Logograms on the Rise: 
Ubiquitous Computer-Mediated Communication

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ABSTRACT
Online communication is pervasive and susceptible to changes due to communications technologies of use. This article discusses the reality of logograms and ideograms on the rise on online communications. Specifically, the place of English in online media is assessed in terms of its relevance as a dominant language. Graphic examples of logography and ideography as present in ubiquitous computer-mediated communications. A culminating discussion evaluates the points raised in terms of impact and technological determinism.

Keywords: ubiquitous computer-mediated communication (UCMC), logograms, ideograms, network effect, technological determinism, structuration.

1 INTRODUCTION

Popular theoretical physicist and futurist, Dr. Michio Kaku asserted that the Internet is the telecommunications systems of a Type I Civilization, as defined by the Kardashev scale (“The Upside down world of Dr. Michio Kaku”, 2007). A Type I Civilization is characterized, as a society that has harnessed its planetary energy resources to the fullest, attained global governance, and developed a global communications network (Kaku, 2008). Dr. Kaku’s suggestion that the Internet is a communications trait of a Type I Civilization indicates that the nature of communication has advanced in ways to include new modes of expression given the persistence of change within the realm of online mediated communications.

2 PROBLEM STATEMENT

The lingua franca of the Internet is not English; rather, it is a combination of traditional language, logogram, and ideogram. Communication on the Internet has undergone a change that involves the emergence of ideograms and logograms alongside traditional text-based communications. While an ideogram is a picture or symbol that represents an idea, a logogram is a written or pictorial representation of a word. This is essentially due to the pervasiveness of ubiquitous computer-mediated communication (UCMC).

Following a discussion of language on the Internet is a treatment of network effects with regard to the value ascribed to English. Subsequently, the theories of structuration and adaptive structuration help to shed light on the reasoning to imply that technology not only impacts individuals, but also the ways they communicate. Finally, a series of graphic examples support the assertion that ideograms and logograms are present in application in online communicative structures of use.

3 ISN’T ENGLISH THE DOMINANT LANGUAGE ON THE INTERNET?

According to digg.com more than 80% of home pages are in English with German coming in second place at 4.5% and Japanese in third place with approximately 3.1% (Pierce, 2006). However, ExciteAtHome conducted an enormous study in 1999 in which it examined 600 million web pages and made the conclusion that 72% of them were in English (Zuckerman, 2009). Logically, that figure is likely to be lower now given that the Internet has grown in countries where English is not the principal language. Further, according to statistics provided by the International Telecommunication Union (ITU), as of 2007, 62% of inhabitants of developed countries and 17% of inhabitants of developing countries are classified as Internet users (ITU, 2007). Interestingly, cellular telephone use is 97% and 45% for residents of developed and developing countries, respectively (ITU, 2007). Nevertheless, the result of a Google search for the percentage of the Internet in English will likely reveal a figure around 80%. It is difficult to ascertain which language, if any, has dominance on the Internet. However, there is cause to suspect that English will remain in the lead for reasons other than a sheer count of websites.

4 NETWORK EFFECTS AND ENGLISH

There is a network effect associated with language use on the Internet (Knoke & Yang, 2008). One indicator of whether English will remain the traditional text-based language of the Internet is the activity of non-English speakers (Gandal, 2007).
Specifically, if non-English speakers continue to use English language sites, emerging sites may defer to keep content in English. This result is due to the ascribed value of English given its propensity of use. However, beyond a common lingua franca remains the significance of structure and its impact on interpersonal and computer-mediated communication.

5 STRUCTURE OF ONLINE COMMUNICATION

Structure impacts communication. When we talk to others in a chat room, text a friend, e-mail a colleague, post a message on someone’s online social network, we are (either consciously or unconsciously) participating in a recursive action that leads to changes in the way we express ourselves (DeSanctis & Poole, 1994; Giddens, 1984). The place of technology in this action is key in that it directly affects individuals in as much as we acquiesce, sit back, and let it happen (Galimberti, 2009; Merchant, 2007). The point here is that it is no longer a question of whether technology necessarily impacts human beings; rather, technology impacts language. Ubiquitous computer-mediated communication (UCMC) is thus the result of the interaction between humans and communications technologies.

Anthony Giddens’ (1984) theory of structuration applies to human agents within social systems and structures, and DeSanctis and Poole’s adaptive structuration theory (AST) focuses on the role that technology plays in social systems and how these social systems associate the role and utility of technology in groups and organizations (DeSanctis & Poole, 1994). Basically, AST posits that technology and socially-integrated organizational individuals and groups create social structures, rules, and resources as the foundation of human activity (Maznevski & Chudoba, 2000). Thus, these theories attempt to explain a macro-level change in communication wherein the technological system of the Internet has led, by its structure and use, to a shift in the ways in which individuals express themselves. UCMC encompasses these changes.

6 IDEOGRAPHS AND LOGOGRAMS IN CONTEXT

While their presence does not suggest replacing English or other traditional languages, ideograms and logograms appear frequently as a support to a primary message or means for communication. As early as 1991, it was asserted that a new form of writing was rising. Ferrara, Brunner, and Whittemore (1991) termed this change Interactive Written Discourse (IWD). Represented by non-standard grammatical and stylistic uses of written language, IWD is a symptom of emergent digital literacies (Merchant, 2007). The use of non-alphabetic (as well as non-ajab and non-syllabic systems, of course) keyboard symbols is also a common characteristic of IWD. It is well known that this practice is also present in cell phone use (Gomez & Dudt, 2009). We tend to use and understand ideograms and logograms online often without realizing their nature (Robinson, 2007). This realization might be useful when attempting to describe and explain changes in digital literacies and interpersonal expressions, and also when designing effective digital media.

A series of cropped screen shots taken of ideograms and logograms in context is presented as Figures 1 through 5. Perhaps several are familiar. In each case, however, it is likely that their purpose is fully clear without the need to rely on traditional linguistic expression.

Figure 1: Toolbar Ideograms.

Figure 2: iPhone Apps: Logograms and Ideograms.

Figure 3: Ideograms and Logograms on an Adobe PDF.

Figure 4: Ideograms and Logograms for Multiple Purposes on Pandora.
Figure 5: Common Ideograms and Logograms Used in Text Messaging and E-Mail.

In each of the examples above, the ideograms and logograms are products of the structures they inhabit. Their advantage is multifaceted. They do not need to be translated. They require neither sophisticated design nor adaptation to new media environments.

In Figure 2, we see text below the logograms. Given an understanding of the context, these text terms become redundant alongside their logograms. Indeed, context may be key in understanding logograms and ideograms. Context is embedded within the logogram or ideogram given the lack of a need to supply explicating text.

7 CONCLUSION

The impact of logograms and ideograms on communication is an area that is likely in need of further exploration. There is a danger to treat these linguistic phenomena as unimportant or inconsequential. Such an attitude suggests both our inability to understand why we use them and how they are used cognitively and in application. Ultimately, we may need to develop or modify ideograms and logograms to be impervious to the changes associated with online media.

While network effects help to explain how and why English may remain as a dominant language of the Internet, they do not shed light on the presence of logograms and ideograms. The theories of structuration and adaptive structuration both strive for lofty goals. However, they appear to be useful to dissecting meaning in the increasingly interwoven and complex world of online mediated communication.

Ubiquitous computer-mediated communication technologies (UCMC) is way to understand in context and with reference to the modes and devices used in communicating with one another the changes in communication as expressed by the emergence (and likely permanence) of logograms and ideograms across alphabetic, syllabic, and pictographic languages in online interactions.

Technology, for the moment, appears to impact language. Can this relationship be separated from its impact(s) on the individual? Further, does the existence of this relationship imply a causality between structured technological environments and changes within (and without) the human condition? What impact does the combination of traditional language, like English, and ideography on the Internet have on the human brain and cognition?

Will learning be affected in the long run? Will pedagogies need to adapt to an ideography of use? These are a host of questions emerging from this discussion of logograms and ideograms within the sphere of online media. A challenge is therefore made to scholars to find answers.

3 REFERENCES


