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Smartphone photography and its socio-economic life in China: An ethnographic analysis

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Abstract

The smartphone is perhaps one of the few items that can define our time in terms of its ubiquity and mobility. The photographic feature of various types of smartphones has also drawn the attention of consumers and manufacturers in recent years, with the consecutive upgrades of built-in cameras, photo-editing and sharing apps. From the taking, retouching, to publishing a photograph, smartphone photography, coupled with social media, has become important in understanding the relationships between digital image and sociality, aesthetics and identity. This article examines several new developments such as the rise of 'professional amateurs' and the selfie within the Chinese context. It then attempts to develop theories of smartphone photography that incorporate these developments. Using ethnographic analysis and interviews, this article aims to theorize smartphone photography as a series of practices that reveal local and individual specifications that traverse technicity, sociality and aesthetics. It shows how this has had a significant impact on Chinese people's economic and social life.

Keywords

Anthropology of China, digital anthropology, new media, platform infrastructure, smartphone photography, social photograph, visual communication

Introduction

99.1% of Chinese netizens have been accessing the Internet via mobile phones up to June 2019 (China Internet Network Information Center, 2019, p. 7). The penetration rate of mobile phone subscribers has ranged from 69% (Global System for Mobile Communications, 2019, p. 6) to 71% (Poushter et al., 2018, p. 10) of the country's overall population. In either circumstance, we are looking at a phenomenon involving over 80 million people whose everyday practices are infiltrated

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by mobile phones, or to be more precise, by powerful camera mobile phones that are called smartphones these days. Most Chinese citizens are familiar with the smartphone today. It is a portable personal computer featuring various functions that are further enhanced and expanded through the application of all kinds of smartphone apps. It can be said that smartphones are the interface through which contemporary lifestyle is made accessible for a large proportion of the Chinese population.

Among all the dazzling features and apps, the mobile phone camera has been subject to continuous prominence and improvement. The mobile phone camera first appeared on the back of the Sharp J-SH04 launched in Japan in 2000. A few years later, Sony Ericsson's Z1010 started the tradition to install a front-facing camera on the screen side in 2003 (Nerdky, 2003), after which time the video chat and selfie became available. The long-term collaboration with the German optics expert Carl Zeiss made Nokia camera phones the most popular brand internationally, until the advent of the iPhone in 2007 and Android system smartphones using larger touch screens (Orlowski, 2011).

My fieldwork at a photo-sharing online platform T in Beijing, China (from February to June 2017), witnessed the thriving market in camera phones in this country. Huge photographs, which would be regarded as having the quality accorded to the standard of professional photographers, were displayed on massive billboards in central areas of the city, with the statement that they are taken by iPhone X, the cutting-edge product developed by Apple. Along the streets of *Zhongguancun* and *Shuangyushu*, the tech-innovation hub of the country, where many tech-firms, universities and research institutes locate, there were breath-taking portrait photographs taken by the Xiaomi 6 smartphone, on advertising boards in bus stops and metro stations. These images had impressive bokeh created by the double lenses system, a function achieved by algorithm and machine learning technologies to simulate the effect of the shallow depth of field, usually achieved by a camera with a large aperture lens.

Meanwhile, the daily statistical data of T shows that the website had been visited via smartphones more frequently than through computer desktops. Besides, images uploaded by mobile devices have almost reached 50% of uploads since the end of 2016. A considerable amount of smartphone-made photos kept on hitting the server, especially with competitions and awards cohosted by domestic smartphone manufacturers, such as Huawei and OPPO. All of this demonstrates the necessity of taking smartphone photography seriously as an arena, where economic, political and cultural dynamics are integrated and entangled.

What do Chinese people expect from camera phones? How are they using them, and for what purposes? What kind of phone-made images are good in quality? What sort of aesthetics are being produced and how have they contested or legitimized contemporary Chinese people's values and lifestyle? This article intends to interrogate these questions based on ethnographic evidence. By analysing specific cases within a framework concerning the technicity, sociality and aesthetics of smartphone photography in China, it strives to fill the literature gap in the domain of smartphone photography in China and responses to the theoretical and methodological limitations of them. Also, by examining how smartphone photography has interacted with the Chinese digital-visual economy and reinforced or contested certain values and self-understanding of Chinese people, the article presents an ethnographic depiction of smartphone photography's practice and significance in contemporary China, as well as an anthropological dialogue between general, universal scholar-ships of smartphone photography and a culturally specific analysis on this subject to enrich extant 'anthropology of smartphone' literature.

Smartphone photography in digital research and ethnography

There is an established ethnographic tradition of studying photography as a social vehicle. The discussion of the relationship between the judgement of tastes and the construction of class and identity in society has been comprehensively developed in these works, shedding light on different cultures and societies since the second half of the 20th century (Bourdieu, 1990; Pinney, 1997; Strassler, 2010; Walton, 2016; Wright, 2013).

In the paradigm of a socio-technical understanding of photography, there is an extensive literature concerning smartphone photography, providing several approaches to understanding how it works and why it matters for individuals and societies. One approach considers the marriage between photography and the smartphone represented by Apple iPhone as a socio-technical network that, for the first time in the history of photography, integrates the production, circulation and distribution of images into one device (Cruz & Meyer, 2012, pp. 203–208). Drawing on Larson's (2008) call for 'photographic agency' through the Latourian Actor-Network Theory (ANT) that treats apparatus and individuals as equally connected hybrids (pp. 145–149), some scholarship attempts to define smartphone photography as a new, prominent moment in the history of photography, characterized by 'complete mobility, ubiquity, and connection' (Cruz & Meyer, 2012, p. 217). This is underpinned by powerful smart devices, sociable apps, software interfaces and digital platforms.

From such a socio-technical perspective, the exploitation of the networked platforms' and devices' specific functions in people's everyday life continues. Daniel Miller (2015), for instance, presents a 'contemporary and ethnographic' history of photography practices by people of different age groups on three social media platforms, namely Facebook, Instagram and Snapchat, in a southeast English community. Based on how photographs are recognized and consumed on these platforms in a chronical manner, Miller gives us an example of analysing how sociality and technicity intertwine and interact, producing a thriving, everyday landscape of social-media photography.

In the edited volume *Digital Photography and Everyday Life* (2016), Cruz and Lehmuskallio invite authors to address an array of scenarios where photography's contemporary affordance of mobility, connectivity and sociality are manifested. They incorporate not only issues conventionally discussed by photography theorists, such as selfies and self-representation (Mota, 2016; Uimonen, 2016), but also as topics more concerned by social theorists, such as the relationship between digital photography and the construction of a new locality from a geopolitical perspective (Anderson, 2016; Pink, 2016; Villi, 2016).

The latest work dedicated to photography produced and circulated in a digitalized and mobilized context comes from Nathan Jurgenson (2019), who defines the vernacular, everyday photographs circulated on social media platforms as 'social photos' (pp. 8–10). Lev Manovich launched a research project focusing on Instagram in 2015 which was later consolidated into a book. In both works, the aesthetic of photographs on social media platforms and methods to achieve specific imagery effects through filters and apps made available by the smartphone has gained significant attention. Manovich (2017), for instance, divides Instagram posts into several categories based on their aesthetic quality and argues that the platform itself is for 'aesthetic visual communication' (p. 41). Jurgenson (2019), on the other hand, has developed the idea of the social photo from a bunch of filtered, faux-vintage images made by Instagram and another photo app, Hipstamatic (pp. 1–4), the aesthetics of which further lead him to examine the psychology and cultural practices behind them. Through both authors' works, a more comprehensive model that integrates the technicity, sociality and aesthetics of smartphone photography eventually come into play.

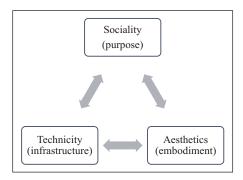


Figure 1. The three interactive factors that define photographic practices including smartphone photography in the era of social media. It is a model used to understand smartphone photography in this article.

For scholars who add 'technical' after 'social', questions of aesthetic experience and form of images have given way to the depiction of the digital photography's technological infrastructure for the reproduction of social relations. This leaves the discussion somehow unfinished (Larson, 2008, p. 145). In Larson's study of one of the most used photo-sharing websites worldwide, Flickr, where ANT plays a critical role in constructing the idea of 'culture of connectivity', she suggests that media theorist José van Dijck (2010) wove together theories around social and technological determinants without looking at a single image uploaded by the users themselves. Following Larson's concern, this article includes the 'technical' as well as the photos per se (aesthetics) as significant aspects of analysis.

Technicity, sociality and aesthetics: a perceptive framework

Here, technicity refers to the technological *infrastructure* for smartphone photography and practices related to it, such as photo-sharing, viewing and communication in cyberspace. Sociality is the *purpose* and is also often the outcome resulting from a series of smartphone photographic practices and the digital and social networks in which they are embedded. As for various aesthetic strategies invested in specific photographs, they clearly *embody* technological and technical conditions, yet reflect the reproduction of social relationships, by unifying and distinguishing individuals from individuals, groups from groups (Bourdieu, 1984, 1990). By interacting and influencing each other, they formulate a triangular model that allows us to understand smartphone photography as a multi-faceted, comprehensive practice (Figure 1).

However, to simply say that smartphone photography is socially, technologically and aesthetically determined is nothing more than an abstract proposition and common sense in general. As Jurgenson (2019) noted, 'all photos are social' (p. 8), so are they technological and formal. Therefore, the key discussion is *how* technicity, sociality and aesthetics in smartphone photography would interact, entangle and affect each other, which calls for empirical studies in broader yet specific socio-cultural contexts.

In line of the work of contextualization, this article asks: What are the similarities and differences in making and sharing photographs on the Internet between China and Euro-American countries? Are they using the same model of smartphones, apps and social media platforms? Do they

share common taste in judging whether an image is in 'good quality'? Those who know some basic facts of the Chinese Internet and digital industries would immediately refer to various 'copycat' apps and products similar to their Western counterparts (e.g. Weibo and Twitter, see G. Yang, 2012, p. 50). This is partly a consequence of the Great Firewall that has restricted the access of powerful tech-firms and their products, such as Facebook, YouTube, Twitter and Instagram,¹ to the Chinese market and the everyday life of Chinese people (Tai, 2014, pp. 64–74). Major technology and business watchers of China would also link major domestic smartphones' popularity, especially Huawei, with patriotism across Chinese social media platforms (Goh & Jiang, 2019; Kan, 2019; Strumpf, 2019). A business report has also revealed that between 2017 and 2018 on Vipshop, one of the country's major e-commerce platforms, Huawei smartphone's sales increased 96.3% in tierone cities, with iPhone's sales dropping by 11.1% (Nielson, 2018, p. 34).

These questions and facts indicate that smartphone photography needs to be understood as a 'glocalized' phenomenon that mirrors global homogeneity and local heterogeneity at a time-space level (Robertson, 1995). Furthermore, they confirm the necessity of interrogating smartphone photography through a lens incorporating the dynamics between this ubiquitous, worldwide practice and its indigenous, non-Western appropriations, demanding empirical, field-based study.

In a sense, Wen Zhang's (2017) paper, Smartphone Photography in Urban China, seems to have corresponded to such a stance. Combining both interviews with smartphone users and analysis of their images classified into various categories like selfies, food pictures and screenshots, the paper offers the reader a broad depiction of how Chinese city dwellers use their camera phones and image apps to fulfil the desire for self-representation and documentation of life. However, while the author has indeed touched some significant practices of Chinese smartphone users, the findings enlisted in the fourth section of the paper, and the analysis followed seem to fall short of the high expectation. After a series of facts and interview materials, the 'interest-driven', 'aesthetic-driven', 'evidence-driven' and 'share-driven' usages as the conclusion struggled to elaborate the 'Chineseness' within smartphone photography practices of Chinese people. Instead, they are very much echoing the general findings in existing Western-led research and a 'manifestation' of the Euro-American tradition of theory of photography and ways of seeing.

Indeed, a number of Chinese people are posting food photos and selfies every day, but so are countless non-Chinese netizens on Instagram. To what extent the practice of smartphone photography among Chinese is 'typically' Chinese is the question requires further investigation. How should we understand such a parallel, or would there be something distinctive, say, aesthetically, in images posed by certain groups of people? To some extent, this article steps further than Zhang's to scrutinize these questions, tackling substantial problems within the discourse of 'glocalization' and investigating smartphone photography in China on the axis of technical, aesthetic and societal entities.

Methodologically, this article employs ethnographic materials obtained through participant observations and interviews with over 50 Chinese amateur photographers and practitioners in both China and the United Kingdom who conduct photography practices on the Internet. The platforms on which they are active range from general social media platforms like WeChat and Weibo, to photography-dedicated platforms such as T and 500px. The data have been collected during 2015–2019 as a part of my PhD research. Specifically, in this article, materials analysed are derived from everyday communications, semi-structured interviews, photo-shooting tours with young Chinese photographers or practitioners (under 36 years old), and online published content contributed by them, including short essays, blog posts, comments and photographic works. Among them there



Figure 2. Alex's smartphone photography works depicting the night view of the city (top left), natural splendours in colours (top right) and black-and-white style (bottom right), as well as the moment of light and shadow in people's everyday life (bottom left). All images are retrieved from https://www.zhihu.com/question/49132289, on 1 January 2020.

are self-employed entrepreneurs doing business with camera and smartphone manufacturers, financial analysts, branding executive and community operators of online photography platforms and postgraduate students obtaining their degrees in prestigious UK and US universities. To summarize, they can be categorized as young Chinese middle-class, a widely adopted yet consistently contested term in scholarships of contemporary Chinese social stratification (Goodman, 2014). More or less, they are related to the digital-visual economy of China, and the ways of which will be shown in the following sections.

Smartphone as a 'photo apparatus'

On Zhihu, China's most popular question-and-answer platform, the question 'why do we prefer taking photographs with smartphones more and more?' has received 656 answers, agitating a lively discussion accompanied by many photographic works and comments. Alex (i.e. AlexanDENG), one of the members of the UK-founded Chinese photographer's group British Rain and a professional practitioner connected to many Chinese photographic and smartphone manufacturers, gave the answer with the most likes and comments, using his pictures made by iPhones and Huawei smartphones (Figure 2). According to him, humans have been seeking for tools that are 'functionally powerful, conveniently portable, and easy to use'. For camera

manufacturers, this is also the trend, with smaller, more user-friendly machines released year after year. However, the rapid popularization of social media has raised a new demand for the instant uploading and sharing of photographic works beyond the quality of image, portability of apparatus and ease of use (AlexanDENG, 2017). In this light, the photography feature of a smartphone that connects to the Internet and enables instant communications has become increasingly prominent. The pattern of photography for the masses today, Alex concludes, incorporates four steps: shoot, retouch, upload and display.

Six years before Alex shared his discovery about smartphone photography on Zhihu, Annie Leibovitz, an established photographer whose fame is based on her stirring portraiture works of celebrities, had recommended the iPhone to the audience as 'the camera they should buy' in a 59-second clip of a nightly interview on the website of the NBC News. She claimed that the iPhone had made photography 'accessible and easy', fulfilling the traditional role of a camera and an album; '[i]t is a pencil, a pen, a notebook . . . (replacing) the photo in one's wallet' ('Annie Leibovitz Says Go for the iPhone, 2011' for NBC News). As a response, the host of the interview, American journalist Brian Williams, commented, 'what an interesting answer from the modern master of photography!'

Alex's observation and Leibovitz's recommendation share some parallels regarding smartphone photography's operational features from a photographer's point of view, such as multi-functionality and good portability. In addition to such parallels, however, Alex shows more concern for smartphone photography's communication functions than Leibovitz does. He embeds digital photography within the practice of digital communication, rendering the importance of instant uploading and sharing of photographic works on social media platforms for contemporary smartphone users. Such a stance leads to a functional extension of smartphone photography after traditional photography. For Leibovitz, what she sees in an iPhone is a functional replacement or continuation of traditional photography that transforms analogue, paper-based photographs into automatic, algorithmic snapshots and digital files. Such a comparison, which took 6 years (2011 vs 2017) to occur, curiously brings us back to Daniel Miller's discovery on the distinction between Facebook as a popular online album around mid-2000s and Snapchat as a visual communication tool among English teenagers in early 2010s (Miller, 2015). The corresponding parallels between perceptions of smartphone photography's roles and functions, its relationship with social media platforms, as well as the similar timespans, has revealed that visual communication, or visual socialization, is the central concern for younger smartphone owners today internationally.

Alex's case sheds light on the fact that smartphone photography is not merely taking pictures with a smartphone camera. Instead, it incorporates various practices, including the appropriation of a whole range of photography and social media apps, imbued with aesthetic and social pursuits. In this sense, smartphone photography is essentially no more than ordinary photographic practices that have been familiar for almost 200 years. In Leibovitz and her interviewer's conversation, the latter might have doubts: why would a successful, professional photographer like Leibovitz recommend a smartphone as a 'must-buy', whose photography functions were associated as an 'add-on', an 'icing on the cake'? At that time, their conversation still implied doubt as to what extent a smartphone can improve on established photography. Today, Alex's pictures, taken in various lighting environments for different subjects and themes, with comprehensive post-processing procedures, and shared on Chinese social media platforms, can serve as a powerful validation of Leibovitz's recommendation; a smartphone is not equivalent to an ordinary camera. It is also a 'photo apparatus' that is capable of dictating the immediate afterlife of images through instant adjustments and distribution for the sake of communicative and social activities.

'Shoot, retouch, upload and display' are the basic steps in smartphone photography, which has become rather familiar to contemporary smartphone users across the world. The resonance between the Chinese photographer Alex and the American photographer Annie Leibovitz implies a shared understanding of the smartphone as a 'photo apparatus'. Formally, the *National Geographic* style of Alex's works, recognized by international photography communities, such as 500px and smartphone-dedicated photography competitions facing international audiences, have presented the international side of smartphone photography. However, a more comprehensive analysis of Chinese amateurs and artists' practices and images will be needed to reveal the 'Chineseness' embedded within the global view.

'Professional amateurs' and the digital-visual economy of smartphone photography

'Serious leisure', as put forward by sociologist Robert Stebbins (2001), 'is the steady pursuit of an amateur, hobbyist, or volunteer activity, that captivates its participants with its complexity and many challenges' (p. 54). Following this definition, since 2015, I have been conducting fieldwork with a group of amateur Chinese photographers who are active on the Chinese Internet and take photography as 'serious leisure'. Most of them are males, born after 1985, with bachelor-level and above education, and from middle or higher middle-class families in China. They prefer pricy equipment in order to create aesthetically impressive images and are willing to invest both time and money. Taking photographs alone or in a group, they will select and retouch images before uploading them onto photo-sharing websites or general social media platforms that are popular in China, further facilitating a social network integrated by photography-related activities.

While these photographic practices as serious leisure have validated most of my research participants as 'serious amateurs', what Stebbins' definition failed to anticipate is that some research participants in this study have started turning photography from a hobby into a part-time or full-time job. For example, after completing his master's degree in the United Kingdom in 2014, Alex joined a reputable FMCG company's Chinese branch in Guangzhou, the third-largest city in the country. In less than a year, he quit the job, gave up a stable life and rewarding career to start his own photo business, drawing on his passion for photography.

Alex distinguished his services from traditional photo studios that focus on individual and group portraits and other photographic assignments. Instead, he began to write tutorials of photographing different subjects and scenes, retouching skills, using his works as examples and circulating them across online platforms. This soon helped him to accumulate more and more followers and make him an influencer in the area of photography on the Chinese Internet. Drawing on the numbers of followers, the page views of his pictures and tutorial articles, Alex's studio further attracted collaborative contracts and sponsorship from leading tech-firms, travel companies and photographic manufacturers. Since 2016, he has been in a continuous partnership with Huawei, acting as the sample image photographer and tester of Huawei Mate and P series (Figure 3).

According to Alex in a personal interview on WeChat (27 April 2018), these commercial contracts, which incorporate photographic services and promotions on social media channels, can account for about half of the annual revenue of his studio. The transformation from a hobby to a 'hobby-business' fundamentally challenges Stebbins' argument that 'serious leisure . . . can serve as an effective non-remunerative substitute for work in the Information Age', with financial reward replacing the voluntary base of that leisure. To a large extent, Alex, among other skilful photographers or media practitioners, has managed to take advantage of the booming digital-visual economy



Figure 3. Sample photo of Huawei P30 Pro taken by Alex, showing the in-built Leica Quad Camera System's strength in low light photography, from Huawei's official website, https://consumer.huawei.com/en/phones/p30-pro/gallery/, retrieved 1 February 2020.

in China. For those who are dependent on the development of ICTs and social media, acquiring popularity in cyberspace can mean a lot, such as recognition of their specialty in specific fields and by certain social groups. This has proven to be a business model that is both financially and spiritually satisfactory. The data traffic around their posts, photos, videos and other contents, quantified by various parameters such as the number of followers and page views of relevant content, has become the 'data-capital' of such digital-visual economy.

The expression 'professional amateurs' (Y. Yang, 2020, pp. 235–239) seems to best emphasize the co-existence of the 'amateur-ship' and 'professional-ship' in this novel career path, or lifestyle, practised by some of today's Chinese netizens. 'Professional amateurs' challenge the traditional boundary between amateurs and professionals as their major audiences are photography hobbyists. Furthermore, major smartphone manufacturers are willing to work with these professional amateurs. In a conservative Internet environment where the main social media platforms run by Western tech-giants like Google and Facebook are either restricted or banned, locating and recruiting these local Internet influencers by local tech-firms has become convenient. By sharing their knowledge of Chinese people's preferences in photography in terms of function and aesthetics, the professional amateurs and manufacturers have developed an understanding that is restlessly evolving to meet the expectations of their Chinese customers.

For instance, in a WeChat group organized by an established Chinese smartphone manufacturer who hosts an annual international smartphone photography competition, a number of professional amateurs could communicate their photographic works, socialize with each other, advise on user experience and give instant feedback. During my fieldwork, such WeChat groups that incorporate both users and service providers are not rare. The organizers, moreover, are not limited to smartphone or camera manufacturers but also include community operators from photo-sharing platforms.

Chinese manufacturers have been trying to cater to the aesthetic taste of domestic consumers through a technological means. During a shooting assignment from a leading Chinese smartphone brand in 2018 to enrich their social media portfolio internationally, Mr Five, the photographer and producer of this assignment and a participant of my research, flew to London from Shenzhen to take portraits of several non-Chinese models. As his photography assistant, I observed how difficult it was to focus and expose properly on the male model with dark skin colour with the 'portrait mode', in which manual adjustments of focusing and exposure were not available. In contrast, those faces with lighter skin tones could easily be identified and captured. Here, I invite the readers to note of a kind of 'technological racism' in the form of smartphone photography. Although it is not the core argument of this article, it is nevertheless a prominent issue in connection with extensive discussions on the relationship between the human and machine underlined by scholarships of digital humanity, science and technology studies and critical theories.

The forms of engagement with photography of these 'professional amateurs', however, are not always the same. Yuanhuace, an influential photo studio dedicated to smartphone photography on the Chinese Internet, has followed a different pathway from Alex. Founded by H, winner of the IPPA portrait category in 2015, the studio has focused on promoting the idea that using apparatus as civilian and affordable as a smartphone is sufficient for making beautiful images. Drawing less on contracts and assignments from established companies and manufacturers, H has endeavoured to provide a paid series of online courses, individual critique tutorials, and organize community events in his WeChat fan's groups, helping his followers and subscribers improve their skills in smartphone photography. This pathway, recognized by photography practitioners and amateurs as 'photography education' (sheying jiaoyu), has grown so popular that major Chinese photography platforms like T, Fengniao and online education platforms like CCTalk, Qianliao have all opened up specific sections and sites to support the E-learning of photography, including smartphone photography. Lecturers and tutors of these courses vary from skilful amateurs to professional commercial photographers, as long as they are influential on the Internet. The tuition fees can be set flexibly to target different consumer groups, for different purposes. For example, in November 2020, I participated as one of the course tutors of an education project initiated by D, an art photographer and public relation executive in a first-tier Internet company, L, a lecture of photography in a US university, and myself. We designed two types courses, an introductory one that lasts for about 1 hour and a workshop that lasts for 7 days, with the former being sold at ¥99 and the later ¥2580.3 According to D, the introductory courses are aimed for as many audiences as possible, creating popularity and branding effect to attract more Internet traffic, while workshops are designed for customers with more advanced pursuit for portfolio improvement, studying abroad and even a photography's career.

Alex's 'contract route' or H's 'education route', regardless how different they might look like, contributes to the forming of professional amateurs' economic life, which is an integrated part of the digital-visual economy in China. They share the fundamental rule of Internet traffic, which indicates and even determines the commercial value of their practitioners, yet demonstrating

alternative, real ways of living depending on the virtual economy, following the basic market mechanism of supply and demand.

The 'face value': smartphone photography as a socio-economic instrument

Following a supply and demand relationship, on the other side of H and other professional amateurs' novel career paths are a great number of ordinary people who want to improve their photography through their smartphones. Thanks to this increasing demand, H's business has thrived. But why is using a smartphone to make decent images is so important? This section proposes that *mianzi* (face) is playing a critical role in the process and that the increasing demand reflects and crystallizes smartphone photography's social facet in China.

Ray, a financial analyst and amateur photographer in his late twenties, thinks photography is attractive largely because this hobby has 'added him face' (*zhanglian*) among others, especially those who befriend him on WeChat, where he routinely presents his works. Although the photos he posts are not necessarily all taken by smartphones – many of them are still camera-made and are adjusted for publishing on the smartphone-dedicated platform – he notes that the circulation of his high-quality works has helped him to distinguish himself from others in the same industry, thus impressing the clients more effectively and smoothing the process of trust-building within business activities.

'WeChat is the only platform on which I now post photographic works', Ray said after we had dinner on an October evening in 2016, 'it is also the reason I take photographs, because I feel myself "having face" to create a WeChat Moment different from others'.

Those retouched, edited, location-specified images organized in a sequence of nine (*jiugongge*) on WeChat,⁴ on one hand indicate his 'artistic pursuit' and the capacity of fulfilling a taste for beauty with consistent practices; on the other hand, they contribute to the shaping of a young, ambitious financial practitioner through his documentation of people and views of different places across the world (Figure 4).

Mianzi (face), an essential concept in Chinese social relations, refers to the perceived positive personal reputation, which is associated with social status and power of control, fluctuating with morally superior or inferior performances (Ho, 1976; Hu, 1944). In the study of self-(re)presentation online, scholars have started to pay attention to the concept of *mianzi*. For example, Chen and her colleagues integrate a set of Chinese social norms, including mianzi, into the technology acceptance model (TAM) to investigate their relevance with the adoption of WeChat by Chinese people. By analysing 611 participants' responses to their questionnaire, they find that WeChat is considered useful for Chinese people, because it is a place for the accumulation of mianzi, benefitting one's social image and enabling one to render online social communications (L. Chen et al., 2017, p. 1138) and 'obtain instrumental benefits' (L. Chen et al., 2017, p. 1131). In her comparative ethnography of different ways to use RenRen and Facebook among 42 mainland undergraduates studying at Hong Kong universities, Tian (2018) demonstrates the essentiality of mianzi and 'facework' on both platforms but argues that the constructive strategies of self-images on them are quite different due to the users' perception of the potential audience. Such a platform-centred perspective, although it risks technological determinism, reminds us not to overgeneralize the process of circulating self-images across social media platforms. How WeChat can add to one's mianzi is vividly presented in Wang's writing on social media in industrial China. Quoting from one of her

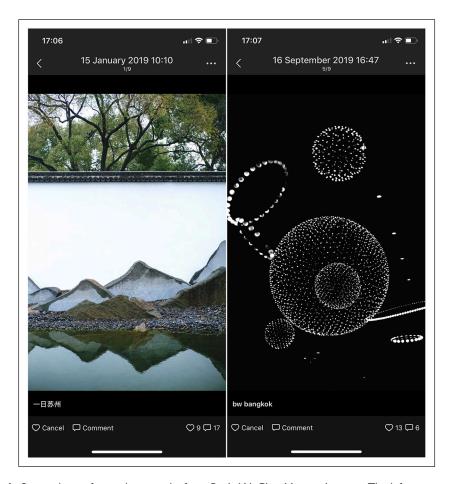


Figure 4. Screenshots of two photographs from Ray's WeChat Moment's posts. The left one was a documentation of Suzhou Museum in a sequence-of-nine group work, titled *One day in Suzhou*, on 15 January 2019. The right one captured the abstract shapes of lights in the Bangkok city through a black-and-white photographic post-processing during his business trip on 16 September 2019.

research participants who takes advantage of the 'common friend only' rule of WeChat to 'make his less popular postings appear to be very popular', the author shows a young Chinese's imperative to maintain his *mianzi*, which associates with a popular, positive social image online (Wang, 2016, p. 45).

The idea that presenting high-quality photographic works through one's social media platform can add to one's *mianzi* reveals the socially positive image of smartphone photography in China. Labour's Day or national holidays are also the times when companies and individuals engaging with photographic businesses promote their products in the name of helping you win the so-called 'Grand Photography Competition of the WeChat Moment'. Mostly such 'competitions' are not formally organized or rewarded by any person or organization. However, the merchants' strategy to name the posting of photographs via WeChat as competitions also corresponds to the competitive essence of *mianzi* in Chinese culture, manifested by its functions in constructing one's 'relative

position' against others (Ho, 1976, p. 883). Unlike traditional Chinese festivals that stress the reunion and communing with family members, these week-long public holidays, so-called 'golden weeks' (*huangjin zhou*), allows the Chinese middle-class to enjoy a form of modern life based on activities of consumerism, such as travelling abroad, relaxing in luxury hotels and shopping in high-end departmental stores in global cities. In these activities, smartphone cameras witness and store albums images of delicate food, glittery garments, breakfast coffee on a Parisian balcony; these will soon go through retouching apps and then appear on their owners' WeChat Moment or Weibo account. Smartphone photography offers a window to transforming patterns of consumption into competitive displays that add *mianzi* to the Chinese middle-class.

The display of conspicuous consumption on one's personal social media profile also guarantees accessibility among one's various social connections on WeChat. In this process, to present oneself with something accessible to everyone (i.e. photographing with smartphones) can testify someone's all-round ability in the realms of work and interpersonal communication (e.g. stimulating conversations with others on the Internet). It further demonstrates smartphone photography's supportive role to improve one's social profile and to facilitate one's social and cultural capital at the level of *mianzi*, which may eventually lead to substantial socio-economic benefits determined by one's *guanxi* in society.

Of course, to appeal to more *mianzi*, one needs to familiarize the operation of smartphones and relevant apps in order to generate aesthetically satisfactory pictures. According to ethnographic materials and extensive aforementioned literature, common expectations of smartphone-made pictures include two simulations: (1) the bokeh effect originally caused by mechanical cameras' depth of field, now achieved by algorithmic calculations based on a double-lens hardware system, an industrial standard for mainstream smartphone manufacturers; and (2) the 'vintage' effect derived from analogue photography (see Bartholeyns, 2014; Caoduro, 2014; Jurgenson, 2019, pp. 1–4 for discussions on such an aesthetics and nostalgia). However, they are not two separate standards but are often integrated as a techno-aesthetic demand one pursues in smartphone photography. For example, if you take a picture of a cake on the table of a fine dining restaurant, you may want to blur the foreground and the background surrounding that cake with the app Focos, and then import the image into VSCO or Snapseed where detailed adjustments, including cropping, lighting, sharpening, as well as film filters inspired by classical brands, such as Kodak, Fujifilm, Agfa, are available.

Notably, following the US-based app VSCO, an increasing number of Chinese-developed apps are combining photo-editing and sharing to emphasize the idea of functional integration. Leading photography apps like Tuchong, LOFTER, OneTake and NOMO have invested time and money on image filters for different ends, creating various business models. For instance, Tuchong, a photosharing platform that aims to network people sharing the same interest in photography, regards filters as a stimulus of the sociality of its online community. It has launched a series of filters inspired by aesthetic styles of popular photographers on the platform to attract ordinary users who want to achieve images in line with specific trends with a simple click. On the other side, for NOMO, its main method for seeking profit is to sell virtual 'classical sets' of certain cameras and films that revitalize the vintage aesthetics of pre-digital photography (Figure 5); otherwise, an annual membership subscription can guarantee the user access to all 'classical sets', some of which are for members exclusively. Compared with Tuchong, OneTake and NOMO indeed have fewer channels for social interactions. While Tuchong can be seen as a sort of interest-based community that emphasizes communications between users and operators, OneTake and NOMO are instead

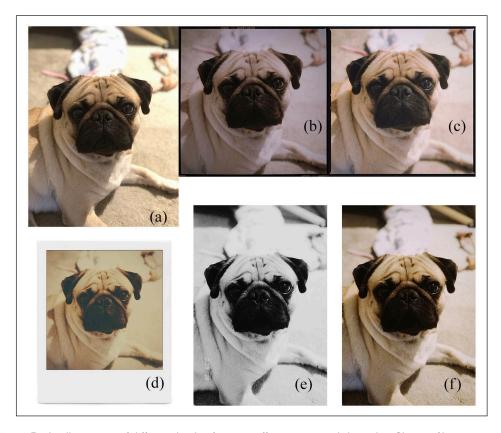


Figure 5. An illustration of different kinds of vintage effects processed through a Chinese filter camera app, NOMO, which gained popularity among Chinese amateur photographers in recent years. (a) The original picture of a pug, Mickey, taken by iPhone X under the portrait mode; (b) to (f) are vintage looks of (a), simulating analog photography looks, respectively inspired by (b) Hasselblad 503CW and Fujifilm films, (c) Seagull 203 medium format camera, (d) Polaroid OnSetp 2 with classic Polaroid color and film paper frame, (e) Ricoh GR21 and Kodak Tri-400TX black and white film, (f) Contax T3 and Kodak Gold film.

dedicated to providing an excellent viewing experience on digital screens shaped by a unique predigital aesthetic. But overall, for these platforms, the aesthetic pursuit is oriented by different kinds of user experience and driven by business profit.

Faces in selfies and selfie apps: a reflection on the problem of form

While the techno-aesthetics of smartphone photography practices strongly correlate with *mainzi* among Chinese netizens, a specific genre of smartphone photography, the selfie (*zipai*), directs attention to the human face itself. It is evident that selfies are among those most heavily edited and retouched smartphone photos. Here we are going to focus on the selfie made through a 'beauty camera' (*meiyan xiangji*), or, selfie-enhancing apps, such as Meitu, B612, BeautyCam and Faceu. As the 'word of the year' in 2013 named by Oxford Dictionaries (n.d.), 'selfie' is 'a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and uploaded to a

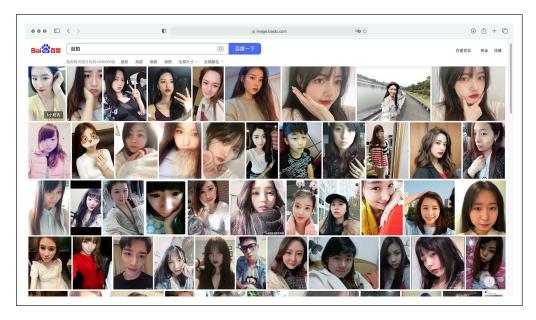


Figure 6. The returning result of searching zipai via Baidu, screenshot made on 17 January 2021.

social media website'. This definition therefore distinguishes selfies from their pre-digital counterparts, self-portraits, which have been written about extensively by art historians.

On the contrary, the selfie itself is connected with the idea of sociality, and extensive scholarly works tend to treat selfies as a social, interpersonal practice and cultural phenomenon at the intersection of dialogues and critiques across social sciences and critical theories. To name a few recent works, Giroux (2016, pp. 64–68) has made the political accusation of selfies as the 'plague of narcissism' that allures American young people to trade in their privacy for fast, convenient products at the cost of corporate and state surveillance. Fallon (2018) has investigated the paradoxical relationship between the self (female-focused) and the world through selfie-posting on Instagram. At a more individual level, experimental psychologists have published research based on empirical observations on 113 females between 16 and 29 years old, arguing that 'posting a selfie on social media would result in lowered mood and worsened self-image' (Mills et al., 2018, p. 90).

Although these Western-led studies have shown various points of interest and demonstrated diverse approaches to selfie, they attribute such a practice along gendered lines as a form of self-(re)presentation of young women specifically. To be noted, I have no intention to narrow selfie as a gender-specific practice. However, statistics in China also seems to reinforce the argument that selfie practices using beautification apps are related to femininity (BigData-Research, 2019). On Baidu (the most frequently used search engine in China), the instant returning results of *zipai* are also predominantly pictures of young females (Figure 6). In one photo trip, I participated in with some Chinese amateur photographers and our female partners at Canary Wharf, London on 16 November 2016 (Y. Yang, 2020, pp. 277–280), while men were setting up cameras and tripods to photograph the cityscape, I noticed that our partners were socializing with each other using beautification apps on their smartphones to take 'group selfies', posing in various gestures and with pre-set filters.



Figure 7. Chinese amateur photographers and their partners sharing enhanced and beautified group selfies in the WeChat group chat after a photo trip in London. Screenshot made on 18 January 2021.

For private reasons, I am not showing the group selfies taken on that day directly. Instead, in Figure 7, I have concealed personal information of the participants so that the reader can focus on the aesthetics of the beautification app and how these post-processed selfies were displayed in the WeChat group chat as an instrument of socialization. The app we used on that day was SNOW. Characterized by its cartoon-like, varied 'hairstyle' and 'make-ups' filters based on facial recognition technology, it ranked the 13th on the Chinese Apple App Store as of 18 January 2021. One of the many similar selfie-enhancing apps like SNOW is Meitu, whose popularity is even higher, receiving more public concerns and scholarly studies. In this app, one can make adjustments to one's face as well as body shape. With several clicks and swipes of your fingers, the chin of a person in the portrait gets sharper, eyes grow bigger, legs become longer, and skin turns whiter. The exaggerated pre-sets and filters can bring a 'dreamy' effect to the image by escalating the brightness of the picture, blurring and changing the background, and applying virtual 'make-up' on the



Figure 8. Donald Trump and Barack Obama, two American Presidents' portraits being post-processed with the Meitu app by an anonymous author. The image was published by Rachel Deason (2017) as an illustrator in the online article, *How to Get the Most out of Meitu, China's Addictive Selfie App*, available from https://www.thatsmags.com/china/post/17346/how-to-get-the-most-out-of-meitu-china-s-addictive-selfie-app.

subject's face. Figure 8 shows the 'beautified' pictures of United States' two Presidents, respectively Donald Trump and Barack Obama, in their Meitu look. By comparing the post-processed effect presented in Figures 7 and 8, we can conclude some aesthetic strategies celebrated by contemporary Chinese beauty camera app users, which include wrinkle-less faces, enlarged eyes, and narrowed, sharpened chin.

For many Meitu users, the smooth, brightened and dreamy aesthetics, which are supported by automatic facial recognition and augmented reality algorithms and hardware, makes the photographed subject look 'cute' (*ke'ai*). This 'cuteness' is derived from the Japanese Kawaii culture, on which a number of female anime figures are constructed. Aris Teon, a writer and observer of East Asian culture, contextualizes the popularity of cuteness in East Asia within a Confucius perception of gender: by portraying women as 'pretty, innocent girls', such a cuteness culture is ubiquitous in East Asian countries and has played as the ideal of beauty for both men and women. For the former, it serves as a contemporary 'male fantasy', while for the latter, cuteness is a strategic self-presentation and performance to negotiate the heavily differentiated Confucian gender framework (Teon, 2016). As a long-lasting aesthetic trend (a 2009 blog post had already described its appearance 'everywhere', see Gordon, 2009), it is reasonable to say that the huge amount of Kawaii-like self-ies across Chinese social media platforms (Meitu apps had contributed six billion pictures monthly on the Internet, see Fan, 2018) are an extension of the country's ideal of beauty. The cuteness, so to say, is both an expectation from others and the self.

However, it does not mean that these Meitu users are unconscious of the inveracity of these pictures in terms of photography. In fact, on the Chinese Internet, 'in a handy linguistic twist, "the photograph" (照片, zhàopiàn) can very easily become "the photo cheat" (照编, zhàopiàn)' (Tan, 2017), and the Meitu app has also been jokingly listed by the Chinese netizens as one of the 'Four Asian witchcrafts' (Yazhou sida xieshu) along with Thailand's trans-sexual surgery, Korea's plastic surgery and Japan's makeup techniques. In some circumstances, even exaggerated cuteness is not agreed by everyone; in existing news reports, one common voice is that moderate beautification, such as brightening the skin, smoothing the wrinkles and small adjustments of the size and shape of the facial features, are still acceptable. Some interviewees even expressed that they would not post original selfies that are not edited at all on their social media accounts (Fan, 2018).

The enhanced selfies have demonstrated something beyond certain popular assumptions of selfies, such as narcissism. While Narcissus fell in love with his own mirror reflection in the lake, beauty camera users are going further to make and share their selfies out of a societal expectation, which may be better understood as a performative act, a 'presentation of self' (Goffman, 1956, p. 10). Apart from being used as a social communication tool in chatting apps, as Figure 7 shows, these kinds of selfies have flooded other mainstream social media in China, serving as a confirmation of self-esteem by Chinese teenagers in peer acceptance (Cao et al., 2019) and forming a subculture of visualized self-expression (Chang, 2015). As a result, a number of social media posts about selfie on the Chinese Internet are 'tutorials' that teach people to pose and find angles for the camera, use proper apps, functions and filters, and send along with texts and captions to prompt social interactions. These empirical findings in China, in return, resonate with scholarships indicating selfies' roles in helping with feminist autobiography (Fallon, 2018) and self-expression (Titton, 2018) internationally. In addition, in How the World Changed Social Media, ethnographic evidence collected from across the world is also given to argue that selfies should not be interpreted as mere narcissism but 'may also be viewed as an important genre for better understanding issues of identity, aspiration and social expectations' (Miller et al., 2016, p. 158).

Such concerns about selfies' expressive and communicative role are further confirmed by Chae (2016), who pays attention to beautification behaviours in selfie practices from the perspective of social comparison. Through an investigation with two groups of Korean females between 20 and 39 years old, with sample sizes of 1064 and 782, respectively, she points out that 'individuals edit their selfies not because they are dissatisfied with their appearance, but because they want to look better than others or at least look like others based on social comparison' (Chae, 2016, p. 374). The struggle between a realistic yet less attractive photo and a beautified yet overdone picture also confuses contemporary Japanese people in date-matching and job-matching scenes where people are compared with others constantly (Alpert, 2019). In other words, comparison with others in order to receive social recognition of images of themselves in online public spaces has facilitated the frequent use of beauty camera apps. The new social norms of appropriate beauty as well as beauty production, facilitated by effective selfie apps, has emerged around the mundane practice of selfies among young smartphone users.

In addition, the rapid development and application of face recognition and augmented reality technologies in beauty camera apps are responding to people's anxieties and desires. It is now easy to substitute the original background where the original picture was taken and to put on virtual accessories and garments on photographed people, enhancing the cuteness of oneself in the picture. A more detailed explanation on these technologies is elaborated by Chen. In a blog post, she discloses the technological affordances of the beauty camera app, Meitu, analysing how the deployment of the 'automatic filter' detects noise areas on a photograph, leading to an automatic enhancement of images. 'Face recognition' and 'image segmentation and generation' algorithms, which depend on Deep Neural Network and Google's AutoDraw, help to output a templated, beautified portrait through 'facial features detection', 'age and gender identification' and 'facial beautification' (X. Chen, 2018).

Conclusion and limitations of the research

This article discusses the multi-faceted role the smartphone photography plays in Chinese people's economic and social life and argues that smartphone photography has evolved into a comprehensive practice traversing across technicity, sociality and aesthetics. This is evident in the interactive

relationship between professional amateurs, consumers and smartphone manufacturers, the desire of adding one's *mianzi* through outstanding photographic works uploaded to social media platforms, and selfie savvies who negotiate with the 'idealized self' within a masculine social structure with the help of beautification camera apps.

It is also important to recognize that age plays an important role in smartphone photography. It is evident that photographic ideas, such as post-processing techniques and aesthetics, as well as the choices of cameras and photo-sharing platforms, all vary with users' age. While this study focuses on young people, more studies on different age groups would be most welcome.

There are also some points in this article which call for further exploration and elaboration. For example, more sophisticated investigations of the issues of gender, race and representation of people (either portraits of others or selfies) in smartphone photography practices should be introduced to enrich existing literature in digital ethnography and media anthropology in China.

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Notes

- I realize that some may argue that a number of Chinese apps, such as WeChat, which, at its early stage
 was accused of copying WhatsApp, 'has grown into a mega-platform that has no equivalent elsewhere in
 the world' (Y. Chen et al., 2018, p. 4). Their power has outgrown their Western counterparts, becoming
 extremely 'sticky' for users.
- For the original question and answers in Chinese, see https://www.zhihu.com/question/49132289.
 Retrieved 1 January 2020.
- Approximately \$15.35 and \$400 USD, respectively, according to the live exchange rate on 24 February 2021.
- 4. WeChat only allows nine pictures to compose a post.

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