Local Turns Global: Expanding the Deaf Community Through Communication Technologies

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Abstract: Communication Technologies have immersed themselves in our everyday lives reshaping communities, expanding boundaries, and creating communities of practice. The Deaf community is no exception. Short messaging service (SMS), instant messaging (IM), email, and chat are all modes of communication manipulated through technological devices which can be used in creating communities. Sharing common interests, information, and ideas are all characteristics that cultivate a community of practice. Utilizing text-based communication technologies only enhance a community allowing for expansion and communication at a distance.

Introduction

> "Hppy bthdy txt" went the gleeful message on Tuesday, as SMS short messaging service or mobile phone texting marked its 10th birthday (December 3) with sections of a proud and doting UK hailing the "British idea that changed lives" around the world (Ahmed, 2002, World News section).

This statement was made in the *The Times of India*, published in their world news section. It had been ten years since the UK first introduced what would become a world phenomenon producing more than 250 billion text messages annually in India and across the world.

Who would have predicted its outcome and the impact it has made on one way the world communicates? With the advent of SMS, the United Kingdom created a phenomenon. Short messaging (SMS) service, text messaging, and texting are synonymous in their use and have created an event of over a million text messages daily. They are amongst other communication technologies utilized by majority of the world's population, including those within the Deaf community (For the purposes of this paper, capital D will be used to distinguish the cultural aspect of the Deaf community). Activities such as SMS, email, instant messaging (IM), blogs, and vlogs (video blogs), include activities transcending communication amongst the Deaf community. Along with these activities are devices instrumental in facilitating communication dissipating barriers of language through text.

This paper will describe the Deaf community's implementation of communication technologies that have cultivated over time. It will also address establishing the use of

communication technologies, specifically text-based, and how it has expanded boundaries for many within the Deaf community resulting communities of practice. This paper will additionally address how SMS has impacted the Deaf community allowing for more flexibility in communication at a distance. Examples of how SMS is being utilized within education in general will also be mentioned.

Past Technologies

Fax, TTY (teletypewriters), pagers, sidekicks, cell phones, and computers are several of the communication technology devices that have been used to cultivate and expand the Deaf community reshaping itself beyond geographical boundaries. The Deaf community has taken advantage of the latest technological applications to include within their communicational world. And, in some cases, even before they have caught on within the hearing population. Communication technologies have been enthusiastically "adopted by many Deaf individuals, who started using various technologies before they became ubiquitous" (Read & Farrell, 2006, A 40).

While the fax machine was primarily used for business purposes amongst companies, it was being used by the Deaf community as a means of communication, primarily for personal purposes. Sharing information, ideas, and commonalities was demonstrated through the use of fax machines creating communities of practice at a distance. Faxing was the norm before email came to replace it. Once email caught on for its faster and simpler means of operation, it has grown to be one of the most widely used communication technologies used by many. For the Deaf, utilizing a familiar approach of keyboard use had its advantages since familiarity with the operations of the TTY were already established by many within the Deaf community. Much how hearing people speak in the phone to communicate and share information and ideas, the Deaf community use the TTY in the same manner, except through written text using a keyboard. The TTY encompasses a text-based medium in order for it to operate. Manipulations of the keyboard have been used consistently in past technologies used by many Deaf individuals making it second nature for implementation in its use. Excluding the pager, keyboard use in sidekicks, cell phones, and computer keyboards have the same kinesthetic abilities enabling the Deaf community to quickly adapt to text-based technologies. The only differences are the sizes of the keyboard and simple readjustment of key placement (Power, Power, & Hortsmanshof, 2006). Due to the growth of communication technologies, communities of practice have expanded virtually.

Deaf Community and Communities of Practice

Wenger, (1998) defines communities of practice (CoP) as having three dimensions; *what it is about*-this is a joint enterprise, understood and continually renegotiated by its members. *How it functions*- meaning the relationships of mutual engagement that bind members together into a social entity, and *what capability is produced*. These are shared and communal resources such as routines, sensibilities, artifacts, vocabulary, styles, etc. that members develop over time (Wenger, 1998, p. 2). These dimensions are applicable to the Deaf community by being pertinent to Deaf culture, their community, and their language, American Sign Language (ASL). They come together because of their unique abilities of language, their relationships with each other, and the bonds that hold them

together by sharing the same ideals of what keeps a community together. Additionally, they each share information and contribute a vast array of information to the community just as any community would. Sharing the same ideals, bonding, and simple exchange of information has been primarily communicated through the use of ASL. The Deaf community is a "cultural and linguistic minority population with its own unique language-sign language-which has syntax and grammar that is distinct from spoken language" (Valentine & Skelton, 2008, p. 470). However, with the increased use of communication technologies, sharing information, ideals, and bonding has expanded face-to-face communities of practice to becoming virtual communities of practice.

Rise of Communication Technologies

Socializing face-to-face to watch each other express themselves through American Sign Language (ASL) was the norm and the heart of the Deaf Community. This would be what Wenger referred to as one of the components of community in how a community functions. ASL is, and always will be cherished as the Deaf community's native face-to-face language, however, technology has allowed for communication to occur at a distance. Instead of waiting to engage in face-to-face communication, some within the Deaf community, especially the younger generation, are now engaged in socializing with the implements of communication technologies.

New tools mediate and influence human behavior (Vygotsky 1978, Leont'ev 1978, & Wertsch 1991). Communication technologies utilizing a text-based medium have exploded cultivating socialization and communication. "Many Deaf individuals own a digital device—like a Blackberry Sidekick, or a beefed-up cell phone—making it possible to send text and e-mail messages at a moment's notice" (Read & Farrel, 2006, A40). These devices have brought people together where they may not have had the means before. Communication has expanded across geographical locations with the advent of new technologies, especially text-based technologies.

Cultivating Community Through Text-Based Communication

Text-based communication technologies can be described as SMS, text messaging, instant messaging, chat, email, blogs, and any form of text transmitted virtually through cyberspace. Deaf people all over the world are using SMS and other forms of text-based communication for the same purposes as hearing people: maintaining personal contacts, arranging social life, for business, emergencies, and "useful" services (Power et al., p. 83). Information has been researched on the use of people's relationships on technology, but not much on communities and technology (Valentine & Skelton, 2008, p.470), specifically text-based communication technologies.

Pilling and Barrett (2007) conducted a study in the United Kingdom, where SMS originated, which determined the use of different forms of text communication. SMS was found to be the highest used in the 15-18 age range as well as with the 19-29 year olds. Email was then shown to be the second used form of text-based communication (Pilling & Barrett, 2007, p. 4). Pilling & Barrett (2007) asked why SMS was the number one choice. The top three reasons were that it was easy to use, its speed of operation and setup, and its portability and mobility (p. 5). In a different study, according to Power,

Power, and Rehling (2007), an online survey of German Deaf people indicated SMS (96%) was used primarily among Deaf Germans to communicate not only with other Deaf but with hearing as well (p. 296). In Australia, the SMS feature is so profound, it prompted the action of the Australian Association of the Deaf to claim responsibility in the adoption of text communication cross-networking (Power & Power 2004, p. 336). Practically speaking, it does not cost extra to text someone with a different network carrier.

Texting has become the norm within the Deaf community and has created a "smaller" world incorporating communities. A joint research project between Australia's Bond and Griffith universities has found the Deaf community as being a major beneficiary of the mobile text-messaging craze. And, in Australia, more than 50 percent of the general population sends at least one text message a day. The result is a nearly universal, text-based communications connect the Deaf to the Deaf at a distance, as well as to the hearing world (Power et al., 2007). Yet, why is it so popular? How can text-based communication display some of the same qualities as being face-to-face? This will be discussed next.

Cultivating Community with Visual Text

Understanding the unique ways in which communication technologies can be used to facilitate the Deaf community as Stoke (1993) notes, requires us to see Deaf people as individuals and members of a social group in order to see their language and association that language bonds, their customs it preserves, and all the rest. The use of visual texting has emerged in attempts to capture the emotion and expression of the person sending the text as if a face-to-face encounter is occurring.

Texting can be intimate and express, with manipulation of characterized text, emotions displayed by its user. Perkins and Newman (1995) state that exchanging electronic text is so profound and distinct, that it must be considered separate from other modes of expression creating its own discourse for communication. Because it is of a text-based medium, the absence of visual (f2f) and auditory cues as in telephone conversations are obsolete. Perkins (1996) supports that e-discourse is not just a transmission of electronic text, but also establishes relationships within which this communication occurs. A sense of community is displayed through text with common interests and information. Visual text communicates emotions and creates inferential meaning in mere black and white with the manipulation of text characters.

A Visual Text Study of Deaf Individuals

The following will display communication from a study done on a Deaf listserve where texting and the use of chat generated an online community of common interests and information (Stephenson, 1999).

The following examples do not imply that the Deaf community is the only group of individuals to utilize manipulations of text to convey visual meaning. Hearing and Deaf both share commonalities in creating visual text. However, the examples below are taken

from a study of Deaf individuals. As Stephenson (1999) states, “before appreciating the extent to which the Deaf support the creation and manifestation of community, it is important to understand the complex communication environment community-building occurs” (p.96).

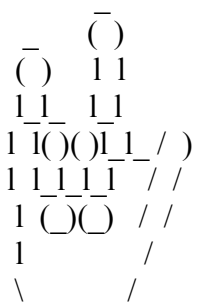
Use of various textual cues to disclose emotional intent was used…

> *"<in a deeply sarcastic mode> I am ...."* and
> *"I heard that jumping off a building is lots of fun! Try it! <really pissed off>.*

Provide simulation of laughter…

> *"Heeheehee..I love you Sadie <GRIN> <GRIN>."*

Emoticons to simulate humor. (:-{) ;) <=/ <=))) 8*) : > >=) and more complex use of text play...



Sign for "I love you" (Stephenson, 1999).

Although text can affirm humor and play, Deaf individuals can use text to affirm community. Providing ideas, comments, questions, and information define the Deaf community as being a Community of Practice sharing common interests, concerns and shared experiences. Understanding the unique ways in which online communication can be used to facilitate the Deaf community as Stoke (1993) notes, requires us to see deaf people as individuals and members of a social group in order to see their language and association that language bonds, their customs it preserves, and all the rest.

In the comfort and use of text-based communication, utilizing it for educational purposes are what some researchers claim as being the next step.

Using Text-Based Communication Technologies As A Collaborative Educational Tool

Mason (1989) conducted research in educational environments which state that text writing, through an asynchronous environment, is more personal than other forms of communication and breaks down the barriers of status and power due to the lack of social context cues (p. 117). Mason (1989) continues to state that this social leveling empowers groups who may have been limited in their communication positions resulting in equating the audience. Interestingly, this observation was stated in 1989. Who would have known

the impact it still holds in today's modern educational environments in online courses? Power et al. (2007) states that improvements and additions to existing technology have made it possible for Deaf people to interact with a wider group of people and have global contact. (p. 82). Utilizing communication technologies in education, specifically SMS, is being implemented today and further research is warranted in its effectiveness with the Deaf population.

The Future of SMS in Education

In the United Kingdom, where SMS originated, at Berkshire College they are using SMS Online in an Agriculture class to aide in communication with students. It has been used for appointment reminders and sends other messages through the Web (Computer PR9.NET, 2006). A research study on computer-mediated communication found that instant messaging and email were found to be number one and number two communication tools of choice amongst Deaf college students in the U.S. (Hogg, Lomicky, & Weiner, 2008). SMS is being used in other universities to encourage first year student attendance and to send reminders of upcoming events. SMS as well as other communication technologies is lending opportunity for the future educational experiences for the Deaf population.

Conclusion

Describing how text-based communication technologies expand communities and boundaries has a profound impact on communication compared with limitations of not so long ago. SMS has changed the way communication is implemented and is still continuing to create innovative measures of communication. Although not all have succumbed to using communication technologies, majority of those who have, have generated and facilitated a virtual community sharing common interests, information and experiences. Discovering to what extent technology has made an impact within the Deaf community in respect to education status, SMS use, and communities in general lend opportunity for further research. Cultivating communities through text-based communication technology demonstrates the initial strength that community encompasses in expanding and reshaping its boundaries. By doing this, it will only enhance its existence.

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