

Social Media in Asia

Social Media in Asia:

Changing Paradigms of Communication

Edited by

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and Rachel E. Khan

Cambridge
Scholars
Publishing



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This book first published 2016

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

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ISBN (10): 1-4438-9692-6

ISBN (13): 978-1-4438-9692-4

This book is a peer-reviewed, academic publication of the Asian Congress for Media and Communication, an international, not-for-profit, professional organization of mass communication and languages academe.

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CHAPTER ONE

INTRODUCTION

RACHEL E. KHAN

If Facebook were a country, it would have the third largest population in the world, following China at 1.3 billion and India at one billion. A 2012 report from the Wall Street Journal (Scott, 2012) noted that the number of Facebook users was a little over 900 million and still growing.

This statistic is a telltale sign of the growing influence of social media, and this number accounts for only one social media network among many. Social media refers to interaction among people in which they create, share, and/or exchange information and ideas in virtual communities and networks (Kaplan and Haenlein, 2010). Its terminology comes from the fact that, like traditional media, it serves as an instrument for sharing information—whether public or private—and content such as photos, videos, audio files, or text. However, it also exhibits social characteristics such as conversation, community, collaboration, and connectedness. As its name indicates, social media relies on user-generated content (UGC), i.e., on-line material that has been provided by an on-line user, rather than an established on-line company or institution. Conversely, UGC has also been defined as the 'sum of all ways in which people make use of social media' (Kaplan and Haenlein, 2010).

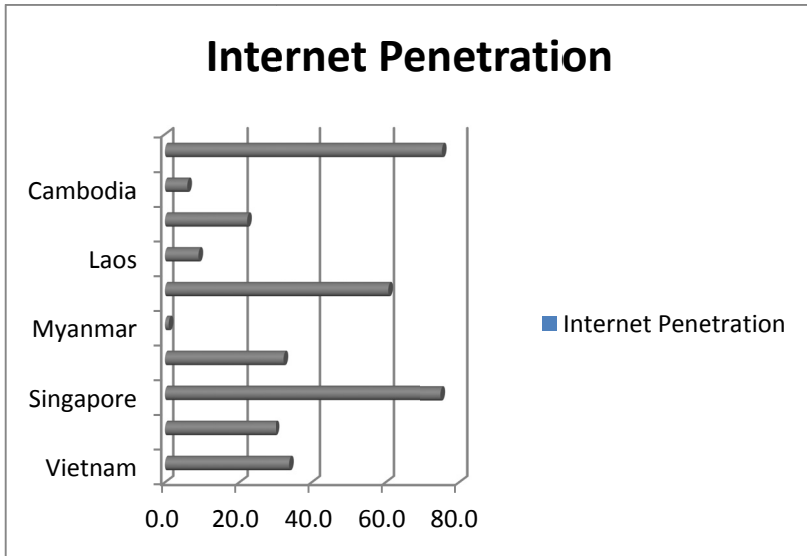
According to Nielsen's 2012 Social Media Report, internet users continue to spend more time with social media sites than any other type of website. According to the United Nations-affiliated International Telecommunications Union (ITU), Singapore and Brunei have the highest internet penetration vis-à-vis the population in Southeast Asia (see Figure 1A). This corresponds to their social networking statistics as well. However, their combined actual number of social media users is much less than that of India, which has 38 million people using Facebook (albeit an internet penetration of only three per cent). Facebook remains the most popular social networking site in all of Asia, including the countries covered in this

book. In China and Taiwan, the most popular networking sites are *Qzone*, *Sino Weibo*, and *Tencent Weibo* (Kemp 2013).

One thing unique about the region, however, is that internet penetration, while indicative of technological development, does not necessarily translate to access to information. In six out of the ten Southeast Asian nations, as well as in Sri Lanka, freedom of speech and expression are still restricted. The 2015 World Press Freedom Report of the international organisation ‘Reporters Without Borders’, shows that this region is generally in the red when it comes to freedom of speech and expression. These are the ranking of nations in the region out of the 180 countries in the world survey (see Table 1A).

Some countries in the region have strict internet and press laws that restrict what an individual can do or can access on the internet. For example, Brunei has the so-called Internet Code of Practice that regulates bloggers; the Philippines has the Cybercrime Law, which penalises on-line libel; other nations, like Cambodia, Malaysia, Myanmar and Singapore practice media censorship.

Figure 1A: Internet Penetration in Southeast Asia



Source: ITU

Table 1A: 2015 World Press Freedom Ranking

	Overall rank	Difference in rank from 2014
Brunei	121	-4
Cambodia	139	+5
Laos	171	0
Indonesia	138	-6
Malaysia	147	0
Myanmar	144	+1
Philippines	141	+8
Singapore	153	-3
Sri Lanka	165	0
Thailand	134	-4
Vietnam	175	-1

Source: Reporters Without Borders

A Brief History of Social Media

While social media history should be traced from the initial phase of the internet in 1957, the actual beginnings of social media as we know it began in the 1990s as part and parcel of the evolution of the World Wide Web (Khan, 2006).

The earliest form of social media platforms are blogs, made popular by the on-line journal sites in the mid-1990s. Among internet geeks, the acknowledged father of blogs is David Winer, a software developer, who popularised blogging in two ways: firstly through Scripting News [scripting.com], a precursor of the blog, because it was the first popular on-line journal that recorded Winer's trials into software development 'as it was happening'. And secondly, through the free blog service, EditThisPage.com, which encouraged the growth of the early blogging community. He is also credited for pioneering podcasting, i.e., an audio application for audio blogging (Scott, 2009).

The term 'weblog' is credited to Jorn Barger, another early blogger, who popularised the term through his blog, 'Robot Wisdom'. The short form, 'blog', was coined by another blogger, Peter Merholz (Wortham, 2007). This was picked up by Evan Williams of Pyra Labs in 1999 as the name of the very popular free blogging site, Blogger.com.

The blog, as we know it today, is part of the social media universe, which is made possible by the so-called Web 2.0 platform, i.e., application developments within the World Wide Web that enables real-time interaction and participatory sharing of information and content.

Technically, there is no internet infrastructure difference between Web 1.0 and 2.0. The development lies in the users' dependency on applications such as *Java*, *Adobe Flash*, and *RSS* (Really Simple Syndication). These technologies emerged in the late 1990s, but became popular with the emergence of the first generation social media networks, such as *Six Degrees* (1997), *Friendster* (2002), and *LinkedIn* (2003).

A study by Andreas Kaplan and Michael Haenlein (2010) of the Kelly School of Business, Indiana University, categorised social media into six different types:

- Collaborative projects – A website or portal that allows the joint and simultaneous creation of content by many social media users as exemplified by *Wikipedia*.
- Blogs and microblogs— Applications such as *Wordpress.com* and *Blogger.com* provide the venues for these earliest forms of social media. Short for 'web logs', blogs are personal web pages that provide a venue for interaction by other social media users with the creator of the site. On the other hand, microblogs are those with limited file allotment, such as *Twitter*, which allows only 140 characters per message, and *Snapchat*, a mobile app that allows users to send and receive 'self-destructing' photos and 10-second videos.
- Content communities – Platforms that allow the sharing of a whole range of media types, from photographs as exemplified by *Flickr*; video, *YouTube*; and even PowerPoint presentations, *Slideshare*.
- Social networking sites – Platforms that enable users to create a social media profile and connect with family, friends (both real and virtual), and share experiences and content as exemplified by *Facebook* and *LinkedIn*.
- Virtual game worlds – Platforms wherein the user is represented by an avatar, which enables him/her to interact with other players in real-time. Applications are operated via game consoles such as Microsoft's X-Box and Sony's PlayStation, which simulates a three-dimensional environment in an imaginary setting. An example of this is the popular *Ragnarok*.

- Virtual social worlds – Portals that replicate real-life scenarios in a virtual platform without the restraint of social conventions or constraints of the real world, such as the ability to travel to exotic destinations. They allow users to create their own content and their own avatars. An example of this is the application dubbed *Second Life*.

Kaplan and Haenlein (2010) contend that social media can be categorised and classified based on application, as stated above, and based this on their media richness and their self-disclosure, which represent 'the two key elements of social media' (see Table 1B).

Table 1B. Classification of Social Media by Characteristic

		SOCIAL PRESENCE/ MEDIA RICHNESS		
		<i>LOW</i>	<i>MEDIUM</i>	<i>HIGH</i>
SELF PRESENTATION/ SELF DISCLOSURE	<i>HIGH</i>	Blogs	Social networking sites	Virtual social worlds
	<i>LOW</i>	Collaborative projects	Content communities	Virtual game worlds

Source: Kaplan and Haenlein, 2010

Media richness is the amount of information or multi-media elements that may be transmitted within a given time; social presence is the level of intimacy (interpersonal vs. mediated) enabled by the medium as well as the degree of presence as defined by the acoustic, visual, and physical contact achieved between two communication subjects (Kaplan and Haenlein, 2010). On the other hand, self-disclosure or self-presentation assumes that people have a desire to control the impressions other people form of them and a desire to create an image that is consistent with their personal identity. Moreover, social media services allow social network aggregators, such as *Pipl*, to integrate data provided by users to come up with a profile of the user.

According to a Nielsen report, the continuous growth of social media is directly proportional to the fast growing mobile industry and the development of smartphones and mobile applications. However, statistics in the United States still differ from those of Asia. The Nielsen report

noted that of the time spent using social media, only 20 per cent of Americans used a personal computer, while 80 per cent of total time on-line is via mobile. In Asia, on the other hand, around 90 per cent of the population still prefer the computer to access social media; although some 60 per cent also use smartphones (Nielsen, 2012). The report also said that top on-line purchases in the Asian region were entertainment, travel, and clothing.

About this book

As part of the advocacy of the Asian Congress for Media and Communication to promote regional studies into the global academic discourse, this book aims to contribute to a better understanding of social media within the context of Southeast Asian countries with the addition of Sri Lanka. Reading through the chapters, the reader will discover that social media has changed the paradigm of communication in the region. The next chapter discusses communication theories that can help elucidate the role of social media in society and the third chapter looks at the use of social media as a tool for reaching the public. Chapters Four, Six, and Nine examine the use of social media as a liberating channel in nations that have limits on their citizens' freedom of expression and as a venue to voice grievances against government. On the other hand, Chapters Five and Eight examine the use of social media as tools for making the world a better place, whether for crime prevention or news gathering. And last but not least, Chapter Seven explores the potential of social media for relationship-building, in this particular case the search for a lifelong partner.

For non-Asian readers, the editors added an annex that provides a summary of social media statistics in the region to help readers locate the countries mentioned in this book within the global context.

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CHAPTER TWO

IN SEARCH OF THEORETICAL FOUNDATIONS FOR SOCIAL MEDIA

RACHEL E. KHAN

Overview

- Old theory, new media. There are some mass communication theories that continue to be a good fit to the new media and social media scenario, albeit there is a need to adapt them to the present time. However, scholars are slowly coming up with theories that can catch the multifaceted new medium.
- Gaining popularity in analysing social media phenomena are Kietzmann, Hermkens, and McCarthy's Honeycomb Theory and the Social Network Theory.
- Many existing media theories may also be applied to social media. Among these are the basic Sender-Message-Channel-and-Receiver model, McLuhan's technological determinism and Wilson's cultural determinism.
- Roger Fidler, on the other hand, believed that both technological and cultural determinism combine to produce a 'mediamorphosis', a term he coined to demonstrate that the evolution of technology and history are interdependent.

When Your Fingers Do the Talking

While accessing the virtual world can be as simple as a click of a mouse, the influx of social media network sites on the World Wide Web has resulted in new ways of using the internet. Social media is altering how people do their jobs and how we communicate in a Web 2.0 world.

Unlike the one-way model of communication of traditional mass media, social media adopts the two-way communication that the internet has enabled and has taken to an even more personal level. It facilitates conversations between and among consumers as well as between consumers and producers, suppliers, and/or marketers. Social media—one can argue—is the digital version of 'by word-of-mouth'. With social media, it is your fingers that do the talking but it is more potent because it also serves as a record and storage of word-of-mouth content.

Despite its growing personalisation, however, the fact that it runs on virtual platforms that the internet provides, social media allows users the large-scale and anonymous reach of traditional media minus its cumbersome structure. Analysing social media can be as varied as people's need for communication and information. For example, from a media producer's point of view, it represents a new medium that opens up more opportunities for independent work that makes him less dependent on multi-millionaire publishers and network owners. On the other hand, for a media consumer, it allows him not only to have real-time long-distance conversations, but also gives him the means to become a producer of content as well.

Thus, understanding it as a medium of information and communication has been a slow and challenging process in terms of the development of scholarly research. In-depth theoretical and behavioural understanding of this content is crucial for making sense of these new media. While there is a need to develop new models, this chapter discusses new concepts such as the Honeycomb model as well as new approaches to social media research using existing theories and concepts.

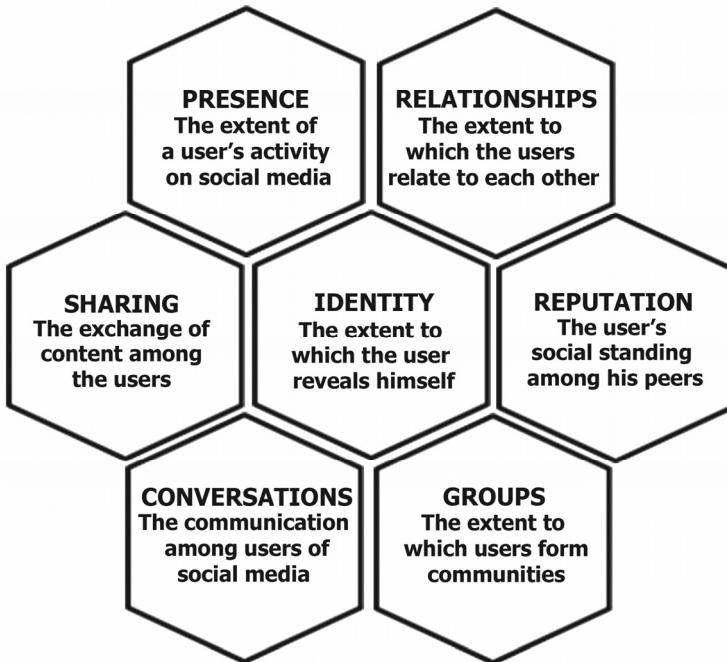
Moreover, unlike traditional media, which have fixed patterns of communication, modes of internet communication are virtually unlimited through new and social media platforms. Therefore, the amount of possibilities for scholarly examination of communicating on the internet is impossible to exhaust.

Honeycomb Model of Social Media

Among the pioneers in social media theory, Jan Kietzmann, Kristopher Hermkens, Ian McCarthy, and Bruno Silvestre of the Simon Fraser University in Vancouver, Canada, have developed a framework for understanding the social media phenomenon.

Dubbed as the *Honeycomb of Social Media*, the theory purports that there are seven functionalities of social media that help deconstruct it, which they presented in the form of blocks within a honeycomb structure (see Figure 2A). These blocks represent identity, conversations, sharing, presence, relationships, reputation, and groups (Kietzmann et al., 2011).

Figure 2A: Honeycomb Functionality of Social Media



Source: Kietzmann et al 2011, p.243

Each block allows the social media researcher to examine a specific facet of the social media user's experience and its implications (Kietzmann *et al.* 2011). 'They are constructs that allow us to make sense of how different levels of social media functionality can be configured', said the authors (Kietzmann *et al.*, 2011). Utilised individually and together, these blocks can help researchers interpret the social media ecology, and understand social media audiences and their interactions.

‘Identity’, the central block of the honeycomb, represents the ‘extent to which users reveal their identities in a social media setting’, such as their name, age, profession, location, likes and dislikes.

‘Conversations’, on the other hand, represent the extent to which users communicate with others in a social media setting. Many social media sites, such as Facebook and Twitter, are designed primarily to facilitate conversations between individuals and groups. Under this block, the social media researcher can study several factors in a conversation; for example, the diversity or similarity of the participants within a conversation, the emerging public opinion, and so on.

‘Sharing’ denotes the extent to which users exchange, distribute, and receive content, such as pictures, music, or video or even Web links.

The block labelled ‘Presence’ represents the extent to which friends or the public at large know that particular user can be found on a particular site. Do his/her friends know that he/she has a Facebook page? Are they connected to a particular person through that site? At the same time, Presence could also denote the amount of exposure a person has in the social media networks. For example, one person could have an account on Facebook, Twitter, Orkut, Flickr, MySpace, and YouTube.

The ‘Relationships’ block, on the other hand, denotes the extent to which users are related to other users, i.e., they can be related by blood, by affinity, by profession or organisation, and so on. Consequently, this block can also be harnessed to determine how social media builds relationships that previously did not exist in the real world. Kietzmann *et al.* (2011) noted that some social media services trace relationships between individuals by degrees. For example, LinkedIn indicates connections through referral systems of a chain of friends.

Meanwhile, ‘Reputation’ refers to the extent to which users know how they are perceived by others or by their popularity or notoriety. Kietzmann *et al.* (2011) noted that on social media, Reputation refers not only to the person but also ‘to the content’, i.e., one’s endorsements from others, views or hits, and ratings given by mechanical tools that aggregate content such as Technorati.com and Klout.com.

Finally, the block labelled ‘Groups’ signifies the sub-communities social media users form within the network. To illustrate: on Facebook, the

alumni of various universities worldwide have formed semi-private groups through which they can communicate, while various professions also have networks on-line. Kietzmann *et al.* (2011) noted that there are generally two types of groupings: 1) self-created groups formed by the users to categorise themselves, such as a group of family or people with the same hobby; and 2) those analogous to organisations and institutions in the real world. These Groups can be public, private, or secret.

Kietzmann *et al.* noted that the successful social media sites are those that have been able to strike a balance among the different blocks of the honeycomb, even if some could focus more on a particular block such as identity, sharing, or conversations. At the same time, effective users of social media are those who are able to maximise their networking potential as categorised in these blocks.

Social Network Theory

A number of scholars, especially in the fields of marketing and advertising, are adopting the Social Network Theory (SNT) in their study of social media.

The SNT is a concept used in the study of relationships between individuals, groups, organisations, societies, and even nations. A 'social network' is used to describe a structure determined by interactions and/or relationships rather than hierarchy. It views these social relationships in terms of nodes and ties. *Nodes* represent the individual actors within the networks while *ties* are the relationships between the actors. The ties through which individual actors connect or intersect are called dyads, representing the linkages formed by the actors in the network.

These are usually mapped or graphed for analysis wherein nodes are represented by points and ties by lines. Mathematical calculations and analyses on these dyads could be done using the following parameters:

- **Betweenness:** the extent of a node lying between other nodes;
- **Centrality:** how connected is a node to the network;
- **Closeness:** how one node is near all other nodes in the network;
- **Density:** all the ties in a network in proportion to all the possible ties; and
- **Ociomatrix:** age, education, and other socio-economic data of actors.

These measurements determine the importance and structural positions of individual actors, and the characteristics of the partial or whole networks. The measurements could be used to study the social network, improve the network structure, and help increase the efficiency of information flows within the network. Network analysis software (such as *NetMiner*, *UCInet* for Windows and *Pajek*) could be used to measure those indices (Everett, M. G., & Borgatti, S. P., 1999; Hanneman, Robert A. and Mark Riddle, 2005).

A popular example of this theory (although largely unproven) is the *Six Degrees of Separation* concept of Harvard University psychology professor Stanley Milgram, which was a part of his 'small world experiment' in the late 1960s. The concept posits that everyone and everything is no more than six steps away; i.e., the chain of '*a friend of a friend*' can be made to connect any two people in a maximum of six steps. This was later popularised by SixDegrees.com, a pioneering social networking site that existed from 1997 to 2001, pre-dating more popular networking sites such as Friendster and Facebook.

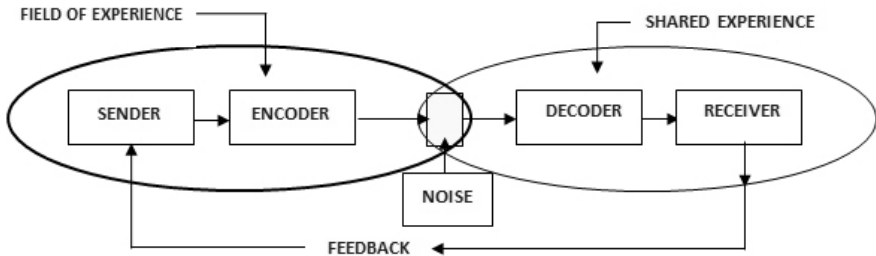
While SNT has been used since the late 1960s in social science studies, it's slowly gaining popularity in social media marketing studies. Unlike traditional marketing studies, which attempt to pinpoint attributes of individual actors, the social network theory produces an alternate view and focuses on ties with other actors within the network. This approach has turned out to be useful for explaining many real-world phenomena, such as the spread of gossip and the informal links between individuals in different fields or competing companies and the like. However, it leaves out knowledge regarding an individual's motives for acting and other sociological data.

Revisiting the SMCR Model

Some scholars tend to see social media as a complex system in need of complex communication theories. In reality, the Internet can very well be analysed using the model by Wilbur Schramm (Heinich, 1996), who, taking off from the traditional source-message-receiver communication (SMCR) model of Claude Shannon and Warren Weaver (Shannon and Weaver, 1949), added the concepts of field of experience and feedback (see Figure 2B).

In developing his theory, Schramm emphasised that communication cannot occur unless the fields of experience of both the sender and receiver overlap. With the internet serving as both the 'encoder' and the 'decoder' of the message, communication ceases to be a one-way process as in the Shannon model. In fact, the success of a communication is the ability and ease with which the receiver gives his/her feedback to the sender once the message has been transmitted.

Figure 2B. The Schramm Model of Communication



The Schramm model can be used to measure computer-mediated communication (CMC) from the interpersonal level, such as emails, to mass messages, such as blogs and YouTube videos. The traditional concept of interpersonal communication changes with the internet. Email (like texting on a cellular phone) allows non-face-to-face and non-voice immediate communication.

'Field of experience' places an important role in internet communication. For example, an internet user can sign on to a chat room because of shared qualities; e.g., a chatroom for the '30-something' or for 'Star Wars fans'. Similarly, the vast field of information available on-line obliges the user to choose where he wants to go. Thus, a Blogger who wants to increase his page views must find a way to build a relationship with his viewers. One way of doing this is for the Blogger to check his web statistics and 'cookies' (i.e., decoders) to get a glimpse of the users' profiles. On the other hand, the kind of feedback usually given by an internet user is not merely a receiver's reaction to the message. For example, blog viewers often enhance the original message through their shared experiences or contribute new information to the content of the message.

Uses and Gratification Model

With social media being relatively new in relation to traditional media (such as newspapers and television), one theory that has regained popularity is the Uses and Gratification (U&G) model. Unlike other media theories, U&G is more audience-centred. It examines what people do with media rather than what media does to people.

According to Blumler and Katz (1974), an individual's choice of media usually depends on his/her needs for information and stimulation. Thus, it is important to consider the psychological and socio-cultural needs that contribute to his/her media choice or, in this case, website choice (*ibid.*). Communication researchers using this model can also help better understand the effects of the internet on its users. For example, Wallace in her book, *The Psychology of the Internet*, claims that time spent on the internet results in a decline of interpersonal communication that eventually leads to feelings of isolation and depression (Wallace, 1999). In a similar manner, Paladin *et al.* (2015) used U&G as their foundational theory for exploring the usefulness of Twitter as a disaster communication tool during typhoons in the Philippines.

The Users and Gratification theory takes a more humanistic approach to media use. According to the theory, media users freely decide how they will use media and how it will affect them. Unlike other theories, U&G recognises the individual's capacity as well as responsibility in using and choosing media instead of treating him as a passive subject to media manipulation. This bodes well for a medium that thrives on interactivity.

Interactivity, which has been defined as 'the degree to which participants in the communication process have control over, and can exchange roles in, their mutual discourse' (Williams, Rice, and Rogers, 1988) significantly strengthens the core notion of U&G users as being pro-active in their choice of medium. This interactivity has five dimensions applicable to internet studies; i.e., playfulness, choice, connectedness, information collection, and reciprocal communication (Ha and James, 1998). It has also been suggested that for 'self-indulgers' and 'Web surfers', the playfulness and choice dimensions of interactivity fulfil self-communication and entertainment needs (Ha and James, 1998).

Elihu Blumler and Hadassah Haas (West and Turner, 2010) noted that the people's need for media can be divided into five basic categories. These

were adopted by West and Turner (2010) for internet and social media research. The five ‘need’ categories are:

- *Cognitive need*: The use of social media for knowledge and information; e.g., a buyer looking for the latest computer models and their prices;
- *Affective need*: The use of social media to satisfy emotional needs; e.g. watching inspiring videos on YouTube;
- *Integrative need*: The need for self-esteem; i.e., when people use media to reassure their status, gain credibility and stabilise relationships, such as the need for others to ‘like’ their status on Facebook;
- *Social Integrative need*: This is the need to socialise with family, friends and acquaintances via social networking sites like Myspace, Facebook, Weibo, and so on; and,
- *Tension free need*: The use of media as a means of escapism and tension-relief.

The explanatory power of the theory emerges on the assumption that, given certain needs, only some media will be able to satisfy those needs. Gratification is predictable at some degree of certainty if the researcher is aware of the needs being served by a particular media. The connection between the characteristic of the medium and the satisfaction of a need is also directive and, to a certain extent, necessary (West and Turner, 2010).

However, Ruggiero (2000) noted that one potential problem of the U&G model for internet research is the ‘practical impossibility of probability sampling on the internet’. Because of the almost unlimited number of internet users, studies may only be able to tentatively generalise very specific populations—for example, the youth sector in a specific country. At the same time, Web-administered surveys may pose problems with tracking precise and reliable response rates. Additionally, a current lack of standardisation among browsers, servers, and operating systems may create a serious challenge to methodically sound quantitative research (Ruggiero, 2000).

Medium as Message

On the opposite spectrum of the UGM is Marshall McLuhan’s concept of Technological Determinism, more popularly known as ‘the medium is the message’. McLuhan contended that people organised their lives as a result

of the way they communicated with others. For McLuhan, as elaborated by Fordham University professor Paul Levinson in his book *Digital McLuhan: A Guide to the Information Millennium* (1999), 'the mere use of a medium has a more profound impact upon society than what individuals may do specifically with the medium'.

Believing that media was anything that extended the sensory organs of man; i.e., the wheel as the extension of the foot and clothing as the extension of the skin, McLuhan was the first media theorist who dubbed the telephone and the computer as media, two decades before their potentials were unleashed. He considered them so because 'all media, from the phonetic alphabet to the computer, cause deep and lasting changes in [man] and transform his environment' (Norden, 1969).

McLuhan asserted that all of human history could be subdivided into four major periods, or epochs. Each epoch, he said, began with a technological development in communication. These periods did not gradually evolve into each other, he claims. Rather, the entry of a technology wrenched the world from one era into the next one.

McLuhan dubbed the first epoch as the Tribal Age and noted that the primary medium was oral communication. Without the benefit of technology to extend man's faculties, the primitive man depended on his auditory senses for receiving information. The ear was the key organ. Thus, during this period, primitive man's knowledge largely depended on his connection with the tribe. To move away from the tribe was to exclude oneself from the information chain. Because of the dependence on oral communication, one could assume that the information among individuals was more or less at the same level. But this, he noted also meant that there was little individualism and specialisation, the hallmarks of modern man (McLuhan, 1964).

McLuhan was emphatic in naming the invention of the phonetic alphabet as the turning point of the next epoch and he dubbed this as the Age of Literacy (2000/1500 BC). The 'phonetic alphabet fell like a bombshell, installing sight at the head of the hierarchy of senses', said McLuhan (as quoted in Norden, 1969). He argued that early forms of writing, such as the Egyptian hieroglyphics or ancient Chinese ideograms, did not remove primitive man's dependence on the tribe. These writing forms were pictorial expressions of reality, which needed the tribe's interpretations of the wide number of symbols that covered an equally wide range of

information. On the other hand, the phonetic alphabet is made up of a few semantically meaningless letters, which by virtue of abstracted concepts could represent a wide range of information. The alphabet was a technological breakthrough, he said, because primitive man could now explore other lands without being cut off from the flow of information.

Gutenberg's invention of the printing press brought in the Print Age (AD 1450). For McLuhan, the printing press was the ultimate extension of phonetic literacy, maintaining the predominance of the sense of sight. It pushed out the mediaeval man and paved the way for the renaissance man, even as knowledge—through the written word—no longer remained in the hands of a few. As books became more available, more people naturally became literate. Independent thinkers could now spread their ideas more rapidly. Moreover, because books are portable, men could now live farther from the centre of society and still gain knowledge. He also went as far as to say that because the movable type made possible the mass production of written words, the Print Age was the precursor of the industrial revolution.

McLuhan said that the last historical epoch was ushered in by the invention of the telegraph in 1844. The Electronic Age and the Rise of the Global Village, he contended, made the printed word a thing of the past. For McLuhan, electric media—i.e., the telegraph, radio, films, telephone, television, and the computer—have greater influence on man because they do not serve as an extension of only one sense organ as in the case of print, but use all the senses. Of these, he believed the television the most influential because it enhanced and externalised our entire central nervous system. The Electronic Age which relies on visual and aural senses, claimed McLuhan, has re-shifted man's thinking process back to the nonlinear mode and acoustic of tribal man.

In the Print Age, the literate man was aloof and could disassociate himself from the world even as he gained knowledge. During this period, rationality was superior to emotionality. But radio and television reversed this and re-tribalised man because they returned us to the pre-alphabetic oral tradition. That is, we don't need to be literate to gain information since we again depend on the other senses.

However, McLuhan did not mean that we all went back to our local tribes. Rather, because of the farther reach of television, we became one tribe: a global village. Through cable television images and live website feeds we witnessed the nuclear plant disaster in Fukushima, Japan, in 2011 and the

devastation of southern Philippine provinces during the Haiyan super typhoon in 2013. People felt compassion for the families of the victims and were in shock at the destruction caused. The electronic media have kept us informed about events across the globe without us having to leave the comfort of our own homes. Through social media, people the world over can also actively participate in world events. During Typhoon Haiyan in the Philippines, Twitter feeds were used to track the devastated provinces and locate people who needed rescue. Facebook was used by private organisations and individuals to raise funds for the victims and rescue missions.

Levinson (1999) argues that the internet is a continuum of the fourth epoch. Cyberspace, said Levinson, is acoustic space. He argues that the printed word in cyberspace cannot be compared with the printed word in a book or magazine. He notes that the internet has brought us back to the tribal acoustic way of thinking where emotionality is superior to rationality, where what we feel is more important than what we think.

Cultural Determinism

Opposing McLuhan is the theory of Cultural Determinism. Leading the group is Brian Winston, who asserted that technology should be placed within its cultural context. He argued that the cultural context is the key to the development of both media technology and content. Contrary to McLuhan, technology is seen as human-made, carrying the imprint of the social and historical circumstances that formed it.

McLuhan believed that new technology wrenched the world from one epoch to another without the benefit of a gradual shift. But Winston contends that the development of technology comes in the wake of societies' perceived needs and its influence in the realm of pure science.

In his book *Misunderstanding Media*, Winston (1986) held that supervening social necessities accelerate the development of media and other technologies and not vice-versa. For example, the development of the television was hindered and suppressed at the height of World War II so that all U.S. economic resources could be directed to the war effort.

For cultural determinists, the circumstances into which a technology is introduced and diffused through society, as well as the circumstances

preceding its introduction, are what are deemed as significant to social change. Four factors (Winston, 1986) are of primary significance:

- Human engineers take into consideration the constraints of culture and the limits imposed by socio-economic forces. These affect their choices in terms of materials, design, purpose etc.;
- Market forces, such as the availability of investors, play a major role in the development of a media product, e.g. in the late nineties Wall Street was bullish over internet stocks, a corresponding boom in internet start-up companies followed;
- Consumer needs and demands, which are shaped by culture and the prevalent public opinion, influence the market for new products; also, advertising can influence us in telling us what we need; finally,
- Interaction of all individuals and groups who are also social products.

Technological determinists, on the other hand, focus on the so-called 'invention', referring to the new communication tool that changes society. But, cultural determinists believe that that word is inaccurate since the 'invention' of a new medium does not come as a result of one person's effort alone in an instantaneous moment in time. Rather, it is the fruit of a 'development' of several persons and various prototypes before it is accepted by society.

Moreover, Winston argued, if technological determinism is correct, then 'why are some prototypes abandoned while others are not? Why are some devices deemed 'inventions' and others not?' Sometimes, market forces come into play, such as what happened to Sony's 'Betamax', the first VCR to hit the market. After it was introduced in 1976, Universal Pictures and Disney filed a suit against Sony for copyright infringement. The film companies wanted the court to ban VCRs because of the threat they allegedly represented to their legitimate business interests. The suit dragged on for eight years and went all the way to the U.S. Supreme Court. While the court battle was raging, the head of the Motion Picture Association of America tried to persuade Congress to impose royalties on the sale of videotapes and VCRs. Meanwhile, American technological firms developed their own VCR, called the 'VHS', and tied-up with these big Hollywood firms. This led to the demise of the 'Betamax', although Sony eventually won the case in the Supreme Court in 1984.

For cultural determinists, the medium is NOT the message; rather, the market players such as Universal and Disney, as well as the users of media, have the last say on how we want to use a certain technology. As Paul Saffo, Director of the Silicon Valley-based Institute for the Future, said, 'Technology does not drive change at all. Technology merely enables change. It's our collective cultural response to the options and opportunities presented by technology that drives change' (as quoted in Fidler, 1997). Or, to put it succinctly, technology is in the eye of the beholder.

Media Metamorphosis

Roger Fidler, Head of the Institute of Cyberjournalism at Kent State University, believes that technological evolution is somewhat a marriage of both technological and cultural determinism theories. In his book entitled *Mediamorphosis: Understanding New Media* (1997), Fidler described 'mediamorphosis'—a term he coined in 1990—as the transformation of communication media, brought about by the complex interplay of perceived needs, competitive and political pressures, and social and technological innovations (Fidler, 1997).

The evolution of new media technologies, he noted, does not happen in a vacuum. Rather, when one medium changes, it affects the others, and vice-versa. 'By studying the communication system as a whole, we will see that new media do not arise spontaneously and independently—they emerge gradually from the metamorphosis of old media. And that when newer forms of communications media emerge, the older forms usually do not die—they continue to evolve and adapt', he said.

Borrowing a page of McLuhan's theory, Fidler claims that there are three great mediamorphoses in human communication: spoken language, written language, and the digital language. He further maintains that spoken language led to the formation of social groups, complex problem solving skills, and the development of 'broadcast' forms like storytelling and ritual performance. This in turn, he said, divided society into performers, gatekeepers, and audiences.

Written language, he asserted, ushered in the development of portable documents (such as books), mechanical printing, and mass media (specifically newspapers and magazines). Unlike spoken and written, however, digital language enables communication between machines, and mediated communication between humans. He quoted MIT's Nicholas

Negroponte, author of 'Being Digital', in asserting that human distinctions between text, images, and sounds are irrelevant; they are all represented as 'bits'. He noted that this last stage extended the power of the spoken and written language even as computer networks 'greatly extend human interactions throughout the world'.

Fidler further claims that the evolution of communications media can be depicted in six principles (1997):

- *Coevolution and coexistence*: The introduction of a new medium does not make the old media obsolete. Rather, they become coexistent. Moreover, as each new form emerges and develops, it influences, over time and to varying degrees, the development of every other existing form;
- *Metamorphosis*: New media do not arise spontaneously and independently. They emerge gradually from the metamorphosis of older media. When newer forms emerge, the older forms tend to adapt and continue to evolve rather than die;
- *Propagation*: Emerging forms of communication media propagate dominant traits from earlier forms, e.g., on-line news sites tend to be designed using the newspaper as model;
- *Survival*: All forms of communication media, as well as media enterprises, are compelled to adapt and evolve for survival in a changing environment. Their only other option is to die, e.g. with the advent of TV News, newspapers adopted a longer form of reportage, such as the so-called investigative reports;
- *Opportunity and Need*: New media are not widely adopted on the merits of technology alone. There must always be an opportunity, as well as a motivating social, political, and/or economic reason for a new media technology to be developed; and,
- *Delayed Adoption*: New media technologies always take longer than expected to become commercial successes. They tend to require at least one human generation (20-30 years) to progress from proof of concept to widespread adoption.

Essentially, the theory of Mediamorphosis argues that media, technology, and communication are all interconnected. Fidler claims that as a rule of thumb, 30 years is the amount of time it takes for a new technology to seep into a culture. He also said that new media do not develop overnight but instead morph into new usages as technology develops.

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