

Facebook as a research tool: Documenting the evolution of mobile phone applications since 2011

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Abstract

In this project, two key elements of the development of technology, Facebook, a social media tool, and mobile phones, a portable communication/connectivity tool is brought together in an experiment that was started in 2009 as pilot and full scale since 2011 which continues to date. The objective of this research is document in real-time, how actual and possible uses of mobile phones, which has transcended from the rubber keypad versions to the smartphones of today, is extending beyond its first intentions. The idea came about on reading that people residing abroad bypass stringent laws, national and international, to transfer money to their homes in Africa through the purchase of prepaid cards and offering the 'pre-paid' time as 'money equivalent' to traders back home who then deliver real money to people in Africa. Today, there are official versions of this such as 'Sente' in that continent. With news and clippings appearing across the internet, through various means such as blogs, websites, news-sites, etc., the author realised that all the information, news and bits about the emergence of new uses of mobile phones could be documented through a simple Facebook page. Titled 'Unique Uses of the Mobile Phones' the author has been collating information and news about the various ways and means by which smart phones have gone beyond their first incarnation as mobile or cell phones. As an on-going project, the author intends to harvest the data to present the findings in research papers and articles.

Keywords: Facebook, mobile phones, research tool, documenting

Mobile phone has become more than a device for ‘telephony’. Hardly a day goes by without seeing someone or the other holding a mobile phone to their ears, or staring at the screen, be it on the street, in the urban trains, café’s, in the office and at home, everywhere (Figure 1). The word ‘mobile’ according to the Oxford English Dictionary was once used in association with the Latin phrase ‘mobile vulgus’, which means ‘excitable crowd’. Today, ‘mobile’ in the mobile phones signifies that the device is small and light enough to carry it around freely or easily. Looking back at the arrival of mobile phones, statistics show that there were only 34 million

users/subscription for mobile phones worldwide in 1993. This has reached 7,740 million as of date in 2017¹, with almost an exponential growth from 2000 onwards as shown in Figure 2. The release of iPhone 3 in 2008 by Apple signalled the arrival of new genre of mobile phones, the *smartphone*, which worked on the paradigm of ‘applications’ or apps. While the regular dial and talk service and short message service (SMS) of the mobile phone was available in smartphones,

it is the wide variety of apps and the connectivity to the Internet that suddenly opened the subscribers to whole new world of use for smartphones. Joining iPhone, companies such as Blackberry, HTC, Samsung and LG joined the fray. Together, iPhone and Android spearheaded a complete paradigm shift in the way consumers used mobile phones.



Figure 1: Scene inside Singapore’s MRT Trains. Almost everyone has a mobile phone. (Image: Ang Qian Ling, Ourshutterjourney.com)

¹ <https://www.statista.com/statistics/262950/global-mobile-subscriptions-since-1993/>

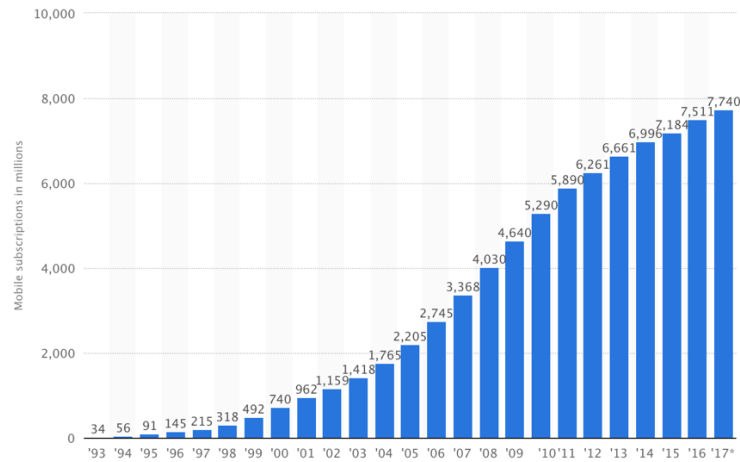


Figure 2: Growth of mobile phone subscription 1993 to 2017 (Image and data: statista.com)

Added to the new world of apps from Apple and Google, is another leap in social communication in the form of an Internet based social networking site and service named Facebook. Facebook, launched by Mark Zuckerberg and four others on 04 February 2004, became an instant hit with a huge following across the world. According to *nextweb.com*, Facebook.com had 650 users on 08 February 2004. The number of monthly users of Facebook stands at 2 billion as of mid 2017 according to *statista.com*². A listed corporation in USA, Facebook seems to be enjoying steady growth since 2008 as can be seen in Figure 3.

² <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>

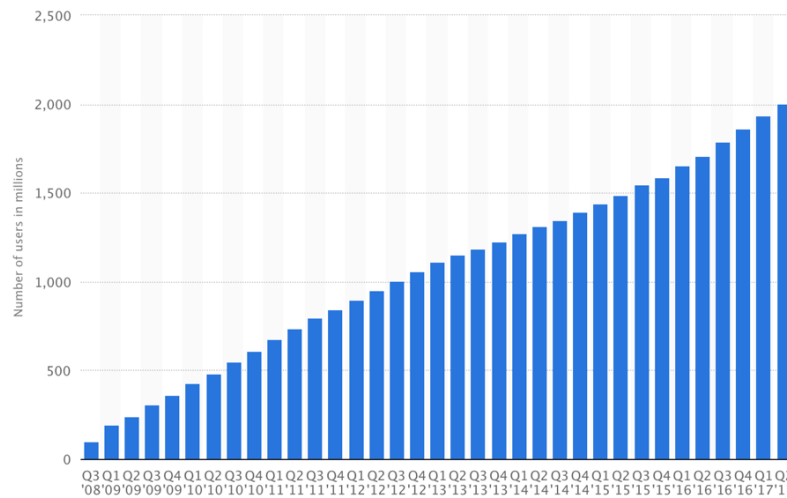


Figure 3: Number of monthly active Facebook users worldwide as of 2nd quarter 2017
(Image and data: statista.com)

On the one hand, smartphones are being used for wide variety of purposes and applications, with thousands of apps being released for/by Apple and Google, which becomes an interesting research study in communication/information morphology of applications for a designer, and would benefit from systematic documentation and archiving of the progress of the different uses of mobile phones in the last decade. On the other hand, Facebook also has evolved from an enjoyable social media pastime, to a more serious service, with thousands of interest groups and with event creators and organisers using Facebook as their main mode of information and communication. How do smartphones and Facebook connect in design research?

This paper presents an ongoing project by the author to use Facebook as a digital and visual archive to capture information and emerging trends, on how mobile phones are being used under different conditions and how companies are developing apps that are unique, taking mobile phones far away from just a phone. There are three distinct points to discuss in this ongoing research project. The first point is the need to document and archive the development and trends in the use of mobile phone, while the second, is the case for Facebook as a vehicle in this research. The third point is how this project uses Facebook to chronologically preserve the news and information on how mobile phones are/could be used, as well as the clippings and visuals of new methods and applications for/of the mobile phones. The paper ends with a discussion on how this project can be taken forward.

Need to document use of mobile phones

In a book titled *The Mobile Connection: The Cell Phones Impact on Society*, Rich Ling (2004) writes in the preface, ‘... the mobile telephone is more than simply a technical innovation or a social fad. The examination of its adoption and use and the of the attitude associated with the

device provides insight into some of the broader machination of society. In this process, the sociologist is provided with a rare opportunity to see the domestication of a new technology and its various consequences'. The use of the word 'domestication' is interesting in this context, since Ling (2004) seems to see mobile telephone as a wild technology that needs taming. While this book predates many of the apps that were to follow, there is still a sense of where this technology could lead to through the several chapters titled, *Making Sense of Mobile Telephone Adoption, Safety and Security, The Coordination of Everyday Life, The Mobile Phones and Teens, The Intrusive Nature of Mobile Telephony* and *Texting and the Growth of Asynchronous Discourse*'. Being part of the first generation of adults that started using mobile phones, the author has had a first hand experience and the observation from this experience is that, at the early stage of mobile telephony, consumer adoption of a new application or function introduced by (mostly) the device manufacturers was much slower compared to today, where new apps allow instantaneous use. Is this culture change phenomenon common to every culture?

Transitive Culture

In a paper titled *Transitive Culture: How 'global' product design is changing user behavior*, Sathikh et al (2009) point to, '... an interesting phenomenon that has been occurring in these (developing) regions of the world, where people, by adapting to these products are creating and finding new ways of using these products, creating 'transitive culture' fusing new technology products without disrupting the traditions and practices of their culture', terming this as transitive culture. Sathikh et al (2009) go on to define transitive culture as, '*...behavior as it is being cultivated, or cultured, that connects the accumulated experience of the past with the present way of life influenced by artifacts and products of the technology era, which is being socially learnt and transmitted*'. This makes it important to document this phenomenon of transitive culture, as rapid cultivators of behavior. To sociologists, behavioral scientist and psychologists, such documentation will aid them in making prediction on the future societal behaviors and norms. This is exemplified in a paper by Campbell (2007) titled *Perceptions of Mobile Phone use in Public Settings: A Cross-Cultural Comparison* states, 'These pandemic trends manifest in several aspects of social life, such as teen use of the technology for social networking, new forms of coordination, tensions between autonomy and privacy, and unanticipated consequences of the technology. Mobile phone has shattered many 'allowed behaviour' etiquettes constructed by the different societies. How does it do so? Sathikh (2009) in a paper titled *Culture in Transition: How 'global products' are changing user behavior* gives several examples of the how the world of mobile phones is changing culture around the world. This paper (Sathikh, 2009) set the scene for the author's search for a medium which equally in transition to capture the many varied uses of mobile phones as they occur. This was made urgent by the rapid introduction of ideas such as 'Sente' in Africa, where money could be sent and transferred through mobile phones from countries in the Western Hemisphere without going through the exchange controls of the many developing countries in the world (Sathikh et al 2009). The author was awarded a small sum of money as a start-up grant (SUG) in 2009 by the School of Art, Design and Media of Nanyang Technological University, Singapore to investigate on documenting the transitive culture trend of mobile phone uses around the world.

What is required for this project.

Early into this project, the author realised that gathering information on new ways that the mobile phone was being used was through several sources which included traditional newspaper and magazines, on-line magazines, news sites and dedicated websites that post information from various websites. Examples of such online sources are *notcot.org*, *PSKF Creative Intelligence Preview* (newsletter@psfk.com), *newatlas.com*, *wired.com*, *ozy.com* and others. Initial attempt to document the information/data in pdf files from these sources proved to be too cumbersome.

Moreover, the author felt that this research is not about collecting data for own consumption, but should be shared with as many people as possible across the world. Tedious computer based information storage and retrieval meant several layers of navigation before anyone could reach to the location that they were searching for. An avid user of Facebook since 2007, the author decided to experiment with Facebook as a potential vehicle for storing and retrieval of information and data as they arrive.

Facebook as a vehicle in this research

Facebook today, leads the world in social network sites (SNSs). According to Smock et al (2011), 'Early work showed how Facebook was used to connect with previously existing social connections, rather than make new connections'. Today, Facebook allows for many different uses with the user interface screen as a basis to take advantage of the various new features and interaction, allowing for social connections beyond the original small circle of friends. The author forms a closed group for the undergraduate students who are doing their final year project (FYP) under his supervision as seen in Figure 4.

Facebook also has a user friendly 'face' and interaction tools that makes it easily adoptable for even people who are not familiar with SNS. With the need for a dynamic documentation of the rapid roll out of new uses for mobile phones almost every day, the question is, can Facebook play an important role in this? Is there a parallel in the use of Facebook for such purpose? Good (2013) in an article titled *From scrapbook to Facebook: A history of personal media assemblage and archives* provides the answer through her, 'research on print-era scrapbooks and contemporary social media to highlight commonalities between the two formats, both in terms of the practices they have historically promoted for users, and the methodological challenges they produce for researchers' (Good 2013). Based on the observation that scrapbooks in its different forms and format provide a repository of what a person is thinking, doing or planning, Good (2013) argues that, '... scrapbooks and social media can be conceptualized as sites of *personal media assemblage* and *personal media archives*, a designation that highlights the simultaneously social and archival dimensions of each form.' Further, 'Like scrapbookers in the print era, today's active users of Facebook and other SNS leave mediated traces of the events and social encounters that shape their lives (Good 2013)'. In other words, archiving of the progress of the use of mobile phone affords a level of mediated trace about the period and in what context (social, economic, political, cultural, medical, etc.) each particular use was conceived. This would allow for many possibilities in presenting the documented progress. For example, say, the intention is to chronologically document and analyse a pattern in the development of apps for a certain medical condition, all

it takes is to run through the Facebook page and ‘harvest’ all the relevant application that have been archived in that page since 2009. This is the type of ability that this project warranted in this project

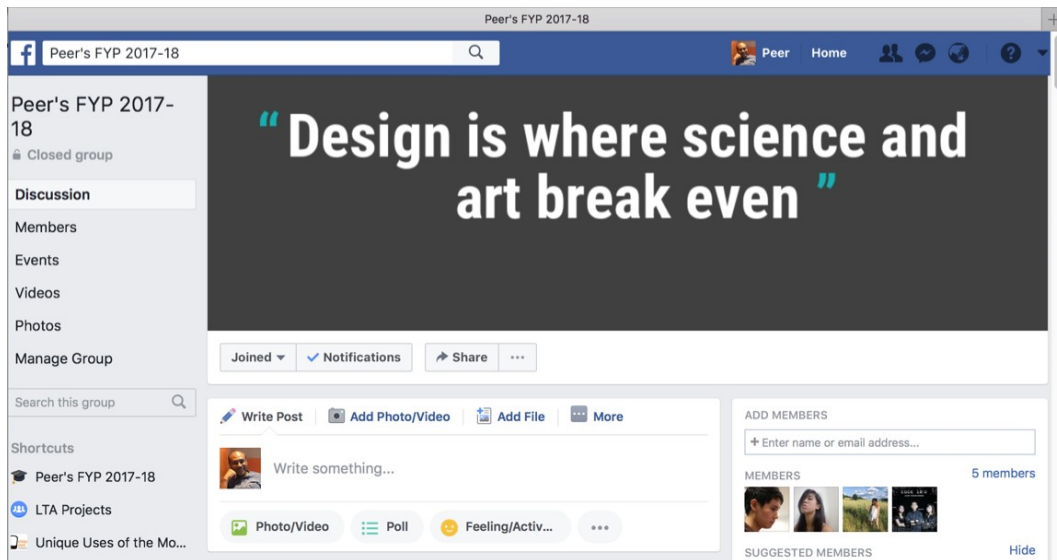


Figure 4: Example of Facebook Closed Group

Documenting the evolution of mobile phone applications

After studying the advantage of Facebook as a repository for documenting the evolution of mobile phone application, a Facebook page titled ‘Unique Uses of the Mobile Phone’ (UUMP) was started with the author and a student research assistant, Kailin as administrators in 2009. Within days the page was populated with postings with links to the source from which each information was taken from. Invitations to ‘like’ the page was sent to Facebook friends with a request to also send in links and lead/information that could be posted in the UUMP page. The UUMP has been active since 2009 (when it was piloted before going full scale in 2011) and continues to build content that is being archived electronically. The UUMP page’s ‘about’ page as seen today is shown in Figure 5.

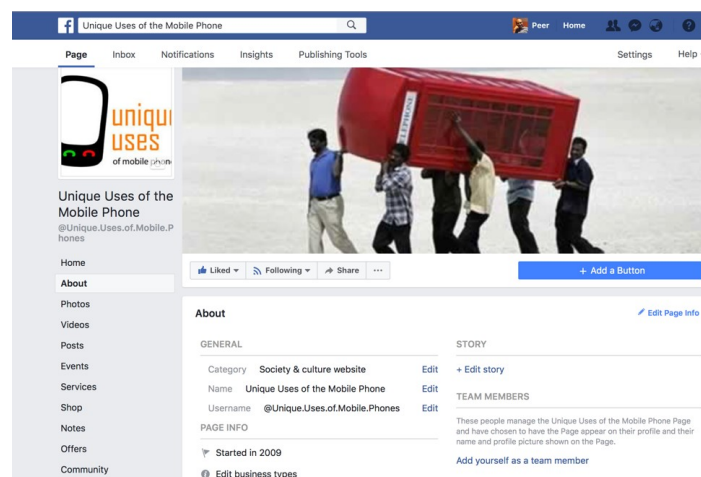


Figure 5: Unique Uses of the Mobile Phone page in the Facebook

Figure 6 shows a collection of random screen capture to highlight the different topics/areas that the posts represents.

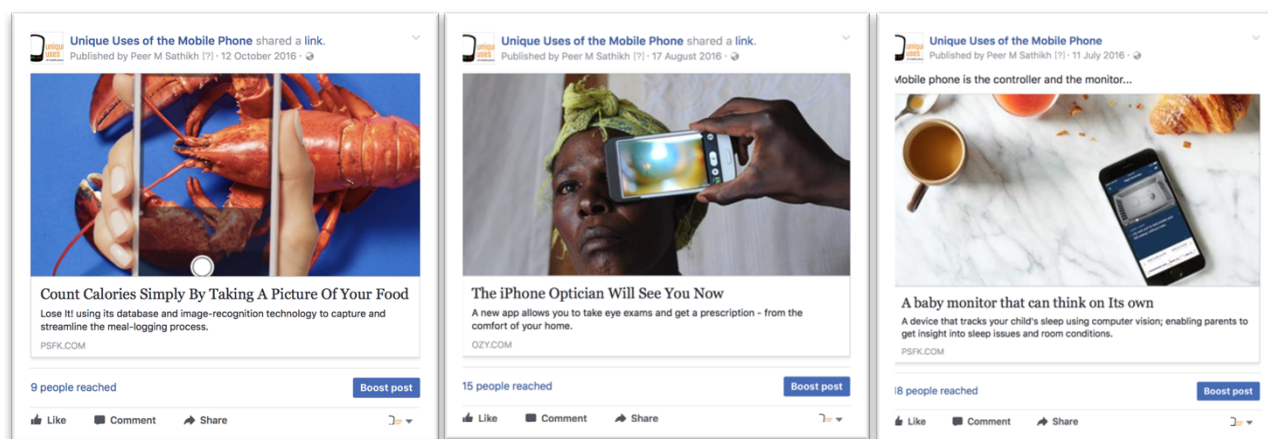


Figure 6: Random screen capture from Unique Uses of the Mobile Phone page in the Facebook

This documentation cum archiving is an ongoing project with the author spending at least an hour every day to read through all the feeds and inputs to select those that are new and unique before posting them into the UUMP Facebook page. A posting can reach anywhere between 10 to 100 people as seen from the information on the screen. A simple posting such as for an app for roadside help in towing and repairing a car on the streets or highway could reach more than 250 people with the post being forwarded and re-posted within their friend circle and so on.

Discussion

What can be done with the archive build-up of posts about the evolution of mobile phone applications? For one, the information is not only written but is also visual giving an opportunity for those researching on mobile phone apps and uses to refer to. The sources of the information are also easily traceable. This archive gives researches to harvest/mine the data, survey, analyse and categorise the evolution in several directions and topics. For example, one can see the evolution of medical apps and how mobile phones help in healthcare by mining for all postings related to health and medical apps. Similarly, use of mobile phone and apps to address social issues in different countries, during different period can also be mined, analysed and charted. For a researcher interested in looking at the technologies behind the apps and how they have evolved, this page becomes a data field to harvest. Study of what areas and apps have survived and what have not been successful is also possible through this Facebook page. As one pores over the past postings and the growing postings, it is possible to conceive many ways to analyse, represent and interpret the information and data available. The UUMP Facebook page thus becomes a unique and dynamic data accumulator for research in many fields and in many ways, shows the usefulness of Facebook in serious research.

Conclusion

What started as a fun pilot exercise for the author and his student researcher has grown into a field rich enough to harvest for information and data. Besides being an amusing almanac for the curious, the UUMP Facebook has shown its potential as resource rich minefield. The author intends to open this up as possible masters level study for design or design history students to organise, categorise and show the development of what could be the most important products of the 20th century, namely the mobile phone. The Facebook page is open and hence it is hoped more and more researchers of design and related fields visit and contribute to this digital repository. The author also wishes to invite everyone to send in information and link about interesting and unique uses of mobile phones. It is hoped that more research initiatives using Facebook as a research tool or vehicle is possible in the future.

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