

FASHION ON SMARTPHONES

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Abstract

This article investigates fashion mobile applications that are mapped according to their features: content typology, number and average scores of ratings, as well as number of reviews posted by users and their content. Second, user behavior is compared between the United States and China, the two biggest smartphone markets in the world. Fashion mobile applications have an indirect relationship with the fashion system and millions of potential customers. In these applications, in fact, the relationships that take place are mainly between users and developers (of the application) or among users. Nevertheless, fashion applications contribute substantially to fashion as they introduce fashion to children, provide lifelong learning about fashion, and engage users in entertainment, in socializing and communicating, and also in purchasing fashion items. Several conclusions can be drawn from their use. First, the fashion system needs to present its content on a mature mobile-technology platform. Secondly, it needs to take seriously the changes in users' roles that today require more cooperation, sharing, and co-construction, and the fashion system needs to act accordingly. Third, these applications in general, but especially in China, pose the problem of the accessibility of fashion items. The more fashion purchase moves online, the more the distribution of fashion items must be improved.

Fashion mobile applications can be defined as pieces of software designed for mobile devices with the purpose of satisfying users' fashion needs or desires. Fashion studies have so far neglected the relationship between fashion and smartphones, whereas mobile fashion applications are fundamental in understanding what is happening in the fashion system among users. This article strengthens theoretical and empirical understandings of how fashion is changing and is integrated in the everyday life of users. Fashion mobile applications are mapped according to their features: typology (on the basis of the classification established by the application stores), number and average scores of ratings as well as number of reviews posted by users, and their content. Then users' behavior in the United States and China, the two biggest smartphone markets in the world, is compared.

Fashion and New Media

Traditionally, one big problem facing the fashion system was that of information and communication, as [Roland Barthes argued in his well-known book, *The Fashion System*](#). The fashion world periodically needs to reach the public with updated information and the latest collections. Until the advent of the Internet, this problem was managed through traditional media. Fashion magazines, newspapers, television or radio programs, and movies were the main instruments for presenting, illustrating, and explaining new ideas and fashion collections to the public.

In the first period of Internet diffusion (Web 1.0), the fashion system strengthened the channels of information by trying to implement online versions of print magazines and e-commerce Web sites. After the advent of Web 2.0, this system of information was transformed into a more interactive, articulated, and integrated system. A new phase was opened especially with the help of mobile media (smartphones, tablets, laptops, and so on). There is, in fact, a division between the use of desktop PCs and mobile media. The first have revealed to be the most suitable for managing information, especially visual information, and complex interaction and activity; the second have appeared to be unbeatable regarding short messages and quick vision. Online shoppers, however, do not rely only on a desktop computer to make purchases,

as demonstrated by the fact that in 2013, nearly half of all digital time spent on retail properties occurred via smartphones and tablets.

According to International Telecommunications Union (ITU), at the end of 2012 there were 6.4 billion mobile phone subscriptions, representing a global penetration of 91%. This penetration was 124% in the developed world, as a significant number of users had more than one phone, while in the developing world the penetration was still 84%. By the end of January 2013, the applications available on iOS and Android, the two most adopted mobile operating systems, numbered respectively 775,000 and 700,000. These applications cover games, news, music, pictures, cuisine, videos, shopping, productivity, social networking—and fashion. In fact, when searching the database of the company App Annie (which performs analytics on applications) using “fashion” as a keyword, 1,188 fashion applications were found in iTunes and 1,376 in the Google Play store. In total, 2,564 fashion applications were available to users in January 2013. Although fashion mobile applications represent only nearly 0.2% of overall mobile applications available, they deserve a careful attention by fashion studies.

What Fashion Gains from New Media

New technologies can give the fashion system a 360-degree view of the life cycle of its products, especially users’ behaviors, attitudes, emotions, and opinions. The proliferation of mobile applications represents success in attempting to supply detailed, concrete services and information to people by addressing their problems or difficulties. The mobile phone, in its new shape of the smartphone, appears most suitable for handling this trend.

Mobile fashion applications offer two main features: de-intermediation and instant access. De-intermediation is when fashion applications reshape the oversized and cost-increasing cultural intermediaries of the traditional fashion system (journalists, top models, testimonials, and so on) into an intense, immediate, and interactive social network. This de-intermediation means not only the possibility of direct communication between the fashion system and its users, but also of new forms of cooperation between them. While many industrial sectors have taken advantage of this, the fashion system is far behind in addressing the new role that its users can play. The second feature—instant access—means that users can access fashion applications anytime and anywhere, when they are out shopping or when they are at home.

Fashion Mobile Applications: Ratings, Advantages, and Categories

While in the traditional fashion industry, fashion items are mainly exhibited in brick-and-mortar stores, fashion applications are always sold, accessed, and debated on online platforms. App Store and Google Play are the sources of the empirical research data presented here. Each of these two platforms has a browsing system: customers who seek new applications can enter a keyword to find out how many related applications are available and compare them through customer feedback. After entering the keyword, results come with a link that might guide users to the forum where users’ ratings and responses are reported. As a quick reference, results are also shown in star rankings (from 0 = No rating; 1 = Hate it; 2 = Don’t like it; 3 = It’s OK; 4 = It’s good; 5 = It’s great). After reading the forum or the ranking, users may download and use the application they searched for. However, the platform regularly asks for users’ contributions in updating the applications. In order to enjoy a smooth and user-friendly application, users are inevitably pushed to interact with designers. In the Android app store, content ratings are defined according to the maturity of content and privacy issues as follows: “Everyone,” “Low maturity,” “Medium maturity,” “High maturity.” In the iTunes store, the classification is based instead on age ranges: 4+ (suitable for children older than four years) and similarly 9+, 12+, and 17+.

Smartphone barcode reader. Getty Images/Londoneye.

The sample applications—with the most downloads and reviews—discussed in this article are 505 fashion applications from Google Play and 684 from iTunes: 1,189 in total, representing 46.4% of all mobile fashion applications available in January 2013. A comparison of Chinese fashion applications with American ones was also made (in iTunes only, since this store divides applications by countries). Furthermore, a sample of 3,491 reviews posted on the platforms cited above was analyzed. This study detects the most frequent features of mobile fashion applications and a qualitative content analysis on users' reviews.

Surprisingly, games are the most popular category in fashion apps: on the Android system, 29.1% of fashion applications belong here; on iTunes, 27.5%. Among these applications, dress-up games are the most popular. Dress-up games are graphic games that set up a virtual social occasion, giving every user a virtual identity in the game, and asking her to choose an outfit for the occasion by using different shoes, jewelry, skirt, hairstyle, or makeup from among those offered to users. From analysis of the reviews posted on game applications, some findings have been captured: these dress-up games are mainly aimed at children and are particularly popular among girls under eighteen years old. The related reviews are mostly posted by those who babysit the children. A large number of the reviews include negative comments, for example describing applications as "childish, ugly, and boring." On the whole, fashion games like these and with well-developed mobile technology are very popular because they are easy for most of the users to access and to use, even very young children. Moreover, the applications' user-friendly nature makes them very successful, both as a way of passing the time and also because they can act as a virtual babysitter.

Another type of popular fashion game is Fashion World, which describes itself as a game in which users can (1) design a fashion boutique, including choosing and stocking the most fashionable items, (2) visit their friends' boutiques, and (3) send "like" tags to their friends. In this application there is not only a stylish combination of outfits as basic content and a theme of fashionable decoration—social networking play an important role, as players need other users to become their friends in order to gather more "like" tags to increase their reputation inside the game. Besides friends, users also need to make a virtual income for buying new clothes or new decorations for their fashion boutique. Some users spend real money to purchase the virtual money to gain advantage in this game. Ways of making virtual money are also a hot topic in users' reviews.

The second most popular category is lifestyle. On Android, 23.2% of fashion applications are included in this category, while on iOS it is 47.5%. Games centered on makeup are a typical example and such applications allow users to undergo virtual makeovers. After uploading or snapping a photo, users choose from thousands of lipsticks, blushers, foundations, mascaras, eye shadows, and eyeliner colors that they would like to try, experiment with the makeup on their own photo, and then send the perfect color combination to their preferred email address. In analyzing the positive reviews, it can be seen that users appreciate the creativity of this application; some of them report that they were able to really practice their cosmetology skills. In the negative reviews, users seem to focus on the technical limits or defects of the application, such as the fact that the facial recognition points are difficult to adjust in positioning makeup. The application's developing team usually replies to all unfavorable reviews almost immediately (most of their replies are sent one or two days after the reviews have been posted online). These findings support the idea that on mobile application platforms, users can be directly accessed by professional and amateur content producers while traditional intermediaries fade.

Applications that focus on street fashion are equally popular, such as Pose, a successful example. On Pose, users can not only find top fashion bloggers, celebrities, and stylists, but can also upload their own favorite outfits and share them with friends. In addition, users can put shopping information on the items they wear to enable other users to trace their choices. Most of the reviews on the Pose Web page are positive, yet the most frequently mentioned problem is about the shopping link of fashion items: some are not available or the suggested stores are impossible to reach. In the Chinese iTunes app store, Pose is not as popular as in the U.S. store, just because all the in-application links do not function on the Chinese users' mobile network as they are mostly directed to American stores. As a successful street style fashion application, Pose is the essential step from fashion design to everyday practices, similar to the exhibition organized by Ted Polhemus on Street Style at London's Victoria and Albert Museum in 1994. Pose includes social networking and online shopping, which completes users' fashion experience. Adopting the mature social networking technology, Pose presents considerable

fashion content and provides a space for users to communicate and find their favorite fashion item immediately through the online stores linked inside the application. It also meets the need for finding out about bottom-up fashion and sharing knowledge about how people create their own outfits. All these elements make Pose a popular fashion application on smartphones, and according to the reviews posted on Pose's Web page, a large number of users are loyal to this application and have generated steady patterns and habits to use it.

Other wardrobe management tools like Mycloset, Closet, and Cloth are among the most popular applications. They allow users to upload photos of their items along with notes and tags and then to organize them according to the weather forecast and the requirements of the next day. Here users can get recommendations and share their photos of outfits and individual items with their friends on Facebook and Twitter. According to users' reviews, these applications are highly appreciated, although some design and technical problems need to be fixed.

Business on a smartphone. Getty Images/Exdez.

Somewhat less popular are the fashion applications dealing with information and communication. Digital fashion magazines such as *Elle*, *Harper's Bazaar*, *Vogue*, *Cosmopolitan* and so on are also issued as applications on smartphones. Paradoxically, although the digital versions of traditional fashion media, such as fashion magazine applications, convey abundant fashion information on recent fashion collections, they also face several mobile technological challenges. There can be problems with updating, fast downloads, closing or sticking for no reason, and interaction with developers and users. Despite their excellent fashion content, these fashion applications cannot enjoy high popularity, because of the clumsy adoption of technology. Some fashion houses and fashion brands such as Chanel, Dior, Gucci, Ralph Lauren, H&M, Zara, and Forever 21 also use applications for releasing shopping information. These applications are mostly based on picture or video content and users are eager for updated content and for the fast downloading of content. Some other applications integrate e-commerce information from different platforms and provide it to users. Connected consumers in the early twenty-first century do not purely rely on brick-and-mortar stores: multi-platform Internet usage has led to a doubling of digital media consumption between 2010 and 2013.

Another important concern is the other features of fashion applications such as ratings and reviews. Ratings of fashion applications are mostly above 3 ("It's OK")—on iOS, 64.5% of the applications rated above 3 and, on Android, 89.2% rated at 3 or above. Another aspect that makes these applications popular is the fact that the majority of them (86.1% in the Android sample and 69.7% in the iOS sample) are free.

As to an analysis of the reviews, 84.2% of them include comments on fashion applications and among these comments, 70.4% are positive and 13.9% are negative (the rest are neutral). Furthermore, 33.1% of reviewers share some experience with other users and in 2.5% of reviews, users post their own game ID to find friends to play together. The most frequently shared experiences are those related to the content functions, being user-friendly, and patterns of use of the applications. Finally, 10.8% of the reviews give some suggestions to the developers: topping the list were the reporting of bugs, design of the application, content of the application, and updating in response to feedback. These results show the great appreciation users express toward fashion applications, and also point to the non-marginal role that fashion applications play in users' socializing and communication. The results also declare that fashion mobile applications reveal an *indirect* relationship between the fashion system and millions of potential customers. In these applications, in fact, the relationships that take place are mainly between users and developers (of the application) or among users.

Fashion Applications in China and the United States

Coming to a specific case study—the comparison between fashion applications in China and the United States—some data can sketch why looking at China is so important. China remains

the top apparel market due to its market size and strong growth in clothing sales. At the start of the twenty-first century, several fast-fashion retailers have aggressively expanded in China. In 2012, H&M opened fifty-two stores and Zara opened thirty-seven. Gap planned to open thirty-five stores in 2014. In China, 74.5% of Internet users in 2013 used mobile devices to access the Internet, which, compared to Europe, for example, constitutes a really remarkable percentage. 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 coauthor, in most emerging markets, e-commerce is less than 1% of total sales; in China, it is 6%, which is higher than in the United States. More than three-quarters of online sales in China concern apparel. China's luxury market remains strong—it has surpassed that of Japan and in 2012 became the second largest luxury market in the world—but it is not growing as fast as in the past. A key reason is that many luxury purchases are made abroad to avoid the high luxury products tax and a strong currency. According to a McKinsey's survey released in 2011, 28% of Chinese people said they kept abreast of the latest fashions. An awareness of fashion is awakening in China; the role fashion applications play in the smartphone world there is thus beginning. As the two biggest smartphone markets, the United States and China share a lot in terms of the mobile applications market, yet the two countries still reveal some differences in usage.

In the Chinese iTunes store, Chinese mobile fashion applications are very popular. Normally, they associate themselves with different online shopping platforms and provide users with pictures of fashion items linked to Chinese online stores in order to expose users to a feasible shopping environment. Usually, these fashion items are cheaper than those that can be found in brick-and-mortar stores. The applications that enjoy huge popularity in the international applications market frequently lose their popularity in Chinese app stores, even though they have Chinese versions. (Chinese applications that imitate the international ones are downloaded more often, have more reviews, and enjoy higher average-rating scores.) Besides the language translation issue, accessibility is a problem: the links inside applications are usually not available in China because of Web censorship. In fact, some online stores cannot be accessed in China and people are obliged to subscribe to Facebook and Twitter in order to log in to the fashion applications. Hence, the advantages of the social networking function of popular international fashion applications are lost. There is a strong need for cultural translation regarding international fashion applications among Chinese users; much effort is being made to domesticate both fashion and mobile Internet in everyday life.

Main Outcomes of Fashion Applications and New Challenges for the Fashion World

It is important to stress the convergence between fashion and games. *Fun* has always been a structural feature of the fashion world, but more as a latent aspect than one formally evident. The new role that games are playing in society, where potentially everything is transformed in games, fun, and entertainment, is aptly described by the expression “gamification,” which indicates the process of increasingly covering reality with games. Through these game applications, fun becomes the main dimension, due also to the pleasure of socialization with other players. Moreover, the applications represent a kind of *introduction* of children to fashion, especially girls, who appear to be more interested to this topic from childhood. Fashion emerges as a relevant topic of entertainment and education, which is precious when adults interact with children. Yet in these games the fashion element is relatively weak, because users practice fashion in a virtual way without necessarily transferring fashion culture to their real everyday life, or seriously discussing fashion concepts and strategies. How to meld more true fashion content into these mature technology-adopted applications is a task for the fashion world.

Furthermore, in the early twenty-first century, the application of the “ars combinatoria” is still one of the practices of use that needs to be improved or learned by fashion users. Not everyone has the ability to combine different fashion items into a pleasant outfit and so practice is needed; applications provide exactly this service and do so in an amusing way. Thus fashion applications facilitate the process of lifelong learning about how to dress or how to apply makeup. They allow users to rehearse until they become expert. From fashion proposals to the elaboration of a personal style and image, there is a big leap that is in part filled by these mass

exercises for the construction of collective tastes. From the overall analysis of mobile fashion applications, three simple conclusions can be drawn. First, fashion content needs to be presented on a mature mobile technology platform. Methods of adopting new technologies seem to be quite a big challenge for the fashion world. Second, an important shift has occurred in this new mobile technology era, from traditional unidirectional fashion communication to a bidirectional one. The fashion system on the whole must acknowledge seriously that the role of users has changed and, in the early twenty-first century, they require from fashion more cooperation, sharing, and co-construction. The whole bidirectional communication system works efficiently on fashion application platforms, where users have found a way to raise their voices. Traditionally fashion has expressed a commanding attitude and has been quite indifferent to criticism. But, in the early twenty-first century, this is no longer possible: society has changed, multiplying the forms of social interaction and destroying the old, rigid, and unilateral order of communication. Buyers, customers, consumers, and users have acquired more power in their relationship with the fashion world. Fashion users discuss in public, evaluate, criticize, and express their appreciation and in the face of this collective debate which has emerged in blogs, social networking Web pages, and in Web app stores, the fashion system cannot remain indifferent as it did in the past. Third, these applications in general, but especially those used in China, pose the problem of access to fashion items. The more fashion purchase moves online, the more the distribution of fashion items has to be improved.

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