From Kodak moments to iMoments: the effect of the smartphone age on snapshot photography.

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A research Paper submitted to the University of Dublin, in partial fulfilment of the requirements for the degree of Master of Science Interactive Digital Media

2013

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Acknowledgments

Many thanks to my supervisor Mícheál Mac an Airchinnigh for his enthusiasm and advice for this research. In addition I would like to thank the photographers who permitted me to use their images. Also, it would be remiss of me not to thank my family for their love and support throughout the work for this paper and at all times. A special mention must go to my grandmother, Marie Mitchell for the constant stream of tea and sustenance.

Summary

More photographs are now being produced and consumed in modern society than ever before. Snapshots are the most popular kind of photograph produced. The smartphone and it's camera has pervaded modern society. The purpose of this study therefore is to examine the effect of the technological advances that led to the smartphone and it's supporting technologies (such as the internet, telecommunications networks and social media) on the nature and purpose of snapshot photography.

Adapting a framework proposed by Van House et al. (2004), the four functions of the snapshot will be analysed. These functions are identified as follows: memory, relationship creation and preservation, representation and expression.

In light of this research I assert that the smartphone and it's supporting technologies have produced a new manifestation of the snapshot.

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Introduction

"You press the button - -we'll do the rest" (Kodak advertising campaign, 1889)

The goal of this paper is to examine the effect of the technological advances that led to the smartphone and it's supporting technologies (such as the internet, telecommunications networks and social media) on the nature and purpose of snapshot photography.

Context

My own interest in photography was the inspiration for this paper. I became an amateur photographer six years when I acquired a Canon 400D SLR camera. However I have noticed in recent times that more and more I am tending to use my iPhone to capture images and not my far more capable DSLR camera. In addition the situations in which I take pictures has greatly changed, I no longer plan photographic outings, I just take pictures of what I experience in my everyday life. Another thing I have noticed is that my peers, particularly those that expressed no interest in photography when I began to take pictures, are progressively engaging in this activity. My hobby has been utterly transformed by the ubiquitous presence of my smartphone and it is evident that I am not alone.

In the last year alone 360 billion images were captured. We are exposed now more than ever to photography in every aspect of our lives. Moreover, the most popular form of photography is that produced by the amateur. Snapshots offer insights into daily lives in a manner that no other medium can. Furthermore the smartphone is the fastest growing technology ever. The number of smartphone users in the world is rising steadily every year.

The growth in the popularity of photography and the rise of the smartphone appear to be inextricably linked. The intention of this paper is to determine the effect the smartphone has had on photography, particularly how it has changed the nature of the snapshot.

Relevant Literature

Very little attention has been given to the research of the smartphone and it's relation to snapshot photography. Van House et al. (2004) produced an informative paper which looked at personal photography when camera phones had become hugely popular. The study found that there were four reasons for taking snapshots; memory, relationships, representation and expression. Despite not being the subject of that paper, I would argue that the Van House's findings are even more relevant to the smartphone era. Therefore I will use the four categories for the framework of this paper.

There have been numerous theoretical studies of photography over the years. In particular, Susan Sontag's *On Photography* is possibly the most respected and relevant literature in the field. Sontag's notions about photography's role in society are used throughout this study to both understand the historical context of the snapshot and produce conclusions about it's meaning in contemporary culture. Other theorists' including Barthes, Baudrillard and Berger are also considered.

The nature of the personal photograph or snapshot has warranted little research despite their massive representation in the field of photography. Richard Chalfen (1989) and Pierre Bourdieu (1996; 2004) have produced some of the most extensive works in this area. Their writings are vital in understanding snapshot culture and provide the basis for analysing changes to the medium.

The shift to digital is seen as the first revolution of the photographic medium since the invention of the Kodak 100 years before. Lev Manovich's *The Language of New Media* (2001) offers great insights into the nature of what he calls "new media". Additionally William Mitchell's Reconfigured Eye (1994) provides great detail about the photographic image in particular. Together these two publications establish the concepts that have led to the shift in the photographic image. Accordingly this paper employs the notions of these two author's in understanding the revolution amateur

The twenty-first century developments of the smartphone, and previously camera phone, are

and the resulting transformation of the snapshot are under-documented. Beneficial articles from similar studies include, Cooley (2004), Murray(2008), Van Dijck (2008), Vickers(2006), and Van House(2011).

Methodology

Chapter 1:

Technological advancements have resulted in a new type of camera that is transforming how the amateur produces and consumes photographs; the smartphone. In order to study the effect of the smartphone on cultural practices, time must first be given to understanding the technical developments that led to the creation of the smartphone. This paper will first study the evolution of the camera. It will then look at the onset of the digital image and the 'photographs becoming of new media' Next it will research the development of recent online trends, namely web 2.0 and the spread of social media. These in turn lead us to an observation of computational imaging techniques. Conclusions are made as to how the smartphone has developed as the culmination of all previous technical advances covered.

Chapter 2:

In order to understand the effect of the smartphone, it is necessary to be aware of the field of amateur photography prior to it's development. Definitions of the amateur photograph are gathered and evaluated. Subsequently the history of the snapshot is studied. Time is given to assessing the family album which was fundamental to the traditional snapshot. Finally conclusions of the functions of the snapshot are drawn. These functions are compared to the findings of the Van House *et al.* (2004).

Chapter 3:

In this chapter two of the traditional functions of personal photography suggested by Van House; memory and relationships are verified. This third chapter examines to what extent they are still relevant to the genre and to how their meanings have changed. The conclusion of this chapter outlines these changes regarding the influence of the smartphone.

Chapter 4:

Self-representation and expression are both emerging roles of the snapshot that were outlined by Van House but not exhibited in traditional amateur photography evaluated in Chapter 2. The fourth chapter looks at these two new functionalities. The conclusion provides the findings of the role the smartphone played in the development of these functions.

Conclusions

Finally, the findings from each chapter are presented, and the paper concludes while the smartphone has not revolutionised the traditional snapshot, it has produced a new manifestation of it.

Terminology

Throughout this paper the following terms are used synonymously to describe the photographic genre central to this study: "amateur", "personal", "vernacular", "snapshot", "domestic", "tourist".

While smartphones are technically also camera phones for the purpose of this paper camera phone(s) refer to the prevalent mobile phone technology that preceded the smartphone. The two are differentiated by the multi-functionality and processing capabilities of the latter.

Limitations and Practicalities

The smartphone and snapshot is the focus of this paper. While a large number of personal photographs are still captured by dedicated digital cameras, they are not considered in this study.

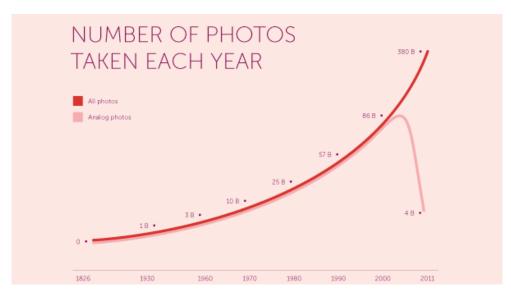
Furthermore emphasis is placed on everyday photographs that people take. While some of the referenced material focused on the transformation of photojournalism that includes the influence of the smartphone, this is out side of the scope of this paper.

Finally attention is only given to still images. While a similar trend has been seen in personal video capture with smartphones this is a subject for further research.

Chapter 1 From Camera Obscura to Smartphone Camera

"Photo-graphy: The writing of light." -Baudrillard(2000)

In the first 60 years of photography 250 million photographs were taken. Nowadays an equivalent amount is taken in a two minute period (Good, 2011). This figure has grown exponentially in the 170 years since the camera was invented to the point that approximately 360 billion photographs were taken last year alone (Good, 2011). This rapid growth can be traced to an increase in camera ownership which in turn, is related to the growth in popularity of amateur photography (Cooley, 2004). With every technical advancement the camera has become progressively more compact and portable while image capture and production has become increasingly simplified and automated. Consequently photography is increasingly appealing to the non-professional. The smartphone has revolutionised the nature of photography and connected it to the social media network that now pervades modern life, thus providing never before imagined potential for the medium. The rate at which photos are now being produced and consumed is astonishing, and the smartphone is primarily responsible for this. We will now consider the historical developments in camera technology, connectivity and social media and how they culminated in the smartphone.



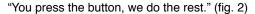
Rise of annual photograph production. (fig. 1)

1839 - 1990: Film

The concept of the camera, the creation of an image from reality, originates from the 'camera obscura'. A practice first used over 2500 years ago (Byrne, 2007, ep1), the camera obscura projected light on to a canvas enabling artists to trace a realistic scene. It was not until 1820s, however, that this projection was first captured as an image with the discovery that photosensitive chemicals could be used to momentarily capture an image. The image appeared as the chemicals were exposed to light, but the exposure could not be stopped at the necessary moment resulting in the image fading away. Two decades later this challenge was embraced by Louis Daguerre who discovered that using different materials enabled the image to be fixed on a glass plate. At the same time, Fox Talbot developed a process that captured a negative, a master copy of the image, which made mass reproduction possible (Greenspun, 2007), thus planting the seed for the industry that we know today.

The subject material of early photography was limited to landscapes and static scenes due to the inordinate exposure time required for the chemicals to dry. Portraiture was complicated by the necessity for the subject to remain still for a prolonged period of time while enduring the discomfort of a neck-brace to ensure absolute immobility (Brennan, 1999, p95). George Eastman remedied this issue when his dry plate technique significantly reduced exposure times, enabling Edwaerd Muybridge to conduct his famous study of a horse in motion. It was this key development that transformed photography and dramatically expanded its potential (Byrne, 2007, ep1).



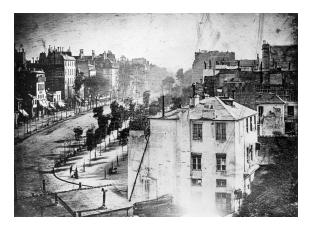




First example of stop motion photgraphy. (fig. 3)

George Eastman's glass plates were delicate and cumbersome, having to be changed for each individual photograph. Eastman's succeeding development was the production of rollfilm (wikipedia). The Kodak #1 that Eastman installed his new filmroll technology in was the first portable camera and was aimed specifically at the consumer market. This \$25 camera used a paper roll that could capture 100 exposures (Byrne, 2007, ep1). When filled, the leather box camera was sent to Kodak's development studios and returned to the photographer with a new roll and and a set of prints 10-14 days later (Greenough et al., 2007).

In 1900 Kodak produced a new camera called the Brownie. Cheaper, lighter and simpler than its predecessor, the Brownie captured the imagination of the masses (Greenough et al., 2007). The paper rollfilm had been overhauled by using cheap and durable celluloid film. The Brownie's retail price was \$1 and was therefore a lot more accessible. Before the Kodaks, photographs were developed in darkrooms by way of laborious techniques. Part of the Eastman revolution was the establishment of developing studios that produced the consumer's images.





(fig. 4), left, taken in 1838 and (fig. 5), right from 1905 illustrate the influence of the George Eastman's faster exposure times.

While affordable film was enthusiastically consumed by the masses amateur photographers during the early years of the twentieth century, glass plates remained the medium of choice for the serious (professional) photographers. However, the emergence of 35mm in 1925 enabled film to capture images of equal quality to the unwieldy plates (wikipedia). The camera produced by Leica, coupled with the new 35mm, became the camera of choice for the professionals, as it

provided freedom from the tripod greatly aiding portability, and potential photographable situations (Byrne, 2007, ep1). 35mm would soon become the standard for all consumer cameras.

The range of photographable subjects in the 1930s was furthered with the arrival of the flash bulb. While The first flashes were big and clunky, awkward to use, overheated quickly and broke easily they were the prototype that would be ultimately be refined in later cameras (wikipedia). It was during this key decade that annual photo production reportedly exceeded the one billion mark (Good, 2012).

Another significant decade in evolution of the camera was the 1960s which saw the introduction of 'instant' devices. While Kodak had continued to simplify the process of development and film, Polaroid an emerging rival, bypassed this step altogether. Kodak's Instamatic became one of the most popular camera series ever with it's drop-in film technology. Polaroid, on the other hand, produced a modern version of the Daguerrotype- an image, not negative, which came directly from the camera. Polaroid's 'instants' took only 60 seconds to be produced, and were a complete revelation at the time. Flashcubes were developed with these cameras providing a greatly simplified version of the flash bulb (wikipedia). These advancements allowed for the most straightforward cameras yet, and asa result at the beginning of the decade only 3 billion photographs were taken annually compared to almost triple this just 10 years later (Greenough et al., 2007),

After the instant-capturing models of the 1960s the next breakthrough for the camera was the development of digital photography. This began in 1975 when once again Kodak produced the first prototype digital camera where in create photographs which were derived from captured video stills that were then recorded onto miniature floppy disks (Vickers, 2006). In order to be processed by the computer, these files were subsequently converted to digital format. While not a true digital camera, this was the first departure from film dependent photography. It was not however until the late 1980s that affordable versions of such cameras, like the Canon Xapshot, reached the consumer market (Mitchell, 1994, p16).

1990 - 2000: Digital

William Mitchell dramatically proclaimed that "photography was dead –or, more precisely, it was radically and permanently displaced" (1994, p20) with the coming of the the digital image. It was different from the analog as 'it is not chemical recordings of light intensity, but transduction of "radiant energy into patterns of electric current" (Mitchell, 1994, p). The digital sensor was the only genuine difference between the new digital cameras and the film versions that preceded them; the lens, optical system, and controls all worked the same (Anthes, 2012, Ehrenberg, 2012). One example, the Kodak Professional DC, was merely a modified Nikon film camera according to Mitchell. (1994, p17). Despite such minor modification it represented a paradigm shift nature of the developing procedure, and the ease with which digital photographs could be printed.

Furthermore, the nature of the digital photograph is significantly different from it's analog counterpart. The digital image is as Lev Manovich asserts "new media", at the time however it did not cohere to all of his five principles (2001, p49). Those that did apply to the early digital image were numerical representation, automation, and variability. These three related to the photograph as represented by digital file. The other two principles, modularity and transcoding are more applicable to the context of the file. In the early years of the digital photograph the context it was seen was still mainly in print form and consequently it was another decade until all five principles were embodied, suggesting that Mitchell's proclamation though ultimately correct, was perhaps premature.

Advances in the manufacture of Personal Computers such as the dramatically increased processing power, enlarged memory storage and enhanced display capabilities paved the way for the development of software that exploited the "automation", and "variability" principles of the digital photograph (Mitchell, 1994, p18). The most significant of these was Photoshop produced by Adobe in 1990. Software such as this enabled easy manipulation of photographs and techniques that were previously reserved for laboratories from the personal computer (Mitchell, 1994, p18). These actions were generally performed only by serious amateurs and

professionals, however the emphasised the benefits of digital photography over film photography.

Digital sensors developed rapidly and resulted in a pixel war between manufacturers. The consequence for the amateur was cheaper, faster and better quality cameras. The digital photgraph was conceived to be a mere file take that could be captured and deleted instantly (Hayes, 2008, Murray, 2008). The development of the digital image resulted in anincrease in the photographs taken per year to over 60 billion during the 1990s (Good, 2011).

World Wide Web and Social Media

As the digital camera was evolving so too was a technology that would soon exploit it- the web. With 16 million users in 1995, by the turn of the millennium the internet had accumulated a user base of 304 million (<u>internetworldstats.com</u>, 2012). During this period the internet consisted of static websites whose visitors were passive consumers - "content creators were few in Web 1.0, the vast majority of users simply acting as consumers of content." (wikipedia.com).

In the early years of the twenty-first century,communication networks improvements heralded significant changes in the way the internet was developed and used. The term web 2.0 became popular in 2004 and described a shift towards the formation of dynamic websites that promoted user interaction. As a result user generated content on the internet developed rapidly, most of which was hosted on newly established social networks. At this time photographs became an integral part of user created content on the web (Lee, 2010) and became an alternative to the printed image. This sharing without the need to the need to produce a physical image ultimately led to the end of mass-produced film, Kodak stopped their 120 years of film production in 2009. This new online context for the digital photograph meant it now fulfilled all of Manovich's new media principles. By 2006, the internet had reached the milestone of 1 billion users and significantly, social media sites began to attract them.

Social Networks

In 2012 internet users represent almost 35% of the world's population and 1.5 billion of these are members of at least one social network (InSites Consulting, 2012). Studies have revealed that over 60% of users access their network on a daily basis, with a half of the 25-34 year old age group using it in their place of work, while a third of 18-24 year old bracket even using it in the bathroom (InSites Consulting, 2012). This illustrates how social media is changing our everyday lives. The two most common reasons for using social media are communication with peers, and image sharing (InSites Consulting, 2012).

Social media has grown at an even faster rate than the internet did. An examination of the largest social network, Facebook, clearly illustrates this point. Facebook was set up as a private network for Harvard students in 2004, and by 2009 it had become most used social network in the world with 200 million users. In the years since membership has grown exponentially, and latest figures show that the website reached 1 billion users in September 2012. This has resulted in a new digital world- that ComScore describes as "new paradigm of digital media fragmentation in which consumers are always connected" (ComScore, 2013).

As mentioned above, image sharing is driving force behind social media usage. Again by using Facebook as an example this point is evident. In summer 2011 Facebook hosted 110 billion user photographs. Just one later this figure increased to 219 billion (Houghton, 2012) and images are now being uploaded at a rate of 300 million daily. It is estimated that over 70% of Facebook activity is image based (soshable.com, 2012).

The arrival of web 2.0 also resulted in the creation of dedicated photography social networks. One of the most prominent of these is Flickr. Started in 2004, Flickr now has over 75 million members and a collection of 6 billion photographs (flickr.com, 2012). Over 1 billion images have been uploaded to Flickr annually since 2006 (flickr.com, 2012).

2000 - present: Camera Phone to Smartphone

In 2000 the first camera phone was launched in Japan. The J-phone quickly became very

popular, inspiring the global adoption of integrated cameras in mobile phones (Ito, 2003). In a short number of years, phone captures quickly grew in quality. The 2003 Sony Ericsson CyberShot phone with it's 3.2 megapixel lens and a built-in flash, greatly improved upon the quality of the original J-Phone (Vickers, 2006). Parallels are evident between the camera phone development and that of the analog camera in the century before. The camera phone developed in a similar fashion to the analog camera of the previous century- storage capacity increased, fixed focus became auto focus, image quality increased greatly and additions such as flashes became standard.

Despite the growth in popularity, the camera phone was severely restricted by connectivity. As the web 2.0 trends became widespread and the sharing of photographs online popularised, camera phone images were excluded. Direct sharing between phones was available through MMS but that was never truly embraced because of expense through network charges on one hand, and speed and other limits on the other (Cooley, 2004). The introduction of Bluetooth allowed for quicker, cheap direct transfer of files but was restricted to a precise physical location meaning photographs captured could not penetrate social networks. Moreover the web browsing capabilities of camera phones were confined to the access of WAP sites that had the characteristics of the by then obsolete web 1.0 (Lee, 2008).

The term smartphone dates back to the late 1990s. It did not become popular, however until the Apple iPhone. In 2006 smartphone sales accounted for less than 6% of phone sales in the US. Launched in 2007, Apple's first phone boosted smartphone sales to 11% of this market. It's success was help by the fact that it provided easy and quick access to the dynamic world of web 2.0. Consequently by 2012 the smartphone accounted for 50% of global phone sales, reaching an audience of 1.06 billion (deGusta, 2012). Furthermore, in the same year, the smartphone accounted for 80% of cameras sold. Improving telecommunication networks have accelerated smartphone adoption by providing "quicker and richer mobile experiences" (ComScore, 2013) through connectivity to the web.

Since 2007, the smartphone market has seen sustained growth. The iPhone is updated annually, as are it's competitors, and each model thus far has brought significant improvements

to it's camera, from the original fixed-focus, no-flash, 2.0 megapixel camera of the original to the current 8MP, HD video, LED flash version (apple.com). Recent studies have shown that the most community activities on the smartphone are text messaging and photo taking. While the popularity of texting varies significantly by region (40% in Asia, 80% in Europe), camera use is consistently prevalent (57.5%) (ComScore, 2013). A recent study found that after a 6 month period of exposure to the smartphone, "The survey's respondents overwhelmingly share more photos" from their mobile devices, citing the ease with which it is now possible to do so as the catalyst (6sight, 2011). The smartphone has been quoted as the reason for the drop in amateur camera sales in the last number of years (Tarr, 2010).

Facebook, Flickr and Instagram

In response to overwhelming growth of smartphone adoption, the hugely popular social media sites have exhibited change. Of the 1.06 billion members that use Facebook, almost 70% access the site on a daily basis through their smartphones. Likewise on Flickr, the iPhone is now the most popular camera used for uploading images. As of 2008, 6 million photos had been uploaded to Flickr from the iPhone, whereas in 2012 the figure has reached of 250 million (flickr.com, 2012).

Instagram is a photo sharing network that developed as an iPhone application. Launched in September 2010, within two months Instagram reached 1 million users. By the start of 2012 Instagram had 100 million users with a daily uploads of 40 million photos. (Instagram, 2013). Reaching the 100 million mark in just over 2 years is remarkable, the same feat took Facebook four and a half years to achieve. This illustrates the influence of the smartphone in the digital world.

Computational Photography

Computational photography refers to an emerging field of digital imaging defined as "the

technique of using sophisticated algorithms to combine multiple exposures across either or both time and space." (Fleishman, 2012). It is concerned with the use of computer algorithms to enhance traditional techniques of recording images. The use of such algorithms has led to the production of higher quality images without the need for expensive sensors and lenses. As a result the small camera used in mobile devices such as smartphones have benefited from these developments. Furthermore applications on the smartphone are availing of this technology to produce sophisticated post-processing techniques that before were only available through PC programs such as Photoshop (Fleishman, 2012).

Conclusion

With the advent of the Kodak Brownie in 1900, photography became available to the mass market. Since then photography has become increasingly simplified for the user. The smartphone uniquely embodies each of these developments. In fact, the rapidity with which the smartphone has been adopted suggests it is the fastest growing technology the world has ever seen (deGusta, 2012). How has the smartphone achieved such a position of dominance in our world? This study has found that world dominance was enabled by the convergence of the most prominent technological elements of modern life- web, telecommunications, social media and photgraphy. Mitchell described the development of the digital camera as a "confluence of several hitherto parallel strands of technical development" (2004, p16), and this description is even more applicable to the smartphone. The smartphone is now a ubiquitous presence in both our physical and digital lives and thus provides endless possibilities for the photographer. The medium of photography "was radically and permanently displaced" in the 1990s, and the smartphone has ensured it has happened once again.

Chapter 2 A snapshot of vernacular photography

"Snapshots are taken out of love and to remember people, places, and shared times. They're about creating a history by recording a history." - Nan Goldin

Despite being the most prevalent form of photography, little contemporary research been done on the subject of snapshot photography. Van House et al. (2004) is a benchmark analysis of the genre that provides a framework for assessing this cultural activity. The study asserts that there are four objectives behind personal photography; "memory", "relationships", "representation" and "expression". These findings will provide the framework for this chapter in analysing the traditional views of snapshot photography.

What is a snapshot?

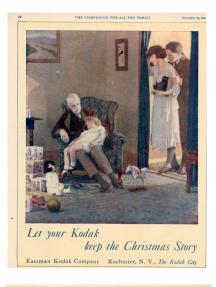
First it is important to define the snapshot. The following terms are used synonymously relating to this genre of photography; "snapshot", "personal", "amateur" and "vernacular". It is concerned with the documentation of personal history by non professional photographers (Greenough et al., 2007; Van House, 2011). In 1944 Willard Morgan of the Museum of Modern Art in New York defined the snapshot as follows: "the snapshot has become in truth, a folk art, spontaneous, almost effortless, yet deeply expressive. It is an honest art, partly because of the natural domain of the camera is in the world of things as they are, and partly because it is simply more trouble to make an untrue than a true picture. Above all, the folk art of the camera is unselfconscious."

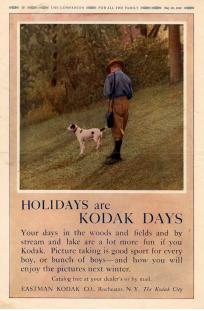
The term snapshot originates from a hunting term meaning "hurried shot taken without deliberate aim" (Chalfen,1987, p72). Wikipedia's explanation of snapshot images is similar: "a photograph that is "shot" spontaneously and quickly, most often without artistic or journalistic intent." (wikipedia), and can be taken on any camera, although simpler models are more commonly used (Mitchell, 1994).

Origins of Personal Photography

The early Kodak cameras of the late nineteenth century are associated with the birth of this genre of photography, which became by far the most prevalent kind of picture taking. The Kodak #1 may have started it all, but it was the Brownie that was the catalyst of the snapshot revolution (Vickers, 2006; Murray, 2008). George Eastman has been hailed a marketing genius and it was his advertising campaigns that drove his technology into the hands of millions. His most famous slogan, "You press the button, we do the rest." changed attitudes to what had been seen as the complex practice of photography.

Kodak's subsequent campaigns dictated to the new camera owners the subjects that ought to be captured. The "special" memories were what Kodak moments were about (Lee, 2010). As a result of adverts including "Take a KODAK with you", "Kodak, as you go", "All out-doors invites a Kodak" and "Keep a Kodak story of the children", vernacular photography became associated with one thing; the family (Chalfen, 1989, p75; Lee, 2010). The culture of amateur photography became absolutely bonded to these, so much so, in fact, that Van House et al. found that sufficient photos of their children was part of "good parenting" (2004). The location was home, the time was leisure and the people were the family.





(fig. 6), top, and (fig. 7) are examples of the successful advertising campaigns from Kodak that produced the idea of Kodak moments being special

Functions of the Snapshot

Snapshots became associated with the capture of moments of familial life. The moment is the essence of the still image; the photograph. Berger describes the essence of the photograph, proclaiming "it isolates, preserves and presents a moment taken from a continuum" (1980). In a

similar vane Sontag depicts the image as "slicing out [a] moment and freezing it" (1977, p15). Furthermore Bazin refers to this as the embalming of time (1690). The snapshot therefore set out to utilise this, the essence of photography, and function as a memory tool, freezing and preserving moments.

Sontag suggested a further function of the photograph in stating that "one can't possess reality, one can possess images--one can't possess the present but one can possess the past" (1977, p163). The snapshot can become a physical embodiment of the moment. This is why nostalgia is often associated with the photograph, it is a holding on to. Thus the meaning and value of the snapshot becomes highly subjective, it has a personal value that is cherished only by a "finite group", namely those close to the photographer and the subjects (Bourdieu, 1996, p87). The point of capturing moments is that they can be revisited. Subsequently, according to Sontag, key to the snapshot's allure is "the transformations that time works upon them" (1977, p140). As time passes, Sontag suggests that vernacular photographs develop an aura, the sentimental value grows as the moment captured becomes further away.

The moments that were worthy of "testifying to times relentless melt" (Sontag, 1977, p15) corresponded to the social importance to the family (Bourdieu and Bourdieu, 2004). Hence events that brought the family together necessitated the presence of the camera. Bourdieu and Bourdieu's study found that at the start of the twentieth century the ceremony first commonly captured was the wedding (2004). The wedding was an important societal statement that symbolised the coming together of two social groups, and the photographs represented and acted as a memory of this bond.







(fig. 8),(fig. 9) and (fig.10) The wedding was the most important family event (Bourdieu and Bourdieu, 2004)

Vacationing was the other purpose for consumers to buy cameras (Chalfen, 1989, p75). It is "positively unnatural" Sontag claims that one could travel for pleasure without taking a camera along. She continues that photographs offer "indisputable evidence" and documentation of events that are "carried on outside the view of family, friends, neighbours" (1977, p9). Furthermore by producing physical memories that could be brought home from a trip, the camera supplied a return for the investment of time and money of a holiday (Foster, 2009). The snapshot souvenirs also allowed the participation of loved ones in events that occurred away from them. Vacation memories were cherished and their preservation through snapshots enabled them to be revisited through the family album.



(fig. 11) First Holy Communion was one of the significant childhood events







(fig. 12), (fig. 13), and (fig. 14) Holiday moments were central to the Kodak Culture

The Family Album

The family album was central to the storing and sharing of snapshots. The collection of snapshots in the album told the stories of sequences of the home life. The annual holiday often merited a dedicated album because it was not part of daily life and therefore the memories were considered more valuable. Chalfen found that the events that warranted albums were generic

to most families (1989, p70). Firstly the early moments of child's life are ephemeral and all are special. Accordingly numerous albums are often dedicated to these cherished moments. As the child matures less moments are album-worthy and only milestone events such as birthdays and other significant moments are photographed (Chalfen, 1989, p75). In addition occasions that brought distant relatives together were immortalised such as weddings, christenings, and annual holidays. Such gatherings were opportunities to reinforce familial bonds and snapshots reinforced these. The Kodak culture then deemed the remarkable moments of family life photographable, disregarding those that occurred outside of the quotidian.





(fig. 15), and (fig. 16) The group shot of familial get togethers represents the relationship maintaining function of the snapshot.

The snapshot collection within album tended to exhibit fragments of the event that it captured. This was the intention of the photographer who was reluctant to create visual narratives "the narrative remains in the head of the picture makers and on-camera participants for *verbal* telling and retelling during exhibition events" (Chalfen, 1989, p70). The preference was to tell the story verbally, not visually. Thus the exhibition of the album was a significant social event where "the accompanying remarks are as conventionalised as the imagery itself". The reliving of memories of a vacation or a child's birthday became a storytelling that used the snapshots as backup material. These stories solidified familial relationships in two ways, first they were about the family, and secondly they were shared with the family. Furthermore new family relationships

were instated through such events as distant or deceased family members were introduced to younger generations (Bourdieu and Bourdieu, 2004; Van House, 2011). Consequently family albums are more than a book on a shelf. They are pieces of family history and a maintainer of familial relationships.

"In America, the photographer is thus not simply the person who records the past but the one who invents it."- (Sontag, 1977, p67)

While the biographical records of the snapshots presented verifiable moments of family life, what was presented was carefully chosen. Berger describes the power of a snapshot as not by what it shows, but what it leaves out (1960). In the case of the family album a lot was left our. Chalfen states that the occasions omitted from the family album were the polar opposites of those seen, e.g. weddings not divorce, birth not death, smiles not tears, special not mundane (1989, p75). Photography has been described as a surrealist art since it creates an alternate reality (Bazin, 1967, p17)- "a reality in the second degree, narrower but more dramatic than the one perceived by natural vision" (Sontag, 1977, p52). It would appear then that the selective nature of family album is the epitome of this alternate. What is presented is driven by the Kodak culture stereotypical "happy family" life, a single coherent unit without problems and frictional relationships.

Expression

Traditionally the snapshot was not used as an expressive medium. As discussed above, it's primary function was the capture and preservation of memories. However the style of the snapshot or "snapshot aesthetic", became an inspiration for a generation of professional photographers that emerged in the 1960s, these included Gary Winogrand, Nan Goldin, Martin Parr and William Eggleston (Byrne, 2007, ep6).

Digital Photography

Despite Mitchell's proclamation that the advent of digital photography had changed the medium "radically", the function of the snapshot did not change accordingly. The increased speed and ease of photograph production resulted in the production of more snapshots than ever before. So much so that many digital photographs may never be seen (Van Dijck, 2004). An increase in photo printing resulted in the production of even more family albums, furthermore digital albums developed. Despite the pervasive developments in internet communities, offline sharing remained at the heart of the snapshot. The snapshot was still associated with the family, and the camera was only "trekked out" for the special, out of the ordinary moments (Ito, 2003).





(fig. 17) is an analog snapshot from 1973 (fig. 18) on the other hand is a digital snapshot taken thirty years later. The resemblance between the two is an illustration of how the switch to digital photography did not alter the snapshot.

Conclusion

The function of **memory** is the historical essence of the snapshot. Memories that are preserved in snapshots were established by the Kodak culture developed by the advertising campaigns of George Eastman. These memories are presented in the family album. Familial **relationships** are created and maintained through snapshots. Snapshots preserve shared moments

reinforcing familial bonds. In addition the album introduces distant relatives to new generations. Moreover the exhibition of the album is a domestic social activity. The snapshot album is a representation of the family. The snapshots found in my family albums clearly illustrate this. It is a carefully chosen and subjective picture of family life. It ignores moments of the mundane everyday life as well as the darker aspects of life. The personal, unstructured style of the snapshot has developed as a valued aesthetic photographic approach. Subconsciously amateur photographers express their individuality through their snapshots although intentional expression is more associated with serious amateur and professionals.

Therefore the traditional snapshot illustrates three of Van House et al.'s functions. Despite the vast technical advancements of the medium discussed in the last chapter, the nature of the snapshot changed little over the course of a century. Even with the adoption of digital photography the personal photograph remained confined to "a patterned choice of participants, settings, topics, and certain aspects of code structure" (Chalfen, 1989, p70). These patterns were determined by conventions of the Kodak culture.

Chapter 3

The Smartphone Snapshot: Memory and Relationships

"Its main effect is to convert the world into a department store or museum without walls in which

every subject is depreciated into an article of consumption" (Sontag, 1977, p110)

The snapshot is associated with the preservation of memories and relationships. The objective

of this chapter is to evaluate if the functions of the snapshot have altered as a consequence of

the development of the smartphone. The development of the camera phone in 2000 means that

more and more people are carrying cameras with them at all times. As a direct consequence

photographic activity and enthusiasm has increased (Van House, 2011). Along with the

ephemeral nature of the digital image (Mitchell, 1994) this increased photographic interest is

altering our attitudes of what is considered "image worthy" (Ito, 2003; Cooley, 2004). Foster

describes the "omnipresence" of the phone as changing how we experience the mundane

(2009).

Memory

The core motive for snapshot photography has been found to be as an "aide de memoire" i.e. a

function of memory (Chalfen, 1987; Van House, 2004). Sontag parallels this point stating that

"photographs fill in blanks in our mental pictures of the present and the past" (1977, p23). The

great debate of photography concerns the ability of the camera to capture an accurate depiction

of the moment captured. Over the years, it has been aggressively argued that the camera tells a

highly subjective account of a situation (Barthes, 1980; Sontag, 1977). For the vernacular

photographer, however, accuracy is often not the intention. From her interviews Van House

(2005) found that the most treasured quality in snapshots were their ability to evoke.

In the previous chapter, I discussed the findings of Bourdieu and Chalfen amongst others. Both

of these authors emphasised the centrality of the Kodak moment to snapshot photography. The

memories captured in this genre of photography were those that were separate from our daily

lives, characterised by the vacation photos. Initially the camera phone and more recently the

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smartphone have altered our notions of what is image worthy, and as a result transformed the snapshot. The association with Kodak's special moments is diminishing as the camera is present with us incessantly.

The subject matter of the modern snapshot is most commonly in fact, the routine, the mundane, the serendipitous (Ito, 2003; Murray, 2008). Lee furthers this point describing the moments captured as "micro-spectacles" in our lives, the things that were traditionally discarded as trivial (2009). The ubiquitous camera differs greatly from Henri Cartier-Bresson's "decisive moment" (1963), because every moment is potentially captured. In addition, Ito found that the standard camera still got "trotted out" for the traditional occasions and special excursions (2003) and so the traditional functions of the snapshot remain intact through the dedicated camera. Perhaps the smartphone is considered too frivolous for such important events. The omnipresent camera is not changing the snapshot so much as producing new manifestation of amateur photography.





(fig. 19) and (fig. 20) The snapshot is now associated with capturing our daily life





(fig. 21), and (fig. 22) The tag 'me' is amongst the most popular on Instagram

Along with freeing the snapshot from solely concentrating on the out-of-the-ordinary moments of life, the smartphone has also liberated the sharing of images from the confinement of one social group. Traditionally all persons relating to the photograph- photographer, subject and viewer were members of the family. This is illustrated by the (estimated) statistic that 55% of photos by 1960 were of babies (Good, 2007). Even as recently as 2006, while smartphone adoption was still relatively low, the top 4 tags on Flickr were 'wedding', 'party', 'family', and 'travel' (zmarties.com, 2006). Gye states that personal photography has experienced a shift from family to the individual (2007). This point is supported by the population using Instagram, an entirely smartphone based photo sharing platform, where the third most popular tag for uploaded images is 'me', 'family' is now at 46 while

wedding doesn't make the top 100 (webstagram.com, 2013). This suggests that smartphone photography is, in fact, a new form of snapshot photography.

What we do with photographs is directly related to why we take them. "The photograph is, always an object in context" - Sontag (1977, p106). According to Sontag, every photograph exhibits a "plurality of meanings". This meaning can never be secured. How and where a photograph appears will vastly change how it is understood. Similarly, Van House (2011) found that the meaning of personal photographs is constructed by their content, archiving, and display in addition to the stories told around them. Chalfen's findings state that snapshot photography is most often seen in the family album (1989, p1). Traditionally this was the context of personal photography. Besides this the exhibition or the presenting of the album was an important familial event. The verbal commentary that took place at such showings (by an important family member) was considered as important as the imagery shown (Chalfen, 1989, p129). The snapshot is, according to the author, the "home mode of pictorial communication" (1989, p161), it is as much about communication as memory. The smartphone has changed the ways that we communicate generally today (Lee, 2009), hence the way our snapshots communicate has developed substantially; Van Dijck compares the modern snapshot to a postcard, a conveyor of a brief message, not like a written letter (2008).

Mitchell describes the digital image "less confined by space, time, and materiality than ever it was in the past" (1994, p79). Similarly the smartphone by it's nature disrupts the conventions of time and space through its pervasiveness and impatience. Thus, there is no time for the customary enduring family album in the world of the smartphone. Likewise the social exhibition and the verbal commentary of the past have all been eliminated. Smartphone communication is sharp and crisp (Van Dijck, 2008), it is personified by the abbreviated text message. This immediacy coincides with the modern context of social life, wherein social networking is driven by 'sharing'. Enthusiasm for personal photography is driven by the desire to share (Lee, 2010). As a result the online context is constantly updated, snapshots appear on Flickr's *photostream*, Facebook's *news feed*, and Instagram's *photo feed*. The names used by these photo-sharing websites do not suggest a static, permanent image- they suggest continuous movement. The image is no longer "produced to infinity" (Barthes, 1980, p3), it is now lost in hurly-burly of the

world. Baudrillard claims that the "image overflow" of the modern era demolishes the essence of the photo- the moment, the freezing of time (1999).

Previously the snap shot photography attested to Baudrillard's abhorrence to the excess of continuous images, firstly by representing a very selective view of a lifetime, and secondly, the reluctance of most photographers to create visual narratives (Chalfen, 1994, p70). The smartphone version of the snapshot, by contrast, is exactly a visual narrative. Ito portrays it as "immediate, ad hoc and ongoing" (2003). The progression of the images is now more significant than the individual snapshots themselves. This is an illustration of Manovich's principle of new media, "modularity" - "Media elements... are represented as collections of discrete samples... [that] are assembled into larger-scale objects" (2001, p51) Van Dijck suggests that the snapshot is now "live", rather than "life" (2008), signalling the shift in its nature from memory to communication.

Relationships

This shift has reshaped the manner in which the snapshot assists in the "creation and maintenance of relationships" (Van House, 2005). The snapshot as a relationship preserver (Bourdieu and Bourdieu, 2004) still performs within it's modern context. The nature of the relationship has transformed, however. The transitory essence of the modern snapshot defines the new image based relationship. As the image has become continuously updated and replaced, the communication has become 'live', people can now be in perpetual contact through their smartphones. Ito and Van House both describe this new communicability of the image as "distant closeness".

Apparently paradoxical, this new concept of "distant closeness" (a reversal of Walter Benjamin's famous quote "unique phenomenon of a distance, however close it may be"), has been enabled by the technology of the smartphone. The tradition of reviewing memories with close relatives after the event now occurs in real time. Experiences that happen away from home are now shared as they happen, thus fabricating this idea of distant presence. Solitary moments of our lives have been invaded by this aspect of the smartphone. Foster gives anecdote of shopping

alone, where opinions of friends are received instantly through an exchange of images (2009). Agger furthers this argument by pronouncing that the smartphone has actually blurred many of the social boundaries in our daily lives, be they public and private, day and night, or work and leisure (2011). Moreover, Lee suggests that the smartphone blurs the physical and digital worlds together, that the idea of sharing experiences from a distance in some degree relates to living through the images (2010). The smartphone has become what McLuhan called the "extension of man", we are externalising our experiences.

The chosen images that were immortalised in family albums were shared with chosen viewers. This tight circle that such memories were shared with has been significantly widened. Most image sharing now takes place in front of a large collective of "friends" in our social media. This differs significantly from the time when the annual Christmas Card photo that, according to Chalfen, was the exception where snapshot audiences were extended to include "consanguinal and affinal relatives, fictive kin, some neighbours, close friends, old acquaintances, and, sometimes work or professional colleagues" (1994, p82). Not only are the majority of these now considered suitable for "Facebook friends", but the moments that we share with these become shared with their network of friends. Our autobiographical snapshot stream often ends up quite literally, for the world to see. The contemporary snapshot world would horrify Bourdieu's study subjects who considered the viewing of non-wedding 'shots as "indecent or ostentatious" (Bourdieu and Bourdieu, 2004).

Conclusion

Before the smartphone revolution, the snapshot respected the cultural boundaries imposed on it. Family was central to what was considered photographable, and, furthermore, the snapshots that were captured were largely reserved for familial exhibitions. The smartphone is a new type of camera that has not replaced the digital camera but exists in parallel. The Kodak moment is the traditional snapshot subject and the dedicated camera is still produced to capture such occasions. The smartphone has produced a new type of amateur photograph.

The traditional association with familial memories was a production of the Kodak culture. The smartphone camera also captures **memories** but they are about the individual and the everyday. It is "fleeting, malleable, immediate" (Murray, 2008) Similarly the smartphone snapshot has redefined the traditional communicative role it performs. **Relationships** were created and maintained through snapshots by the exhibition of the family album. Communication is no-longer face to face in the smartphone world. And the modern snapshot functions as a "distant presence" relationship. Snapshots produced by Kodak culture were severely restricted to "a patterned choice of participants, settings, topics, and certain aspects of code structure". The smartphone version is liberated from these chains.

Chapter 4

The Smartphone Snapshot: Self-Representation and Self-Expression

"we'll see the best of things, we'll see the worst of things, we'll see everything" (Agger, 2007)

The two remaining functions of the snapshot as described by Van House will be assessed in this chapter; representation and expression. From the findings of Chapter 2 we see that the photo album performed as a representation of the family. It projected the image that the family wanted to present. The use of snapshots as an expressive medium was not a common practice of the amateur photographer. The snapshot aesthetic however, the amateur style, defined a new breed of professional photographers.

Self-Representation

Marshall McLuhan's theories that technology would become an extension of man are particularly pertinent in today's society. It could be argued that the social media world has become an extension of our physical world. Similarly our smartphone could be seen as an extension of our nervous system. This would mean that snapshots function as our visual representatives, i.e.what the world sees of us, in this society. This point of view is supported by recent studies that outline identity formation as a the primary modern role of the snapshot (Murray, 2008; Van Dijck, 2008). The smartphone is primarily responsible for this, as it is a personal object. While the ownership of traditional dedicated cameras are associated with the household, smartphones are far more intimate objects and are owned by the individual family members (Gye, 2007).

As we discussed in Chapter 1, image sharing is a primary motive for using social media. Hence the smartphone snapshot has become the currency for social interaction (Van Dijck, 2008) The manner in which we share such images occurs is "immediate, ad hoc and ongoing" (Ito, 2003). Consequently the smartphone snapshots that we share are no longer about memories past and

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expressing "what I saw", but about the present and "what I am seeing" (Gye, 2007). Unlike the family album that was an organised collection of our nostalgic family memories, our current sharing activities are documenting our everyday experiences (Crouch, 2012). It is through these shared snapshots that the world now sees us (Van House, 2011).

Statistics show that more pictures are being consumed in our modern society than ever before. McLuhan discusses the effect of this increased exposure to photographs, and concludes that it desensitises the effect of the image (year, p223). Similarly Sontag (1997, p19-20) and Baudrilalrd (2000) both agree that the more we see violent or shocking images, the lesser effect they have. People are now sharing more photos, of more things, with more people, than ever before (Lee, 2009). Not only is the subject of the snapshot no longer confined to the family, but it appears the more snapshots produce and consume, the more of our daily lives we are willing to share.





As mentioned above the snapshot is now responsible for self-representation in the social media realm. The nature of the digital image, and in particular smartphone photos enables greater control of how the individual is portrayed (Van Dijck, 2008; Van House 2011). The smartphone captures, edits and shares images at the press of a button (Carter, 2011) permitting the photographer to easily manage what they share. Undesirable 'shots can be instantly deleted, while unwanted subjects can be cropped out of an image in seconds. Most social networks use a profile picture which acts as an identity card, identifying users. Unlike traditional, physical credentials, the digital picture is changed as often as the user wants. Furthermore, the expansive internet caters for countless social networks. This enables the selective presentation of different images to distinct groups, e.g. relatives, colleagues and friends can see different personal representations (Lee, 2009). Our online



(fig. 23) (fig. 24) (fig. 25) The contemporary snapshot allows us to to determine how the world sees us by carefully choosing the photographs we upload

collections therefore are not so different from the traditional albums, they display a carefully selected representation of the self.

This apparent control that exists in the social realm is in fact only illusionary. It was determined in Chapter 1 that the digital photograph did not entirely embody Manovich's principles of new media. The smartphone snapshot, on the other hand, is the definitive new media object. "A new media object is not something fixed once and for all but can exist in different, potentially infinite, versions." (Manovich, 2001, p51). Furthermore, new media objects are characterised as "liquid" i.e. they flow away and are hard to contain. In addition the smartphone snapshot also adheres to Mitchell's depiction that; "digital image files are ephemeral, can be copied and transmitted virtually instantly, and cannot be examined for physical evidence of tampering." (1994, p51). As a result once the modern snapshot is released into the to the online world, the producer does in fact lose all control over it (Lee, 2009).

Another of Lev Manovich's new media principles: interactivity; unlike the family album the order of presentation is not fixed (2001, p143). According to Van House juxtaposing, annotations and sequencing are required to secure the meaning of photographs (2011). At the same time Sontag observes that the "moral and emotional weight" of the photograph depends on where it is seen, and the photograph can change greatly as it's context changes (1977, p105-6). Accordingly as personal photographs can easily be duplicated and reappear in any number of contexts they leave the producer very vulnerable. Private images shared privately (i.e. peer-to-peer) can quickly arrive in the public domain for the world to see. An example of this potential was seen in 2004 when US soldiers shared disturbing snapshots privately with friends that quickly ended up on the web sparking global disgust (Sontag, 2004).

Self-Expression

"Photographing, and thereby redeeming the homely, trite and humble, is also an ingenius means of individual expression"- (Sontag, 1977, p31).

In his study Lee asserted that the change in personal photography has resulted in the

emergence of new cultural practices (2009). The use of snaphots as an outlet for self expression is one of these new practices. Photography, according to Sontag, is always expressive (1977, p6). The photographer chooses the moment that is captured (Berger, 1960) and in doing so exerts their individuality on the image. The widespread adoption of the smartphone and it's camera means more people than ever before have continuous access to a camera. This ready access to imaging encourages smartphone users to see the world "photographically" (Van House et al., 2005).

Foster states that photographic seeing is a way of aestheticising the world around us (2009). Similarly Sontag states that "beauty has been revealed by photographs as existing everywhere." (1977, p103) The idea that photography reveals beauty everywhere is the fundamental principle behind seeing the world photographically. By applying this notion to the smartphone camera an everyday aesthetic develops (Cooley, 2004; Murray, 2008). This way of seeing the world is concerned with finding the "beauty and adoration in the everyday" (Ito, 2003). This can be understood as a contemporary translation of Barthes' "punctum", "it is this element which rises from the scene, shoots out of it like an arrow, and pierces me" (1980, p26). It is the serendipitous discovery of the piercing details in the mundane that are expressed in the smartphone snapshot.

The smartphone camera is characterised by a small lens and sensor, that is much cheaper than those found in modern dedicated cameras (Fleishman, 2012). Despite the perpetually improving standard of the camera, the smartphone camera will never be of the same quality of a dedicated device. Consequently software applications are used to in innovative ways to produce snapshots. There has been an explosion of such applications in the last few years, there are over 20000 available for the iPhone at present. The popularity of these applications that enable self expression with the click of a button exhibits this new function of the snapshot. Snapshots of an expressive nature are about form rather than content (Van House et al., 2005) and as a result they are entirely unrestrained.

Like the other functionalities of the contemporary amateur photograph it has been found that the production of expressive snapshots is also fuelled by the need to share. Online sharing and in

particular peer feedback encourages this recent growth in expressive personal photography (Van House, 2011). The uncontrollable nature of the modern snapshot that was discussed above now plays a positive role in the spreading of these images, providing a widespread audience with ease (Cooley, 2004; Lee, 2010). Thus the smartphone snapshot overcomes the barrier of reaching audiences that severely hinder other expressive mediums







(fig. 26) (fig. 27) (fig. 28) Images are easily captured edited and shared from the smartphone. The above images were all taken spontaneously whilst travelling. The ubiquitous presence of the smartphone enables spur of the moment snapshots like these.

As a result the web has become awash with what are considered artistic snapshots. As we have seen, traditional pre-internet boundaries have been blurred by the smartphone and the perception of ownership falls into this category (Van House, 2011). Mitchell predicted this issue with the growth in popularity of the digital image, he pronounced that unlike in the other creative arts (music, literature), there is no act of publication of the digital photograph that results in closure. He stated that our modern snapshots would be "open to modification at any time, and mutant versions proliferate rapidly and endlessly" (1994, p51). This, again, relates back to Manovich's new media principles. If an image is creatively manipulated by someone other than the photographer, through a smartphone application otherwise, who owns the resulting image that is an original in itself? Primarily all our modern data, including our visual records, are stored in the 'cloud', that is on third-party servers. This too begs the question of ownership.

Instagram

Instagram is a manifestation of the cultural change that the smartphone has caused. It has been a stimulus in the development of the expressive snapshot. It provides filters that immediately change the look of an image. The Instagram social network rapid growth was halted towards the end of 2012 when a proposed change of terms would allow the company to sell the snapshots they hosted thus illustrating the issues of control and ownership outlined above.



Instagram photographs are all cropped to a square shape. In the world now we are surrounded by widescreen formats, smartphones in particular the purity of the square is an acclaim to a simpler time (Petrusich, 2012). The filters provided purposefully oversaturate or under exposure images, simulate lens flare or other degradations create a visual interest that the perfection of the modern image is void of (Bonanos, 2012). The square format and filters of this new form of snapshot ironically pay an homage to the Instamatics and Polaroids of the 1960s, a time when the physical snapshot was a precious object (Petrusich, 2012).



(fig. 29) (fig. 30) (fig. 28) Instagram is inundated with images of everyday moments such as these. The discovery of details such as these is a modern interpreation of Roland Barthe's "punctum".

Conclusion

To conclude the smartphone snapshot is a definitive new medium (Manovich, 2001). In the digital world the **representation** function of the snapshot is no longer about the family but about the individual, and how the world sees us. Furthermore this use of the snapshot appears to offer control to the producer in how they present themselves. This control is illusionary because of the ephemeral nature of the modern snapshot. **Self expression** is found to be a primary function of the smartphone snapshot, one that was not particularly prevalent in the traditional snapshot culture. In Chapter 3 we saw that the omnipresence of the smartphone change what was image worthy, and we can now attest that it has changed how we see our everyday

surroundings.

The findings of Chapter 3 asserted that the smartphone camera has produced an alternate version of the snapshot, one that was no longer constrained to the family and the Kodak culture. These findings are furthered in this chapter as we have seen that the smartphone snapshot is about the representation and expression of the individual. Furthermore the modern snapshot is unrestrained and open to modification and this is illustrated by the now popular use of expression through it.

Conclusion

Chapter Outcomes

Chapter 1:

In order to study the effect of the smartphone on the nature of snapshot photography, time must first be given to understanding the technical developments that led to the creation of the smartphone.

To do this the technical advances of the camera from 1800 to 1990 were analysed, illustrating the development of camera hardware from large cumbersome devices to simple portable machines. It was found that each significant advancement ultimately simplified the photographic process for the amateur. Developments in digital photography were then assessed, concluding that although the camera didn't change, the photograph was delivered in a new, non-physical format. Finally the growth of internet usage was traced with particular emphasis on the significance of social media in contemporary society, highlighting that over 1.5 billion people are members of social network sites. Finally the camera phone and subsequently the smartphone were assessed, with the argument that the success of the smartphone has been determined primarily by its ubiquitous connectivity to the digital world.

The key finding in Chapter 1 is that the smartphone, as a convergence of technical advancements in camera, internet, social media and connectivity has replaced the traditional camera as the primary tool for amateur photography and the dissemination of photographs, and as a result of their ubiquity and ease of use we have seen a massive increase in there number of snapshots taken in recent years.

Chapter 2:

In order to understand the effect of the smartphone on amateur photography, this chapter considers the field of amateur photography in the pre-smartphone age.

The findings of the Van House et al. study were presented in order to provide a framework for considering the snapshot. Definitions of the snapshot were considered, finding that a number of

terms are used synonymously to describe snapshot photography including terms such as "amateur", "vernacular", and "personal". An examination of the origins of this genre of photography found that it began with the release of the first Kodak consumer cameras and the accompanying advertisements. By using the functions established by Van House it was verified that snapshots did function as memory in the preservation of familial life. For relationships it performed as a bond in the family. For representation the photo album, the collection of snapshots, presents a carefully chosen image of the family. However the use of snapshots for expression was not commonly associated with the amateur.

Therefore this paper finds that the traditional snapshot was associated with the capture of Kodak moments, that is those special moments that occur on special occasions over and above the minutiae of day to day living.

Chapter 3:

The third chapter examines to what extent memory and relationships are relevant to the modern snapshot.

This Chapter revisits the findings of Chapter 2; that memory is the principal function of the snapshot but this time what is considered is the snapshot's relationship with contemporary society. Memory is still important to the snapshot but the context is now different. Traditionally the purpose of the snapshot was to capture special events, generally related to family, and this is still largely true for the amateur photographs when using dedicated cameras. Twenty-first century smartphone memories however are concerned with the everyday moments that were previously too trivial to be photographed. Therefore the smartphone has produced a new strain of popular snapshot that is concerned with the individual, not the family. Furthermore these snapshots are increasingly of trivial events, not special events, and so they communicate real time events with less emphasis on the preservation of past memories.

Chapter 4:

The final chapter looks at the roles of representation and expression in contemporary snapshots.

Once again the findings of Chapter 2 provide the basis for this section. The function of representation in snapshots as applied to the family are explored and and the family image they are meant to convey. The smartphone snapshot also functions as a representation, however it represents the individual not the family. The snapshot has become our facade in the digital world and it is in fact how that world sees us. Accordingly the manipulative nature of the digital image appears to permit us to carefully govern how we are portrayed to the rest of their world. However, the ubiquitous access to smartphone snapshots mean that they are also subject to further manipulation by third parties. Consequently representation in the contemporary snapshot is highly malleable.

An important aspect of photography discussed in the Chapter is expression. The traditional snapshot did not tend to function as a means of expression for the amateur. The opposite is true for the smartphone snapshot, and the evidence for this can be seen in the growth in popularity of creative mobile photo sharing networks such as Instagram. This underlines the assertion that the smartphone snapshot is concerned with the individual, not the family. Furthermore, with smartphone snapshots the functions of representation and expression are equally important as memory and relationship.



(fig. 31), left is an example of a traditional snapshot that exhibits the functions associated with the family. (fig. 32) on the other hand demonstrates the small details that typify the smartphone snapshot.



In Conclusion

"The freezing of time -the insolent, poignant stasis of each photograph - has produced new and more inclusive canons of beauty." -(Sontag, 1977, p111)

The goal of this paper is to examine the effect of the technological advances that led to the smartphone and it's supporting technologies (such as the internet, telecommunications networks and social media) on the nature and purpose of snapshot photography.

The essence of photography is the capture of a moment. The snapshot developed as a preserver of Kodak moments, these moments occurred outside of the daily routine and consequently were considered photographable. The traditional snapshot was enduring by nature, it was preserved in the family album.

The smartphone is a ubiquitous presence in our lives and its development allows us to rapidly create and share snapshots. Consequently the smartphone camera is not associated with the capture of the isolated Kodak moments but instead a new type of moment that I call the iMoment. The iMoment is quotidian, real time, expressive and representative. It is increasingly ephemeral and malleable; it doesn't remain static in the family album as a visual memento of important events, instead it is a disposable update of what we are seeing right now, and perhaps more importantly, how we would like to be seen.

In light of the chapter outcomes above I can assert that the smartphone and the connectivity of the world in which it exists has resulted in a significant shift in the nature and meaning of the snapshot.

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