees mentioned that talking directly with the shop owner actually brought them more convenience and satisfaction, since

*“communicating with the shop owner him/herself, make the necessary inquiries and get the timely replies, and have a little chat with the shop owner give lots of personality to the products, makes the purchasing more trustworthy”.*

However, nine of the interviewees actually mentioned they would check the reviews posted by other buyers online before they make a purchase decision. They stated that they believe online reviews, especially those posted by people whose purchases are verified, because these are more reliable than the shop owners' introduction. Yet, all of the interviewees admitted that online shopping does provide much more choices and convenience than bricks-and-mortar stores.

One of the statistical trends of e-commerce in China is as follows: according to Nelson data, the growth of online sales in China has outpaced that of the USA – growing at a rate of 52% year-on-year in 2014 versus 17% for the USA. Online shopping's share of the total retail sales of goods is higher in China (10.6%) than in the USA (8%). In urban areas, mobile Internet has helped fuel the growth of e-

commerce. In 2015, 71% of urban online shoppers used mobile phones to shop online, up from 51% in 2014. With more options for consumers thanks to new technology, both browsing and purchasing with e-commerce are on the rise. Shoppers all over China are joining this trend. In fact, among rural netizens, online shopper penetration grew 41% from 2013 to 2014 (more than the growth in cities, which was 16%).

For the interviewees, the main benefits of online shopping are that it helps gather information and save money. The large majority of my interviewees said they subscribe to online shopping platforms or products simply to stay informed of the new products and promotions. Some of online shoppers like to read online reviews before purchasing a product. Few online shoppers always use price saving apps or websites when planning a shopping trip. However, unlimited access is not enough for shoppers: consumers purchase goods online only when there is a perceived benefit versus traditional bricks-and-mortar stores, such as convenience, assortment or lower prices, especially for the goods that are more expensive than fast consumption products.

However, all the technologies seem only to facilitate certain sections of e-commerce. As also mentioned by the interviewees, they tend to buy small products (inexpensive or stable in quality) online. When it comes to other products, such as

*“Luxury brands and high quality demanding products, I would prefer to go the shops to check, touch it, feel it, try it.”*

The news media regularly report on the rise of e-commerce and predict the coming demise of “bricks-and-mortar retailers” in today's increasingly digital world. While shopping from the comfort of a couch is convenient, some of the interviewees still crave a physical place to congregate, connect, and engage.

*“When it comes to the clothes I adore, I would like to go to shops and see them with my eyes, not on the screen; touch them by my hands not by imagination; and try them on, not to see them on some models. The sales assistant is also very important for me to understand certain brands”,* one of the Chinese interviewee said.

Some other interviewees mention that shopping with friends and going to the real shopping places are quite enjoyable activities. No longer just a place to shop, shopping centres are becoming key activity centres in the social fabric of everyday life relationships (Cetin et al. 2011). As shopping centres and malls remain

prominent in our consumer culture and consciousness, developers and retailers face big opportunities to activate communities and become a central gathering space for consumers (Nielsen 2014). Even some interviewees reaffirm the role shopping centres play, mentioning that visiting certain shops is

*“...very pleasant, especially shops like Apple or some beautiful brands, the shops themselves show a lot about the brand image”.*

Other interviewees agree that, if they had the time and energy, they would go to beautiful shopping malls and enjoy all the services there. Yet, the information they gather before visiting the shops is vital for them to make their choices. One of the interviewees explicitly reported that she likes to

*“Make the research online, check the reviews, posts and experiences from other users, and then make an initial decision, then go to visit the shop and make the final purchase.”*

These words bring us to another important finding, that the purchasing decision is influenced very much by online content, especially when it regards expensive fashion products, such as luxury fashion. With this kind of product, almost all the interviewees expressed the intention to check reviews and information online before purchase, if the fashion products are not those they are familiar with. Before luxury shopping, consumers increasingly use social media recommendations to go to shopping websites. Seven of the Chinese interviewees and six of the English ones cited social media postings as a top source of new fashion product awareness, especially those forwarded by people they know, such as friends, or by social celebrities. Social media is becoming an efficient way for sellers to reach shoppers.

Social media can be even more valuable when combined with mobile. Not surprisingly, the interviewees also cited convenience and speed as key reasons to make purchases on mobile Internet. Geographic location often comes up as a major influential reason for interviewees to decide to make purchases online; sometimes the fashion products are not available in China. The interviewees also cited their ability to compare products and prices and find a wider selection online. Most shoppers may remain reluctant to purchase more expensive and custom products online, preferring to see them and touch them first, but many will compare fashion product features and prices online before making the decision to buy one or to choose a retailer. In other words, by the time many shoppers have reached a bricks-and-mortar luxury store, they are likely to have a good understanding of all the fashion products in the category, including features

and prices. They will choose stores based on proximity, of course, but in the years ahead, online ratings and opinions may help drive more decisions about where to make purchases.

Mobile also makes it convenient to reach shoppers and for them to shop by creating a link between customers' locations and payments. For example, some interviewees mentioned certain applications which, by GPS, could identify stores near their smartphones, send them coupons, push notifications and even allow them to pay via mobile phone. Mobile shopping also brings more innovative shopping occasions. Product-oriented apps can use mobile app location services to promote product information, sales, coupons, etc., while social-oriented apps use circles to help sellers reach their target consumers.

Nevertheless, some other concerns also arose in the interviews:

*"Online shopping on mobile phone is much simpler and faster. Yet, if there is any problem like a quality problem or I want to return the purchases, either the mobile screen is too small or the application on mobile phone is too simply designed would not allow you to make certain specific operation."*

*"The major activity I do with mobile fashion applications is online shopping. Through Micro blog or WeChat, very often I find some posts with interesting fashion items. I know most of them are soft advertising, but this will not influence my curiosity to click on the link to see the shopping page. If I do like the product, I would also buy it. Of course, not things that are very expensive, just for products with low price. I would just buy it without too much thought."*

However, apart from these shoppers who want "products with low price", fashion users usually are not just looking for the lowest price. China's online shoppers are becoming more mature or "rational"; they see online shopping as a means to find quality with reasonable prices and to have a pleasant shopping experience. The increase in rational fashion shoppers and more mid- to high-income online shoppers has driven an online overseas purchasing craze in China. Of the 12 interviewees, 10 had already experienced overseas online purchases, and they intended to make more purchases overseas since the quality of fashion products from overseas is better (even though the prices are not cheap). After the fever of overseas buyers (buyers who help clients buy products abroad and send the products back to China), direct overseas online purchase is becoming a more attractive solution for the interviewees. Some interviewees mentioned that private

buyers are not bound by any regulations, the authenticity is not guaranteed, at least not as guaranteed as with big online shopping websites.

It is not just the quality of fashion products that it is important, however. Today's online shoppers have come to expect more from online packaging and shipping platforms that can all affect the quality of the consumer's experience. As a result, attention to the importance of logistics is become crucial to winning and keeping shoppers. More systematic assessments of the shopping experience, real and fair feedback to help shoppers make purchasing decisions, and stricter assessment criteria for the products and courier agencies are aspects by which e-retailers can improve quality and brand equity. One of the interviewees shared a story of his shopping experience on "LuisaviaRoma":

*"I saw the coupon posted on LuisaviaRoma's Micro blog, and I decided to make some purchases. Yet, after I chose the goods and paid everything, and I even waited for two days, one of my orders was still not sent. I tried to call, but the staffs do not speak Chinese, my English is not good enough for this communication. So I have to ask my friend who speaks English for help. It turned out that the product I ordered and paid for is out of stock."*

From this story, we can easily see the practical obstacles to online overseas shopping.

### 4.5.5 Loss of context

All my interviewees had experienced shopping online. Very common complaints from the interviewees were that some outfits looked nice in the pictures but not on them, or that the fabric is different from what they expected. Detached from their feel, detached from their content in space and time, all the fashions inside mobile phones escape from any necessary context, becoming, in John Berger's words (Berger, 1972), "*ephemeral, ubiquitous, insubstantial, available, valueless, free*". Every piece of fashion is transformed into a set of pixels, points of light corresponding to numbers specified within a machine code. This series of "digits" – vast streams of zeros and ones – produces a picture of fashion. But are the online and offline fashion realities really interchangeable?

According to the interviewees, real fashion cannot only be seen – it must be touched, smelled, tried, and fitted into a context. Any reproduction, including even the most detailed digital rendering, is able to preserve only a vestige of the fashion's real, dynamic nature. As one of the interviewees reported

*“when I want to purchase some fashion items, if I am not in a hurry, I would like to go to the boutique and choose carefully, and I like to stay with the items, touch them, feel the textile, smell the fabric, and try it on me...”*

Out of context, another often mentioned problem is the difficulty of making choices. The lack of explicit information about certain fashion items as a consequence of the loss of context is becoming a huge obstacle to making a good choice. Moreover, too many similar or even chaotic choices are provided by fashion leaders or fashion sellers through mobile applications. One of the interviewees mentioned that, after she registered on one of the famous fashion applications, she received emails every day with promotional advertising or new fashion design offerings. As Jean-Noël Jeanneney (2006, 65), former head of the Bibliothèque nationale of France, argued: *“the enemy is clear: massive amounts of disorganized information. The progress of civilization can be defined, among other things, as the reduction of the forces of chance in favour of thinking that is enriched by organized knowledge.”*

We may have powerful search engines like Google today, but a way of searching for fashion on mobile phones that would make all these digitalized data organized is still an unsolved problem. Because the fashion e-commerce system ignores what users actually miss, it forces users to accept what the system gives them. This is one major reason why interviewees reported that sometimes they feel very confused during online fashion shopping. The more users rely on fashion information fed to them by mobile applications, the less they connect to their own context in their own reality, and the less they have reflective thoughts about fashion itself.

The problems engendered by the lack of context echo Ryan Szpiech’s reflection (2014) on Google Books that

*“we can study, dissect, codify, enumerate, reproduce, simulate, and idolize the data presented by the digital text, but we can, in the end, only contemplate its lack. Ironically, it is that lack, that irreducible unknown, that proves to be the richest object for the gradual and measured work of creating, because it is the most unfathomable, but also somehow, the most familiar. Amazingly, beautifully, it is also the most real, the most human, the most present.”*

The descriptions given by the interviewees stress the lack of context and confusion brought about by the numerous choices online:

*"I would read fashion information or fashion news on mobile phone, sometimes even the PR or advertisement articles, just to enrich my knowledge on fashion topics and fashion brands. But if I need to buy anything, I don't trust the online information completely. I only buy fashion products from online shops when I have already seen the real piece offline, on my friends or in the shops."*

Virtual images shown online is not sufficiently trustworthy for some users, and the lack of concrete and convincing connections between virtual pictures of fashion items online and the actual fashion products may be one of the reasons. In the following comment, the lack of social environmental context is also reported as a major problem, which stops users from choosing suitable fashion items online.

*"Reading online to know what stars or social celebrities wear, or to see what the fashion houses publish in the dazzling fashion shows, is not my only way to get close to fashion. I need to go out to meet people, to deal with people, to try to understand people, this is very essential to me. Whatever they post is from the stage, from abroad, you ask them to try it in real life, lol! The most important element is to practise; only when you can practise it makes it yours. Plain and simple."*

Another interviewee reported an additional, important issue connected to fashion: self-identity.

*"By reading the fancy news from the (fashion) bloggers, you can actually somehow catch the pulse of the time, but this is not sufficient. In my understanding, fashion is closely linked to utility and can be tested by time. Even though, for me, the feeling of being up to the moment is important, (but) dressing style also shows the status of one's inner self, this part is private, but is comparatively consistent compared with trends, and it is that part of your inner self you would like to expose."*

Fashion becomes inextricably implicated in the constructions and reconstructions of personal identity. It also expresses how we represent the contradictions of ourselves in our everyday lives. There is always tension between the fashion trends, which enable one to merge into a certain group and maintain a certain image and inhabitable for one's true self, and the more intimate and private part of the inner self.

#### 4.5.6 Distinguishing between advertisements and real content

Among the interviewees, seven out of ten who were heavy WeChat users admitted that they do not suspect if the messages sent by bloggers are advertisements, but in any case they have less trust in fashion magazines, as three of them mentioned *“everybody knows magazines survive on advertisements”*. Yet, they held less sceptical views about fashion bloggers, such as:

*“they mostly need less money to survive, and they care how their followers feel.”*

One of the interviewees used to be a marketing responsible person for a French fashion brand; she knows how this marketing strategy works.

*“Gogoboi (one of the famous Chinese fashion bloggers) is very expensive, each post from him would cost 5000 RMB (price 2 years ago in 2012), but he must be more expensive now, since he is getting hotter and hotter.”*

*“Gogoboi charges less if he likes your brand and he thinks the image of the brand matches his taste; otherwise, the price will be higher.”*

Two of those who followed fashion bloggers are quite convinced that 16po (another popular fashion blogger in China) distinguishes the advertising from the content:

*“16po posts the promotion message as the second message with a label indicating ‘promotion’. She is honest.”*

The other seven interviewees were satisfied with the content even if there are commercial messages mixed with it, because

*“as long as the content is enjoyable and useful, I do not think a bit of advertising will hurt.”*

*“Gradually I started to notice, there are some unnatural turning points in the articles posted by the fashion bloggers, sometimes even rigid ones, just to lead your attention to certain brands or certain events.”*

*“You can see that some bloggers are deliberately praising some stars, and they exaggerate those stars’ beauty and taste. If I noticed they are writing things inconsistent with the reality, I will unfollow them.”*

*“Before, I followed many fashion bloggers, but now I only read a few of them. Gogoboi is funny, the criticisms are very much to the point; Yu Xiaoge is encouraging, and quite*



*authentic; 16po is elaborate, up to date and mixed with gossip. But anyway, these contents are for entertainment."*

### **4.5.7 Smartphone dilemma**

Finally, among the issues interviewees raised about fashion, there is also a problem regarding their smartphones. Users' feelings towards the smartphone are complex. On one hand, they enjoy the convenience the smartphone brings to their social and professional lives. On the other hand, with the invasion of smartphones, they feel oppressed in their sleep, but also in their real life and their inner world.

*"I have three smartphones with three different WeChat accounts, one is private, one is for my company and the third is for my clients."*

*"Silence and peace are truly luxurious in this world, which is why every now and then, I need to get rid of my phone and just enjoy the silence."*

*"I don't like the smartphone, but it is a necessity for my work, for my friends and for my family."*

In conclusion, the main result of these interviews was that mobile Internet users actually consume fashion content mainly from some SNS applications, rather than specific applications on fashion. The discovery of this dislocation made me adjust my research, and pay more attention to the users' activities and the fashion contents in SNS mobile applications. To investigate this field, given the limited time and resources, I decided to focus mainly on China's fashion blogging, since fashion bloggers, according to the interview results, are the most read fashion media on the mobile Internet.

## **4.6 China's fashion blogging on smartphones**

### **4.6.1 Four fashion bloggers in China**

As mentioned above, fashion discourses and fashion content consumption on smartphones are mainly taking place on social network applications. Hence, in this section, I will introduce the last study of my research, which concerns fashion blogging in China. Fashion blogging here includes activities on microblog, such as

Weibo, and activities on WeChat led by fashion bloggers through posting content on their public accounts on WeChat.

In order to gain a direct understanding of China's fashion blogging in its natural context (Liu and Maitilis 2010), from 2014, I started to conduct non-participant observation on four of China's fashion bloggers' activities on two major mobile Internet platforms, Weibo and WeChat, which have been adopted by many Chinese mobile Internet users. In 2015, I continued this observation and meanwhile I conducted a four-month (4 May to 4 September) qualitative content analysis of the content posted by these bloggers on the two platforms cited above. By adopting qualitative content analysis and combining it with the background and context analysis over these bloggers, I will be able to depict a general framework of China's fashion blogging. In total, 377 posts on WeChat and 434 posts on Weibo were gathered and analysed.

I chose four popular fashion bloggers in the Internet ecosystem, who represent the most typical categories of China's online fashion discourse. The existence of inactive followers on microblogs makes the number of followers not the sole criterion. To measure the popularity of fashion bloggers it is necessary to take into account also the number of comments, the number of times posts are "shared" by readers, and the number of WeChat article page views.

Before illustrating the results of my analysis, let me introduce the two waves of the fashion blogosphere and then a short background of the fashion blogosphere in China.

### **4.6.2 The first wave of the fashion blogosphere and its three main tropes**

In the last decade, which can be considered the first wave of the fashion blogosphere, the way in which fashion is produced, communicated, and consumed changed profoundly thanks to the online social platforms. Many amateurs began to create blogs in order to convey fashion in words and images by remediating existing genres and combining them into new formats, where the approach of amateurs was combined with the reproduction of familiar features from the established fashion media (Rocamora 2012). Fashion blogging can be described, writes Marwick (2013, 1), as *"an international subculture comprised primarily of young women who post photographs of themselves and their possessions,*

*comment on clothes and fashion, and use self-branding techniques to promote themselves and their blogs*". Since their appearance, these blogs have established themselves as a central platform for the creation and circulation of fashion-related news and information. The phenomenon of fashion blogging has added considerably to the picture of fashion narrative and has led to the emergence of what may be defined as "grassroots fashion storytelling".

In the first instance, for allowing regular people to become part of the international fashion conversation, fashion blogs have been hailed by fashion scholars for "*democratizing style*" (Allen 2009; Pham 2011; Fortunati and Farinosi 2014). Even mainstream media has described the fashion blogosphere as a space for expressing "democratic" engagement, where women who do not fit into the stereotyped feminine fashion model (rich, thin and tall) can enjoy a powerful self-expression (Khamis and Munt 2010). Thus, in this first wave of studies on the fashion blogosphere, three main tropes were formulated: equality, authenticity, and counterculture.

The first was the equality trope (Duffy 2013), which was based on, and in turn strengthened, a larger discourse about the power of the Internet to democratize communication and foster collaboration. According to Duffy, the fashion blogosphere offers users an alternative to mainstream fashion media and opens up spaces antithetical to the rigorously patrolled fashion world (Pham 2011).

The second was the authenticity trope: fashion blogs were seen overwhelmingly as more "real" than mainstream magazines. The bloggers' use of casual, immediate language and the prevalence of street fashion photography were perceived as creating a customer intimacy that differentiated them from more traditional market relationships. According to Marwick (2013), authenticity is the key to attracting followers. Marwick argues that the online image the bloggers create of themselves is a very important factor in successful blogging, because readers are looking for someone they can identify with: an accessible person.

The third, equally pushed by mainstream media, was the counterculture trope, concerning amateur content creators (Bruns 2008). Fashion blogs were seen as contributing substantially to the overcoming of the traditional hierarchical structure of the fashion system and to the reshaping of the traditional cultural and media production (i.e., the women's magazine and fashion industries). Myers

described these signals as an “*intervention [...] into traditional media production hierarchies*” (2012, 1024).

Although in this first phase blogs and social platforms played an important role in bridging the assertive world of the fashion system to the wider, lived experience of fashion and the new culture and the agency of fashion consumers, actually they have received little scholarly attention so far (Berry 2010; Khamis and Munt 2010; Palmgren 2010). But what is more important is that the three tropes mentioned above were able to capture the social meaning of the first wave of this phenomenon, but are unable to provide an effective framework to understand the nuanced cultures and political economies of the second wave of fashion blogging.

The dividing line in the fashion blogosphere history can be traced to the fact that, at a certain point, the fashion industry began to pay more attention to the most famous fashion bloggers and to court them by sending invitations to attend fashion shows. Before analysing the structural transformations undergone by fashion blogs in the second wave, let me briefly sketch how the fashion blogosphere has developed in China just during this second wave.

### **4.6.3 Background: Chinese fashion blogosphere**

As already mentioned above, according to the 35th Statistical Report on Internet Development in China, the number of microblog users in China dropped by 31.94 million in 2014 to 249 million by the end of that year (CINIC 2015). This shrinkage may give an idea of the potential influence of this phenomenon on the whole international fashion system.

During the last few years, the Chinese fashion sphere has been characterized by increasingly emerging tensions between Western culture and Chinese traditional values, as well as between the international fashion offerings and their adoption in the Chinese context. Several NGOs operate in this area, and ever more powerful and rich people are now joining these organizations because they want to create and propose a new image of the Chinese people, confident in their “Chineseness” (Chu and Cheng 2011). This new cultural movement tries to combine the education of the public regarding traditional Chinese beauty with an appreciation of Western fashion design. It interprets and proposes a specific traditional lifestyle in which, for example, the *taiji* (a Chinese philosophic term

from which Yin and Yang originate) harmonizes with exquisite jewellery made according to the styles and techniques of traditional Chinese craftsmanship.

This movement is animated by the most successful luxury buyers who started this reflection while pursuing the major Western brands. By rethinking traditional culture and rediscovering traditional beauty, they have adopted a new aesthetic perspective which combines the uniqueness of Chinese tradition with Western design. One of these traditional revival organizations is Shuyuan China (<http://www.shuyuanchina.org/>). Every year, this foundation organizes many events related to traditional Chinese culture, such as free courses for calligraphy, *taiji*, traditional musical instruments and *Kun* opera. One of the aims of this new cultural movement is to show that nowadays a social education in fashion is needed. The Cultural Revolution, like every dynastic alternation in Chinese history, destroyed both the historical legacy and traditions, especially those linked to the elegant and beautiful Chinese lifestyle. Collectivist education did not allow people to learn about fashion, because this would have been understood as superfluous in respect to Mao's ideas on dress. Moreover, Chinese people suffered, in the past, from the lack of materials to make clothes, as well as the impossibility of expressing a personal aesthetic value, since they had to adhere to a certain prescribed identity, coherent to their belonging to specific social groups, each one with a uniform style of dress.

At the time of the Chinese Economic Reform in 1978, the younger generation who were then growing up were educated in an environment lacking in tradition. Coming from a purely local and collective experience, they were suddenly exposed to globalization. With their own historical references lost, Chinese people received from Westerners many proposals and suggestions, which were consequently unfamiliar and hard for them to understand and evaluate. Considering that in the market there was not much information about fashion and styles of dress, except a certain amount of knowledge about the main brands, Western fashion represented a radical challenge for Chinese people. Even now, they generally lack a proper cultural background to understand and recognize the Western concept of beauty, not to mention its adoption in a way that can be considered meaningful by the Westerners themselves. In this context, Chinese people have been thrown into a globalized emptiness, and find themselves in the middle of nowhere.

A first finding that emerged from my research is that the main tools adopted by the bloggers in China are microblogs (i.e. Weibo) and specific mobile applications, such as WeChat. These tools are both quite popular in China (see Table 26).

Table 26: The followers and page views of the four popular fashion Chinese microblogs in 2015

	<b>Gogoboi</b>	<b>Pomegranate Granny 石榴婆(16po)</b>	<b>Hanhuohuo 韩火火</b>	<b>Yuxiaoge 于小戈</b>
Weibo followers	4,453,864	32,514	4,024,419	135,998
Last WeChat post page views	100,000+	100,000+	[no WeChat account]	40,717

WeChat enables users to take part in a variety of activities including voice and text messaging, photo sharing, searching for people nearby, and shopping. It has around 600 million monthly users and any organization, company, or celebrity can register an "official account" to push feeds to subscribers and interact with them. Furthermore, public accounts represent a source of profit, given that people with hundreds of thousands of followers on their public accounts can earn up to 100,000 yuan a month by making regular updates, writing articles endorsing certain products and sharing their personal interests. Many fashion bloggers started their public accounts on WeChat, where they accumulated a high number of followers, as well as valuable contacts from businesses keen to place advertisements on their accounts.

Therefore, while the Western fashion bloggers adopt a multi-platform strategy, in China the most important finding to stress is that the fashion blogosphere has migrated from a web-based platform (Weibo) to a mobile application (WeChat). Table 26 shows the numbers of followers on Weibo and the number of viewers of the last WeChat posts of the four most popular Chinese fashion bloggers – Gogoboi, Pomegranate Granny, Hanhuohuo and Yuxiaoge – in 2015. As we can see, only Hanhuohuo uses Weibo exclusively, while the other three have all also adopted WeChat. Even if Yuxiaoge and Gogoboi are still using Weibo frequently, the content on fashion is concentrated on WeChat.

My ethnographic analysis of the fashion content in these four microblogs is based on all the posts concerning fashion that were published: Gogoboi (44 Weibo

posts and 15 WeChat posts); Pomegranate Granny (1 Weibo post and 16 WeChat posts); Hanhuohuo (24 Weibo post and no WeChat posts) and Yuxiaoge (82 Weibo posts and 25 WeChat posts).

The most important finding in relation to China that emerged in this research, and which echoes the Italian finding (Fortunati, Farinosi, and Nie, forthcoming), is the clear commercial soul of the Chinese bloggers analysed. This finding is based on several observations. First, all these bloggers come from a profession connected with the fashion system. “Gogoboi” is the assistant of a fashion editor; “Pomegranate Granny” is a journalist; “Hanhuohuo” is a stylist running his own fashion fire bible (a fashion magazine) and a guest host for a TV programme; and finally, “Yuxiaoge” is the executive editor of *Harper’s Bazaar China*. In other words, the main Chinese bloggers are all communication professionals coming from traditional media; they do not represent a “*democratizing style*” which allows regular people to become part of the international fashion conversation (Givhan 2007; Brown 2011). Nevertheless, fashion blogging is always described as a kind of “*equality myth*” (Duffy 2013) bound up with larger narratives about the power of the Internet to democratize communication and foster collaboration, allowing participants equal access to the mediated public sphere (Pham 2011).

The second aspect of the bloggers’ commercialism is that their communication engagement merges with branding activity in many ways. From the analysis of the content of these blogs, it is possible to identify at least five types of engagement with brands. The first is to merge brands’ stories into content and praise the brands highly to elevate their image. The second is to recommend the products from the blogger’s own, “very authentic” use experience. The third is to post street-style pictures or red-carpet pictures to introduce the styles of brands or items that match specific branded items. The fourth is to promote certain products by coupons or discount codes. The fifth is to post about events hosted by brands. The scrutiny of these blogs highlights the extent to which fashion bloggers are now part of the integrated marketing strategy. Gogoboi intertwines advertising with the content of the posts of his blog and, in addition, he manages the official microblog account of Louis Vuitton. In the blog of Pomegranate Granny, commercials are separated from the content and presented at the end of the daily post, preceded by the label “Promotion (推广)”. Like Gogoboi, she manages the official microblog account of a leading Western brand, L’Oréal Paris. Hanhuohuo generally forwards posts directly from the fashion brands, showing himself variously as a model or as a fashion editor, and using the brands’ products to

make new matches. Finally, Yuxiaoge expresses an impalpable branding support but clearly helps to promote *Harper's Bazaar China*.

Fashion blogs still seem somehow positioned as more “*authentic*” than mainstream magazines. The bloggers’ use of casual, immediate language and the prevalence of “street fashion” photography contribute to create the illusion of a customer intimacy that differentiates them from more traditional market channels. Although fashion bloggers rely on authenticity as the key for attracting followers, in many cases such authenticity is lacking. Since the fashion industry is paying increasing attention to bloggers in order to engage their growing readership, the most famous fashion bloggers have collaborations with a company or many companies. When a brand decides to sponsor a fashion blogger, the blogger receives samples of clothes and accessories, or invitations to fashion shows and brand events. These practices compromise the so-called “creative autonomy” of the blogger and require a continuous negotiation of creativity and commerce, transforming the blog into something market-driven. The result is that nowadays fashion blogs tend to appropriate – rather than resist – capitalist infrastructures and traditional media industry logics. They are more subject to commercial pressures and are becoming an integral part of the fashion industry (Bruzzi and Gibson 2000; Kawamura 2005).

Third, the Chinese fashion microblogs are characterized by a frequent use of visual communication. All four bloggers present a mix of personal style, street style and editorial style, but it is worth highlighting that the presentation of the self differs from one to another. In particular, Gogoboi prefers to resort to self-modelling only occasionally; Pomegranate Granny rarely publishes photographs of herself; in contrast, Hanhuohuo usually posts photographs of himself; finally, Yuxiaoge resorts to self-modelling only occasionally but likes to post her uniquely styled “selfies”.

By scrutinizing these blog posts, another finding that emerges is the existence of various tensions in the relationships between mainstream and grassroots discourses. An example is represented by the polemics between fashion bloggers and Suzy Menkes, a well-known British fashion journalist, who described the blogs’ content as “*shallow and unprofessional*” and accused the bloggers of having

“*compromise[d] their independency to trade with capital [...] by playing satire to catch eyes, by teasing celebrities’ public appearance to draw attention*” (*New York Times*, Chinese version, 18 March 2013).



A fourth theme is that the fashion bloggers do not represent an alternative, which has developed from below, to the mainstream media. As discussed above, fashion blogs are often described as a sort of countercultural activity which offers an alternative to mainstream fashion media, particularly to women's magazines and fashion industry websites. Following Suzy Menkes's article, "The Circus of Fashion" (*New York Times*, 10 February 2013), Tangshuang, the fashion editor of *Numero*, responded with an article in the *New York Times* (Chinese version, 18 March 2013) criticizing fashion bloggers, and describing content posted by fashion bloggers as "*shallow and unprofessional*".

Chinese fashion bloggers gave several vivid responses to this accusation. I report Gogoboi's reply:

*"Your distinguished editor shall not mingle with us low ranked fashion bloggers. When I was an editor, I would not even look at a blogger. Posting some ad or PR contents is no different from advertisements in magazines, and the only difference is that my writing is better and not so pretentious. You sent people to apologize to me right after you criticized me in your article. I know I am famous; you want to borrow some fame? You are welcome!"* (Gogoboi Weibo, 2013).

Another fashion blogger, Chrison, also joined in this argument:

*"China's fashion industry is shallow and unprofessional. Brands need fashion bloggers. This is not by chance; the traditional media cannot provide sufficiently attractive and convincing contents."*

Fashion blogs are available for free, there is no coercion. Their line of defence is that if readers are obliged to pay for a magazine and still have to read advertisements, then why cannot fashion bloggers occasionally post some ads? The content produced by fashion bloggers is not completely dominated by brands, unlike the traditional media. For fashion bloggers, saying "no" to brands is much easier, since their costs are lower. In the traditional media, censorship is much more serious. By contrast, one of my interviewees, a former marketing manager, stated that Gogoboi "is expensive" for would-be brand advertising, but that he charges much less if he personally likes the brand.

As to the accusation of unprofessionalism, fashion bloggers respond that they are not school teachers, they cannot provide systematic or structural knowledge. They provide fragmented and occasional, yet much more entertaining and acceptable, information to their audiences. The speed of the diffusion and the

range of influence of their microblogs go far beyond the reach of traditional media. However, fashion bloggers are part of an integrated marketing strategy. Since the value of fashion blogging is the blogger him/herself, personal characteristics are actually the bases for producing sufficiently attractive and authentic content, even if it is quite fragmented and occasional, that is more entertaining and acceptable than traditional media.

Fashion bloggers, according to their different strategies for self-image management, have different ways to balance maintaining a trustworthy image and making a profit. Their personal touch actually leads us to associate their role to what Bourdieu called cultural intermediaries. These are “need merchants”, sellers of symbolic goods and services, who always sell themselves as models and as guarantors of the value of their products, who sell so well because they believe in what they sell (Bourdieu 1984). Bourdieu presents cultural intermediaries as a group of taste makers and need merchants, whose work is part and parcel of an economy that requires the production of consuming tastes and dispositions. (Bourdieu 1984). This is the term used by Bourdieu to describe those members of the new and uprooted middle classes – postmodernity’s ultra-cool set – who engage in the promotion and transmission of popular culture in order to legitimate relatively new leisure fields such as lifestyle shopping, fashion, popular music, and celebrity as “valid fields of intellectual analysis” (Featherstone 2007; Blackshaw 2010) In this role, fashion bloggers are sellers of symbolic goods, such as fashion or lifestyle, they are taste makers and trend creators.

Finally, another specific theme that emerged from my analysis of the main Chinese bloggers is the tension that has developed between the colonization by Western fashion and the autochthonous, local production of original fashion content. In this case, Gogoboi, Hanhuohuo and Yuxiaoge convey original content, while Pomegranate Granny mainly posts comments translated from English-language websites. The analysis of this tension enables us to highlight how in China grassroots storytelling is characterized by a specific focus on cultural appropriation and fashion education.

### **4.6.4 A case study: Gogoboi**

With the purpose of offering an interesting and particularly revealing case of Chinese fashion blogging, I used information-oriented sampling, as opposed to random sampling, in order to emphasize the representative case. Hence, I chose

Gogoboi, the fashion blogger who leads China's fashion blogging atmosphere with a very typical personal style. The data I will present here come from microblogs: 377 posts on WeChat and 434 posts on Weibo. Gogoboi's slogan is "heading forward, risking the rabble's gunfire". Now, he works as a fashion columnist for the *New York Times*, but when he started his work as a professional blogger, he had just quit his job as an assistant editor on *Grazia China*. Relying on his talent for memorizing and recognizing fashion design, Gogoboi decided to make his career out of the fashion mainstream.

His comments often fall into the Chinese context, or at least try to remind Chinese readers about their cultural origins. Gogoboi conveys considerably different opinions from the mainstream fashion discourse. A careful scrutiny of his blog posts allowed me to gain a clearer understanding of some of the tensions which have developed in the dynamics between mainstream and grassroots discourses on fashion. These tensions emerge between the mainstream of the fashion world, led by celebrities, fashion brand testimonials, and fashion houses, and the aesthetic needs and demands of Chinese fashion consumers; the tension between Western culture and Chinese traditional values; the international fashion offerings and their adoption in a Chinese context. The specific analysis of these tensions will enable us to highlight how the storytelling is characterized in the Chinese microblogs by a specific focus on fashion education.

Below are some posts by Gogoboi in his series "Who Wears What", which I have translated into English.



*Zhang Ziyi wearing a Chanel gown from the Fall 2009 collection. Her strapless organza gown, fully embroidered with gold-and-black sequins, also features a flowing chiffon train and satin bow accent around the waist. No matter how tremendous and magnificent other film stars or famous models may be, they can never have her unique delicate and classical Oriental verve. She is like the elegant and attractive golden-fish lady, walking from a Chinese ink-and-wash painting.*

Figure 2. Post by Gogoboi



Zhang Ziyi wearing an outfit from the Christian Dior Fall 2012 Couture collection. Her loosely styled hair, seemingly still damp has a sense of rush, her earrings are suited for a folk dance; her fuchsia pink-accented strapless top looks like a vase, yet the black trousers yearn for a briefcase... [The whole outfit is] like a bunch of annoying women in a meeting, bubbling and confusing. What is even more puzzling, Yu Dan<sup>8</sup> is giving lectures in Cannes!!

Figure 3. Post by Gogoboi

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<sup>8</sup> A lecturer who is known for giving over-simplified interpretations on the *Analects of Confucius*, which is the collection of sayings and ideas attributed to the Chinese philosopher Confucius and his contemporaries.



*Nicole Kidman in a Dior couture embroidered gown at the 66th Cannes Film Festival.*

*With her exquisite and unique dress, meticulous makeup and hair for so many years, Nicole is still that flawlessly carved porcelain doll. This also proves that in this world the only things can beat time are good taste and **Botox**.*

Figure 4. Post by Gogoboi



*Emma Watson in a Prabal Gurung Fall 2013 gown at the 2013 Met Ball.*

*My first feeling is that little Hermione has grown up, almost 40 years old.*

*At my second glance, I feel that this little girl is so poor, she must have been robbed on her way to the ball. Her dress has been torn to pieces and left her poor flat body exposed without any curve.*

Figure 5. Post by Gogoboi



*Cara Delevingne wearing Burberry black silk and lace plunging gown.*

*Seeing Cara, those naked sexy stars are dull, simply like plain water, not even worth mentioning. Her fierce, **aggressive** attitude, her gorgeous yet **vengeful** look upon everyone is really stunning and addictive.*

Figure 6. Post by Gogoboi





*Nicole Richie in Topshop at the 2013 Met Ball.*

*Nicole was definitely the biggest winner on the red carpet of this year's Met Ball. While other girls were playing punk, she discovered her own way to **play punk's granny!***

Figure 7. Post by Gogoboi



*Every normal person may have a peculiarity, for instance, Kate Winslet's weird taste for hats. Not long ago, she was wearing a hat like a dead bird crushed flat on her head. Recently she even had a whole snow fox on her head to attend an event. Both hats are designed by Natalie Ellner. Besides these two, Natalie has also designed other hats for her, and each of them is **thrillingly ugly**.*

Figure 8. Post by Gogoboi

In the comments to the series titled “Who Wears What”, the audience can receive the breaking news of celebrities attending grand events for different occasions and in different fields, such as the Met Gala and the Academy Awards. This series enjoys enormous popularity among Weibo and WeChat users, since the events are entertaining and the content consists mainly of images with short and amusing text captions.

As to the style of this text, we can see that Gogoboi's comments are radically different from those of the mainstream fashion media. In China's mainstream fashion media, criticism is very rare; compliments are almost universal along with lack of creativity. Hence, Gogoboi's amusing comments with convincing visual interpretations and explanations are extremely thrilling and compelling. His posts enjoy large numbers of reposts and forwards.

Considering the content, Gogoboi's comments are not only amusing, but they also provide rich information about fashion, such as brand information, description of cosmetic surgery and judgements of taste over celebrities' dresses. This can be considered as a process of disenchantment of these glamorous and distant celebrities and stars, which meets the curiosity of online grassroots.



### Fashion information and recommendations

*At the end of every year, the world-renowned authority on colour, Pantone, will predict the popular colour for next year. And for this year, they say 2015 belongs to Marsala. The executive director of Pantone explained that Marsala is the name of a wine produced in Sicily, and this tasteful hue embodies the satisfying richness of a fulfilling meal. Instead of covering this saying with mystery, we can just call it pork-liver red. It is steady and discreet. I think you can start with using lip stick of this colour.*

Figure 9. Post by Gogoboi

Using an ironic tone in the above post (Figure 9), Gogoboi dramatically reveals the slight difference of the fashion culture perceived in the Western context and in the Chinese context. This kind of comment from fashion bloggers, on the one hand, provides a different perspective from the mainstream fashion media; on the other hand, it also encourages critical and independent thinking among the audience.



Figure 10. Post by Gogoboi

In particular, for what concerns Chinese bloggers, it is worth noticing that there is also the tension between Western culture and Chinese traditional culture. Taking the very popular topic of the 2015 Met Gala as an example, fashion bloggers' reports on this event brought some reflections on "*cultural appropriation*" to the attention of Chinese internet users. Taking as an example what Rihanna wore on that occasion, the bright yellow colour of her dress was the same as a shade used by Chinese emperors. Thus, the adoption of this colour by Rihanna was perceived as very inappropriate by Chinese people: it was said that she looked like an omelette (as depicted in Figure 10, top). Another case is the actress who wore a dress decorated with poppy flowers (Figure 10, bottom), with the comment "*I came as opium*". China has a complicated history with poppies and opium because of the Opium Wars, in which the British attacked the Chinese in two brutal wars, highlighted also by the international incident caused by the

British Prime Minister David Cameron wearing a poppy lapel-pin, when he visited the then Chinese Premier Wen Jiabao in 2010.

This post by Gogoboi for the first time brought to Chinese Internet users the vivid experience of cultural appropriation, which typically involves members of a dominant group exploiting the culture of less privileged groups – often with little understanding of the latter’s history, experience and traditions (Young 2010). In this case, the less privileged group is the Chinese culture, and the members of a dominant group, we may consider, is the West-centric fashion world.

To conclude this section, although users are migrating from dedicated fashion mobile applications to social networks and, particularly in China, to some microblogs, it seems that they can find here something more and something less than in mobile fashion applications. Something more because fashion blogs allow regular people to become part of the international fashion conversation and hence have been hailed by fashion scholars for “*democratizing style*” (Allen 2009; Pham 2011; Fortunati and Farinosi 2014); and fashion bloggers, providing amateur content, are considered more “*real*” than mainstream fashion media (Fortunati, Farinosi, and Nie, forthcoming). Fashion blogs have been seen as contributing substantially to the overcoming of the traditional hierarchical structure of the fashion system and to the reshaping of the traditional cultural and media production (Bruns, 2008; Fortunati, Farinosi, Nie, forthcoming). Something less because fashion bloggers post much less advertising content and run their accounts with much less cost. The different strategies they adopt to the commercial world make their content less diluted with unauthentic content, and audiences can absorb the content more confidently.



# 5

## Discussion and final remarks

### **5.1 Change to the fashion landscape through mobile fashion applications**

To return to the research questions of this study:

RQ1: What are the characteristics, functions, and dimensions of mobile fashion applications?

RQ2: How has the fashion system been changed by the users of mobile fashion applications?

Historically, consumers have played an important role in the pre-existing fashion world, however, in most instances, they are muted especially when it concerns fashion design. Top design houses give out the concepts, ordinary people can only follow them. In this era of migration from offline to online, and from location-fixed Internet to mobile Internet, the communication between traditional producers and users is more and more frequent, and the bonds between users are closer. From my research it emerged that, in this new context, smartphone users who could be potential or promising fashion consumers should

not be ignored by the fashion system. Two features of fashion applications have been discussed above, and to locate fashion applications in the whole mobile application landscape seems of great importance. According to App Annie's ranking charts, among the 100 most popular applications, none of them is about fashion. The fashion world on smartphone exists as just the tip of the iceberg, compared with the grand narrative smartphone communication has achieved so far. In this sense, to hint at the answers to my research questions, the communication from both ends of the fashion world has been efficiently built through mobile fashion applications.

Among the fashion application users who were involved in this research, some already had initial fashion awareness and some of them were without sufficient fashion knowledge. For the former kind of user, the non-virtual fashion world may value meaningful feedback from the awakening Internet users to enrich or nourish the fashion industry; for the latter kind, encounters with fashion applications may bring enlightenment about non-virtual, in other words, real life, fashion. For both kinds, fashion applications are an important channel for obtaining fashion information, exchanging fashion concepts, and expressing one's original inspirations. For the fashion world, mobile applications could be a powerful instrument to cultivate fashion consumers and to collect interesting and creative perspectives from them.

Mobile technology sends its invitation to both sides: one to ask the non-virtual fashion world to be a more open and careful listener to the people, even those whose ideas are demonstrated in a virtual world, and to share its concepts with people who are not familiar with fashion. Meanwhile it is users' choice to tailor mobile technology to their personal experiences and to share their understanding about fashion with other users in a virtual world, most of whom are strangers to each other. How do both sides, the fashion world and the potential active fashion consumers, react? What should we expect from the new picture of the fashion world brought about by mobile technology together with its users? These are surely the questions mobile fashion applications lead us to ask, with both anxiety and excitement.

Some important results emerged from the comparison between the surveys carried out in 2012 and 2014. First, fashion applications are decreasing in number. Those that remain have become more popular and satisfactory, as applications with the fewest users, lower rating numbers and worse feedback (less satisfaction)



are eliminated from the market. Those applications focused on fashion with a self-sustainable structure and reasonable values are surviving. Third, in 2014 the increase in free fashion applications, in applications belonging to the game category, and of a more compatible content classification (suitable for everyone), suggests that fashion applications in 2014 were more accessible than in 2012. Free availability and a wider range of audience make fashion applications more socially inclusive, as they are accessible to more people whatever their socioeconomic status and age. The increasing degree of social inclusion by mobile fashion applications has in turn the effect of improving the chances of people to have contact with the fashion world, to improve their capability to handle fashion in their everyday lives, and to get involved and take part in the fashion world. Fashion applications seem to find a more accurate position in the fashion world. A higher proportion of popular fashion applications in the market and higher accessibility of the fashion applications indicate that developers understand the users better, and users are more capable of making right choices, and that there is a potential for growth in the fashion application market.

Furthermore, my study shows clearly that mobile fashion applications are a field in which an important change has occurred – from traditional unidirectional fashion communication, typical of traditional media, to a bidirectional system in which users function as the other pole of communication. Through the sample of fashion applications I analysed, the traces and the meaning of this shift can be easily detected. The results of my investigation show that the whole bidirectional communication system works efficiently on fashion application platforms. Application developers use the introduction page to persuade and guide users; in the other direction, users through rating and posting reviews of the application give their feedback rapidly. According to users' feedback, developers often reply soon after they receive users' reviews. In some applications developers periodically send emails to users to inform them of updates. Through these strategies, they give users the chance to access and adopt the new technology and new fashion concepts. At the same time, by communicating with each other, users internalize these new concepts and adopt them into their own everyday lives. This is how the conversion process occurs. Conversion consists of the acceptance and internalization of new mobile technology or new fashion concepts. While the conversion process occurs from fashion applications to users, the process of translation is usually from users to fashion applications and users to other users. When it comes to disagreements on certain fashion applications, such as game

applications, users spontaneously gather into different groups and start to debate. Through this process of mediation, different groups will generate different networks.

For the fashion world, how to adopt new mobile technology in order to gain a better communication from potential fashion consumers is a problem already half solved and yet in need of more attention. To echo Barthes's (1983) discourse, demythologization as the inevitable destiny of fashion is a question still full of uncertainty. Going back to Barthes (2006), what fashion bears is a certain social culture. Whether the fashion world will accept and adopt mobile technology depends on the willingness of the fashion world itself.

This study has also shown that in the application turn (Versakalo et al. 2010; Goggin 2011), mobile fashion applications represent only a fraction of overall mobile applications (nearly 0.2%). Fashion applications nevertheless deserve careful attention on the part of fashion and mobile phone researchers because, as we will see below, there are many lessons to be learned by the fashion system. While other dimensions of everyday life have benefited very much from the development of mobile applications, the fashion system seems to have reacted in a very limited way to this opportunity. This has happened because of the general delay that the fashion world, as an industrial sector, has shown in exploiting all the potential of the new technologies of communication and information.

In this new mobile technology phase, a radical change has occurred from traditional unidirectional fashion communication (from designers to users through traditional media) to a new, two-way/multi-to-many relationship. There is an interaction between fashion application developers, who use the introduction page to persuade and guide users, and users, who give their feedback rapidly, so allowing developers to react quickly. This bidirectional communication system works efficiently on fashion application platforms. In this era of major migration from offline to online (Castronova 2007), from location-fixed Internet to mobile Internet, the communication between traditional producers and users is more and more frequent and the bonds between users increasingly tight. To take advantage of this new context, the fashion world must increase its understanding of how to adopt and capitalize on new mobile technology. This understanding would allow the fashion world to open effective communication channels with potential fashion consumers, not only with the purpose of informing users about its new proposals more efficiently but also in

order to receive users' input, suggestions and so on. This issue is not yet completely solved and is in need of more attention. More generally speaking, more mature mobile technology platforms need to be developed to present good fashion content.

Another finding that emerged in this research is that the iOS and Android websites are hosting an intense and proactive form of expressivity and engagement by users through tools such as rating, leaving comments (although very few directly on fashion), sharing experiences, and also giving advice and suggestions to developers in order to improve the design of the application, the software, the quality of content, and its updating. This new behaviour expressed by users can with difficulty reach a fashion system that is completely unprepared. It is well known that fashion, as an abstract notion, which "*at best has nothing to be said about it, and at worst invites pure tautology*" (Barthes 2006, 124), has its own internal logic, indifferent to outside concerns such as history or utility or even aesthetics, and is completely bound up with its own representation (something is fashionable because fashion says it is).

But this is what fashion can no longer allow itself: indifference to any outside concern or criticism must be overcome, because users, until yesterday obedient adopters, are the actual missing piece of the puzzle.

### 5.2 Glocalization of fashion in the era of mobile internet

In my research, the glocalization of the fashion system is often raised either by interviewees through mentioning self-identity, or by the fashion bloggers through mentioning the adaptation and localization of the fashion system in China. The penetration of mobile Internet somehow hastened the process of globalization of the fashion system by digitalizing fashion content, spreading fashion information and selling fashion products on mobile phones in a more efficient, more controllable, more calculable and more predictable way. Yet the conflicts with the users' requirements of localization are more and more clear. The lack of context, and the tendency to get lost in the rapidly growing jungle of fashion choices, obliges the fashion system to face the big puzzle of localization of the online fashion world.

In order to illustrate the Western and Chinese concepts in the context of culture studies, here I return to the analysis provided by Said (2003, 13), to which I have already referred in my thesis.

*“To a very great degree the era of high nineteenth-century imperialism is over ... Yet, once again recalling the world of T.S. Eliot, although that era clearly had an identity all its own, the meaning of the imperial past is not totally contained within it, but has entered the reality of hundreds of millions of people, where its existence as shared memory and as a highly conflictual texture of culture, ideology, and policy still exercises tremendous force.”*

Said (1993) with these words has almost described the compressed self of many Chinese people. As it emerges from the comparison I carried out between Chinese and Western fashion applications, I will borrow his idea about culture to interpret fashion, as fashion can be also considered as a cultural phenomenon; and adopt his discourse on imperialism to indicate the Western-centred fashion system. Said treated culture and imperialism as two correlated concepts rather than putting them together as *“cultural imperialism”*. Nevertheless, he is still one of the most influential contributors to the understanding of these cultural dynamics.<sup>9</sup> Although Said is not against the concept of *“cultural imperialism”*, he obviously found himself confused by this concept somehow.

First, if cultural imperialism does exist, could the opposite of this concept be *“cultural nationalism”*? Nationalism and imperialism share some similarities in their relations to culture. Both of them are claims to the right of cultural expression. The former claims the legitimate right for expression and universalization of a Europe-centred culture; the latter claims the legitimate right for expression of national and local culture. This intertwined relationship between imperialism and nationalism in the context of cultural expression can be extended to the intertwined relationship between globalization and localization of culture. Here, cultural imperialism can be used to illustrate the gradually rising Chineseness (Chu 2010) in the Chinese fashion world. As I mentioned in the result part of this thesis, a new cultural movement is trying to combine the education of people to prefer traditional Chinese beauty with an appreciation of Western fashion design. In this trend, the old theme of *“中体西用”* (keep the Chinese essence in culture, education and philosophy, and adopt the Western utility in science and technology) is again conveniently merged into this process of glocalization of Western fashion. The recognition of Chinese beauty and Chinese

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<sup>9</sup> The only attendance of *“culture imperialism”* is in the quote of Abdulah Laroui.

traditions, these dense local elements, substantially enrich the glocalization of the fashion world.

Another essential role is played by social networking in fashion mobile applications. Social networking services are provided by many applications related to fashion. In certain game fashion applications, social networking allows users to play together and socialize with each other, which provides more incentive for users to get more involved with the game, and possibly makes the game more addictive to users. Besides these effects in the game fashion applications, social networking also provides an almost infinite space for users to communicate and for fashion opinion leaders, such as fashion bloggers, to spread information and comments which generate discourses over fashion topics. The significant meaning of this fashion “*public sphere*” is somehow nourishing the local and original ideas on fashion from the local population. To take China’s fashion bloggers as an example, the popular ones, although they have some background in traditional media and probably gained some experience in communication fields, are actually closer to the grassroots. This depends on the profit mode of fashion blogging, which uses authenticity to draw in followers and then help brands to sell products which they personally are convinced by. In this sense, these fashion bloggers appear to have more ethics than traditional fashion media. These bloggers, benefiting from social networking’s magnifying effect, are enjoying impressive success in China and in Italy; they also spread enormously informative and educational ideas on fashion. As opinion leaders, they have initiated certain discussions among mobile internet users who are interested in the fashion world or started to be interested in it, and brought new perspectives to reflections on fashion events. On the other hand, although they were previously in opposition to mainstream fashion media, fashion bloggers are more and more leaning towards them. The fact that the cost of blogging is much lower than traditional media would, however, probably allow bloggers to maintain a better balance between authenticity and commercial interests. These local fashion bloggers, as a kind of mediators, are playing an important role in the localization of fashion world in China.

### 5.3 Fashion education in China

To give a more individual perspective and try to answer the self-identity riddle in the fashion system and in the context of mobile Internet, we might turn to another important discussion, on fashion education.

The Cultural Revolution and the subsequent collectivist education destroyed both historical legacy and traditions, especially those linked to an elegant and beautiful Chinese lifestyle. The lack of materials to make clothes, but even more the social request to adhere to certain prescribed identities, coherent to their belonging to specific social groups, each one with a uniform style of dress, prevented Chinese people from the possibility of expressing personal aesthetic values. This phenomenon led to the loss of the tradition, and to the parallel loss of taste for clothing. In this context, when exposed to globalization, Chinese people received from the Westerners many proposals and suggestions, which were unfamiliar and hard for them to judge. Still now, people generally lack a proper cultural background to understand and recognize the Western concept of beauty, not to mention its adoption in a way that can be considered meaningful by the Westerners themselves.

To address this problem, or perhaps in reaction to that, a new cultural movement has been trying to combine the education of people in traditional Chinese beauty with symbols and artifacts that can be appreciated from a Western point of view. For example, the traditional practice of *tai ji* can be associated with super luxury jewellery, realized according to the styles and techniques of traditional Chinese craftsmanship. This movement is animated by the most powerful Chinese luxury buyers, who started this reflection while pursuing Western big brands. By rethinking traditional culture and rediscovering traditional beauty, they have adopted a new aesthetic perspective, which combines the uniqueness of Chinese tradition with Western design. Internet and the mobile application may therefore play an important role in providing users with information on fashion.

From the research I have carried out, I have found that mobile Internet no doubt provides the most vivid platform for Chinese fashion lovers to stay in contact with fashion information, fashion knowledge and fashion idols. As shown in the interviews, Chinese fashion users are getting enormous amounts of information on fashion based on daily updates from their smartphones. This has not only renewed somehow their knowledge about Western fashion, reminded

them about the Western-centred fashion world, gathered users of the same tastes, and also provided the opportunity to gain access to fashion production through all kinds of e-commerce to fashion users who never could have. The most updated users are informed about the fashion world, the more confident they then feel to domesticate fashion, and the further they would like to go to explore their own identity using the fashion language. No matter at what stage one user is, the accessibility of fashion information and fashion products, the openness of fashion discussion, the diversity of fashion opinions, the convenience of communicating between the fashion world and fashion users, and among the fashion users themselves, all these features facilitated by smartphones have opened a new page in fashion education.

### 5.4 Domestication: fun and games

Examining and discussing the main outcome of this research enables us to give a further scrutiny to the research question, “How has the fashion system been changed by the users of mobile fashion applications?” To answer this question from the domestication point of view, we can investigate another question instead: in which ways are mobile fashion applications supporting users in adopting fashion proposals into their everyday lives? An important result is that the areas of everyday life covered by fashion applications, and thus supporting domestication and appropriation of fashion proposals, are mainly those of lifestyle and gaming. As to lifestyle, it is easy to understand why fashion deals with the forms of social life, because it is here that style is built as a form of mass experience and where users translate fashion items into the material dimensions of their personal habits, tastes, practices, and so on. Mobile fashion applications support people in this mass exercise of self-education and social learning about fashion. They enable people to be prepared to appropriate the new fashion proposals and to understand how to combine the new fashion items. The “ars combinatoria” is still today one of the most difficult terrains of experimentation for fashion users (Fortunati 2005). The capacity to combine different fashion items and to transform them into a pleasant outfit is not universal and hence it needs to be strengthened with the continuous exercise that fashion applications convey by also transforming it into fun. Those fashion applications that directly teach users how to combine different articles of clothing help people build their own sense of style by means of repeated exercises and in an entertaining way.

The second category of mobile fashion applications – games – shows a less obvious and less studied relationship of fashion with fun. This study offers materials to support better understanding of this issue. As we saw before, game applications with well-developed mobile technology are accessible and very inclusive in the sense that their content is suitable for most users, even children. This feature makes game fashion applications very successful as a time-passers for users of all ages and even as a “baby-sitter” (Frizzo-Barker and Chow-White 2012), although with this convenient childminding tool, parents may risk their children’s addiction to games. But the convergence between fashion and games has other layers. Fun has been so far a latent aspect of the fashion world rather than a structural and officially declared feature. On the contrary, the results of this study show that fashion applications make fun visible and evident.

In the game applications that target offering fun and opportunities for socializing inside the game; the fashion element appears weak compared with the amusement aspect. Users of the game socialize through practising fashion in a virtual way without really adopting it in their real everyday lives or generating any serious discourse on fashion topics. The reviews from users of game fashion applications support the conclusion that few users connect these graphic games to the real fashion world.

A consequence of the convergence between fashion and gaming is the broadening of the age span of the targeted users of fashion applications, which now include children and adolescents. This means that the youngest can now perhaps be informed and “educated” in fashion by fashion games.

Another important result concerns the new technical challenges faced by the digital versions of the traditional fashion media: updating, fast downloading, the necessity to force quit, and interaction with developers and other users. Due to their adoption of clumsy technology, these digital fashion media have only a limited success. For this reason, although in some cases conveying excellent fashion content, these fashion applications do not enjoy high popularity. However, the delay shown by the fashion world with regard to technology may negatively influence the ferrying of fashion into everyday life (Barthes 1985). Barthes explains clearly the fundamental mission of fashion media in developing the links between image and text: *“Language conveys a choice and imposes it. The image freezes an endless number of possibilities, words determine a single certainty”* (1985, 153).



## 5.5 Cultural differences

The present study also provides some insights into the specific cultural aspects of fashion mobile applications in the US/internationally and in China, enabling us to answer another research sub-question: “Are there any differences between Chinese use of fashion applications and US mainstream use of fashion applications?” The most relevant difference is that to be successful in China fashion applications have to be Chinese-ized somehow in order to reduce the amount of novelty they convey. A series of steps are needed in order to accommodate an international product in a local dimension. This is the case with the Chinese market, which, despite the local dimension, is in itself strong. And Chinese app developers have their own strategies to adopt popular foreign applications into China’s local market. Lack of originality seems to be one of the problems of fashion application developers in China.

## 5.6 Limits and potentials

Due to the limits of time, energy and technical resources, almost all the results of this research are based on the descriptive data or qualitative content analysis, which will obviously be constrained by the researcher’s personal limits. And for the interview part, no comparison was made between interviewees from different cultures, since the data gathered was not distinctive enough to make any comparative study. As to the literature review part, due to the enormous body of research and studies by researchers from different fields on fashion, I could only choose a specific perspective to speculate on the major theme: fashion mobile applications. This choice could be possibly too narrow, considering that many areas of fashion literature are not taken into the discussion. However, all these parts can be improved in the future development of research on this topic.

This research is one of the first attempts to depict the fashion world on mobile phones. As an exploratory study, this research lasted for three years, gathered abundant observation data, and could be a reference point for other studies in this field. In the future, it would be worth continuing with the observation over the changes of different applications on smartphones to explore the communication changes of different fields that have occurred due to mobile Internet.





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