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Esoko and WhatsApp Communication in Ghana

Mobile Services such as Esoko and WhatsApp in Reshaping
Interpersonal Digital Media Communication in Ghana

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Abstract

The predominant use of mobile media such as SMS and MIM across various sectors in Ghana is incontrovertibly influencing and reshaping interpersonal communications. This paper looked at the use of the Esoko SMS and WhatsApp MIM platforms and how the use of these two dominant platforms are enhancing and reshaping digital communication in the rural and urban Ghana respectively, as barriers of socioeconomic factors limits the use of sophisticated technologies in the rural setting. This is done by employing Madianou and Miller's notion of "polymedia" to draw on the moral, social and the emotional use of mobile media in enacting interpersonal relationships and communications whilst keeping in focus the recursive repercussions.

Key words: Mobile Telephony, Polymedia, Interpersonal Communication, Mobility, Appropriation, Social Change, Pervasive Media, Africa, Ghana, WhatsApp, MIM, Esoko, SMS

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1. Introduction

The enormity of mobile phone adoption in Ghana have significantly impacted on the culture, the people and the society at large. The proliferation and intrinsic use of mobile media such as Esoko and WhatsApp in the Ghanaian society is profoundly impacting and transforming the way interpersonal communications and relationships are enacted, experienced, performed and even maintained. This research focuses on the use of WhatsApp¹ MIM² in urban Ghana and the use of Esoko SMS in the rural settings due to its simplistic and unsophisticated nature.

WhatsApp is a cross platform messaging application for smartphones which allows users to exchange messages without having to pay for SMS. Esoko is a simple communication tool that operates with any mixed modes of web and mobile applications but dominantly through SMS and quite recently on Android operating systems (Esoko). Communications are rendered and cultivated through minimalistic and sometimes unsophisticated technological use in the Esoko platform to encompass grass root level users comprising of mostly farmers, traders and other variables within the same scope.

Ghana has had a long standing history of using SMS in unconventional ways, including collection of user data, mass SMS for personal and interpersonal communication for public, group and community based uses. A few examples includes Saya Mobile SMS, mPedigree, Mobile Money and Esoko which targets the agricultural sector mainly farmers and produce buyers and other stakeholders involved which I will be looking at later on in the text. And quite

¹ "WhatsApp Messenger WhatsApp Messenger is a cross-platform mobile messaging application which allows you to exchange messages without having to pay for SMS." WhatsApp 2013. 7 May. 2015

² "Mobile instant messaging (MIM) is a messaging service that uses instant messaging (IM) via mobile devices, employing various technologies such as text messaging, Wireless Access Protocol (WAP) and General Packet Radio Service (GPRS). Unlike SMS, MIM notifies the user when those in the contacts list are available or not available for chat." Techopedia." 2011. 24 Mar. 2015

recently the use of WhatsApp mobile platform which has become quite popular globally and in Ghana as well with over 500 million monthly active users in the world according to Statista website and Lodder (2014). Some of the questions this research seeks to answer are:

- *How is the Esoko and WhatsApp use aiding and shaping media communications in Ghana?*
- *How is it taking a dominant disposition in enacting and maintaining interpersonal communication and relationships in both the rural and urban settings?*
- *Are the use of these two applications creating new dynamics in interpersonal communication?*

The level of intimacy people have with their phones has made the mobile phone a great tool in the dissemination of information, mediated interpersonal communication and aiding in altering trajectories of relationships and the way they are enacted and performed. Intimacy in this sense is also as a result of cultural context, the mobile phone plays a critical mediating role in our experiences of space but, it does so within a cultural context that gives the mobile phone meaning as part of everyday life (Dourish & Brewer, 2008).

The culture of appropriation, our quest to develop, sustain and maintain an open communication, conviviality, connectivity and be instantaneous in response to our interpersonal relationships has all aided and played a role in the familiarity we have with our phones and the reliance on it therefore. As expressed by Miller the great sense of anxiety that follows a mobile phone lose shows that mobile phone has achieved intimacy with their users (Miller, 2011). It is also this attachment that has spur up diverse and queer uses of the mobile devices as it is a tool that is always ready at hand in close proximity hence helping in maintaining our interpersonal communications and relationships. Framing in reference of Madianou and Miller's theory of

polymedia that draws emphasis on the social, emotional and moral consequences of choosing between media. They linked the communicative intent to choice of medium which in return have an impact on the way interpersonal communication through technology are cultivated and managed. The choice of keeping a mobile phone in close proximity is as a result of the social and moral affordances avow (Madianou & Miller, 2013). There has been a paradigmatic shift in the urban use of mobile SMS to WhatsApp application use. WhatsApp has become a form of quasi replacement for the old fee-based mobile SMS (Joy Online News). In the rural setting they are still dependent on SMS as SMS in the rural sectors are tailored for specific audiences and tasks. For examples SMS applications for education, for farmers and for healthcare, concurring to Dourish and Brewer's notion that the mobile phone is instrumental in producing social and spatial arrangement (Dourish & Brewer, 2008). The use of the SMS for specific purposes has its social arrangement based on reasons for sociality and the social transcends into the spatial. Uses that inclusively negotiate around context and genres. The variant use of mobile media such as Esoko and WhatsApp are continually shaping the way communication and interpersonal relationships are enacted and performed in rural and urban Ghana respectively. The aim of this research is to examines how the use of WhatsApp and Esoko mobile media are moulding and creating new dynamics in interpersonal relationships and communications by drawing on the moral, emotional and social concerns in choosing modes of conveyance in an environment of communicative affordances.

This is done by dividing the thesis into three main divisions with series of sub-divisions. The first part gives a background history of the use of technology and the Ghanaian habituation of the mobile device. The second part looks at the Esoko platform and variants of polymedia as a general concept in the use of Esoko in enacting relationship and information dissemination.

While the third part looks at the WhatsApp platform and how it has become a quasi-replacement for SMS in the urban setting as well as the way relationships and communications are performed within WhatsApp.

2. Background History

Ghana has been one of the countries that is said to be heavily lagging behind in harnessing information technologies and digital innovations for complex and obvious reasons relating to infrastructural shortcomings such as economic poverty, linguistic isolation, cultural resistance, technological inexperience, poor governance, and lack of basic infrastructure (limited power availability) among the indigenous, rural and some parts of the urban populations as well (Prins Harald, 2001). Over the past few years the country has been rationing power in order to meet the high demand for electricity in the country.³

The founder of Microsoft Bill Gates in 1998 was part of a group of U.S executives of World Economic Forum in Davos, dedicating themselves to closing the digital divide. He was an outspoken advocate of new media and a critic of those in opposition. However by the year 2000 he had a complete change of heart, in a speech at a conference titled “*Creating Digital Dividend*” he offered ferocious criticism of the idea of the digital divide and its capacity to blind people to the reality of the conditions of the world’s poorest people. (Ginsburg Faye, 2006) Bill Gates change of heart rather is in the right direction as the basic infrastructural needs to power up those computers were basically non-existent especially in the rural African context. But not to say that the people do not need computers at all. Rather the kind of computers they needed was not the

³ (2015). Ghana President Vows to Deal with Country's Electricity Crisis. Retrieved March 27, 2015, from <http://www.voanews.com/content/ghana-president-vows-to-deal-woth-countrys-electricity-crisis/2661336.html>.

kinds available at the time. His speech below showed his newest perspective on the issue at the time:

“O.K., you want to send computers to Africa what about food and electricity -- those computers are not going to be that valuable. The mothers are going to walk right up to the computers and say “*My children dying, what can you do?*” They are not going to sit there and like, browse EBay or something. What they want is for their children to live. They don't want their children's growth to be stunted. Do you really have to put in computers to figure that out?” (Quoted in Verhovic, 2000).

Bill Gate’s first stance played a role in the massive dispatch of used computers to Ghana and other African countries to help alleviate the digital divide. This quest to bridge the gap has created one of the world's largest digital dumping grounds (e-waste) in Ghana, mostly comprising malfunctioned electronic devices and hordes of old unusable computers, according to The Guardian and BBC News in 2012, as they bear concerns about the health hazards of such dumping which are mostly from the United States and some parts of Europe. However these dumping are as a result of an attempt to help Ghana leapfrog the digital divide by making used computers available to even the remote parts of Ghana. Though these remote places in the country do not necessarily have electricity to power those computers and basic infrastructure is also lacking. Ghana is toiling to find the right economic and technical model for providing communication services to all of its citizens, especially those in rural places. Ghana ICT infrastructure is more developed in the south than it is in the economically underdeveloped north (Foster, et al, 2004). As a result the computers sent to the rural areas end up in the digital dumping grounds while those used in the urban areas also have quite short life span. Not to say that the urban dweller did not benefit from these benevolence. Rather it seem to have contributed

to a wave of computer literates in the urban setting, including hardware and software engineers as the onset of internet cafe sprang up almost everywhere in the cities due to the affordability of used computers. International Telecommunications Union statistics estimate that there were about 880,000 Internet users (3.8% of the population) in Ghana by the end of 2008, (Sey, 2011). The affordability of used computers also gave room for the average worker to own a personal computer with “somehow” better ICT infrastructure in the urban areas. The dumping sites serve as hiding places for muggers and bring about rural urban migrations (Ghana Agboghloshie, e-waste). The rural folks comprising mostly of the youth from the north, travel to the urban places and end up on these digital dumping grounds where they squatter, scavenge and burn the computers and electronic devices and extract the metallic components. (BBC News) Drawing on Dourish notion of cultural logic, as he expressed our encounter with space is contextualized by cultural logics which are themselves social products, they emerge out of our actions and interactions as we move about in the world (Dourish & Brewer, 2008). It has become a source of livelihood for many and they completely ignore the health hazards associated with the burning of such toxic components. They dwell on the dominant cultural logic of pursuit for livelihood and greener pastures. There was a new paradigmatic shift with the invention of portable mobile devices. The hailing of used computers paved way for the use of portable mobile phones which is said to be aiding in the transformation of the African continent and its individual countries (Williams & Kuehr, 2003). The first mobile device in Africa was launched in 1994 and weighed 0.5kg. As of December 2013 the mobile phone penetration in Africa was about 80%, popularly known as “*the cell phone boom in Africa*”. (Phonearena, 2013).

2.1. The Ghanaian Habituation of the Mobile Devices

The mobile telephone has shed a new light on Ghana's digital drawbacks, the proliferation into the society over the past decade has had significant impact. The mobile device has given the chance for the Ghanaian to bypass most of its socio economic difficulties and join in on the digital world by appropriating the mobile phone for their benefit (Sey, 2010). The mobile phone is single-handedly being used for tasks that might require multiple device use in the developed parts of the world. In Ghana the mobile phone adoption rate is 113.37% as at December 2014. As of November 2014 there were 30,360,771 mobile phone subscribers, the mobile subscription grew by 0.47% in 2014 according to the national communications authority in Ghana (NCA, 2014). There are more mobile voice subscriptions in Ghana than the country's entire population which currently stands at 25.7million people.(World Fact book 2014). The urban and rural Ghanaians values the mobile phone for the connectivity it affords, the flow of information it offers and allows for and also for the gratification, social status and prestige it comes with. The mobile phone was used predominantly for voice calls, this was due to high illiteracy in the rural and some urban parts of the country. Most rural folks could not read nor write, hence the use of SMS were basically non-existent in the rural areas though it was widely used among elite peers in the urban settings. Mobile voice subscriber base in Ghana for November 2014 grew from 29,990,581 in October 2014 to 30,219,162 as at the end of November 2014 whilst mobile data recorded an increase of 0.43 % in November 2014 bringing the total data subscription to 15,710,652 subscribers from 15,643,629 subscribers in October 2014 (NCA, 2014).

2.2. SMS, Mobile Money, Drug Authentication

There are variant uses of SMS in Ghana, the use for monetary transaction usually called mobile money, the use for medicine or drug authentication, information disseminations, impacting knowledge, and the traditional communication uses. Also some uses include specializations that targets particular scope of people for example the Esoko platform. Mobile money in brief is the ability to have monetary transactions via SMS from one network user to another, transactions range from sending money from one person to the other, sending money as payments, depositing money in the bank and other international remittances. SMS use in drugs authentication is made available through a company called mPedigree a Ghanaian start-up company in collaboration with international drug manufacturing companies and stakeholders, based on mobile phones, utilizing unique, human readable codes that are placed on drug packaging (Gogo, Garmire, 2009). mPedigree start-up won the Global Security Challenge start-up award for inventing a very low technology system for counterfeit drug authentication. Although there has been high-tech approaches, such as RFID chips, or laser holograms, those did not reach the masses as the low tech mPedigree has (mPedigree, 2007). Looking also at WhatsApp Messenger, a cross-platform mobile messaging smartphone application which allows users to exchange messages without having to pay for SMS, through the internet. It gives the affordance for its users to create groups, send each other unlimited images, video, audio, text messages and currently voice calls in selected countries. It has become one of the dominantly used MIM application in Ghana (Yeboah et al, 2014) which will be looked at later on in the text.

3. Theory and Related Work

This research stretches within the scope of SMS, MIM, Mobility and polymedia as a general concept. Concerns central to digital culture studies such as remediation, community, and

appropriation will be engaged. Madianou and Miller's notion of "polymedia" will be engrossed as an underlying framework to develop and discuss the Esoko and WhatsApp use in reshaping digital media communication on the interpersonal levels in Ghana and how it seems to be altering already existent communications and relationships. The use of digital mobile media has had a profound impact on the way relationships and interpersonal communications are enacted, practised and experienced (Miller & Madianou, 2013).

There has been scores of researches in the study of short messaging services (SMS) and mobile instant messages (MIM) in general. Some focused on emergent uses that were beyond extrapolation in the time of invention especially in the African context. Researches pertaining to SMS are inclined towards socio economic stands as they draw on the social benefits and the economic viability of use (Sey, 2010, 2011; Donner, 2006, 2008). There are vast studies on how and why teenagers use mobile media (Adjei & Bruku, 2014). Researches in the use of SMS for reading, for monetary transactions, for small social group organisations, drug authentication, impacting knowledge, creating awareness (Ebola outbreak) and uses among adolescents and students. There seem to be a tremendous shift in the use of SMS to MIM within mobile phone use these latest years that has become quite an interesting phenomenon for research (Yeboah et al, 2014).

Araba Sey, a researcher who is quite passionate about the use of mobile phones in underdeveloped countries with specific emphasis on Africa, has done series of credible researches on the employment of mobile technology for connectivity and its impact on poverty alleviation and other socio economic benefits. One of her persuasive research explored the impact of mobile phone use for sustainable livelihood and poverty alleviation. Sey drew broadly on the use of mobile phone for socio economic benefits, backed by an empirical research with

qualitative interpretations. Though her research was greatly geared towards technological determinism, using technology in shaping human affairs; progress through technology (McLuhan, 1964), Sey's results proved that the use of mobile phones are for connectivity facilitation as she herself claimed was a bit misleading, because that was not the expectant results. New media are made up of spectres of older media (Manovich, 2007). A research that narrows down the different variables of uses within the mobile phone may have given a more concrete result. For instance (Tawiah et al, 2014 & Yeboah et al, 2014) survey statistics captured considerable number of specific group of users as well as specific mobile phone application which makes their data quite credible and highly informative. Today's mobile phone has remediated a vast range of older media forms, they have encompassed many forms of remediation and emergent practices from camera phones to smartphone applications and various explosions of divergent forms of mobile phone uses (Goggin & Hjorth, 2015). The mobile phones today reminds us of new media debates where by the new is often a reinvent of existing media and practices within a different context, hence the mediation of other forms through the lens of new (Bolter & Grusin, 2000). The reinvent and the convergence of vast media embedded within the mobile phones makes it broad to study for that specific result, hence a reframing of "mobile phone" to encompass feature phones to capture the grass root users may have narrowed down the research and given a more substantial result or an insightful look into specific community based uses. However one of Sey's aims of the study was to contribute empirical data to the emerging body of research on mobile phone communication in African countries. In this sense the approach used are quite inline though a much broader spatial, and field specific research might have given a robust data overview or a collection that would have inclined the

research towards data contribution. Data that can be used by other researchers to analyse other genres of mobile phone culture as well.

O'Hara, Massimi, Harper, Rubens and Morris researched the everyday dwelling with WhatsApp, they drew on Ingold notion of “Dwelling” Licoppe and Smoreda notion of “sociability” and Simmel's notion of “faithfulness” and used these three concepts to frame their subject in the context of OTT applications while taking a dominant disposition on the WhatsApp application through a case studies. They comparatively drew on other OTT⁴ applications to establish similarities. They tried to situate the WhatsApp communication application within the ebb and flow of life but more so connected it to the relationship we have with people who are not in close proximity. Their case study drew on the nonsensical interactions that premier sometimes within the communication threshold. They deliberated rightly by drawing on the notion that, though such communication are nonsensical to the communicant, there are deeper meanings which they elaborated that the communications are sometimes done without reasoning or pre thinking which also relates to the kind of relationship in question (O'Hara, et al, 2014). Church and Oliveira did a comparative studies between the WhatsApp application and traditional SMS, they focused more on the human factor measurement, drawing on the motives behind the usage (Church, Oliveira, 2013).

Esoko and WhatsApp

4.1. Esoko SMS

⁴ OTT refers to “over the top applications”, independent of the network being used and have variouse media embedded. e.g. WhatsApp.

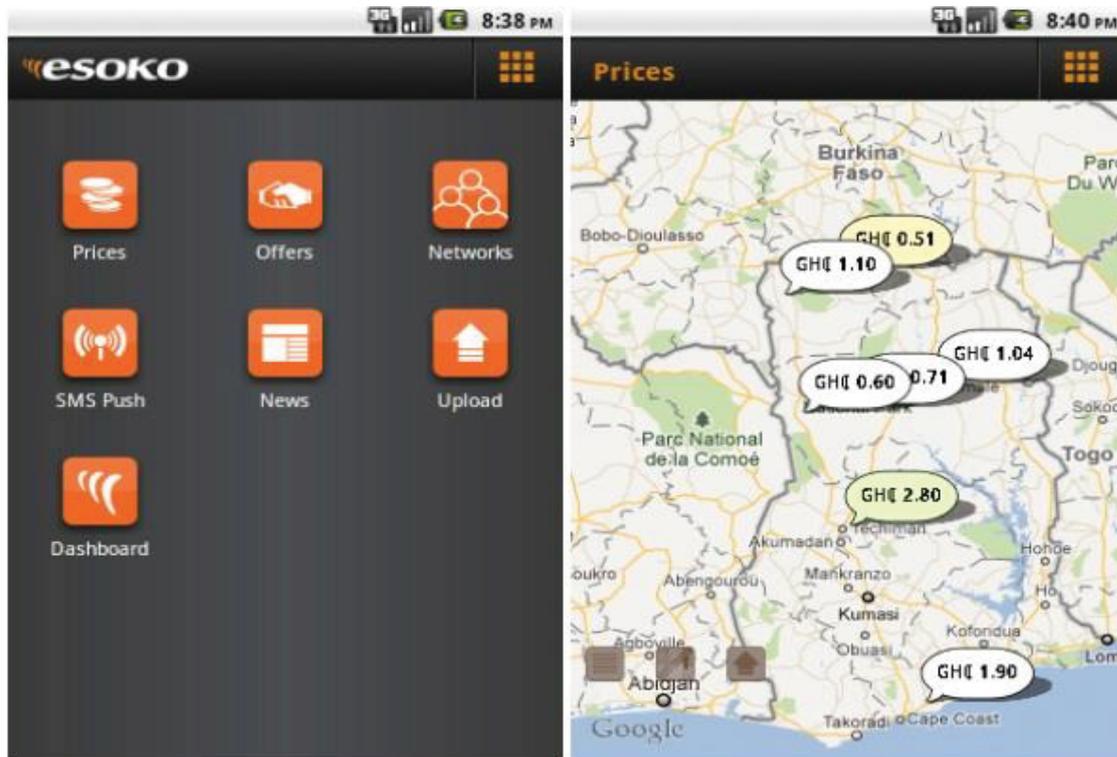
Esoko means ‘markets’ in Swahili, is a technology-based information dissemination and communication system classified as agricultural informatics or e-agriculture. Esoko provides agricultural stakeholders like farmers and traders with information such as prices, and a platform for advertising and negotiating buy/sell offers, weather report and professional opinions. Esoko offers direct facilitation of information through automated short messaging services (SMS) developed for the mobile phone with an online presence as well for more sophisticated and comprehensive uses such as data analyses, statistics, personalized alerts, SMS polling and surveys (Esoko, n.d.).

In rural Ghana SMS is primarily used for the dissemination of information (in a professional sense) while staying in touch with friends and family is mostly through verbal. Aside the usual SMS integrated in the mobile phone they also have an SMS platform called Esoko widely used in rural Ghana and other African Countries. Esoko is a mobile communication platform designed to help farmers manage their value chains.

Using the mobile phone as a channel, pre-registered fee-paying subscribers receive up to 10 SMS text alerts monthly and uploaded buy/sell offers directly to the system. Esoko Ghana operates as a fully independent business entity that will develop local markets through subscription (bronze, silver, gold, and platinum) sales to individual and corporate customers. The bronze subscription fees charged to individuals for receipt of SMS alerts are used to offset the cost of SMS text messages charged by GSM operators. Farmers and traders who are the intended recipients of Esoko alerts are either registered through farm- or trade-based associations/communities that have acquired Esoko licenses or through Esoko agents in the local marketplaces (Gasnier, 2010).

Esoko use for passing on market information such as pricing to farmers, training programmes alerts through bulk SMS, weather and climate reliance as forecast alerts are crucial for the farmers as they rely heavily on the weather for watering and lacing their planting times. And also offers remote consultation services through the same SMS method that help them make informed decisions on what types of crops have ready market at every point in time, coupled with a call center where farmers with difficulties could call for assistance, a data, analytics tool that collects data of the users (IICD, 2009). Africans are far from bridging the digital divide because it is not only a gap between countries, it is also a gap inside countries, with disparities in binaries existing between rural and urban settings, men and women, and the educated and uneducated (Alzouma, 2005). Though a technologically ideal society is far fetch for Ghana, there is a starting point to which these divide issues within a country could be tackled of which Esoko, WhatsApp and the general adoption of mobile phones seem to be partly aiding. The use of Esoko in Ghana is of interest because over 53% of Ghana's workforce were employed in the agricultural sector as of 2013 (faostat⁵, 2014). Starting such innovative use in rural Ghana is a step in the right direction not only on an individual level but on a collective scale. The use of smartphones applications and SMS applications like Esoko seems to be changing the trends of the digital divide (Pimenidis et al, 2009) through the availability of technology from different angles to aid in bridging the gap from the rural and urban settings," the social character of spatiality arises out of the confluences of the emergence of urban and rural" (Dourish & Brewer, 2008).

⁵ "FAO - FAOSTAT - Food and Agriculture Organization of the ..." 2004. 18 Mar. 2015 <<http://faostat.fao.org/>>



Esoko Application Interface

The availability of information through various SMS based mobile applications is encouraging and attracting the youth to go into Agriculture (MOFA, n.d.). In the past Agriculture was a professional field for the illiterate in Ghana. The style of farming which is quite labour consuming, hardly remunerative and the lack of basic information in the rural place made it very unattractive for the educated youth to engage in farming. The onset of mobile SMS and other derivatives such as surveys, push notification, bulk information, data collection, monitoring and evaluation all through mobile application (Esoko, 2005) are shaping the idea that farming is for the less elite in society.

As noted by James and Versteeg “it is on usage (rather than ownership) that data collection needs to focus, because this concept come closest to capturing the benefits that actually is derived from mobile phone use” (James & Versteeg, 2007). Hence the derivatives are

as a result of usage which should be the primary concern as the Esoko platform is doing, data collection and surveys came in as a by-product of recursive use. Value chain developments are significantly impacting on the farming economy making it a profitable and a solid source of revenue as access to the right information are readily available by sending an SMS, calling or through the application. This is encouraging the educated youth to venture into farming and akin field (IICD, 2011). As John Urry (2000) has suggested mobility, rather than society, may be the key to bring to life metaphor for sociology in the twenty-first century. He argues that, in contrast to a sociology focused around social stability, sociology must increasingly contend with mobility's of many sorts, not only people but also goods and media and their dynamic as mobility and technology are closely embedded in the way we imagine of the world and ourselves as cited by (Dourish, 2008). The society had limitations because of proximity, mobility in terms of human movement alone wasn't enough to decipher the issue at hand. As mobility, human movement has a barrier and limitations being time. As nexuses of sociology contents with mobility, mobility will have to contend with time and time will have to contend with technology. Along these strings, they used SMS to erase their barriers and limitations and created a chain reaction that are interdependent on each other. As expressed the virtual spaces are being created which transcend the spatial dispositions and restrains of mundane reality. (Dourish & Brewer, 2008).

Their use of SMS combines both mass communication and interpersonal processes to render a comprehensive understanding in tackling the limitations of information flow. (Papacharissi, 2011). The way in which most people form and change opinions on issues and even services are known to involve mass media messages and interpersonal discussions similarly, the integration of mass and interpersonal processes is necessary in order to grasp the

diffusion of innovations, a communication process that assimilates both mass and interpersonal communication in its very conceptualization (Reardon & Rogers, 1988). Esoko mass SMS are sent out to a large number of target people in the rural areas, however they are distinct from the traditional mass communication or broadcast media as the recipients are specifically people who need the information and they all fall within the scope of the message. The SMS in that sense has remediated the mass communication and the interpersonal face to face communication. The venturing of the youth into the agricultural field due to the resources available is what Reardon and Rogers described that aids in changing people's opinions.

The appropriation of the mobile telephony to suit their needs is venturing up opportunities that seemed out of their scope before. It is also creating a hub for users, as phone numbers are in a central database in the system, individual farmers can reach each other and extend their communications beyond farming. Tying this to Ling and Yttri notion of micro coordination sparked by mobile messaging, allowing very fine grained coordination of actions in space when people are together. However in the instances of the farmers Esoko the coordinations are rather macro “macro coordinations” as a single message sparks countless expansions of other communications and socialites through which end results affords the farmer the right price, the right information and chains of interpersonal relationships and networks.

The use of SMS here is not intended to completely take over the human to human interaction but to facilitate the movement and flow of right information while shaping relationships and the society for better. For instance the use of middlemen who negotiate between the farmers and the market sellers might seem to be out of business due to the direct access the farmer has to the market information. As in contrast to the old methods where the farmer has to rely on price information from someone who has just come back from the market

(Sey, 2010). However the SMS rather propels the middlemen to have fair prices for the farmers as they are well informed of the cost of their produce on the market. The use of SMS makes the farmer well informed thereby diluting the power structure that once placed the middle men in dominant position over the farmers. The information gathered and distributed by Esoko empowers farmers, growers in the negotiation process that shifted the power equilibrium from buyers back to the farmers (David-West, 2010). And even more complexly help create interpersonal relationships, by linking the farmer directed to series of potential buyers these relationship between the buyer and farmers are cultivated and nurtured to create a web of meaningful interpersonal relationship with recursive benefits as farmers have access to variant potential buyers in the same light buyers have same opportunities. These variant use of the Esoko⁶ SMS, creates a sub community of users within the broader community of farmers and bring the users of Esoko together in a form of community. These communities are created as a result of the commonalities in use of the Esoko platform, though the intention of the tool was not to create a community but allow the flow of trustworthy information. The mobile application use spark up communication in a face to face interactions where users inform themselves of gains and elaborate and share their experiences in that regard.

The Esoko platform itself is not a social networking site but its use sparks some of the attributes of a social networking site. SNSs carry the expectations of sociality, meaningful connections to others, conviviality, or perhaps even support and empathy (Parks, 2010). The application use creates different mosaic like patterns of interaction that are constantly in flux with the various mix mode of communication. As Parks noted "it appears, then, that offline and online communities are linked in ways that we are only beginning to understand". Fore instances in a case study by David-West, 2010, the illiterate farmers were offered voice market

⁶ (2012). Esoko. Retrieved March 16, 2015, from <https://esoko.com/>.

information instead of SMS but they refuse because they wanted the content available for reference in their own analysis of the market, Hence they used the documented SMS as an extension of their memory (Marshall McLuhan, media as an extension of man) and if they revert to voice they will not have data to fall back on for reference.

Farmers in the North of Ghana, asking them a whole range of questions and feedback and so forth. And I said, a lot of people tell me that there's an issue with literacy and that these MIS systems with SMS won't work because they are written down. Is that true and would you like the phone to speak the message to you each week...If it rang and it spoke the price? And they said "Oh no!" And I said really, why not! And they said "oh then it won't be written down". And I said well that's the whole point. "But we need it to be written down because we check the previous week's SMS to see the prices and we can then analyse the trends in the markets..." (Mark Davies. n.d.)

In the same light, contacts gained through Esoko are kept for future references, as relationships are enacted, practiced and sustained through Esoko SMS. Appropriations within the Esoko platform, though the application uses SMS to a greater degree the platform has in the course of its use reinvent itself and made available other tools more sophisticated through the use of the internet. Unintended use of technology, as they become responsive to the needs and revolved through human interactions with it, creating a new set of tools within the same tool to solve other problems. Hence, the adopting and adapting of the technology by groups and people integrating and negotiating it into their daily lives, practices and routines (Janneck M., 2009).

In the course of this research one of the leading telecom companies in Ghana "Airtel" just announced an SMS based internet services (DOTGO) that will give all mobile phone users within the network access to the internet without data or Wi-Fi as featured phones are notably

used in rural Ghana⁷.(Airtel Ghana, Feb,2015). Though this look like an appropriation and intertextuality of the Esoko platform that has marginal users. To use the terms of Roland Barthes that, if modernist collage always involved a “clash” of element, electronic and software collage also allows for “blend.”(Manovich, 2007). This will be delivered to mass audiences through feature phones that are predominantly used in the rural areas and also among the illiterate as they have no use for smartphones due to language barriers and complexities in UI design as digital immigrants. Knoche and Huang, 2012 drew on Chipchase contention against making phones for illiterates noticeable because of the associated stigma. Text-free interfaces could give away someone’s illiteracy as mobile phone UIs are often in the clear view of others (Knoche & Huang, 2012). Chipchase has very good reasons for such claims, the reality is the need for connectivity and ability to communicate and enact, cultivate relationships through technological use as well as access information especially among the illiterate. So then, the importance is not the aesthetics rather usability should be the key component. Rural spaces are usually made of small communities where people live in close proximity and knows each other, hence someone's illiteracy status is not a private issue in that regard, more so the rural setting is where most of the uneducated dwell (Sahn & Stifel, 2003). Stigmatization is not priority as it might not even exist in that setting. The usability should be the primary concern, however the issue here is in relation to the binaries that will be created in the course of creating another IU for illiterates, especially with discourses of equality at stake. There is always the risk of not being able to integrate every feature which will also cause information loss among the illiterate groups thereby widening the digital gap rather than closing it. It is a way and a move to democratize information and spur up technologically mediated communication in the everyday life of the people. The number one

⁷ "DOTGO • Delivering Internet to the Millions: Airtel Ghana ..." 2015. 19 Mar. 2015
<<http://dotgo.com/Press/20150224/>>

benefit of information technology is that it encourages innovation, it lets people be creative, it allow people be productive, it let people master things they did not think they could learn before, and so in a sense it is all about possibilities (Steve Ballmer. n.d.).

The SMS use is reliable and timely as information through the Esoko application give out specific location based information that helps farmers to decide where and whom to sell their products for maximum profit. As James Moor notion of greased information, when information is computerized, it is greased, with increased chances of quick disseminations to many ports of call (Moor, 1997). The physical data of prices and information is collected, once this data is computerised then there is a greater chance for the information to reach the receiving audiences. As Moor claim the moment the data reach the computer it is greased and the chances of reaching the audience are far greater as in contrast to the physical information that has many barricades (proximity, physical human labour, transportation) to cross before reaching the intended audience and that is if the information is able to cross those barricades.

4.2. Variants of Polymedia in Esoko Environment of practice

Concurring with Madianou and Miller's notion of polymedia the environment of polymedia can be seen in Esoko as an integrated structure of variant media to engage with, the user can choose to engage with SMS, voice, or send emails, user treat media as a structure of opportunities (Madianou & Miller, 2011). Choices of which media to use brings to play the concepts of polymedia. As the choice of media in this context has an impact on the relationship the farmer may have with a produce buyer, a middleman or other variants. Choices are informed based on reasons that, to use SMS might spur up issues such as responses in time bearing in

mind the possibility for produce buyers not to see the message in time or other barriers such as the buyer's ability to read the message. The communication is shaped by the medium qualities and affordances (Madianou & Miller, 2013). Some of these factors will inform the decision of the farmer of which media to use even though relationships in the Esoko context continually evokes binaries of “on device” and “off device” modes. Polymedia fashions towards individual’s moral responsibility in choosing media, more especially when there are clear normative cultural behaviours against which an individual can be judged as in contrast to a state of emphasis on individualism which leads to common misunderstanding between people as to what the implication of choosing a particular media might be (Madianou & Miller, 2013). The relationship in this sense is greatly impacted upon by the kind of media used. Time lag in response especially if through SMS could cause the formation of a weak relationship between the farmer and the buyer which is one of the theorem consequences of polymedia. These connections are not just one time thing but rather a whole relationship is nurtured and builds a continuous and recursive interaction between the farmer and the buyer. The individual recipient is morally responsible for responding in time as a cultural normative through the Esoko. However polymedia does not draw particularly on the individual media's affordances (Hutchby, 2001). But the media in relation to another media with preconditions of access, affordability and media literacy. Whereas the media literacy as defined by Livingston, 2004 pose a challenge for the farmers in relation to the four parallel processes of access, analysis, evaluation and content production. In the context of Esoko the content production is not a necessary prerequisite or even a condition for media literacy. Hence their ability to produce content has no direct bearing on their mediated engagements, however it does have an impact on their interpersonal communication relationships as it informs the medium to be used. (For example a farmer would

rather choose to use voice calls instead of sending SMS because he cannot write SMS) though he can read the content of the SMS messages sent by Esoko. This is due to training offered to users to interpret the content and also design structure of SMS, by receiving same messages over and over again they get acquainted with the structure and understand the messages, this proposes for literacy to be redefined in this context and even more so with the notion of polymedia.

Polymedia is fully attained when resolution between media that forms parts of one environment can no longer be referred back to issues of either access, cost or media literacy by either of those engaged in the act of communication (Madianou & Miller, 2013). Looking at the interpersonal communications within the Esoko community of users, polymedia is attained to a certain degree with quite subjective stance which makes it uncomfortable to simply say "polymedia is achieved" However there are instances where polymedia is achieved on group levels within the interpersonal relationships. As a group of users can attain polymedia by fulfilling all the factors or preconditions necessary, yet an introduction of a member with a limitation of one of these factors will create an abrasion to the attainment of polymedia in a group sense but within interpersonal relationships polymedia can still be evident among some users. The classifications of subscriptions makes it even more categorical in attaining polymedia in a broader spectrum, as bronze subscribers can be categorized in one group in the way they use the platform due to the limitations within that scope of use. However silver, gold and platinum users also have separate affordances respectively. The higher the level, the higher chances of achieving polymedia. As a bronze level user has low chances of acquiring all the prerequisites for polymedia. Nevertheless a platinum users fulfils all the prerequisites of polymedia, attainment of polymedia is high as they are at the peak of the pyramid and are more elite and can handle and deal with more sophisticated uses.

4.3. WhatsApp Ghana

WhatsApp application falls within the genre of OTT Apps (over the top application) and has undoubtedly continues to grow with affordances and arrays of different media to choose from. Over the past few years the application has broken its boundaries and has become one of the most used application. Currently branded as the most popular mobile instant messenger globally. As of year ending 2014 there were 700 million active users with over 30 billion messages per day (statista). One of the communicative trends that created new dynamics in interpersonal relationships in Ghana is the culture of “flashing” sparked by the advent of mobile telephony (Flashing in Ghana means using the mobile phone to dial or call someone but not allowing the person to pick up the phone by cutting off the call just at the first ring or before the person gets the chance to pick up the call). This way the recipient of the call see the identity of the person calling through the call log and might understand what the flashing means depending on the kind of relationship in question and context (Donner, 2007). When it comes to interpreting the meaning of “flashing” it is rather ambiguous as contextual cues and previous discourses could also give different interpretations. Whereas reasons for flashing range from not having enough credits, flash recipient do not mind being burdened with cost of call, circumstances that does not require voice communication and sometimes based on the concepts of polymedia as the choice of media being for example flashing to indicate “ I have reached home safely” instead of calling to say the same thing, it is based on a judgment that a voice call is not necessary in this instance, as it is a conclusion of a structured pre-negotiation which gives a moral justification for choosing flashing as a medium choice for the final communication. Not all flashes mean the same thing, some are requests to call back; some are little signals that the flasher is thinking of

the recipient, others convey a pre-negotiated instrumental message, such as: “I am done with my work, pick me up.” (Donner, 2007). “I have reached home safely, I know I am late, I am coming.” looking broadly, these flashes falls within three main observations—call back, pre-negotiated instrumental, and relational (Murtagh, 2001). As rudely as it may be within certain societies and cultures is it quite an acceptable norm in the Ghanaian society with unwritten rules governing it (media ideologies). Factors such as whom one flashes and the number of times one flashes plays a role in making it not coming off as a rude gesture (Donner, 2007).

Some gaps in the rules led to the telecom companies setting up “call me” features which allows the caller to rather send a free message which says “Please call me” by sending a short code to a Telco service number. This was more subtle and easily took over “the flash” to mean “call me back” (MTN, Ghana). Smartphones with internet has shifted this trend or phenomenon, though it still existent but predominantly among the least educated.

Mr. Koum, making his first public appearance at the Mobile World Congress in Barcelona after the acquisition by Facebook, was narrating WhatsApp’s journey since being founded five years ago. Citing how useful the application has been to the over-450 million subscribers around the globe, Mr. Koum singled out Ghana as a country that is using the product in a way him and Brian Acton — the other Co-founder — never envisaged when they established the application. According to him, though he had learnt of several uses of the service from across the globe, mails he had from Ghana that the university students are using the WhatsApp messenger to hold discussions with their lecturers, and even compare notes among themselves in a group, left him astounded (Ameyaw, 2014).

The former boss Mr. Koum’s peroration shows the ubiquitous adoption of the WhatsApp application by Ghanaians more specifically in the urban area. WhatsApp is not only used among students but also among families and organisations. It has remediated the traditional SMS that was once used predominantly by the urban populace, however WhatsApp has remediated SMS within the scope of interpersonal relationship. Stemming ideologies of polymedia as one of the contributing factors to the transposition in medium.

Below is a graph showing the leading social networks worldwide as of March 2015, ranked by number of active users (in millions) This statistic provides information on the most popular networks worldwide as of March 2015, ranked by number of active accounts. WhatsApp ranked third with 700 million active users.

Leading social networks worldwide as of March 2015, ranked by number of active users (in millions)

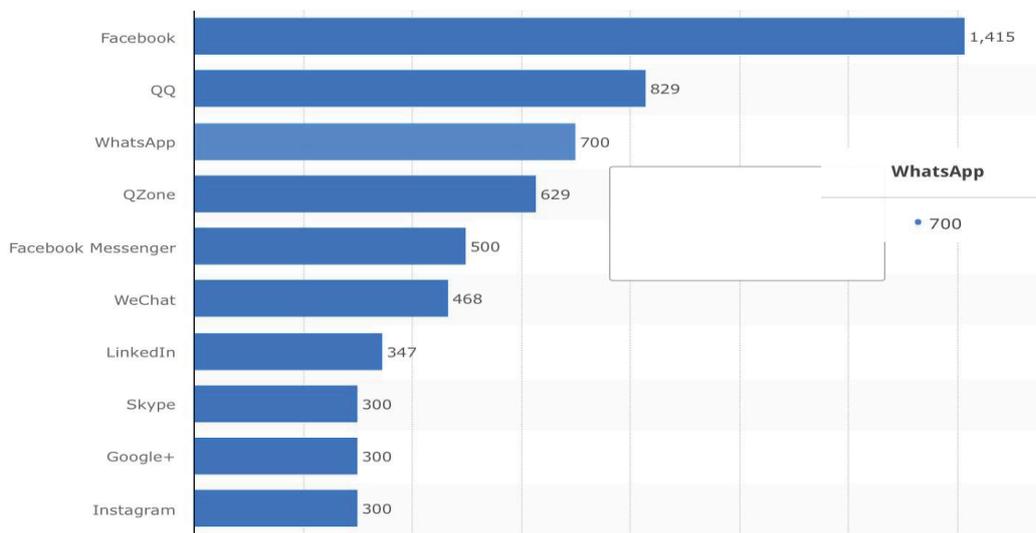


Fig: 1.1 Source: statista.com

4.4. Negotiations and Affordances

The WhatsApp application uses cell phone numbers to initially activate the services, once activated the application scans through the phone contacts with permission and allows the user to see and communicate with other WhatsApp users in the address book. Regardless if the contacts in the address book have one's contact number or not. Once the application is installed and setup the service is constantly on without an option to log off from the application without deleting it entirely. An option for logging off is to disconnect internet data on the phone. The affordances the application offers makes it come handy and allows for ease of use. Aside having the choice to engage with multiple media such as video, audio, images, emoji icons and text, it also allows for the user to set up a profile photo with a status message which can be updated as and when needed.

Profiling is a continuous never ending process, as there is a continual input of new data habits and communication data (Miller, 2011). The access to a phone number gives the opportunity for one user to spy discreetly on other users through status messages and profile pictures. Though this can give rise to falsehood, in media communication, individuals can wear disguises and lie about who they are and what they want; as profiles are altered (Johnson & Deborah, 1997). However WhatsApp uses the telephone number as authentication to a certain degree on interpersonal level, but with regards to international groups it is not feasible.

Every significant new technology embodies a potential to transform society (Miller, 2011). A user's online status is also shown, however it does give the option to disclose or not to disclose the online status of users. A prominent feature that makes media communication morally different from a face to face communication behaviour (Johnson & Deborah, 1997).

Once communication is ongoing, the communicant are alerted with a double tick to indicate that a message has been seen by the other party and a single tick if not seen. There again a user can choose to not click on the message as it is received to avoid being ticked as “seen” though the recipient has seen and read the message on the phone screen as the notification pops up. This is to avoid the fast pace and immediacy of online communication though it is evident in face-to-face communications as well. Just like making an excuse to avoid a discussion for which you are not ready for at a particular time (Johnson & Deborah, 1997).

WhatsApp is an application that seems to be really enhancing interpersonal relationships as its affordances enhance communication between people. Contributing factors to this is the delivery of messages in real time without the need to log in or out. Enabling the receiver also to respond in real time, it does give the opportunity for privacy as the communications can be on a group basis or on an individual level. However, the ability to share a location in a communication can also act as a surveillance system for parents to track the movement of their children. Though a mobile phone can have its position triangulated within some metres through its proximity to surrounding mobile phone masts whilst the phone is switched on (Miller, 2011), this surveillance (techno-logic) that WhatsApp affords, makes it much easier for parents and other variables to access the location of users with permission. This might deter younger users from using the platform with family unless in instances where remittances and financial responsibilities underpin the relationship doing (Madianou & Miller, 2013; Miller, 2011). **See fig: 1.2**

A research by Yeboah et al., 2014, indicates that the main reasons why people use WhatsApp in Ghana is to chat with friends, then stay informed about happenings as well as communicate with families among other appropriated uses in the academic fields, such as group work discussions and compare classroom notes (Yeboah et al., 2014). Connectivity, the

affordance of being constantly in touch is an underlying factor that has flared WhatsApp usage.

REASONS FOR USING WHATSAPP:

| REASONS | FREQUENCY | PERCENTAGE |
|---------------------|-----------|------------|
| ACADEMIC WORK | 28 | 7% |
| GENERAL INFORMATION | 50 | 12% |
| CHATTING | 300 | 72% |
| FAMILY | 40 | 9% |
| TOTAL | 418 | 100% |

Source: Data survey (2014)

TIME SPENT ON WHATSAPP:

| TIME | FREQUENCY | PERCENTAGE |
|--------------|-----------|------------|
| 1-2 | 18 | 4% |
| 3-5 | 70 | 17% |
| 6-7 | 130 | 31% |
| OVER 8 hours | 200 | 48% |
| TOTAL | 418 | 100% |

Source: Data survey (2014)

Fig: 1.2 Source: Yeboah et al., 2014

4.5. Polymedia within WhatsApp Use

Previous researches about WhatsApp indicated that, it is not a platform that is prominently used for making new friends but primarily used in negotiating and performing or "doing" relationships. Not only in the Ghanaian context (Yeboah et al., 2014), but also in the United Kingdom among others, *"You do not really learn about your friends with WhatsApp because you know them already"* (O'Hara et al., 2014) as one research participant expressed. However the platform gives the serendipity for new relationships to be formed and performed due to its ability to eliminate awkwardness in enacting relationship or broadly in communication.

Considering statistics by Tawiah et al., 2014, shows that WhatsApp is not only a platform for communication but a platform for performing relationships with theories of polymedia constantly in focus. This part of the research is not looking at variants of polymedia from the

perspective of enacting friendships in an environment of communicative affordances (Madianou & Miller, 2013). With all the preconditions of polymedia fulfilled WhatsApp is an application that gives the affordance for relationships between friends to be performed with intimacy; closeness; ever present; and with an immediacy less propelling than voice call or the urgency of SMS. Performing relationship among friends in WhatsApp can be likened to walking with a friend from point to point in a day's journey. Where snippets of chats are constantly ongoing with moments of breaks in between just like walking and chatting with a friend, the WhatsApp use is an embodied experience. In this context the chats are eminently and circumspectly text based bearing in mind the concepts of polymedia with moral responsibility for choosing a medium.

Since the WhatsApp is used mostly in a multitasking environment the text format allows for discreet usage. Hence students can use it even when lectures are ongoing, or when in a bus or other public places. While the uses that includes video and audio or voice calls are limited to when headphones are available and excludes the classroom context. As the media functional innate propensities underpin their relational definitions and our apprehension of them as an integrated structured (Madianou & Miller, 2013). Considering the graph below:

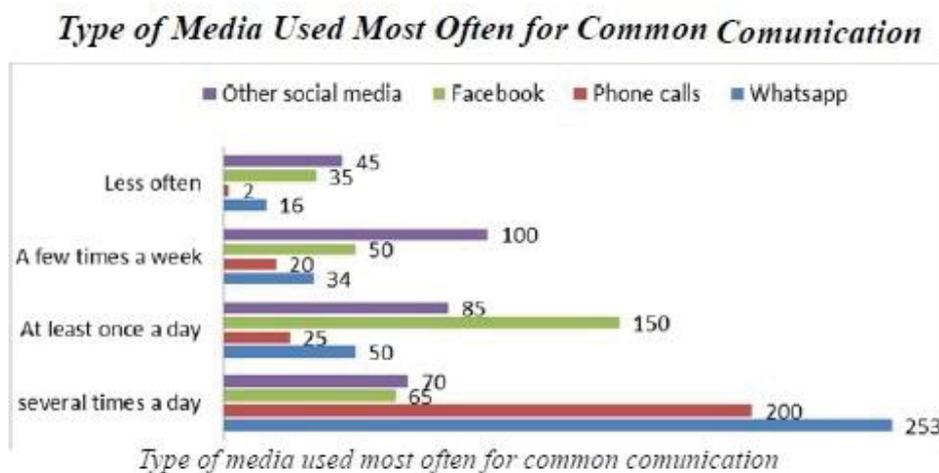


Fig: 1.3 Source: Tawiah et al, 2014 (Survey conducted in Ghana)

This graph by Tawiah et al., 2014 shows that, the frequency of communication and the choice of medium is WhatsApp. However an empirical research by Yeboah et al., 2014, further break down the frequency into time factor and that clearly conveys how much time the people spends on WhatsApp enacting relationships. This also shows the way it is used, as the preponderance of participants invest between six to eight hours on WhatsApp daily, while still going about their normal chores and duties. It indicate that the time spent therefore are not constant but rather in a multitasking way. It also stipulates that relationship within the platform are constantly being performed perpetually among close friends. It can be deduced that the WhatsApp has almost obliterated SMS communication in the interpersonal level within the Ghanaian urban setting.

TIME SPENT ON WHATSAPP:

| TIME | FREQUENCY | PERCENTAGE |
|--------------|-----------|------------|
| 1-2 | 18 | 4% |
| 3-5 | 70 | 17% |
| 6-7 | 130 | 31% |
| OVER 8 hours | 200 | 48% |
| TOTAL | 418 | 100% |

Source: Data survey (2014)

Fig: 1.4 Source: Yeboah et al., 2014 (Survey conducted in Ghana)

Choices of medium when the three prerequisites of polymedia are ruled out or fulfilled (access and availability, affordability and media literacy) there is also the social and emotional concerns that are framed around cultural factors in polymedia. Certain instances allows for generalization and others circumstances does not allow for generalization. For example as individuals are held responsible for their moral choice of a particular medium (Madianou & Miller, 2013) the choices are also informed by cultural genres in relations to the moral responsibility.

Scenario: It is globally not acceptable to text someone to inform of the death of a close relation such as death of a child or spouse. Such communication require physical communication but in instances where the physical is impossible due to proximity and other factors, voice replacements are seen as a morally responsible choice. Reason being the embodied affect of the interaction that prepares the recipient of the news as text, video and emoji icons are not enough in such circumstances. For example, facial expressions and gestures whereas in voice conversations it is the tone of voice, the pace of speech and also the time spacing between words (embodied physical presence) all adds up and give the recipient clues as to what to expect, as it is epistemological as well as ideologically grounded within to act this way hence the moral responsibility and affective communication. Text is a culturally unacceptable medium when it comes to sensitive issues, but in some instances it plays a role in preparing a person emotionally for the “big news” through the morally acceptable channel of delivery. Whereas when it comes to an issue like peers breaking up a relationship in a Ghanaian context, text might be fine to use, however it must be backed by a voice call, but in other parts of the world it is considered disrespectful, cowardice or callousness (Gershon, 2011). Consequences of polymedia such as the social, emotional and moral comes to effect while alluding cultural ramifications as contributing factors for it to prevail. Just as in Esoko use, where the media choice are framed by the moral and social while still being logical.

Tawiah et al’s research statistics (Fig: 1.5) showed that among family members, issues of sensitive nature are usually communicated through voice alluding to the fact that, the kind of relationship and context informs the moral choice. However a much deeper analysis of the research data below indicates that the participants are aware that, their reliance on WhatsApp has affected the rate at which they make voice calls significantly. But at the same time claims that

the voice call still remains the most important mode of communication choice. The “most important” in this instance rather points to the “importance of what need to be communicated” hence bearing allegiance to the moral responsibility of mode of communications in this context. Nevertheless the communicative affordances that avail to users influences the choices of media without neglecting the consequences of polymedia, just as text is seen to conceal emotional depthness of a communication. Denoting that WhatsApp use being text, video, and audio are equally valuable, they all serve purposes with dominant contours of polymedia in focus. With the recent addition of voice calls through WhatsApp implying more convergence, it will be interesting to see how voice calls within WhatsApp will impact on the normal cell phone calls as well.

Perceptions on whatsapp and voice calls

| Statements | Response | | | | |
|---|----------------|-------|----------------------------|----------|-------------------|
| | Strongly agree | Agree | Neither agree nor Disagree | disagree | Strongly Disagree |
| WhatsApp protects personal information than phone calls | 50 | 67 | 20 | 80 | 83 |
| WhatsApp will influence my choice of a phone than just a basic phone call | 110 | 80 | 25 | 77 | 8 |
| WhatsApp has really affected my phone calls | 205 | 55 | 30 | 10 | 0 |
| Phone calls still remains most important mode of communication choice | 211 | 40 | 3 | 12 | 34 |
| I depend on WhatsApp for most of my communication than phone calls | 202 | 34 | 64 | 0 | 0 |

Source: Survey Data [2014]

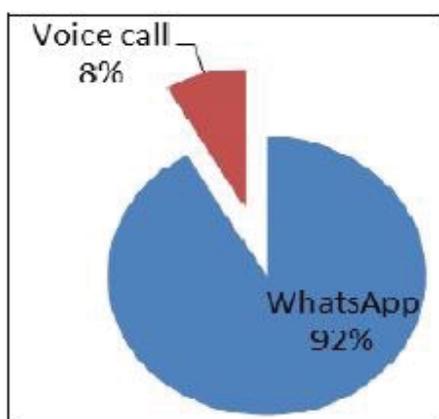
Fig: 1.5 Source: Tawiah et al., 2014

4.6. Enacting Friendship and Eliminating Awkwardness

WhatsApp communication allows for relationship building and performance by erasing awkwardness in communication and relationship doing. Likening to face to face communication where one throws in an off topic to eliminate awkwardness. It gives that affordance through the

multiple communication modalities including visuals which allows awkward moments in texting to be interrupted with visual materials (facetious images, video, and emoji icons) to dissolve or neutralize an awkward environment without being rude. At the same time allowing for a break in the communication for proper assimilation. Hence the perception of new media as a communicative environment of affordance and negotiation and bearing the moral and emotional consequences of medium choice. Having someone's phone number does not make the person a friend, in recognition to this, WhatsApp allows the enacting of new relationship through the various communicative affordances. This can be done by sharing directly; funny, interesting memes, videos, images or texts with persons which is seen as “extending hand of friendship”. There may be instant reciprocation or not. But the point is WhatsApp give the affordance for one to subtly initiate friendship without being too forthcoming. In the same light the application does not possess the awkward characteristics of advertisement, games or restricting use on only specific brand of smartphones, like its other competitors (Viber, Skype and FaceTime) respectively. This could also be a contributing factor to WhatsApp’s proliferation in Ghana and other parts of the world.

Preference of WhatsApp and Voice Calls



Preference of WhatsApp and Voice calls

Fig: 1.6 Source: Tawiah et al, 2014

5. Comparison WhatsApp and Esoko

Before any comparisons and discussions, I would like to draw on a few limitations within this studies. Access to statistics on Esoko has legal bindings that made it impossible to use. Some of the data that could be used were overly ambiguous and speculative. Finding credible statistics on Ghana's WhatsApp use was quite challenging as well, as most data available are broadly for Africa and sometimes much bigger countries like South Africa and Nigeria. However there are statistics that were internally generated in Ghana though they targeted specific user groups, it has been quite useful in this research.

Juxtaposing the two platforms use, Esoko is indubitably changing digital and interpersonal communication in rural Ghana, as communications and information avails through Esoko use and are tailored to be of direct benefit to the Esoko users. In contrast to relying on media (documentation) from the urban Ministry of Agriculture offices or generalised radio information that are tailored for an entire villages or townships. Esoko has created and made communication more personal by giving instant access as well as erasing socio-economic barriers by giving farmers the power to have information and communicate when they deem fit.

Whereas WhatsApp on the other hand allows for connectivity and communications to be negotiated with intimacy and offers multiple affordances that enables users to be morally responsible in choice of media. Among peers, accessibility is quite phenomenal as the application is constantly turned on, allowing for snippets of communication to be in constant flux with ease. Apart from the affordances of media, Esoko is changing the way farmers

communicate about their produce, more so with the onset of middlemen who took dominant positions in the bargaining power with the aim to always have a lion's share due to the farmers lack of direct and timely access to market information and ready buyers. The use of Esoko has shifted the power equilibrium due to more direct interpersonal relationships with ease of access to potential buyers giving the farmer to be morally responsible for choice of media and consider consequences of polymedia in making an informed decision on media communication modalities. In the same light, relationships in WhatsApp are experienced and performed in a whole new way. The relationship doing becomes more spontaneous as "the performing self" though not with the same immediacy that Esoko offers among buyers and sellers relationships.

Looking broadly, both Esoko and WhatsApp are answering to the need for connectivity by being ever present in their various communicative environments. Being continually available with no barriers of switching modes such as online and offline, with both having positive impacts on physical limitations. It is changing the way friendships are forged and performed as the omnipresence of WhatsApp aid in creating stronger and closer relationships. However, this does not mean that there are no drawbacks with being omnipresent. There is always the danger of falling into dormant mode due to the awareness that companions are not farfetched, hence always available as and when needed through the application, thereby limiting communications to necessities. In contrast to voice or SMS, frequent calls in a day can get overwhelming and even quite distracting. WhatsApp allows for communication throughout the day in a subtle manner that gives a flow that do not overwhelm because it is a platform that allows for constant relationship performance while multitasking. Communication with WhatsApp and Esoko are changing patterns of communication in Ghana, making norms that were once taboo acceptable. Drawing on the statistics by Tawiah et al., 2014, indicates that among the participants only 8%

use voice, the rest are heavily dependent on WhatsApp. Showing a drastic shift in choice of media for communication. The 8% voice calls are heavily reliant on context and content of communication, drawing attention to consequences of polymedia as the foremost contributory factor. **See also fig: 1.6**

With all the preconditions of polymedia fulfilled WhatsApp gives the affordance for relationships between friends to be performed with intimacy, closeness, ever present, and with an immediacy less propelling than voice call or the urgency of SMS. Relationship among friends in WhatsApp can be likened to walking with a friend from point to point in a day's journey. Where snippets of chats are constantly ongoing with moments of breaks in between just like walking and chatting with a friend, allowing for use in a multitasking environment with discretion yet an opened embodied experience. The craft of friendship is performed in WhatsApp differently due to its spontaneous and subtle nature, giving also the affordance to initiate friendship without being too forthcoming. Esoko though not expressive comparatively, relationships are forged and performed with variant modes that are equally informed by polymedia and its consequences. The use of Esoko by farmers brings about “macro coordination’s” as a single message sparks countless expansions of other communications and socialites through which end results affords the farmer the right price, the right information and chains of interpersonal relationships and networks.

Esoko and WhatsApp are positively changing the way relationships are enacted and performed in Ghana by drawing on variants of polymedia as a primary concern, however Esoko offers limited affordance in media as in contrast to WhatsApp due to the low specifications of phones in the rural environs. In same light the continuous presence of acquaintances and

companions in WhatsApp have the potential to confine and reframe communications to necessities.

6. Conclusion

In this essay, I have analysed the impact of SMS/MIM use in Ghana by specifically looking at Esoko and WhatsApp mobile media. I have argued that the concept of polymedia Madianou & Miller, 2013, reveals that both Esoko and WhatsApp are positively changing the way relationships are enacted and performed in Ghana as Esoko put the farmer in a dominant negotiation position due to availability of right market information, (ready buyers) and by drawing on polymedia as a primary factor in the choice of communicative media in enacting relationships between farmers, buyers and other variables. Relationship in this sense is greatly impacted upon by the kind of media used, considering the array of communicative affordances. Bearing in mind that, time lag in communication responses especially if through SMS could cause the formation of a weak relationship between a farmer and a buyer which is one of the theorem consequences of polymedia. These connections are not sporadic, rather a whole relationship is nurtured and builds a continuous and recursive interaction between the farmer and the buyer. Whereas in WhatsApp, relationships and communications are nurtured and performed with polymedia constantly in focus, just as a person (teenager) might avoid using WhatsApp with particular family to conceal location or emotions due to the communicative countenances the environment affords. It also allows a person to negotiate relationships with continuous subtle performances with an array of media to choose from.

There are series of factors that informs an individual's course of action when it comes to choice of communicative media and even media modalities to engage with in enacting interpersonal relationships. The environment, privacy, location, content, context, mobility, moral responsibility, emotion, time, immediacy and even sustainability among other pragmatic factors aid in making an informed choice, hence the interrelatedness of technology, society and culture (Miller, 2011). However all these are framed by the consequences of polymedia as a primary factor as well as affective communicative discourses. Though polymedia itself can be achieved on different levels as seen in earlier discussions on Esoko, culture also frames these factors in informing choices of medium without neglecting the consequences of polymedia as dominant feature in the decision making. Media convergence is gradually easing the rigid and idiosyncratic discourses surrounding the consequence of polymedia as these convergences makes media that were once taboo to use in certain instances more acceptable. As in the case of peers breaking up a relationship where text is accepted within certain constructs and environments. The variants of media affordances gives room for individuals to make informed decisions with profound deliberation on polymedia consequence and the benefits therefore, hence the creation of new paradigms in the way relationships are enacted and performed through mobile media communications.

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