Computer-mediated TESOL: employing technology to meet the global demand for english instruction

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Abstract: This paper introduces computer-mediated Teaching of English to Speakers of Other Languages in the context of a globalized world where English has, for a variety of reasons, assumed the position as a global auxiliary language, resulting in high demand for quality English instruction. This demand has generated a wide and diverse array of solutions to meet it and among those solutions, computer-mediated instruction and live tutoring seem well suited to bring together the skills and interests of native English speakers with the desire of the world, domestically and abroad. While synergistic, the future of electronically-delivered English instruction in China and elsewhere will depend on a variety of factors including the role and shape of English as an international language, the willingness of native speakers to participate, the recognition of such opportunities by emerging markets, and the character and popularity of technological applications required for its continued dissemination. Although this paper focuses primarily on the computer-mediated teaching of English in China, the technical and logistical issues discussed may be applied to computer-mediated instruction in other languages and in other countries.

Keywords: Education Service Management, TESOL, Computer-mediated education, Global English, Distance Learning

1. Introduction

It is a matter of debate at which point the globalization of English became inevitable. Relevant opinions vary widely and draw from a variety of sources. It did so, however, and now functions as a lingua franca for much of the world. Linguist David Crystal estimates that for every native speaker of English in the
world, there are at least three non-native speakers or learners. (Crystal, 2001) An extrapolation of this, highly relevant for this conference, is the demand for English instruction that China’s unprecedented economic ascension in the last few decades has created along with an outward-looking population keen on integrating themselves as individuals and as a nation into the globalized world. Much of this success depends, in part, on the ability of the Chinese to effectively communicate with the rest of the world through English. Most obstacles preventing more Chinese students and professionals from learning productive English originate within the external and internal institutions that control English language instruction and access to native English-speaking competencies. These obstacles are surmountable, in part, through the increased use and distribution of Computer-Mediated Teaching English to Speakers of Other Languages, hereafter CM-TESOL.

Such technologies offer a wide variety of formats for applying instructional objectives and methods in an online environment suitable for global consumption. For the population of China, such technologies paired with the growing willingness of native English-speakers to participate are especially important given the scale of English learning in China as well as some unique features of China’s state-supported English-learning environment. While computer-aided language instruction in some form has been used since the 1980s (Warschauer, 1995) it has continued to develop and now exists independently of traditional classrooms and with the capability of providing a multitude of pedagogical tools for willing learners. Rather than replace the role of teachers in the language learning process, the most productive technologies are those that are finding innovative ways to connect native English speakers with the enormous demand outside of their borders through various online applications.

2. The China Example

Currently China seems especially receptive to the benefits offered by CM-TESOL particularly in terms of the large market of English learners it offers. For CM-TESOL users, China both exemplifies many features common to other emerging nations as well as presents a variety of idiosyncrasies arising from its size, rapid, growth, and other characteristics. Additionally, given the rising popularity of Mandarin in many and diverse parts of the world lessons from CM-TESOL could be applied to the computer-mediated teaching of Chinese as a Second Language in the near-term future.

2.1 The Chinese Market
The brisk pace at which the Chinese economy has grown in the last few decades requires no anecdotes or figures to properly introduce it. This economic success has produced a large population with both wealth and desire to learn English in the comfort of their own homes and neighbourhoods. Already, the demand for instruction by native English speakers has outstripped the supply of these speakers. Fortunately, technological advances have accompanied China’s economic success, opening a new door to English language instruction. (Cui, 2006)

2.2 The Chinese Education System
Currently, the study of English is a required subject in China, as much a part of the compulsory Chinese curriculum as math or Mandarin. Beginning in the early grades, all Chinese students are required to begin learning English, the study of which culminates in the Gao Kao and College English Test (CET), notoriously difficult exams for which many students spend years studying. A low score on these exams will dramatically reduce or possibly eliminate a student’s chances for proceeding to higher education or to a better job, respectively. With the tests themselves held up as the objective of academic language achievement, the pedagogy and materials developed for them have filtered down through other grades and even into kindergartens. (Liao, 2010)

For a variety of reasons, the Chinese educational bureaucracy has privileged written skills over oral proficiency and comprehension. With educational ascension based entirely on written English, Chinese English-learners are incentivized to eschew oral English forms and competencies. This has created an environment where, despite years of intensive training, many Chinese are “English mute”, unable to communicate in social or business settings where advanced English speaking and listening skills are mandatory. (Liao, 2010) It is widely recognized that while written skills are important, spoken English has the important potential to differentiate, to allow students greater forward momentum.

Still, only the wealthiest individuals are able to invest in education in English oral instruction for themselves and their children. An alternative solution is needed.

2.3 Technological Proliferation
Closely associated with China’s economic rise has been the continuing proliferation of technological communications by Chinese consumers and the massive interconnectivity gained through the internet. (Tai, 2006) Importantly, this diffusion and commercialization of technological capabilities and collaborative forms has appeared as a relatively global dynamic, enabling a
revolution in the teaching of English, Mandarin, and other languages. (Warschauer, 1998)

3. Definitions and Opportunities

Although online collaborative systems by their nature resist easy categorization, it is possible to draw from emerging trends a variety of patterns which can be used to define some of the more productive applications of English language instruction objectives in an online environment.

3.1. Technology

While not new, there is a rapidly developing trend towards utilizing pre-existing communication software programs to connect Chinese professionals and students with native English-speaking tutors globally. Hundreds of companies have established themselves and these continue to grow rapidly to meet the rising demand for access to native English speakers.

A range of software and other applications has also been adapted to teaching to accommodate various levels of support and capabilities for these online tutoring sessions. In many of these, ESOL tutors can record the lesson for quality control purposes or to provide students an opportunity to review the lesson for content reinforcement and practice. Furthermore, enhanced media sharing programs allow tutors to share video, images, documents, and other information sources with students and vice versa.

3.2. Student Motivation

Often, Chinese students are advancing towards specific goals, many of which require significant oral competencies in English. Students, therefore, need to practice conversational English, interview skills, and listening comprehension in simulated business environments.

It has long been understood that a student’s likelihood of achieving success with a new language is tied directly to the nature and degree of motivation that the student has for the second language. (Gardner, 1972) Anything that can be done to increase the intensity or quality of a student’s motivation to learn a language should be investigated and encouraged.

Research demonstrates that students engaged in various modes of CM-TESOL training at least in a supplemental capacity, are motivated to invest themselves in the overall process of learning a second language. (Donaldson & Kotter, 1999; Lee, 1997; Osuna, 2000; Van Handle & Corl, 1998) Tests also appear to confirm that simple instructional modules by themselves are not enough to encourage students to return to them but should be used in conjunction with other classroom activities where a live teacher is providing
personalized guidance and direction regarding the nature of the students’ CM usage. (Kung, 2002)

3.3. Global Benefits
For motivated students with access to even minimal technological capabilities, CM-TESOL offers many benefits which can enhance the students’ primary educational and employment-readiness goals.

3.4. Access to Native Speakers:
Today’s Chinese or global citizens must frequently depend on their proficiency in English to gain access to coveted positions in internationally-located firms on which the world economy increasingly depends. For Chinese firms eager to do business with outside markets, English is increasingly being perceived as a necessary prerequisite to most international movements (Tian, 2009).

In important ways, the success of these companies and of much of the Chinese business community will depend on students’ and professionals’ ability to quickly and frequently access native English-speaking teachers in order to practice and hone the pronunciation, slang, context, and attitude needed to apply a language in a social or business environment (Tian, 2009).

With the centrifugal forces of globalization replacing relatively few English forms with many different Englishes, Chinese professionals must also be prepared to encounter a variety of different dialects and accents. Often, individuals in China must speak with professionals from several parts of the world in a single day, each speaking in a very different dialect form. (Liao, 2010) Given the ability of CM-TESOL to connect learners with tutors globally, it seems likely that the importance of these technologies will grow as companies increasingly recognize the potential for enabling their associates to converse directly with native-speaking tutors of various English varieties.

Language and culture are inextricably linked and access to native speakers in areas where Chinese hope to conduct business will provide the skills necessary to further China’s international business ambitions.

3.5. Maximization of Exchange
Many technological features inherent in CM tutoring offer other, supplementary benefits to the practice of ESOL tutoring. With many online platforms, teachers are able to record lessons for student reference and quality assurance; share documents in real time including photographs, essays, scans, videos, etc.; and, more generally, provide a richer channel of communication between student and teacher. Simply, technological applications are frequently capable of delivering relevant information to students quickly and more efficiently than in a traditional classroom(Zepp, 2005). Language-centred games are increasingly
being produced for online consumption just as existing popular games are often being enlisted to offer students motivation to learn (Zheng, 2009). Many of the traditionally-noted disadvantages that accompany the movement of ESOL tutoring and teaching into an online environment are resolvable with online technologies. The advantages experienced by individuals from being in a collective learning environment (the classroom) are frequently offered in some form online. Collaborative assignments, collective interfacing, student assistance, and positive peer influence are capable of being offered and felt in an online environment, though the dynamics often function different than its brick and mortar counterpart.

3.6. The Technological Advantage

Despite the persistent perception that computer mediated education in any form must necessarily be imitative or deficient (Brennan, 2009), evidence from a variety of sources continues to support the internet’s ability to deliver a curriculum that not only rivals traditional, classroom-based learning, but can replace or enhance many of its features. Increasingly, tests continue to confirm that computer-mediated instruction increases a student’s likelihood of achieving their L2 goals. Compared with the face to face equivalent, student groups that engage in conversation with tutors under the mediation of computers are not only more likely to participate in the conversation, their expressions are more likely to be lexically and syntactically more formal and complex. (Warschauer, 1998) This suggests that when studying online students feel relaxed and less impeded from engaging in conversation and utilizing linguistic competencies in which they are capable. Decades of research suggests also that computer mediation is capable of equalizing student participation that would otherwise be severely diminished by a student status and gender inequalities and correlative expectations in many classrooms (Tella, 1992; Siegal, 1987; King, 1988).

4. Benefits to Native English Speakers

The potential benefits available from connecting native English speakers to emerging markets isn’t limited to the students. In a variety of ways, Native English-speaking tutors and instructors have much to gain from the form and function of this trend towards ever increasing global connectivity. Examining these features will benefit not only native English speakers but also Chinese English-learner and business owners who should understand the potential motivational force behind connecting these tutors to large emerging markets.

4.1 Redefining TESOL Objectives

Many teachers are motivated by moral and ethical factors but the goals teachers
have for domestic learners often don’t apply as easily for willing learners outside of their immediate physical community and recognized sphere of social responsibility. If we take China for example, American teachers of ESOL would have to ask themselves why they would be interested in assisting the Chinese as individuals and as a nation even if they had the time and technology to do so. In order to produce the motivation required to connect a relevant number of teachers to Chinese learners, a redefinition of TESOL objectives might need to be encouraged. That is, other incentives must be generated and marketed to encourage teachers and conversation partners in native English-speaking regions to increase their participation in this trend.

4.2 ESOL Teacher Training

Beyond the obvious benefits for the hundreds of millions of earnest English-learners globally, exploring and adapting CM-TESOL applications also offers a variety of benefits to teachers and students in the US and other traditionally native English-speaking countries. The usual set of community-building principles that guide and motivate many ESOL instructors are largely re-located or else replaced by a new set of potential advantages for aspiring and active ESOL instructors.

Given, for example, that the investment in time, money, and facilities, needed to tutor students online is significantly less than those needed to teach in a classroom environment, it makes sense that aspiring TESOL instructors be offered training time by productively interacting with students domestically or internationally via the web.

The vast market in China combined with the diversity of teachers with which Chinese students might connect could create an environment where students are capable of personally selecting their tutors, filtering them through various criteria such as ‘style’, pedagogy, gender, experience, dialect, and extra-linguistic skill set. The process is mutually democratic, of course, as English teachers themselves are also capable of pursuing student types and refusing those that don’t meet any number of criteria. This dynamic is an important one for both Chinese students and English teachers. The former are able to proceed more quickly and productively in a direction of their own choosing by focusing on the English skills necessary to positively differentiate them in increasingly crowded professional fields. For the later, the ability to choose one’s students and level of investment creates a greater incentive for more qualified teachers to supplement their current jobs by going online.

Because Chinese students, for example, excel at English vocabulary and some grammar but frequently lack the ability to speak well, even semi-trained ESOL
teachers could benefit themselves as well as Chinese students abroad by serving as conversation partners, correcting grammatical mistakes and pronunciation errors identifiable by even novice English instructors. In this way, aspiring ESOL instructors can break through an important barrier of intimidation suffered by many beginning teachers and begin to develop skills that will serve them as they later work in a more traditional TESOL environment with the familiar community-building objectives associated with TESOL. Moreover, as many Westerners despite to know more about China, her people, and her customs, informal conversations and tutoring sessions could provide an excellent channel for expanded bidirectional understanding.

4.3 Income Supplementation
Although there exists no comprehensive listing of all cyber-based for-profit schools offering English education, estimates range from the hundreds to thousands. English instruction is big business with global sales in the billions. (Crystal, 2003) There are plenty of companies with jobs available to interested native English speakers who possess a variety of credentials. Depending on the teacher qualifications both Chinese and English tutoring can be profitable for the individuals. Beyond tutoring, many companies are looking for native English writers that can, for example, generate written business dialogs, edit legal documents, or help translate video game dialog. With so many documents needing to be translated into English, the demand is much greater than the supply of specialists alone. Native English-speaking writers that are capable of turning and imperfectly written English document and turning it into a native-sounding document are in demand.

English language schools in China and elsewhere hold a currently under-exploited opportunity here to seek out qualified teachers by advertising the potential money to be made in the business.

4.4 Access to Innovation
The progressive integration of internet sources with TESOL objectives offers English instructors more than just access to enormous markets of earnest students willing to pay for varying credentials and commitments. As in other fields, emerging markets such as China, India, and others are also producing, collaborating on, or else inspiring incredible innovation in the many varied fields on which CM-TESOL instruction increasingly depends. The scale and intensity of CM-TESOL innovation merit the attention of teachers either as an entry way into connecting with other countries or in finding ways in which to explore, innovate, and re-invigorate domestic TESOL instruction with its common objectives.
For domestic ESOL teachers, the application, incentives, intensity, scope, and general momentum of English language instruction is both concentrated and scaled up in those many countries pushing to integrate themselves into global markets.

4.5 Humanitarian Consciousness-Raising.
Frequently, the primary declaratory objectives for TESOL in the US and within other native English speaking countries are founded upon humanitarian grounds: equality, proper assimilation, and the ability for immigrants in the country to access the benefits offered by society while becoming a full participant in it. These same reasons do not transfer easily when one considers the enormous demand for English learning in countries other than one’s own. Yet the issues of equality and access of benefits apply regardless of geography.

4.6 Mutual Socio-Academic Exchange
The benefits of computer-mediated and inter-culture communications also extend beyond the ESOL classroom. Great potential exists for utilizing web-based communication programs in order to facilitate cultural exchange programs in classrooms at all levels: exchanges which are tangentially related to mutually increasing students’ language proficiency which simultaneously boosts the motivation needed to do so through interaction with peers on the other side of the world. This will function as a combination of how yesterday’s youth benefited from the experience of snail-mail pen-pals in the past and how current business professionals are capable of communicating synchronously with relevant personnel globally. Through computer-mediated conversations contemporary students can participate in the same positive experience by utilizing the benefits of various web applications. Through programs such as Skype and others, students could interface with foreign classrooms and students from other cultures and share stories, pictures, sarcasm, and funny faces all in real time.

5. Disadvantages and Challenges
The benefits and possibilities associated with CM-TESOL are not without some disadvantages, however, which may be either associated with the technology or with cultural miscommunications.

Generally speaking, any device that mediates communication vis-à-vis distorts or weakens the communication channel, eliminating some of the information that might otherwise have been transmitted whether through body language or other means.

5.1 Direct Technological Difficulties
The more technology that is introduced into a given system, the more susceptible the process is to declining functionality or technical difficulties. With the student only indirectly supervised and capable of connecting from a variety of environmental conditions, the failure of any portion of the systemic chain could effectively end communication. (Xu, 2010) The lack of sufficient technological support available to students in some conditions crimps both the available pool of students and the dependability of lesson-continuity. The problems that cause computers to crash cannot be immediately addressed.

For example, universities in China frequently limit the band-width available to students, making video conferencing difficult or impossible. Other problems have been cited with using interfacing programs (MSN, QQ, Skype) or with inferior or outmoded computer technologies (Windows 98, low RAM, dial-up internet, etc).

5.2 Indirect Technological Difficulties
For Chinese students and young professionals, the privacy needed to focus one’s full attention on a tutoring session isn’t always an option given the often crowded or otherwise distracting environment (dorm, library, or internet cafe) in which these English-learners must often attend tuition. Otherwise, loud children, barking dogs, and other examples of environmental leakage generate an un-maximized learning environment.

If the technology does not include a 2-way visual interchange between both tutor and student (as it may often not in practice), paralinguistic cues such as facial expressions and body language are unable to contribute to the learner’s overall understanding of the target-language’s application (Wang, 2004).

5.3 Extra-Technological Deficiencies
For teachers and students unaccustomed to speaking with members of another country and language, the relative leanness of computer-mediated communication channels serves to reinforce the cultural and linguistic barriers to communication. Such barriers may heighten the anxiety felt by a student resulting in a loss of focus and information retention. (Li, 2005) Once students and teachers become familiar with each other socially, however, tests indicate that the technological barrier between them is unlikely to negatively influence their ability to retain information or perform assessments. (Shen, 2010)

The role of an English teacher often extends well beyond that of a mere delivery system for the lesson plan material. The ability of a teacher to serve as a positive role model for children and to monitor their self-esteem and encourage positive social behaviours is diminished in a computer-mediated environment, further suggesting that the potential computer-mediated
instruction has for supplanting the role of a teacher-led classroom is still relatively minor. (Brennan, 2009)

Other non-technological obstacles may rise from idiosyncratic cultural predilections that are frequently unanticipated. For example, much of the population of some countries, such as Japan and Korea, distrust some popular online payment systems such as PayPal.

6. The Future of CM-TESOL

The Future of Computer-Mediated TESOL will be sculpted by a variety of factors, a few of which are discussed below.

6.1 The Future Role of English

Language is inherently a dynamic force subject to influence from a variety of other forces making future predictions difficult. It is uncertain what the future look and role of English will be as either a collective force or as a fragmented idea, subject to the dynamism of different locals. (Mydans, 2007) There is the old joke that the language of science and technology throughout the world today is “Broken English”. There are differing opinions on the future “look” of English and whether or not it will resemble American English or become a global blend, taking on a new form of its own and whether there will be a new English or new Englishes is yet to be decided. (Kubota, 2001; Wallruff, 2000; Crystal, 2003) To what degree will there be a shift of authority towards non-native speakers and their dialects, is also in question. This is especially interesting in the case of China where enormous numbers of people are learning a modified form often referred to as “China English” or “Chinglish”. (He, 2010) With no signs of this trend abating, it is likely that there will be more speakers of China English in the near future than there are native speakers of what are now “standard varieties” in the US and UK combined. It is uncertain what effect this largely unprecedented trend will have on the future of language learning of the future of the English language. (He, 2009)

The current need, however, is for the influence of native English speakers and continues strong despite the subtle interference of counter trends which also includes a long-standing attempt to re-fashion English in a simpler form, one packaged for easier global consumption. At least a dozen of these “simplified” forms of “Global English” which focus on truncating the lexicon and standardizing the orthography and pronunciation, have been proposed over the last century or so. (Globish, Panglish, etc.) They have met with little traction as, typically, centralized attempts to authoritatively re-make any language generally fails.
Generally, the linguistic movements occur independently of political attempts at legislation. They are democratic. There are, however, influential movements away towards linguistic consolidation that aim to maintain linguistic diversity in some regions by protect and promoting many native languages against the influence of a single standard (Johnson, 2004). Such movements, while seemingly unsustainable given the economic forces working as a counter-trend, have some power to abate the popularizing of English in some parts of the world, most notably in France and China.

6.2 Shifting Demographics
Closely related to how English will function globally in the future is the shifting demographic nature of the areas in which it is spoken. Issues regarding age, class, urban vs. rural, geographical boundaries, national borders, cultural prerogatives, political temperaments, economic influences etc. will affect the ways that future English will be understood, learned, and modified. These changes to the language could be lexical, phonetic, semantic, etc. depending on how and why it is learned as a second language and what the speaker’s first language is.

Certainly, the rising economies that use English now will be in a position to influence how English is spoken beyond their own borders. This dynamic seems to already be taking place and certainly accelerate in the future. For example, the phrase “long time no see” returns to American English from a word for word translation of a Cantonese expression.

6.3 Global English Education Norms
Currently, the world is in an historical moment where English around the globe has evolved to the point where the demand for instruction is high but there are not enough proficient speakers trained and willing to adequately instruct the rising generation of eager English learners. The supply can’t meet the demand in traditional face-to-face applications. But the supply of adequately-trained non-native-speaking English teachers is growing. Should the Chinese education system place a greater emphasis on oral English in the future, for example, the demand for foreign born, native-English speakers could begin to diminish as non-native English teachers are as proficient with a relevant form of oral English as they are with its written form.

The emerging political environment continues to influence how culture and language are understood and relate to each other. While simultaneously pursuing an aggressive policy of English learning domestically, the Chinese government is using its global influence to spread Mandarin and other forms of Chinese soft power around the globe through its various and well-funded
cultural outreach programs primarily in areas of geo-political importance. For a variety of reasons, host countries are welcoming the Chinese cultural and linguistic influence, even in areas where English has strong influence, like in the US, which hosts the world’s largest Confucius Institute and the most Chinese teachers.

6.4 Technological Availability
The rate of computer literacy and use continues to rise globally as telecommunication technologies become cheaper and more compatible with consumer’s inclination to engage them. This trend suggests the continuation of a potentially vast market into the foreseeable future. (Zhu, 2005) It is unclear if the quality of computer literacy outpaces the dissemination of technological use and whether this will lead to a higher percentage of technological frustrations in the future or fewer.

6.5 Native Speaker’s Participation
As much as any factor, the future of CM-TESOL will be determined by the willingness and ability of native English speakers around the world to log in and participate. In the course of this discussion, I’ve tried to explore some of the benefits that CM-TESOL might hold for the native speakers and teachers of English.

Because of the high demand and resulting variety of training techniques, the citizens of China and other countries have proven themselves very innovative in constructing a microcosm of various TESOL techniques. Evolutionary processes are definitely at work on technological and other systems as language-training techniques arise from “developing” nations and elsewhere.

7. Conclusions
More than in many fields, language teachers have been historically adaptive to changes in pedagogical theories and methods (White & Alex, 2009). This, along with the increasing demand for language learning brought on by globalizing forces explains the proliferation of productive and innovative content and applications within the field.

Given the geographical distance that separates the supply and demand of language competencies and instruction, the internet seems perfectly suited to create bridges that connect enthusiastic learners with willing native English-speaking tutors ad conversation partners. The programs and capabilities used to mediate instruction are diverse in scope and adapting quickly to overcome current short-coming in their own processes just as they seek to maximize learning in ways unavailable to traditional classroom settings.
In short, the pedagogical theory that grounds traditional, classroom-based ESOL instruction is left intact, solid. Its features are malleable enabling effective shifts in methodology in different directions, heightened or subdued in order to proportion the learning experience to the collective and individual needs of the ESOL learners while simultaneously providing greater opportunities and options for the teachers and themselves.

Ideally, the shape, scope, and utility of CM-TESOL will follow global demand and pedagogical needs rather than take the form of whichever technological capabilities are present. And this remains true regardless of the language which is being adapted for online learning. With the growing interest in Mandarin globally, the flurry of activity that has been adapting ESOL to computer mediated use should be of special interest as China considers the potential benefits of exchanging native language expertise in Mandarin for the same in English.

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