New to the US: Understanding the Role of CMC in International Students' Adaptation to the US

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ABSTRACT

Studying abroad and adjusting to a new environment can be very stressful for non-native English-speaking international students due to challenges of language and culture. Previous research shows that computer-mediated communication (CMC) tools have the potential to help newcomers adjust to new environments. However, it is not clear what the role of communication tools is in newcomer international students' adaptation to the US. We conducted 17 semi-structured interviews with international students from China, Korea, and Japan to understand their adjustment challenges and how they use CMC tools to address them. We found that international students use CMC tools for finding reliable information, building new social networks, and providing an alternative channel for engaging in the US classroom. Based on these findings, we propose design implications for tools to better support international students' adjustment to the US.

KEYWORDS

Computer-mediated communication; study abroad; international students; adjustment challenges.

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Table 1: Demographic information of participants including native language, gender, length of stay in the US and program.

	Native Language	Gender	Length of Stay (month)	Program
P1	Mandarin	F	7	Master
P2	Mandarin	F	7	Master
P3	Mandarin	F	7	Master
P4	Mandarin	M	7	Master
P5	Mandarin	M	7	Master
P6	Mandarin	F	8	Ph.D.
P7	Mandarin	F	7	Master
P8	Mandarin	M	7	Master
P9	Japanese	M	8	Master
P10	Mandarin	F	7	Master
P11	Korean	M	8	Ph.D.
P12	Mandarin	F	7	Ph.D.
P13	Mandarin	M	7	Ph.D.
P14	Mandarin	M	8	Ph.D.
P15	Mandarin	M	8	Ph.D.
P16	Mandarin	M	7	Ph.D.
P17	Mandarin	F	8	Ph.D.

INTRODUCTION

Studying in the US provides international students opportunities to experience top-notch education, research activities and diverse culture. However, international students, particularly those who do not speak English as a native language, often encounter a multitude of adaptation challenges after they arrive in the US, such as social integration, academic challenges, language issues, and cultural barriers [8], which can affect them both socially and academically [6].

Previous research shows that CMC technologies have the potential to help newcomers' adaptations to a new country [3]. For example, Yuan and Fussell's survey of Chinese and Korean international students found that using social networking site (SNS) Facebook helps them build bridging social capital in a new environment [7]. Hautasaari et al found that international students use tools such as Facebook and Skype to seek emotional support in their adaptation to a new country [2]. Oh et al. found that international students frequently use online communities for information seeking during their adjustment to the US [4]. However, these studies have not focused on the critical early adaptation period of international students, which we define as their first year in the US. There is a need to explore the roles of existing CMC tools in newcomer international students' early adaptation to the US in order to provide insights for the design of CMC tools that will better support international students' adjustment processes.

To fill this gap, this study focuses on the early adaptation stage of international students. It extends previous literature by closely exploring how non-native English-speaking newcomer international students use CMC tools to facilitate their adjustment to the US. To do that, we conducted semi-structured interviews with 17 international students from China, Korea, and Japan in a large US research University. We found three main ways that international students use CMC tools for adaptation: 1) finding reliable information, 2) building new social networks, and 3) providing an alternative channel of engaging in the US classroom. We also discuss how our findings might inform the design of several new CMC tools.

METHOD

Participants

We recruited 17 international students (8 females) at a large US University. All of them had been in the US for less than one year. The demographic information of participants can be seen in Table 1. We recruited this sample because these students are still in their early adaptation stage and are able to recall their adjustment experiences in the US.

Data Collection and Analysis

We developed our interview protocol based on several pilot interviews. We first asked questions about participants' background, including the length of time they had been in the United States,

Challenge: Settling in

“Even (though) we can read (English) and pass exams, when I get into a new environment, I feel really uncomfortable. Like the first time I went to Wegmans, they asked me plastic bags or paper, I felt so confused and didn’t know what they were asking...” [P14M]

CMC Tool: Finding Information

“I had to take care of everything here, internet, electricity, trash... For my first month, I had to set up all stuff. Sometimes I googled how to do that...but I’m still not sure whether the information was accurate. Sometimes I just message senior students here. they stayed here for several years. And they can always answer my questions.” [P15M]

Challenge: Building New Social Networks

“I didn’t really know anyone here before I entered the program. The only person I knew has already graduated. I was worried about being lonely.” [P4M]

CMC tool: Initiating conversation and maintaining connections

“But I was able to make some Chinese friends in the first month. They invited to me to a (WeChat) group chat. Gradually I just made more friends through the group.” [P4M]

the fields they were studying, their native languages, their usage of English in their daily lives, and their daily activities. After collecting their basic background information, we asked them to name three biggest challenges they faced when they came to the US. We went through each challenge with them one by one, asking them for details about that challenge, what they did to address it, and whether and how communication tools played a role in this process.

Interviews were conducted in English and ranged from 30 to 60 mins. All interviews were audio-recorded and transcribed. Transcripts were imported into ATLAS.ti [1], a qualitative data analysis software. We first used an open coding process to identify themes in the interviews. Then, we organized these themes in terms of challenges and the role of CMC tools based on our research questions. After refining codes iteratively, we identified several common themes from the interview. We provided our preliminary qualitative findings with descriptions in the following section.

FINDINGS

Our data indicated that settling into a new environment, building new social networks, and engaging in the classroom in the US were three main categories of challenges faced by our participants. To solve these challenges, they actively used CMC tools as ways of information seeking, initiating conversation, maintaining connections, and an alternative channel of communication. We provided related quotes in the side bar as examples of our findings.

Finding Information

The most frequent challenges our participants faced were related to settling down in the US. To do this, they had to handle tasks such as figuring out housing, locating transportation, going to groceries and making phone calls. Language and cultural barriers made these tasks difficult. To solve these kinds of challenges, our participants tried a variety of information seeking strategies, including using search engines, referring to local brochures and asking friends. Participants reported that they frequently used tools such as WhatsApp, WeChat and Facebook messenger to ask questions from friends. They viewed the information they get from friends as more practical and reliable.

Building New Social Networks

Our participants indicated that they felt that they had stepped into a new environment where they knew virtually no one, and they reported that it was challenging to build up a new social network in the US, especially with people from different cultural and language background. This challenge was alleviated by the use of CMC tools as international students can get to know people from social groups online. They reported they made some friends by sending friends request in a group chat. After the initiation, they got to know each other and sometimes chat online or even start offline hangout. CMC tools have scaffolded the international students initiate a conversation and maintain the connection for international students.

Challenge: Engaging in the Classroom

“A lot of class discussions here but almost no discussion in my previous universities...here we are forced to attend the discussion, speak out in front of the class and share our opinions. I didn't feel comfortable for the first time... I am intimate in sharing my opinions. I just tried to avoid such interactions.” [P9M]

CMC Tool: Alternative way to Communicate

“We (class team) also have a Facebook messenger group online. I can take my time to type more and express my opinions there.” [P12F]

Engage in the Classroom: CMC Tools as an Alternative Way of Communication

Participants observed that classrooms in the US are different from those in their home countries, because students are to be involved and express lots of discussions and opinions. Our participants reported that it was challenging for them to express themselves and keep up with the fast-paced classroom. To address this challenge, they tried to participate the class by contributing more in other online channel, such as a group chat on an instant messaging platform. In this way, they could take their time to think and frame their ideas. Here, CMC tools provide an alternative channel for international students to engage in the English Classroom.

DESIGN IMPLICATIONS

Based on our findings, we suggest several opportunities for tools to better support international students' adaptation to the US.

Lower the Navigation Barrier of New Environment

When international students navigate a new environment, they need to find a lot of new information. We propose a chatbot that can talk in a user's native language and answer questions related to American culture and local practices. This Chatbot can be built on current social media like Facebook and WeChat to help students quickly figure out the information.

Incorporate CMC Tools in the Classroom

Our participants indicated that using CMC tools to express opinions could lower the anxiety of providing immediate responses. We suggest that features like group chat or commenting might be incorporated in the classroom, allowing international students to type and reframe their opinions. This technology may be able to help international students engage more in the classroom.

CONCLUSIONS AND FUTURE WORK

This study has examined how non-native English-speaking newcomer international students utilize CMC tools to facilitate their adaptation to the US. We have conducted 17 semi-structured interviews on international students who have been stayed in the US for less than one year. The preliminary data analysis indicated that international students use CMC tools as ways of finding reliable information, initiating conversation and maintain connections and alternative channel of communication in solving adaptation challenges they met in the US. For the future work, we aim to explore the different patterns of CMC tools use for international students' adaptation on a more diverse sample. We also aim to design and evaluate tools that can support international students to better adapt to US life.

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