

## Assignment 1: Analysis of a Medium of Communication

### Video Conferencing

#### 1 Introduction

Video conferencing as described in this paper is the interaction between two or more parties through real-time video and audio technological devices. In its introductory years, video conferencing equipment was too expensive and exclusive for the general public, hence, it was not a communication medium widely used by all. However, after 40 years of technological advancement, high quality video conferencing services are now readily affordable and available, engaging the public to use video calls as a common medium of communication. With the large growing numbers of internet users engaging in video conferencing, many new technical terms and issues have been introduced and widely used, altering the mental lexicons of the public to accommodate to these new terms. The growth in the usage and quality of video conferencing has also sparked many research projects and development in the usage of video conferencing in social interactions, corporate meetings and multimedia learning. The usage of video conferencing is growingly pervasive in the education system, especially so in foreign language learning, to enhance language learning for the public.

#### 2 Background

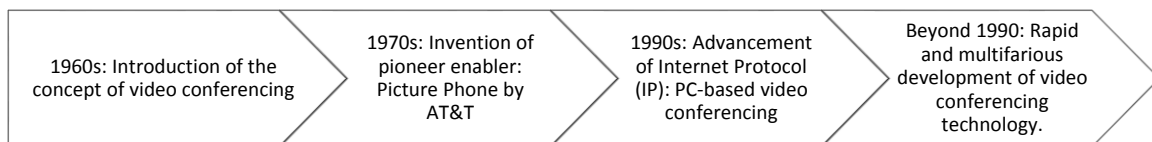


Figure 1: Milestones in the Development of Video Conferencing Technology

As seen in the timeline in Figure 1, the concept of video conferencing was first introduced at 1964 World's Fair as an upcoming realisation in the technological industry and this was soon followed by the introductory sale of the Picturephone by AT&T in 1970, enabling the service

to the public. However, the high price of the product was a big concern to the public. Hence, 4 years after the launch of the product, the response of the public was still underwhelming with only a few hundred subscribers nationwide (AT&T, 2012).

Video conferencing remained impractical to the public till a breakthrough in the 1990s where the Internet Protocol (IP) based video conferencing was introduced. This advancement in technology enabled compressed video storage and transmission on personal computers which incentivised a start-up market in video conferencing products and services where companies such as IBM, DARTnet and Apple Macintosh launched several video conferencing products. This market competitiveness spurred a surge in better quality video conferencing technology at lower costs, enhancing the affordability and attractiveness of video conferencing (Nefsis, 2008-2014). The growing market for video conferencing technology has led to increased affordability, availability and attractiveness of the communication medium amongst the public.

Today, as long as one already owns an electronic device such as a personal computer, tablet or smart phone, video conferencing services are available at the cost of nothing. Video chat clients such as Skype, Oovoo and Facetime are available for downloads at no costs and hence has allowed the public to easily communicate with others around the world through video conferencing on the internet. As of 2011, Skype has recorded statistics of 700 million minutes of free Skype-to-Skype calls a day, 42% of which include video conferencing (Caukin, 2011). The frequent reports of Skype shows increase in the popularity and usage of video conferencing where the statistics of Skype-to-Skype calls which included video conferencing was 36% in 2009 (Institute for the Future, 2009) and 40% in 2010 (Rao, 2010).

### 3 Linguistic Analysis

#### Speech like

time bound

spontaneous

#### Text like

space bound\*

contrived\*

face-to-face	visually decontextualized
loosely structured	elaborately structured*
social interactive	factually communicative*
immediately revisable	repeatedly revisable
prosodically rich	graphically rich*

Figure 2: Crystal's Seven Features in Distinguishing Communication Mediums

In reference to David Crystal's (2006) seven features in distinguishing communication mediums as shown in Figure 2, video conferencing is seen to be very speech-like, similar to that of face-to-face interaction, establishing all the seven features of speech.

Video conferencing is time bound, where the conversation carried out is dependent on the mutual duration of time between the parties that coincide in order for their conversation to continue. It is also spontaneous where the speech said by the speakers conversing are said and transmitted in real time and is not contrived beforehand. Being a conversation in real-time also makes the speech immediately revisable. It is a face-to-face interaction even though the parties are not physically in the same location. The conversations are usually socially interactive in informal speech, loosely structured, with no strict adherence to any grammar rules. Speech being said is also prosodically rich where the parties are able to hear the different tones and registers in which the others speak in.

However, several popular video conferencing platforms such as Skype and Oovoo also provide instant messaging (IM) platforms, hence we can associate video conferencing to chat as well, where asterisked text-like features in Figure 2 are exhibited. With the IM platforms, the parties involved can choose to type alongside their video conference, but even though the video conversation is time bound, the text written is space bound to the text window. It is also possibly contrived, elaborately structured and factually communicative where website URLs can be shared or long paragraphs of text can be written to the recipients via the texts boxes. IM is also graphically rich with several emojis and emoticons being sent from one party

to the other.

#### **4 Literature on the Medium**

As the growing usage of video conferencing after the 1990s is relatively recent, limited research have been carried out to relate this communication medium to computational linguistics or sociolinguistics as a whole. Research reports focusing on the language change in the various languages after the rise in usage of video conferencing are uncommon. However, many researchers and technology enthusiasts have studied and published papers or internet articles on the future of video conferencing and the many benefits it will bring to our society, business, governance, technology and innovation (Dunagan & Liebhold, 2009).

The positive impact on the education field is the most researched on in relation to the availability of video conferencing. Video conferencing is proposed in being beneficial to schools, enriching their learning materials by helping create better administrative applications, bringing about course enhancement and aiding distance delivery (Alberta Education, 2006). The aid in distance delivery of learning materials and opportunities are especially emphasised where video conferencing has enabled students and teachers to interact with and learn from others overseas through video conferencing classroom and training opportunities (Ibrahim & Chen, 2005). However, the issues of weak internet connectivity causing video distortion and the haphazard chat discussion for video conference classes has been a concern expressed by students, hence schools have assigned little of their curriculum to be taught via video conferencing (Ozden, 2010).

In relation to the field of linguistics and education, studies have shown that video conferencing is an effective communication medium in teaching second or foreign languages. This is because, with video conferencing, students from one country learning a foreign language can interact with a native speaker of that language in another country as if they were interacting face-to-face, such opportunities allow them to practice and gain confidence in speaking the language (Wu & Marek, 2010). However, this efficiency is dependent on the quality and consistency of the technological equipment and proficiency of the students learning the foreign language. Video conference lessons heavily interrupted by technical problems or with students who lack the basic proficiency to understand the speech of the

native speaker end up being negatively affected, feeling frustration or low self-confidence (Jung, 2013).

## 5 Effect on the Language Used to Communicate

Little research studies have been carried out in showing how the properties of video conferencing affect the language we used to communicate. This is because, the language spoken in video calls are very similar to that of the language used in telephone calls and chat. However, some changes in our language are unique to the video conferencing experience.

Firstly, with video conferencing being a common, easily accessible and affordable medium of communication for the past two decades, program names such as Skype and Facetime have become common household words.

In addition, the name of the programs can be used as more than just a pronoun, it can be used as verb in informal speech as well.

(1) *Anna and I Facetimed last Wednesday*

In example (1), we see that Facetime has been used as a verb, to express that the speaker and Anna had a video conference on Facetime last Wednesday.

The common problem of audio or video distortion on video calls due to congested or weak internet connectivity has also affected the language spoken in communication.

New slang words such as *laggy* are used more often due to the frequent distortion of video or audio in video calls due to problems in internet connections.

(2) *You are super laggy.*

The word *laggy* his sentence refers to the time lag and distortion in the audio and video transmission of a video call.

Alike to the telephone, schema of video conferencing entails several meta-requests unique to audio and video conferencing such as

- (3) *Can you call me back? You're distorted from the weak internet connection.*

With this being said, both parties would have to hang up and one party would have to initiate the call again in hopes that they might catch better internet connection for a clearer video transmission.

## 6 General Effects on Language and Society

Language	Usage (%)	Growth (%)
Arabic	<b>3.7</b>	<b>1575.9</b>
Portuguese	<b>4.0</b>	<b>570.9</b>
Others	<b>16.3</b>	<b>534.8</b>
Chinese	<b>14.7</b>	<b>472.4</b>
French	5.1	422.7
Spanish	9.0	359.7
English	<b>30.1</b>	<b>167.3</b>
Italian	2.6	151.1
German	4.9	123.5
Japanese	6.9	85.9
Korean	2.7	80.8

Figure 3: Internet Usage (2007) by Language and Growth (2000-2007)

The increased usage of the internet as a communication medium has significantly helped the language growth of languages with a relatively small community of speakers such as those shown in Figure 3. For Arabic speakers, Portuguese speakers and speakers of other languages not listed in the table, the internet has helped them communicate with other speakers and practise their language use online. Major languages such as English and Chinese which are common second languages of many people around the world also show a positive growth in the usage of their language as many speakers around the world continually contribute to the

percentage of their language use on the internet, sustaining the language dominance. With the increased usage of video conferencing as a communication medium, there would be a similar increasing trend in language growth for major and relatively minor languages as the platform has allowed them to frequently communicate with other speakers of their language. Video conferencing is especially beneficial minor languages with little speakers as regardless of where they migrate and travel in the world, they can always interact and converse with their family, friends and other speakers of the language to maintain proficiency in the language. According to Metcalfe's Law, the value of a telecommunications network is proportional to the square of the number of connected users to the system. Hence, with the creation of a reliable and convenient video conferencing network, the population of the various languages would benefit from the increased face-to-face, speech interaction.

Studies have reported that with the incorporation of video conferencing technology in course materials and teaching methods of the education system, teachers and students would both benefit. This is especially true for teachers in small communities with little training opportunities, video conferencing would allow them to easily access and attend a wide range of training seminars held by trainers overseas without needing to travel (Ibrahim & Chen, 2005). Studies of the usage of video conferencing in foreign language learning also show that 64% of the students scored better grades and were more self-confident after attending video conferencing lessons, exhibiting the high effectiveness of the communication medium in schools (Jung, 2013).

## **7 Conclusion**

Today, video conferencing is still not one of the most commonly used communication medium as its reliability is impaired by frequent technological glitches and in comparison to the more popular mediums such as chat, the process of making a video call is relatively tedious. However it is a pervasive and developing communication medium, and it has proven its multifaceted benefits in the social, business and educational aspect, being a one of the closest substitutes developed so far to substitute everyday face-to-face interaction, encompassing both features of speech and text.

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