English learning with Web 2.0
– An investigation into Chinese undergraduates' technology (non)use and perspectives

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Abstract

Moving beyond the 'Web 2.0' and 'digital native' rhetoric, this thesis investigates what Chinese undergraduates are *actually* doing (and not doing) with online tools and applications to learn English outside the classroom and, why they choose to do so. Particular attention is paid to their use and non-use of the social web in their English learning context. A sociocultural framework is adopted to understand learners' behaviours surrounding digital technology. This theoretical position puts learners at the centre of their English learning and decision-making regarding technology use. It guides the exploration into the contextually mediated choices and practices of English learners in the so-called '2.0' era.

Data collection for this mixed sequential study took place during the 2010-2011 academic year. The data consist of a survey of 1,485 undergraduates and semi-structured interviews with 49 participants in two large Chinese universities. The data demonstrate a few embryonic signs of how Chinese undergraduates try to 'escape' from their English learning context with online technologies. However, a vast majority of the participants chose to use the web as an instrument to handle their academic duties. When it comes to English learning, their use of Web 2.0 is limited and mostly non-interactive and unspectacular.

In light of the above, the thesis goes on to consider a number of contextual factors that appear to constrain participants' use of technology – not least the discourses of English learning and the cultural artefact of exams. Based on these findings, the thesis provides a framework that challenges existing beliefs about (language) learning with Web 2.0, and that contributes to understandings of how context mediates language learners' behaviours surrounding digital technologies. The thesis concludes by suggesting ways of maximizing the learning potential of Web 2.0 for English learners at Chinese universities.

Declaration

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

Signature: SHUANG ZENG Date: 20th February 2015

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Chapter 1: Introduction

1.1 Introduction

'Interactive', 'participatory' and 'socially connected' are qualities that feature heavily in recent discussions surrounding Web 2.0 tools and applications. With a particular focus on the use of Web 2.0 technologies, this thesis aims to explore Chinese undergraduates' use and/or lack of use of the current web for their out-of-class English learning. Thus, this introductory chapter starts by defining the scope of this study and two important acronyms adopted in this thesis (i.e. 'CALL' and 'WELL'). This chapter then illustrates how the present study is conceptualized, particularly why it is focused on learner voices and behaviours, and concerned with Chinese undergraduates. While the more conventional topic of research in the relevant academic field is often directed towards new technologies and their *potential* for language teaching and learning, this study explores learner experiences. After that, the English learning and technological conditions of Chinese universities are introduced, which lay the foundation for researching learner behaviours against a specific context of learning. Finally, this chapter briefly presents the research questions, theoretical foundation, methodology and the significance of the thesis before moving to the outline of the thesis structure.

1.2 Defining the scope of this study within the field of CALL

According to Levy and Hubbard (2005, p. 143), computer-assisted language learning (CALL) involves the area of work that often deals with "the development and use of technology applications in language teaching and learning". CALL is acknowledged as an established and vibrant field rich in diversity and controversy (Stockwell, 2012). One form of 'diversity' is manifested in the wide range of computing technologies explored in CALL research (Bateson & Daniels, 2012). Over the last ten years, one trend of CALL research is to integrate Web 2.0 tools and applications into the various scenarios of second language learning and acquisition. Scholars have captured the new wave of research with a few using the term 'WELL 2.0' (Web 2.0 Enhanced Language Learning) to represent the so-called latest form of CALL (e.g. Davies,

2008; Martins et al., 2014). According to Davies (2008), WELL 2.0 indicates language learning that involves the use of Web 2.0 tools and applications via computers, laptops or mobile technologies that are connected to either local or global networks. In this sense, WELL 2.0 can be related to mobile assisted language learning (MALL), as mobile technologies could be employed in language learning scenarios with Web 2.0. In other cases, WELL 2.0 does not necessarily involve the use of portable devices or accentuate the mobility of the learner (Burston, 2014). This distinguishes WELL 2.0 from MALL. WELL 2.0 research is more focused on the use of Web 2.0 technologies and their potential for language learning. As such, the term WELL is adopted to indicate language learners' use of online technologies in this thesis. This is for two reasons. First, the present study is primarily concerned with the use of the current web. Second, as the current web encompasses both Web 2.0 applications and a small number of Web 1.0 services, the term 'WELL' is employed to indicate the use of the current web in general for language learning related purposes.

The 'controversy' attached to CALL is reflected in the numerous debates in this academic field. Even the acronym CALL has been challenged in terms of its appropriateness to cover the technologies encapsulated in the relevant research, especially given the growing interest in MALL. Some scholars proposed the term TELL (Technology Enhanced Language Learning), for the reason that the latter is broader in scope. However, others have pointed out that almost any digital device is "electronic, chip-driven and software related" (Egbert, 2005, p. 4), and thus "a computer of some shape or form at its heart" (Stockwell, 2012, p. 11). Moreover, CALL is what Levy and Hubbard (2005, p. 147) described a "well-positioned" term that is most frequently used in publications. Thus, given its inclusiveness, I will adopt CALL as a reference to this academic field, in the belief that it links the 'past, present and future' of research concerning technology and language learning. Other acronyms used in this thesis are outlined in the list of abbreviations and glossaries (see Appendix 1).

Finally, the thesis focuses on out-of-class language learning with digital technologies (for details, see Chapter 2). Out-of-class learning could be informal, which is unstructured, implicit and unintended (Eraut, 2004). Out-of-class learning can also be

intended and more structured, as learners may engage in learning activities for specific and structured academic activities such as completing class assignments, preparing for class presentations, or practising certain language skills. However, compared to formal learning in class, out-of-class learning is less structured and guided. Thus, out-of-class language learning simply refers to learning activities that take place beyond the language classroom. In this sense, learning can take place incidentally or in a more planned and structured manner.

1.3 The rationale for 'learner experience research' with Chinese undergraduates

The term 'learner experience research' is taken from *Rethinking Learning for a Digital Age* (Sharpe et al., 2010). The term is used in this book to indicate research that focuses primarily on learners' experiences of using digital technology in a learning or educational context. My initiative of conducting 'learner experience research' with Chinese undergraduates is indeed triggered by my personal experience as an English learner and CALL practitioner in mainland China.

1.3.1 Experience as an English learner in China

My own experience of over one decade of learning English in China has led me to believe that language learners can be autonomous. As technology is ingrained in their everyday life, language learners might explore it in an unexpected fashion outside the classroom. When I was ten my parents bought me a Windows 95 desktop. Yet I was not in the least thrilled by the purchase of the then latest technology, because I was expected to do extra English learning exercises after school with the learning software installed. Moreover, my parents did not connect my computer to the Internet. They saw the Internet as a learning distraction and reminded me repeatedly of what Gaokao[1] meant – a better university and a brighter future. However, I never touched those learning software programs then and was always keen to try the Internet. This wish was especially strong when I was told by a classmate that one could communicate with the world through online chat rooms. Never before had I had the opportunity to communicate with a native speaker of English. I started to wonder whether I could make myself understood by native speakers after three years of

[1] Gaokao is the national college entrance examination in China.

English study. One day, with the classmate as my guide, I sneaked into an Internet café, where I had my first 'real' conversation in English. However, my initial trial with the Internet did not make me feel that I could learn much English of the sort that would appear in my exams. Yet, my view of the importance of English learning was reinforced – perhaps it was not just a *subject* I had to deal with, but a *language* that was interesting and practical to be learned.

When I was in college, the module of 'Instructional technology for learning English' was opened and offered by a native speaker. However, although this course took place in the university media lab, the computers were rarely used, in spite of the course title. What we did most in class was to talk English in groups. Yet, the teacher did keep a blog, where he would upload some English learning materials.

On the other hand, the Internet was then readily available in the university. Despite my Windows 2003 laptop with Internet access, I seldom visited the teacher's blog, partly because I was insufficiently motivated to explore the then newest technology just for the sake of downloading resources. Instead, I used the Internet for a broad spectrum of learning needs and interests after class. I kept in contact with my international friends whom I had met either online or offline. Moreover, as an enthusiast of western pop music, I started to visit the international community and online forums that advertised and discussed music. I would also download English songs and the interviews of my favourite singers into my newly purchased MP3 player, and listen to the English podcasts enthusiastically. When I was overwhelmed by academic tasks and exams, these pleasant experiences always functioned as a reminder of why I chose to major in English in the first place. Although I did not intentionally use the Internet to improve any specific language skill, it did assume an important role and motivate my learning efforts throughout my journey in the Chinese EFL (English as a Foreign Language) setting.

Nevertheless, the Internet was not always an appropriate tool for learning English. One of the listening assignments in my first year of study was to take notes of the Voice of America (VOA) special English news. The whole class was asked to purchase radios and listen to the news every morning between 7:15 – 7:30. We would be randomly selected to précis the news of the whole week at the beginning of the

English listening class. The idea was to get us to practice listening on a daily basis and provide us with an English speaking opportunity in class. In order not to make a spectacle of myself, I forced myself out of the bed and took notes of the VOA news every morning.

However, in the second year my roommate discovered the VOA website online and suggested that we could download and listen to the news right before the class. Later that term, she announced that we were officially freed from 'boring news', as there was an English website which summarized the weekly VOA and BBC news in text. This major discovery spread fast and many of my classmates started to report the news in formal and polished English sentences. The teacher noticed our 'progress' and finally cancelled that listening assignment.

Taken together, these learning experiences of mine suggest that language learners' use of technology might be very different from what has been expected by language professionals and CALL practitioners. For example, I was reluctant to use learning software and the teacher's blog, but keen to explore other learning possibilities on the Internet. As the Internet now is becoming more involving and interactive, what about Chinese learners who are also motivated to communicate in English? And those who do not major in English? And those who are supposedly more 'digital' and 'tech-savvy'? That is, do Chinese undergraduates nowadays embrace Internet-delivered learning opportunities out-of-class? How do they respond to the changing and increasingly digitalized learning environment? Accordingly, it seems both interesting and necessary to investigate how Chinese undergraduates are making sense of the current web for their English learning beyond the classroom.

1.3.2 Experience as a CALL practitioner in China

Six years ago, in belief of the 'transformative' potential of the emerging technologies, I went back to my college in Chongqing, China and launched a small scale CALL project for my MA dissertation. Using the then much discussed blogs and podcasts, I adapted and digitalized Morley's (1991) self-monitoring practices. In particular, the participants were required to record their own speech or monologues, which were either pre-planned or impromptu at their own choice. They were encouraged to listen

to recordings of themselves repeatedly and share their work with the whole class via a class blog. Thus, in addition to critical self-evaluation and correction embedded in the metacognitive exercises, my initiative was to build an online community where the students could improve their speaking skills in a collaborative manner. The vast majority of the students expressed appreciation and excitement about this learning approach, and particularly valued the availability of, and equal access to, these speaking opportunities.

Nevertheless, the data also exposed the reality that technology did not magically bring peer interactions and collaborations. Some students were significantly worried about the consequences of initiating critical comments to their classmates. As they presupposed that such comments could destroy the harmony established, they refused to take risks. I realized then that CALL was a complex phenomenon. Yet, I came to the field with a technology deterministic mindset.

Furthermore, although almost all of the participants signified their willingness to continue this learning approach after the research, their enthusiasm was not exercised at the implemental level – none of them maintained the audio-blog afterwards. Their reticence led me back to the data, the scrutiny of which struck me with several questions that stimulated my interest in researching learner voices. Firstly, some of the students suggested that the CALL approach introduced was better implemented at the beginning of the term, when they were least academically pressured. As all the participants were English majors, this proposal was somehow paradoxical – why was there a conflict between the academic study of English and the exercise of strategies to improve English speaking skills? The dilemma showed that the non-use of technology was also a complicated phenomenon. It inspired me to take a closer look at the choices of language learners. That is, where appropriate, why digital technologies are not being used in the ways that they are expected to be used.

1.3.3 Towards researching learner experiences in the Chinese university EFL context

Over the last ten years, there has been a rapid growth of initiatives to integrate the emerging Web 2.0 technologies into the various scenarios of second language

acquisition (SLA). These pedagogical innovations and research agendas have shaped academic understandings of 'new' advances in CALL. Nevertheless, my personal experiences as an English learner and CALL practitioner in mainland China have revealed that the recurring issues in CALL are also found in the emerging research of WELL 2.0. Firstly, many of these developments have focused on the 'newness' of technology rather than language learners or language learning (Egbert et al., 2007). The technological deterministic view shows itself devoid of a considered consideration of what technologies can and cannot do, thus resulting in a wave of Web 2.0 related hyperbole. Secondly, the actual needs and behaviours of students have often been neglected and marginalized by the drive to implement the new technologies in some predefined paths (Wild et al., 2008). Thus, not enough study has been directed towards language learners today, who are seen to be "self-directed, vital, self-managed and active in the generation of new ideas" (McLoughlin & Lee, 2007, p. 664). Relevant literature on Web 2.0 and language learning will be reviewed in Chapter 2.

All these considerations have shifted my research intention from the focus of what technology can possibly do for language learning (the future), to language learners' experiences with WELL beyond the classroom (the present). My particular focus on Chinese undergraduates is a timely choice which can be justified in the light of an analysis of literature and statistical reports. In particular, Chinese students are found to be the largest group of 'English as a Foreign Language' (EFL) learners around the world (China Education Research Network, 2006), but with limited opportunities for target language communication and production (Jin & Cortazzi, 2002; Jung, 2006). In addition, Chinese students are given much more freedom at university than in K-12 schooling in terms of taking control of their English learning and Internet use (Jin & Cortazzi, 2006). In fact, both arguments are evident in my personal experience as an English learner and CALL practitioner in mainland China. It is therefore compelling to investigate and *understand* Chinese undergraduates, particularly their engagements with the current web in terms of seeking language learning opportunities after class.

1.4 Chinese universities as the context for WELL

This section focuses on the EFL context at Chinese universities, making links with available digital tools, English learning requirements and culture, and wider changes in educational policies and society. It is expected that knowledge of the wider context will aid understanding Chinese undergraduates' experiences of WELL in practice.

1.4.1 Conditions for technology experiences

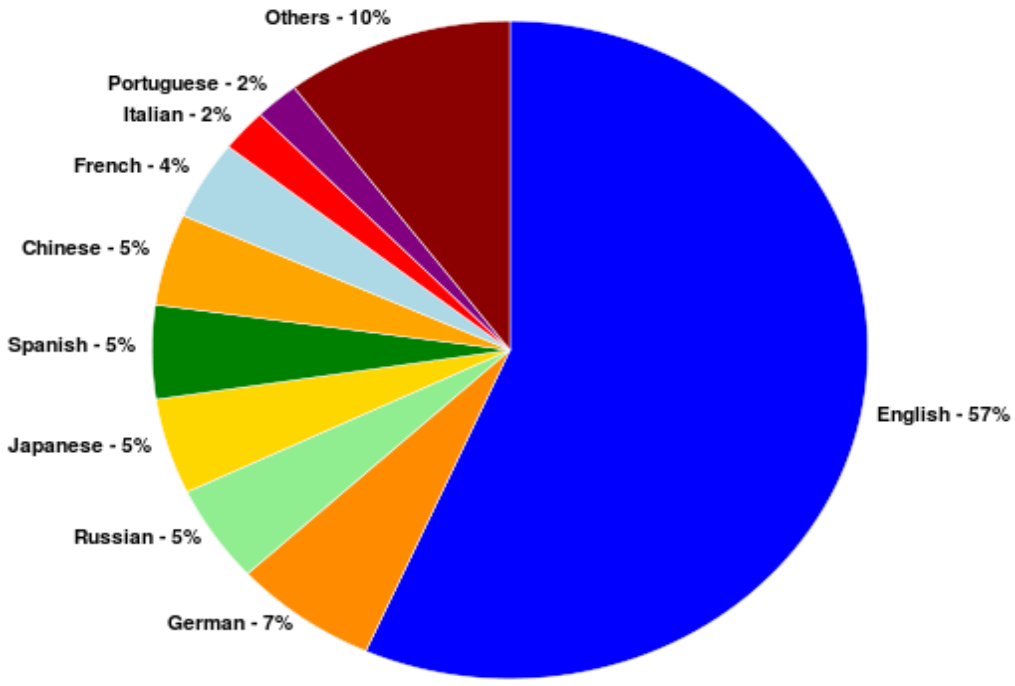
China has a fast diffusion of information and communication technology (ICT) products and facilities, underpinned by the country's exponential economic growth (Jung, 2006). As a result of this ICT development and a series of educational expansion, the Ministry of Education (MoE) has established 'e-learning' as the key concept to build a knowledge-based society (Kang & Song, 2007). This national policy has resulted in a sequence of ICT investments and projects that may have a profound influence on the technological experiences of Chinese undergraduates.

Firstly, contemporary Chinese undergraduates are living in a technology rich environment. Almost two decades ago, projects such as the 'China Education and Research Network' (CERNET) were launched and heavily invested in by the MoE. The intention was to establish and improve ICT infrastructure for educational institutions. The project has connected over 1,500 Chinese universities and colleges with the world and provided Internet services for approximately 31.2 million Chinese undergraduates. On campus the Internet is made accessible in faculty offices, classrooms, computer labs and student dorms[2]. Some institutions also enable wireless Internet access on campus (Kang & Song, 2007). In the meantime, digital devices that support online activities and products are proliferating on campus. As early as 2005, personal devices such as the 'computer, mobile phone and MP3 player' were already named as 'the three indispensable pieces' for campus life (Chen et al., 2005a). Statistics collected in 2012 revealed that 83.5% of young people under the age of 25 in China access the Internet via mobile phones, 69.1% through desktops, and 48.5% using laptops (CNNIC, 2013a).

[2] Chinese undergraduates normally live in student dorms while at university.

As to the quality of the Internet, statistics show that although Internet users in China have reached 564 million by the end of 2012, the average Internet speed is below that of the global standard (CNNIC, 2013b). Besides, English is still the dominant language on the Internet (see Figure 1.1). Moreover, a number of iconic Web 2.0 websites are not accessible in China due to political sensitivity (Yang, 2013). Websites such as Facebook, Myspace, YouTube and Twitter are substituted by Renren, Qzone, Youku and Weibo respectively. These Web 2.0 services are localized in the sense that the language of the interface is predominantly Chinese and their users are mostly of Chinese nationality. Notably, university students are found to be the most active user group of the Web 2.0 tools and applications. By 2012, 76.5% of Chinese university students had adopted the social networking site of Renren; the user percentages of Qzone and Weibo reached 82.4% and 80.7% respectively. 84.1% of Chinese university students are using media sharing sites exemplified by Youku (CNNIC, 2013a). Thus, the statistics suggest that although Internet fluency and democracy still need improvement in China, the life of Chinese undergraduates is significantly mediated by digital technology and Web 2.0 in particular.

Figure 1.1: Website content by language (from Wikipedia, 2013a)



Finally, like their counterparts in western society, contemporary Chinese undergraduates are labelled as a generation of 'digital natives' (Gu et al., 2012). That is, they also grow up digital. Their technological experiences in the past were enhanced by a sequence of policies and projects initiated by the MoE. In particular, when they were in primary school, the MoE (2001) launched the "Every Campus Wired" project, which aimed to bring Internet access to K-12 schools across the nation. That is, equal Internet access was promoted among young people, regardless of their geographic location and family background. Moreover, the purchase of computers for educational purposes became widespread in urban areas in the early 2000s. With the permission of the MoE, many Internet cafés were also opened near schools, making the Internet affordable and convenient to those who had no Internet access at home (Wang, 2002). These facilities and political schemes made Internet experiences possible among young people at that time. Meanwhile, the module 'Computer Literacy' was integrated into the national curriculum, which means that it is compulsory for young people to receive training in computer skills in both K-12 and university education (Liu, et al., 2004). Accordingly, contemporary Chinese undergraduates are expected to have been in contact with digital technology from a young age. They are viewed as China's 'net generation' (Gu et al., 2012).

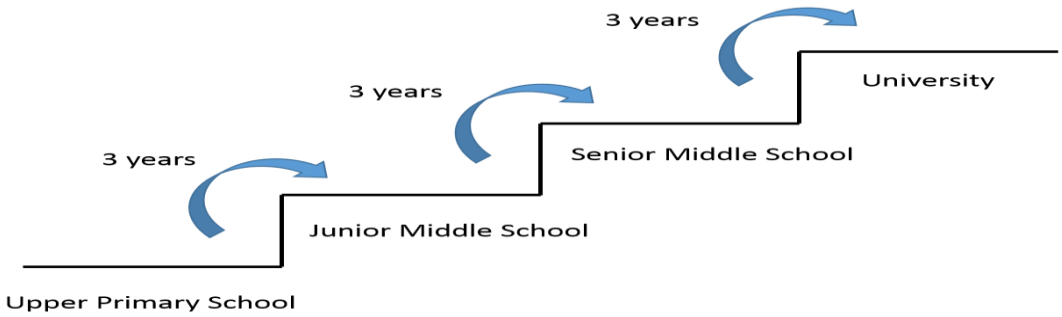
Of course, a digital divide still exists in China, especially between urban and rural areas. Although rural inhabitants account for almost half of the Chinese population, only 27.6% of Internet users in China live in rural areas (CNNIC, 2013b). This statistic suggests that there is a gap between rural and urban Internet availability and infrastructure. This means that individual students might come to university with different technological experiences and levels of familiarity with ICT.

1.4.2 Learning English in the Chinese university setting

China is experiencing an "unprecedented English fever" (Li, 2009, p. 211), as the country is becoming "interconnected" and "interdependent" with the English-speaking world politically, socially and technologically (Graddol, 2000, p. 32). This 'fever' is manifested at macro, meso and micro levels. At macro level, English language education has been acknowledged by the MoE as a basic policy to prepare the country for its so-called 'modernization process' (Gao, 2009). Since 2001,

Chinese students have been required to begin their English studies at the upper primary level, instead of in the junior middle school (MoE, 2001). This means that a Chinese student has normally studied English for almost one decade before entering university (see Figure 1.2).

Figure 1.2: Years of English study before attending university



English language education continues at the tertiary level regardless of academic disciplines. Non-English majors have to attend at least four English classes on a weekly basis, each being 45 minutes. The English classroom usually accommodates up to 60 students (Hu, 2002). In addition to mid-term and final English exams, all students are required to pass the MoE administered College English Test Band 4 (CET 4)[3] in order to obtain a BA degree certificate. A range of first tier universities even require that their students pass the College English Test Band 6 (CET 6)[4]. In the universities where CET 6 is not a requirement, many students still try to pass this exam so as to be more competitive in the job market (Jin, 2009).

English majors receive up to 13 or 14 hours of English instruction per week with class sizes reduced to about 30 students. English learning is divided into listening, speaking, intensive reading, extensive reading, writing and translation, which facilitate a more skills-based approach to language teaching. However, in most cases only about two hours per week are devoted to teaching and practicing communicative

[3] CET 4 is a national English test that is mandatory for all non-English major undergraduates in the mainland China. The goal is that undergraduates will be able to meet the English level specified in the National College English Teaching Syllabuses by the time of graduation. The vocabulary requirement for this test is around 4000 words (Wikipedia, 2014a).
[4] CET 6 is a national test and its format is similar to CET 4. The vocabulary requirement for this test is around 6000 words (Wikipedia, 2014a).

or speaking skills in class. English major students also have to sit a number of exams set by their institutions. In addition, the MoE administered Test for English Majors Band 4 (TEM 4)[5] is the minimum level of requirement to secure graduation, but many English majors strive for TEM 8[6].

Nevertheless, it is widely claimed that these written exams focus primarily on linguistic knowledge and grammar, rather than basic language skills (Luchini, 2004; Gao 2009). One important element of these exams is multiple choice testing (Gu & Liu, 2005). Later, 'English speaking' as an independent section has been included in the standardized exams, but is taken on a voluntary basis and does not count towards the overall mark (Gan et al., 2004). These institutional and standardized exams have a profound influence on the teaching and learning practices of college English. Much criticism is lodged against university teachers for teaching how to take tests rather than speak a language, mainly because communicative skills are not emphasized at the implemental level (e.g. Luchini, 2004; Su, 2004; Zhu & Yang, 2004). Instead, the taken-for-granted frameworks of an English lesson are to explain and highlight linguistic features and grammar that would appear in major exams. In this sense, university teachers are predominantly attentive to "covering the syllabus" and "maintaining control" in the classroom (Dai & Zhang, 2004; Du & Wagner, 2005, p. 1). The role of students is to make a concerted effort to digest and remember teacher delivered content. For instance, Jin and Cortazzi (2006, p. 11) found that some university students have made an analogy between classroom learning and stuffing a Peking duck – "we Chinese get used to a pouring and filling method".

This teacher-dominated, textbook-based and exam-orientated classroom learning is by no means new to university students. This is because contrary to what has taken place in the west where communicative language teaching dominates, English is often taught through grammar translations and audioliguisim in Chinese secondary schools (Wen & Clement, 2003). Students are often required to concentrate on their teacher's demonstration, think carefully and take notes, as well as to read aloud and recite paragraphs in textbooks. These practices may be interpreted as 'rote-learning' by

[5] TEM 4 is an annual test mandatory for English-major undergraduates in China. The vocabulary requirement for this test is around 8000 words (Wikipedia, 2014a).
[6] TEM 8 is the uppermost test for four-year English major students. The vocabulary requirement for this test is around 13,000 words (Wikipedia, 2014a).

western educators, but many Chinese EFL teachers and students see them as effective practices which facilitate the understanding and internalization of linguistic inputs (Watkins & Biggs, 2001). Moreover, by the end of senior middle school, English teaching usually centres on national college entrance exams (Jin & Cortazzi, 2006). In this case, memorizing vocabulary and sitting mock papers are important activities for exam preparation.

The paramount importance of exams is indeed seen as a cultural phenomenon in China (Bachman, 2010). Influenced by Confucian classics which define education in terms of moral cultivation and service to society, the Civil Service Examination system lasted over 1,300 years in Imperial China and was ended in 1905 (Elman, 1991; Cheng, 2010). Thus, for a long time examinations were not viewed as a form of assessment but a social ladder that led to the ruling class. This is reflected in the Chinese poem – "to be a scholar is to be the top of society" (万般皆下品，唯有读书高). The influence of such a view is still evident in modern Chinese society. Excellence in exams is seen to generate opportunities for social mobilization (Gao, 2009), and thus highly valued and emphasized by teachers, parents and students themselves. As such, the study of English is closely linked to the future of Chinese students, because English as an academic subject is assessed at various stages of Chinese schooling – i.e. primary school, secondary school, college education and postgraduate study. In this vein, English learning is viewed as a serious matter associated with 'dedication', 'hard work', and 'self-discipline' (McGrath et al., 2007, p. 63). This learning spirit is not in line with communicative language teaching in the west, where learning a foreign language is often based on personal interests and characterized as a pleasant and joyful experience (Hu, 2002).

Echoing the classroom teaching, students' self-study of English at university is predominantly exam-orientated, and thus is seen as a continuation of English learning in the secondary school (Jin & Cortazzi, 2006). That is, for university students one important part of English study continues to be using test-practice and vocabulary books for exam preparation (Jin & Cortazzi, 2002). Commonly seen on Chinese university campuses are many students reading aloud vocabularies or texts of paragraphs in the early morning. Apparently, these students are memorizing English

words and sentences through repeated reading (Jin & Cortazzi, 2006). Moreover, instead of involving themselves in communicative practices, many university students are inclined to do test-based exercises. As Gao (2009, p. 65) commented: "such tests (CET 4 and 6) have tied learners to mechanical multiple-choice skills, but failed to direct their attention to communicative competence, resulting in job seekers who have only 'deaf and dumb English'".

Nevertheless, although priority is usually given to knowledge-based exams, the appetite of university students for English language skills has sharply increased (Zhu, 2003). With China's economic explosion, English skills have become important to seeking education overseas and future career development (Jin & Cortazzi, 2002; Jung, 2006). Thus, there has been a gradual shift on the learning emphasis from linguistic competence to a broader context of communicative competencies, within which linguistic competence remains the essence (Jin & Cortazzi, 2002). As perspectives on language learning are changing, an increasing number of students are not satisfied with traditional classroom learning. This was observed by Gan and colleagues (2004, p. 235-237), in their research when some Chinese undergraduates noted that: "We have rarely had any opportunity to develop communicative competence in English in class"; "Listening and speaking training is very limited in class; you have to rely on yourself to seek opportunities to improve them".

As students are given much learning freedom at university, some creative and principled contributions to practising English skills have arisen in recent years, with a small but steady movement towards some 'new looks' in English learning after class. For example, 'English corner' is a student-led activity in which enthusiastic EFL learners gather together to communicate in English only. As observed by Zhang (2007), this activity is burgeoning on university campuses across China. At the same time, some students attend the commercial programme 'Crazy English' after class, which takes an unusual motivational approach to encourage Chinese EFL learners to speak out and communicate in English. In a typical scene at a 'Crazy English' class, students shout slogans such as "no pain, no gain" and "I love losing face", so as to stimulate their willingness to take risks and overcome the earlier mentioned 'deaf and dumb English' (Li, 2009, p. 65).

However, learning English is still a daunting task in mainland China. After all, in addition to the elements of 'large class size', 'teacher-dominated' and 'grammar-based' pedagogy, the opportunity to use English is traditionally seen to be far from rare in the EFL context (Chen et al., 2005b). Extracurricular activities such as 'English corner' and 'Crazy English' might have broken the ice for a number of Chinese EFL learners, but these activities are not universally accepted and subject to physical constraints. However, the Internet is increasingly seen as a popular tool for English learning outside the classroom (Lai, 2014). This has opened up our imagination, as CALL researchers, of what Chinese undergraduates are currently doing on the Internet for the purposes of English learning.

Taken together, influenced by social norms and past educational experiences, many Chinese university students have been socialized into a "culture of learning", which values note-taking, test-practice, memorization, and disciplined and attentive learning efforts (Jin & Cortazzi, 2006, p. 12). However, some students have begun to call for a more expressive or communicative approach to English learning. As university students are reported as the most active group of Web 2.0 users in China (CNNIC, 2013a), it is imperative to explore how they are making sense of the English learning opportunities available on the Internet in this digital age.

1.5 Research questions, theoretical perspective and methodology

In the light of my personal experiences, this thesis will address the complexity of English learning related use of the current web among Chinese undergraduates outside the classroom. As this is an interdisciplinary area, I started to review literature in academic fields of CALL, Educational Technology and Second Language Acquisition (SLA) early on. However, I found relatively little literature in CALL that could inform me on the topic of interest; instead I identified a gap in literature. Given the optimistic discourses surrounding 'digital native' learners, I intended to focus more on how technology is used by learners to support EFL learning in their particular context, but I was also open to other possibilities. After all, the area was relatively less explored when I was conceptualizing the research, but the consideration of context was established fairly early on. The overarching concerns of the thesis are encapsulated in three research questions:

1) Are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?

2) Does the use of technology facilitate a different approach to learning English as a foreign language?

3) How does such a use or lack of use relate to the wider context of language learning?

A detailed explanation of the research questions is given in Chapter 4. In order to investigate the phenomenon of WELL in depth, a cross-sectional research design is adopted – in particular that of a mixed sequential study. Accordingly, the empirical research consists of two distinct parts, with an initial survey phase to identify the behavioural trends and patterns of WELL use. This is followed by a sequence of semi-structured interviews with a targeted sub-sample of the respondents. More weight is given to the qualitative phase, which aims to detail and explain the usage patterns obtained. The mixed-sequential design is especially helpful. This is because through initial empirical findings I discovered a strong resistance towards digital technology and, as a result, I paid much more attention to technology non-use. Thus, the initial findings, rather than pointing me to read literature in other domains, led me to narrow down the research focus to understanding technology resistance in the follow-up interview study. Thus the research questions are mainly addressed through the analysis of the qualitative data collected (for details, see Chapter 4).

As a result, the thesis focuses on Chinese undergraduates' choices and behaviours surrounding digital technology in their particular context of English learning. The conceptual framework of the thesis is developed from the work of sociocultural theorists in the academic fields of Educational Technology and Second Language Acquisition. Such efforts provide the conceptual foundations for exploring and explaining how Chinese EFL learners' choices and behaviours are mediated by their wider context in a critical manner (for details, see Chapter 3).

The technique of descriptive analysis is performed using SPSS software to analyze the quantitative data collected. NVivo is used to assist the thematic content analysis of qualitative data. The codes and themes generated from the qualitative data are then compared with the elements embedded in the conceptual framework of the thesis.

The realistic picture of undergraduate English language learning presented by this research has three outcomes. First, this research uncovers Chinese undergraduates' use and/or non-use of technology outside the classroom, and thus identifies the possible changes of language learning practices facilitated by digital technology. Second, the research identifies the enablers and contextual barriers underlying such technology use and/or non-use. Third, the research provides implications that can maximize the potential of online technology for Chinese EFL students at university. As Sharpe et al. (2010, p. 5) suggested:

> In these changing times, the value of learner experience research has been to provide detailed, rich accounts of actual use alongside an aggregate body of empirical data from which it is possible to extrapolate future trends and patterns of use.

1.6 Structure of the thesis

The remaining seven chapters of the thesis are structured as follows.

Chapter 2 reviews discussions and debates in the academic fields of CALL and educational technology. This chapter explores why emerging online technologies are seen to hold promise for bringing changes to out-of-class language learning. It argues for a realistic and solid understanding of what takes place beyond the language classroom in the digital age. Thus, in the light of a critical review of the existing literature, this chapter explains why it matters to research language learners' use and non-use of the current web. Several studies that focus on language learners and their out-of-class technology use are also reviewed in this chapter.

Chapter 3 argues for a sociocultural understanding of the research topic. It illustrates how sociocultural thinking is neglected, and yet particularly useful when explaining the choices and behaviours of language learners in terms of their technology use. The

conceptual framework of the thesis is developed in this chapter. Work in both the fields of second language acquisition and educational technology has been taken into consideration.

Chapter 4 elaborates on the methodology of the research inquiry. It explains the rationale behind the mixed-sequential design adopted in the empirical research. It then demonstrates the research instruments and procedures, as well as difficulties and ethical issues encountered in the fieldwork. This is followed by a full account of how the data were managed and analysed. This chapter lays the foundation for the report on the empirical data in Chapters 5 to 7.

Chapter 5 reports on the data used to answer of the first research question. This chapter employs the data from both the survey and the semi-structured interviews to uncover the trends of WELL use among the participants. It found that the use of online technology is often non-interactive and unspectacular. This chapter paints a picture of what the students are *actually* doing with the current web for English learning related purposes.

Chapter 6 addresses the second research question. It uses the interview data to demonstrate the minority cases of 'good practices'. Specifically, this chapter dwells on the cases where students exercise their agency and make a difference to their English learning, via the use of the current web. These are the exemplary cases of how technologies can be used to support out-of-class English learning.

Chapter 7 deals with the third research question. It explores why, among the participants, cases of 'good practices' are limited to a small group of the researched students. It investigates the non-use and the lack of use of learning technology. This chapter found that resistance towards the use of online technology is indeed mediated by the wider context of English learning.

Chapter 8 concludes by summarizing the empirical findings and drawing out the contribution of these findings to existing knowledge. Whiling acknowledging the importance of researching learner voices, this chapter highlights the role of context and agency when seeking to understand language learners' digital technology

behaviours. Thus it adopts a sociocultural approach to explaining the change of out-of-class language learning in the digital age. This chapter also outlines the limitations of the thesis, as well as the implications for future practice and research.

Chapter 2 Towards an investigation of language learners' (non)use of online technology

2.1 Introduction

This chapter orientates the reader to understanding why it is necessary and important to investigate language learners' actual use of online technology outside the university classroom. Firstly, this chapter introduces the emergence and nature of Web 2.0 technologies. It then sets out to demonstrate the promise of Web 2.0 for language learning and thus the learning opportunities offered by Web 2.0 outside the classroom. Additionally, given the 'digital native' rhetoric, many CALL practitioners believe that there is an ongoing change in language learning and that learning practices are increasingly drawn towards the adoption of Web 2.0 technologies outside the classroom. Secondly, this chapter reviews the challenges to this optimistic belief. The scrutiny of these claims and debates has necessitated the focus of the present study on exploring learner-directed out-of-class language learning with the current web. The two central lines of argument are, firstly, whatever claims made about out-of-class language learning are questionable unless they have been levelled against language learners' actual technology use and behaviours; secondly, if any, the resistance of language learners towards online technologies deserves more subtle investigation, as it may uncover possible barriers to the Web 2.0 transfer. In short, probing into the reality of language learners' choices of technology (non)use can advance the current understanding of out-of-class language learning from 'state of the art' to 'state of the actual'. Such probing may provide real implications that "maximize the benefits of out-of-school learning (with technology)" (Warschauer, 2005, p. 47).

2.2 The emergence of Web 2.0 technologies

The current World Wide Web is diversely referred to as 'Web 2.0' (O'Reilly, 2009), 'the social Web' (Boyd & Ellison, 2007), 'social media' (Lenhart et al., 2010), 'the read/write Web' (Warschauer & Grimes, 2007), 'the two-way Web' (McLoughlin & Lee, 2007) and a number of other variations on the '2.0' or 'social' label. Among

these terms, 'Web 2.0' is an original concept and provides an illustrative example of the new media. The notion of Web 2.0 was officially born and popularized in a business conference hosted by O'Reilly and MediaLive International in 2004 (O'Reilly, 2009). It works as a convenient reference to a wide range of emerging technologies that encourage user voice and production. Typical services include blogs, podcasts, media sharing websites, social networking sites (SNS), wikis and so forth (for a typology of Web 2.0 tools, see Appendix 2). Thus, 'Web 2.0' is a slippery term to define as it implies that there is no definite boundary to tools and applications gathering under the Web 2.0 umbrella. Some sceptics challenged this popular discourse, arguing that 'Web 2.0' is a loosely defined 'buzz-word' (Madden & Fox, 2006). That is, it fails to provide an exact definition of the supposedly new media.

Notwithstanding these tensions, it is widely accepted that the '2.0' suffix signifies a distinct step-change in the culture of media practices from users as consumers, to users as contributors. This means that aside from being a technical description, the '2.0' label is highly ideological in its meaning. As noted at the beginning of Chapter 1, words such as 'interactive', 'participatory' and 'socially connected' are usually used to describe '2.0' services and practices in the educational setting. For instance, Web 2.0 is recognized by scholars as 'an *interactive* space' (Laningham, cited in Anderson, 2007, p. 5, added emphasis); 'a more *socially connected* Web in which people can contribute as much as they can consume' (Anderson, 2007, p. 4, added emphasis), therefore allowing 'new forms of *social participation* on the internet' (Crook, 2008a, p. 6, added emphasis). These remarks highlight the participatory ethos of media practices today, which have distinguished Web 2.0 from the first generation web. As Haythornthwaite and Andrews (2011, p. 90) noted:

> While Web 1.0 has been about being seen, Web 2.0 is about being seen with and by others, and becoming part of a conversation and community. The focus is on participation in blogs, commentaries, wikis, Twitter, and YouTube, with broad access, contribution, retrieval, rating, classifying and evaluating. Web 2.0 operates on simultaneous updating, shared production, and a final product that is greater than the sum of the parts.

This sense of ‘collaboration’, ‘expression’, ‘circulation’ and ‘affiliation’ constitutes what is called ‘participatory culture’ in the digital age (Jenkins et al., 2009, pp. xi-xii). One might argue that this culture of participation is not new to media practices. For instances, Jenkins (1992) explored how TV fans remixed video footage to tell stories from their own perspectives. In a review of CALL history, Levy (1997) elaborated on the large-scale learning project ‘International Email Tandem Network’. Participants of this project were able to exchange advice via email or/and a forum, and easily access and add learning resources to the database. However, it should be noted that these exercises were gated and confined to a particular group of participants. In contrast, Web 2.0 attracts enormous popularity and enables relatively unfettered access, use and control of the online applications. Practices such as communication, production, networking and sharing are encouraged and have become phenomenally popular in the era of ‘2.0’ (McLoughlin & Lee, 2007). As Francis (2010) argues, the participatory culture, owing to the rise of Web 2.0, has moved from “the margins” to “the mainstream”, from “the periphery” to “the centre” (p. 11).

The major features and mechanisms underlying this online ‘participatory culture’ are illustrated below. The themes reported here are taken from the work of Anderson (2007), and are often discussed by educators and scholars (e.g. Crook, 2008b; Ullrich et al., 2008). It is expected that the discussion that follows may help us to better understand Web 2.0 and thus enable us to think more clearly about the issues that are associated with Web 2.0 technologies and the potential of these for out-of-class language learning.

Individual production

Alongside the tag ‘Web 2.0’, the term ‘read/write Web’ is often seen to mark the distinction between the way people use the modern web and their earlier, supposedly less active manner of Internet use. In particular, the former web exclusively relied on a constrained group for data creation and dissemination, placing public users in a rather submissive position of reading and downloading what has been given. In contrast, Web 2.0 services effectively lowered previous barriers for the public to create and distribute information. Thus, Web 2.0 services privilege individual users with immediate and intuitive platforms to “not just browse, but to create” (Berners-

Lee, 1999, p. 169). As a result, the current web is seen to have evolved from a static bulletin board to a dynamic and interactive smart board where anyone can get involved.

Moreover, Web 2.0 supports multiple formats of self-expression. For instance, self-generated information can be delivered and exchanged in multimedia formats. Moreover, people are increasingly selecting online images, videos, audios, and blog content released by non-authorities, with an intention to customize them for reuse. As such, existing knowledge is presented in a completely new way. The practice itself is termed 'mashing-up' (Beer & Burrows, 2007). As Crook (2008b, p. 9) summarized: "Web 2.0 is about exploring a wide range of expressive formats".

Architecture of participation

Web 2.0 services often take much effort to design their product, in order to scale up user participation. They usually observe the commercial principle of 'network effects'. This means that when a user applies a new service, or joins a network, it benefits not only the service provider, but also other existing users (Crook 2008a). This is because users can now interact with a new member, making a new pattern of communication possible. When introduced, 'network effect' was utilized to demonstrate a powerful driver in the marketplace of telecommunication. Now it harmonizes with the ongoing development of Web 2.0 applications exemplified by SNSs (Anderson, 2007). For example, people swarm to Facebook as they are acutely aware of its increasing popularity. They attempt to locate their acquaintances after joining the network. The appealing online participatory model and technical developments have encouraged conversations and promoted user exchange of ideas and products. Expectably, escalated online engagements have led to the phenomenon of 'mass socialization' on the web, forming virtual networks, groups and communities.

Harnessing the power of the crowd

'Three cobblers with wits combined equal Zhuge Liang the master mind'. The principle of this ancient Chinese proverb chimes with Web 2.0-style thinking, in

terms of celebrating the power of 'collective intelligence'. That said, it has been argued that the collective wit of ordinary people, albeit thinking independently, surpasses the intelligence and knowledge of any one individual (Anderson, 2007). Wikipedia is seen as a radical instance of this type of practice. Indeed, it strives for the procurement of distributed human intelligence via providing an open and authentic route for user creativity and sharing. The services themselves are automatically reinforced by the mass of individual contributions, and thus attract an even larger constituency of participants (O'Reilly, 2009). In the same vein, the use of Web 2.0 has been ushered in by what might be a thought of as the phenomenon of 'crowdsourcing'. This rhetoric was coined to describe the process of acquiring multimedia content, tasks and problem-solving from public web users (Anderson, 2007). Thus, Web 2.0 values 'people power' and encourages the collaborative efforts of knowledge building.

Data on an epic scale

One of the inevitable consequences of mass creation and participation is that the Internet has become an archive for ever-increasing amounts of data (Anderson, 2007; Crook, 2008b; Benito-Ruiz, 2009). As the web continues to provide fertile ground for content sharing and distribution, it is important to consider whether the web is turning into a chaotic space where its users are suffocated by the expanding 'datafication'. Many believe that Web 2.0 giants exemplified by Google have taken responsibility for depositing, processing and organizing the staggering scale of data (Anderson, 2007). Particularly, as a by-product of ordinary uses, users' choices are recorded and aggregated. Google then sifts these data to help provide the most appropriate recommendations of associated links to specific topics. Moreover, syndication technologies exemplified by RSS are seen to keep consumers informed of newly added content on the websites, blogs, podcasts and so forth without actually visiting the corresponding pages (for details, see Appendix 2).

In addition, the activities of 'collaborative tagging' are seen to demonstrate the efforts of public users to organize web content. In contrast to a traditional classification system where the responsibility of material categorization is shouldered by relative authorities, online tagging systems advocate the idea that anyone can add keywords to

the content. This kind of practice soon launched the phenomenon in which the online public, especially information consumers, assign keywords to the shared content (Golder & Huberman, 2006). These practices have scaled up user involvement by allowing not just information categorization by users themselves, but sensible browses of information classified by the public. The collective management of online content is thus associated with the 'social' aspects of Web 2.0 (Golder & Huberman, 2006).

Conditions for Web 2.0

The phenomenal uptake of Web 2.0 technologies indeed determine as well as expose a set of improved conditions for Internet use. This is because the promotion of user generation, communication and collaboration demands technical advances. The technical developments herein include the improved Internet access, greater Internet fluency, and widespread adoption of lightweight programming languages (Anderson, 2007; Crook, 2008b). The combination of these advances significantly lowered the barrier for online participation and foregrounds the mass socialization on the web.

Moreover, Web 2.0 is increasingly accessible via hand held digital devices such as mobile phones and iPads (Ullrich et al., 2008). Particularly the proliferation of mobile devices and the improvement of wireless connections have enhanced the flexibility of Internet access. In fact, there is a surging popularity of mobile device use for online inquiry, content generation, sharing and so forth. Thus mobile technology has increased the potential of user participation, and facilitated networked activities distributed across different time and places (Seipold & Pachler, 2011).

Summary

As can be seen from these accounts, Web 2.0 is characterized by the notion of sharing and production, as well as interactivity and connectivity. It also offers multimodality and flexibility. These characteristics of Web 2.0 have facilitated the movement of media practices from passive consumption of online information to content creation, sharing and interaction, allowing users a more participatory experience of Internet use. That said, public users are no longer confined to mere consumption, but enabled

through the dual role of being an information consumer and generator. Any individual is allowed to voice and act on the platform of Web 2.0, and thus empowered with the potential to be heard and seen. As Keen (2008, p. 23) celebrated: "today's audience isn't listening at all—it's participating".

2.3 Web 2.0 and the change of language learning practices

It is widely believed that the main arena of foreign language learning is not confined to the language classroom (Chamot, 2001; Lai, 2014). Beyond the formal provision of language learning, it is found that successful language learners always engage themselves in a wide range of learning activities outside the classroom (Murray, 2008; Benson & Reinders, 2011). These learners actively seek cultural products such as TV programmes, films and magazines, as well as opportunities to make conversation in the target language (Lai, 2014). In the Web 2.0 era, these language learning resources and venues are made readily available for language learners around the world. The current web is perceived to assume an important role in out-of-class language learning (Lai & Gu, 2011). In fact, it is believed that new patterns of language learning have emerged via the use of Web 2.0 outside the classroom (Raith, 2009), although these online technologies "promise a great deal but deliver far less" in formal language education (Vallance et al., 2009; Gouseti, 2010, p. 352). As Carney observes (2009, p. 293):

> more people than ever find themselves interacting and collaborating with international counterparts through Web 2.0 tools like video, voice and text chat, blogs and wikis, and online gaming and online interactive worlds.

In other words, the emerging online technologies are seen to involve language learners in more interactive learning scenarios and thus cause changes of language learning practices outside the classroom. These assumptions can easily find support in two areas of work in the field of CALL: first is the power of emerging online technologies to 'transform' language learning, and second is the birth of 'digital natives' as language learners. The following sections will review the relevant literature in order to help better understand the potential impact of Web 2.0 on language learning.

2.3.1 The promises of Web 2.0 for out-of-class language learning

In the profoundly forward-looking field of CALL, there is clearly no shortage of 'can do' statements generated by CALL practitioners who utterly embrace the 'empowering' and 'transformative' prospects of Web 2.0 for language learning. This wave of enthusiasm surrounding Web 2.0 enhanced language learning (WELL 2.0) is in part fuelled by technological advances and educational ethos (Allford & Pachler, 2007). Respectively, for many technology enthusiasts and educators this new trend of CALL is sustained by the 'newness' of the social Web per se and the assumption that Web 2.0 'fits' nicely with language teaching and learning. In particular, the research of second language (L2) learning and acquisition has witnessed a 'social turn' since the 1990s (Block, 2003). This indicates a shift of focus from cognitive to social efforts of language learning, from classroom to out-of-class contexts, and from the acquisition of a language to language use (Wang & Vasquez, 2012). In other words, L2 learners are encouraged to adopt more socially-oriented learning approaches and take more responsibility for learning. In this vein, the interactive and participatory characteristics of Web 2.0 are said to complement current thinking in L2 learning.

For CALL practitioners and commentators, the 'goodness of fit' between L2 theories and Web 2.0 attributes suggests that the emerging online technologies have a great potential to support language learning, especially in out-of-class contexts (Lai & Gu, 2011). With this background, much attention within CALL research has been shifted towards the use of Web 2.0 to create new and innovative L2 opportunities beyond the classroom. The technology is often seen and used as a panacea for many long-standing learning problems in the context of foreign language learning. For instance, many have used Web 2.0 to create L2 opportunities for writing, reading and listening and speaking (e.g. Ducate & Domicka, 2008; Kessler, 2009; Sun, 2009; Travis & Joseph, 2009). Others have gone beyond the basic language skills by concentrating on using Web 2.0 to develop learner autonomy (Alm, 2009), facilitate cultural exchanges (Lee, 2009), shape positive learner identity and enhance L2 motivation (McCarty, 2009). Much of this CALL research is experimental in nature. The research often endeavours to expound on the benefits and changes brought by the adoption of certain online technology in language learning, and concludes by making overly optimistic claims and generalizations about technologies. As Felix (2008, p. 148) pointed out:

"many studies (of CALL) still lack a discussion of limitations which, in an environment where perfectly controlled designs are near impossible, is most surprising".

Such criticism notwithstanding, it is fair to say that these empirical efforts have opened minds about various L2 opportunities offered by the social web. Accordingly, the following subsections will review the existing discussions and research associated with the potential of Web 2.0 for language learning beyond the classroom. Given the volume of publications on the subject, this section will not attempt to cover every facet of Web 2.0 promises. Instead, it outlines the main claims made about Web 2.0, which aid understanding of why the current web is seen to promise profound changes to out-of-class language learning.

Rather than producing a new taxonomy, this section will adopt the four broad themes created by Crook (2008b). Crook uses 'collaboration', 'publication', 'literacy', 'inquiry' to indicate the "central themes surrounding web 2.0 applications in education" (p. 27). Of course, what is meant by these terms in education is somehow different in the subject specific case of language learning (see Table 2.1). However, Crook's taxonomy is useful to synthesize the discussions and research associated with WELL, and thus helps exploration of the various L2 opportunities that Web 2.0 can bring to language learning outside the classroom.

Table 2.1: Four central themes surrounding Web 2.0 tools in language learning (based on Crook, 2008b).

Web 2.0 in education	Web 2.0 in language learning
Collaboration	Social communication and collaboration
Publication	Promotion of target language production
Literacy	Multiple forms of communication and presentation
Inquiry	Cultural products, individual research

Collaboration

As discussed earlier in this chapter, with a more involved version of Internet experiences comes the dynamic Web 2.0 phenomena of community building, user participation and interactions. Originally, Crook (2008b) used 'collaboration' to capture these Web 2.0 practices and highlighted their values for education. For language professionals, this means widened opportunities for target language communication and socialisation with international individuals and communities on the Internet (Lee & Markey, 2014). Particularly it is the social aspects of Web 2.0 that are seen as 'the real forte' for language learning (Thomas, 2009). In fact, mainstream WELL 2.0 research has predominantly focused on 'between people' interactions facilitated by the current web (Wang & Vasquez, 2012). Relevant studies and talks often touch on the interactivity and sociability of Web 2.0, with specific reference to its inherited benefits from earlier practices of Computer Mediated Communication (CMC), and the improved features that help define the "new forms of social participation" (Crook, 2009, p. 6).

When compared with face-to-face interactions, early CMC applications exemplified by instant message services are seen to encourage target language communication. In particular, early CMC applications minimized social context clues such as gender, race and status, together with the nonverbal cues of facial expression and body language. It is believed that this anonymity has created a less intimidating environment for language learners, especially for those with less confidence and power (Hanson-Smith, 2001). This promise of the Internet to encourage learner communication is still witnessed in the Web 2.0 era. For instance, Ducate and Lomicka (2008) conducted an experimental study using blogs to improve foreign language learners' writing skills. They found that although the sense of anonymity is reduced due to the ownership of blogs, students were more relaxed and ready to exchange their ideas on blogs than in classroom discussion.

Compared with early CMC applications, the emergence of Web 2.0 offers different possibilities for language learning (Warschauer & Grimes, 2007). In particular, it is found that early CMC could be "less interactive than interinsultive" as the sense of anonymity experienced among interlocutors encouraged the exchange of hostile feedback (Peyton, 1999, p. 23). Yet, the social aspects of Web 2.0 services are found

to temper harsh feedback and discourage unpleasant conversation. For example, Sykes et al. (2008) explored the 'highly personal' nature of blogs and SNSs, which, they too argued, reduces the probability of anonymity. They found that the relative transparency of these Web 2.0 applications enabled language learners to build up their identity as they produce content in the target language. One of the results is that learners were less likely to initiate verbal attacks online.

Moreover, the interactive pattern of networked communities is often found to support collaborative efforts and developments for language learning. For example, in an intercultural exchange study, Lee (2009) concluded that group blog could foster online communities where language learners can work collaboratively. They can share and exchange cultural as well as linguistic knowledge. Black (2005) explored the interactive patterns on a social network site dedicated to fiction writing and sharing in English. It was noted that the feedback provided by the learning community was both supportive and valuable to the development of non-native English language skills. In their project of using online wikis for academic writing, Warschauer and Grimes (2007, p. 4) also found that their participants were neither merely information consumers, nor creators, but "the socialized members of a discourse community".

To sum up, Web 2.0 is seen to amplify the opportunities for target language communication, and the propensity for such practices. Moreover, it provides both the opportunity to network and interact with an open community at learners' choice of time and place. These attributes underpin the 'major advantage' of applying Web 2.0 for language learning. In their review of 85 recent journal articles and books on WELL, Wang and Vasquez (2012, p. 423) concluded that Web 2.0 is primarily explored as a cluster of learning platforms that are "collaboration-oriented" and "community-based".

Literacy

In his taxonomy, Crook (2008b) used 'literacy' to capture the new modes of self-expression and presentation online. Crook went on to argue that 'literacy' has been greatly expanded by the multimodality of Web 2.0, while others have shown that the concept of literacy has been much debated and developed (Jenkins et al., 2009).Yet,

the focus of this subsection is not about defining literacy, but about how the features of Web 2.0 can support new paradigms of language learning.

For many CALL practitioners the multiple modes of self-expression have certainly opened up opportunities and incentives for learner-initiated speaking exercises. For instance, Rosell-Aguilar (2007) required students to use podcasts for speaking practices after class. He concluded that the technology not only provided opportunities for oral practice, but also afforded the means to monitor the performance of these students. In another study, Sun (2009) asked students to use voice blogs. According to Sun, voice blogs can enhance the oral proficiency of language learners, as it provides additional opportunities to produce oral output. Overall, Web 2.0 innovations can be harnessed in support of pedagogical argument that "speaking is improved by practice speaking—in a variety of situational contexts and on a range of topics with diverse socio-pragmatic requirements" (Payne & Ross, 2005, p. 35).

In addition, concomitant with the massive uptake of multimedia sharing and exchange comes the increased level of accountability for language learners (Oskoz & Elola, 2011). Specifically, multimedia enhanced interactions can be depicted as a middle space situated somewhere between traditional CMC and face-to-face communication owing to its embedded textual, vocal and visual elements. The blurring of lines between mediated and non-mediated interactions signify a multitude of means for language learners to engage with authentic online communication. This is evident on YouTube, a video sharing website where user communications are either text- or video- based.

The accountability afforded by the current web is empirically investigated. For instance, in their wiki project that involves American learners of Spanish, Sykes et al. (2008) required students to adopt web-based voice services as an addition to negotiating ideas and discussing linguistic concerns in texts. They predicted that such practice would "enable collaborative engagement on a more complex level" (p. 532). They concluded by acknowledging that the collaborative merits of Web 2.0 could be further extended when voice applications are simultaneously put into use.

Publication

It is believed that the read/write Web can amplify and extend the opportunities of target language production owing to its capacity for online publishing and creative production (Godwin-Jones, 2008; Sun, 2009; Lee, 2010). Nevertheless, it is noticeable that the notion of learner production is not entirely new to CALL activities in general, especially when e-mail and chat, the most traditional CMC genres, have already engaged language learners as content creators in an authentic communicative environment (Chapelle, 2003; Levy & Stockwell, 2006; Holliday, 2007; Sun, 2009). Yet, proponents argue that Web 2.0 is a serious advancement from earlier generation of CMC, as it offers a number of new possibilities, services and advantages (Warschauer & Grimes, 2007; Godwin-Jones, 2008; Ullrich, et al., 2008).

Traditionally, CMC supports text-based communication. Accordingly, CMC is believed to have unleashed new means of interaction, where learner reflection is allowed, learner utterance is encouraged and text editing is made straightforward (Warschauer, 1997). One of the benefits cited for text-based interaction is that language learners are granted planning time when producing the target language. That is, unlike face-to-face conversational exchange, textual communication allows language learners to pause and think before making responses. This is especially important for the less competent 'speaker'. According to Chapelle (2003), planning is conducive to the cognitive efforts made on the part of language learners. It enables them to produce grammatically correct language. The time for planning is also said to relieve pressure on language producers, primarily because language production can be exercised at their own pace and convenience. This means that language learners can take time to undertake preparation and self-correction (Ullrich, et al., 2008). However, Chappelle (2003) discovered that the value of planning was not always evident in CMC practices. This was because CMC often endeavoured to facilitate informal and personal exchanges, and thus the behaviour of planning was not encouraged at the implementation level.

In contrast, Wikipedia is argued as one Web 2.0 example that effectively promotes mindful planning and the engagement of language learners. This is because Wikipedia does not limit itself to the affordance of planning time, but has produced a community that sets expectations for linguistically correct and formal contributions. This is

evident in Elia's (2007) finding that the content of Wikipedia is similar to that found in Encyclopaedia Britannica in terms of its formality and style. This 'community of practice' enables language learners to carefully prepare and edit their linguistic production according to the community standards. Thus at the conceptual level, it can be argued that Wikipedia may help to lead learners to the actual behaviour of planning. In the case of blogging, it is found that thoughtful expression is also encouraged owing to a sense of responsibility and ownership provoked by an awareness of audience (Murray & Hourigan, 2006).

In fact, the impact of 'audience' is commonly discussed and seen to hold promise for language learning. Generally, blogs are said to break the traditional pattern of 'gated communities' and appear to embrace the 'openness' of readership. Thus blogging creates a greater sense among language learners of the potential audiences they can reach (Bloch, 2007; Warschauer & Grimes, 2007). According to Lee (2010), the awareness of potential readers or listeners enhances the motivation for linguistic production and encourages the uptakes of output opportunities presented in the blogosphere. In other words, online audience functions as a stimulus for learner expressions.

Furthermore, Huffaker (2004) notes that the enhanced motivation is also attributed to the availability of both personal and public spaces in blogging communities. This assertion is echoed by Ullrich et al. (2008), who utilized micro-blogs as a vehicle to accommodate linguistic outputs for extrovert as well as shy and timid language learners. Moreover, Oladi (2005) suggests that self-assessment through blogging, if showing personal growth and development over time, can help learners to achieve greater confidence. Taken together, WELL is perceived to increase and enhance opportunities for target language production, as well as encourage the actual behaviours of target language production, planning and self-assessment.

Inquiry

In his original description, Crook (2008b) argues that Web 2.0 enables new ways of conducting individual research, as it offers various sources of authorities and new tools to navigate information. For many language professionals, this at least indicates the Web's functionality in "placing an unprecedented amount of information at the

hands of individual users all around the globe" (Warschauer, 1999, p. 7). That is, the Web has extended language learning beyond the classroom. English learning resources in the form of visual, audio and textual materials have been brought together and published online (Lai & Zhao, 2005). These resources include a great deal of what Mishan (2005) called 'cultural products', ranging from literature to newspaper articles, from broadcast media to music and TV programmes. Thus, the web is seen to have privileged language learners with 'authentic' target language. Here authenticity is used to describe the information created for social purposes, rather than for educational agendas (Coleman, 2000). To many language professionals, this means that if used for language learning, the Web constitutes a renewed medium for not just the language per se but also the culture of native communities (Hoven, 1997). This educational promise is said to be in sharp contrast with the traditional classroom which often appeared to lack a sense of cultural awareness (Sheaffer-Jones, 2000).

In addition, the learning potential of online technology seems to corroborate common wisdom which implies that if individuals are to learn a foreign language, they should go to the place where the language is spoken. This is because the Internet is able to provide immersive learning experiences, where learners are surrounded by newsletters, communities and speakers of the target language without physically being in that country. This is especially true for those learners of EFL (English as a Foreign Language), because English has been established as the lingua franca of the Internet (Danet & Herring, 2003). The sense of immersion is further enhanced by mobile technology. For example, the use of podcasts on portable media players has been put forward as the "transformational force" for language teaching and learning (Travis & Joseph, 2009, p. 313). Proponents found that when combined with mobile technologies, podcasts have created and enhanced opportunities for ubiquitous language learning. As Hegelheimer and O'Bryan (2009, p. 313) note:

> Podcasts offer language learners an opportunity to learn from traditional and non-traditional 'teacher' and interact with input on a variety of topics using different varieties of language (e.g. dialects, registers) in a mobile format.

Furthermore, the phenomenon of 'mass production' has inevitably contributed a large quantity of user-generated materials to the online depository, and is therefore transforming the input constituency for language learners (Biber & Kurjian, 2007). In

particular, the current web materials are no longer bounded to authority-customised contents but significantly enriched by what Keen (2007) terms the 'cult of the amateur'. For instance, EFL learners might watch YouTube videos made by individuals, read blogs, or simply observe the conversations between two native speakers. This diversity of learning materials is seen to be potentially more engaging and dynamic for foreign language development (Farmer, 2004; Bruns, 2008).

In the '2.0' era, online language samples are often affiliated with elaborated information, annotations, or visual presentations through hyperlinks or RSS. The non-linear feature of the Web is said to lend itself to quick and easy search of input explanations, thus increasing the possibility of input being processed and internalized (Lai & Zhao, 2005; Seipold & Pachler, 2011). Moreover, there are a myriad of online resources in which language learners can propose questions and negotiate meanings. These efforts have clearly created a necessary condition for SLA, not least because the input is made more comprehensible through learner explorations and social interactions online.

Taken together, it is believed that Web 2.0 accommodates a variety of language learning materials, facilitates comprehension and enables seamless interactions between learners and input materials. As a result, WELL is considered to offer enriched and enhanced language learning resources, facilitate independent research, and promote the experience of immersive language learning beyond the language classroom.

Summary

This section has considered the supposed links between Web 2.0 technologies and language learning. It is not difficult to note that Web 2.0 is perceived to support learner-centred and interactive learning practices outside the classroom. That is, WELL encompasses increasingly new possibilities and paradigms, while there is an overall tendency for enhanced learner empowerment, social interaction and participation. Such promises tend to explain the much-celebrated 'superiority' of WELL – it allows and encourages language learners to assume learning responsibilities through manipulation of Web 2.0 resources, authoring and sharing online content, and socialising and forming discourse communities. This means that

language learners are not only encouraged to practice language skills via technology, but are also offered opportunities to expand social networks and explore the communities and culture of the target language. In fact, the Internet now is heralded as a platform that caters to learner-centred and communication-orientated approaches to language learning. This is consistent with the vision of Solomon and Schrum (2007, p. 2), who claimed that students:

> can now write directly online in a blog and get immediate feedback from peers and others who could be anywhere. They can collaborate with peers near and far – in a wiki, also directly online. They can post photos, videos, podcasts, and other items online. The difference is that they can do the posting. They control the tools of production and publication. There are no more gatekeepers.

As such, many commentators and CALL practitioners believe that new patterns of language learning have emerged outside the classroom. It is presumed that beyond the walls of the standard classroom, language learners have begun to initiate, direct and manage their interactions with potential interlocutors (McLoughlin & Lee, 2007). Thus, despite the lack of empirical evidence, Web 2.0 technologies are seen to support, enhance or even transform language learning in practice. As Sturm et al. (2009, p. 368) celebrated, "the promise of Web 2.0 technologies is different. Their impact on the (language) learning process and the practice of teaching is truly revolutionary".

However, it can be argued that language learners today might not choose to engage with the learning opportunities brought by digital technology, in spite of the significance recognized by CALL practitioners. After all, much of the empirical research is directed towards what *could* happen once technology is introduced and implemented in the language learning scenarios. The focus on the inspirational 'model' of the future can hardly speak for what is *actually* happening in the present. In this regard, the 'digital native' discourse seems to confirm that cotemporary language learners welcome the technology-induced L2 opportunities outlined above, and that new patterns of language learning are indeed emerging outside the classroom.

2.3.2 'Digital natives' as second language learners

The terms 'digital natives' (Prensky, 2001), 'net generations' (Oblinger & Oblinger, 2005), and 'millennials' (Howe & Strauss, 2000) have stimulated over decade-long discussions and debates in the field of educational technology. One important argument of 'digital native' rhetoric is that people born around 1982 and after have grown up digital and are living lives among technologies (Tapscott, 2008). That is, they are always exposed to and interact with technologies such as "computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age" (Prensky, 2001, p. 1) . As described by Oblinger and Oblinger (2005, p. 26), digital natives are "constantly connected and always on".

The notion of 'digital natives' has been brought into the spotlight in the Web 2.0 era. According to Helsper and Eynon (2010), proponents began to argue that 'digital natives' born after 1990 are even more digital and seen as the second generation of 'digital natives'. Such a belief lies in the proliferation and popularity of Web 2.0 technologies among young people. This is evident in their phenomenal adoption of social networking and media sharing sites such as YouTube, Facebook and Myspace. It follows that Web 2.0 has become an integral part of young people's everyday life (Beer & Burrows, 2007). Of course, the simple categorization by age has been severely challenged by scholars and educators (e.g. Bennett et al., 2008; Helsper & Eynon, 2010), and even by some 'digital natives' proponents themselves (e.g. Oblinger & Oblinger, 2005). However, supporters of the 'digital native' narrative have made a point that the emergence and intense use of technology have an impact on the ways young people interact with the world and thus the ways they learn (Prensky, 2011).

'Digital native' students are seen to have distinctive characteristics. In particular, they are described as a group of 'net savvy' students who have sophisticated knowledge and skills with computer and information technology (Levin and Arafeh, 2002). Importantly, it is assumed that digital native students see technologies as "fun partners" (Prensky, 2011, p. 17), and are keen to integrate them into the activities of learning and education. In other words, technology-assisted learning is often the preferred way to learn. Moreover, exposed to technology at young ages, 'digital

native' students have different learning preferences compared to earlier generations of students. According to Oblinger and Oblinger (2005, p. 27), digital natives "prefer to learn and work in teams", "crave interactivity", are "comfortable in image-rich environments", and "take part in community activities". In other words, they are seen to embrace digital technologies, as well as collaborative and interactive forms of learning. Words such as 'learner 2.0' or 'new millennium learner' are used in the literature to define this generation of students. (e.g. Pedro, 2008; Guerin et al., 2010).

In the sphere of language learning, the 'digital native' rhetoric lends support to the assumption made in the previous section — language learners embrace the out-of-class learning opportunities offered by the current web. One important guideline in the existing literature is that institutions should capture the new trends of informal practices and incorporate the emerging technologies into formal education and schooling (Pachler et al., 2010a; Tapscott & Williams, 2010). Despite many pragmatic attempts, however, few of these Web 2.0 technologies can be said to have led to deep and comprehensive changes or even been 'normalized' in mainstream language learning and education (Vallance et al., 2009). When seeking explanation, critical voices are often directed towards language teachers who are conceptualized as 'digital immigrants' (Prensky, 2001; Thomas, 2011). The assumption is that teachers are unfamiliar with the digital world, which has created barriers to the 'Web 2.0 transfer' (Lin et al., 2014). As Raith (2009, p. 289) observed:

> Web 2.0 has changed language learning because speakers of a foreign language already use Web 2.0 to communicate meaning and generate content in new genres, by using the foreign language as a lingua franca. Therefore, the community of language practice is already existent. The challenge of foreign language education will be in how far teachers realize these changes and prepare learners for these new environments of language practice.

All these claims and assumptions seem to support the argument that 'digital natives' embrace online technologies and the changes of learning entailed wholeheartedly. Thus, while the teacher-led classroom might be resistant to change (Collins & Halverson, 2009; Lai & Gu, 2011), the power of the emerging online technologies should be celebrated and exercised by 'digital native' learners of foreign languages outside the classroom.

2.4 Challenges to changing language learning practices in the digital age

The 'techno-utopian' reading of the technological and contemporary language learners described above has attracted criticism from some scholars and commentators. Much of the current reticence in the field of CALL focuses on two aspects: firstly, the current Web might not be a promising tool for out-of-class language learning and secondly, language learners might lack the access and capacity to make effective use of online technology by themselves. Scrutiny of these arguments will pave the way for the development of empirical research in this thesis.

2.4.1 On arguments against Web 2.0 promises for out-of-class language learning

Although Web 2.0 promises and hopes are often explored and celebrated, some critics believe that the current web is problematic in its ability to support language learning. For example, a number of commentators and linguists have rebuked the features of the current web that support independent research inquiries. They argue that advocacy of 'diversity' indulges language errors and undermines the quality of online databases for language learning (Kilgariff & Grefenstette, 2003). As Wu et al. (2009, p. 249-252) argue pointedly:

> Web contents are heterogeneous in the extreme, uncontrolled and hence 'dirty'[…]. This represents a rather serious constraint of its (the Web's) use for language learners, because a fundamental requirement for such texts is that they represent exemplary models of language.

Wu makes a strong argument, which seems to render Web 2.0 as dangerous for those who search for online learning resources. Similarly, linked to the notion of 'data on an epic scale', some commentators fear that the continuation of 'datafication' is turning Web 2.0 into a chaotic space where language learners are being suffocated by what Benito-Ruiz (2009) terms 'infoxication 2.0'. Here the inconsistency and massive volume of Web 2.0 resources are seen to be the 'obstacle' and 'barrier' for language learners to locate useful knowledge. The 'basic Boolean search' is seen as inadequate to deal with the information overload on the current web.

However, such negative analysis lacks the views from language learners themselves, who are the ultimate users of Web 2.0. One fundamental question raised concerns about what constitutes legitimate language inputs and resources for language learners

with varied initiatives and agendas. The problems and subversions associated with the diversity of online information might be disputed by sceptics, but well perceived by language learners. These learners might take whatever they consider as useful from the package to address their immediate learning interests and concerns. That is, the technology critics, like some proponents, seem to have de-contextualized technology from its context of use. The critics too have taken the perspective that technology determines learning behaviours and choices.

Some doubts are cast upon the communicative and collaborative features of the current web. For example, Kessler (2009) researched blogging for language learning and found that students tended to focus on target language production, rather than interacting with online peers in the blogosphere. Similarly, Ducate and Lomicka (2008) found that students tended to ignore the messages left by peers, and concentrate on expressing their own feelings and thoughts when blogging in the target language. In other words, blogs seem to be private places for self-expression rather than a platform for sharing and communication. Felix (2003, p. 8) noted that in some WELL projects, students focused primarily on communications, simply for the sake of "communicating" and the outcome of "having communicated". Whilst all these findings have offered a more balanced account of student behaviours surrounding Web 2.0, the empirical efforts fail to show that less optimistic learner experiences are associated with Web 2.0 attributes, rather than the design of the task *per se*. The need remains, therefore, to look at language learners' substantial use of the current web when they unreservedly interact with it for language learning. After all, the transformative impact of Web 2.0 on language learners, if any, is manifested in their everyday practices of language learning.

Nevertheless, it is somewhat ironic that discussions and debates surrounding the impact of Web 2.0 on language learning are often initiated from the premise of personal opinions or practitioner launched projects, rather than empirical research associated with the reality of learner experiences (e.g. Lai & Zhao, 2005; Rosell-Aguilar, 2007; Godwin-Jones, 2008; Wu et al., 2009). It could be argued, accordingly, that the phenomenon of WELL is circumscribed or even biased by the accounts and unilateral expectations of practitioners. Alternatively, little is known about language learners' actual use of online technologies, and thus the substantial change that Web

2.0 has brought to language learners and their language learning. As Stockwell (2012, p. 6) points out, "the interaction between the technology and the (second language) learner has received far less attention". Consequently, there might be a gap between the much discussed rhetoric and the reality of learner-directed WELL. Paralleling these arguments, one recurring issue throughout this and the previous chapter is that CALL is filled with potentiality and possibility – reminding scholars of the need to investigate not the 'state of the art' but the 'state of the actual' (Selwyn, 2009a, 2011a).

2.4.2 On arguments against the 'digital native' rhetoric

Drawing on literature from the broader field of educational technology, it is not difficult to notice that "the digital natives are not *that* digital" (Crook, 2012, p. 65, original emphasis). In particular, the technological backgrounds of 'digital native' students are by no means uniform. For example, Kennedy et al. (2008) surveyed 2120 first year undergraduates in Australia on their educational use of the Internet. They found both active and less active users of the Internet among their participants. A key argument propounded by Kennedy et al. concerned the 'digital divide'. They found that these students came to the university with a diverse background in terms of their familiarity and skills with digital technology. Kennedy et al. proposed that students' capacity to manipulate technologies were key to their educational uptakes of online technologies.

Other research found that the digital skills cultivated in leisure activities are not necessarily transferrable to learning activities. For instance, Selwyn (2009b) investigated undergraduates' educational use of Facebook walls in the U.K. In this study, only 4% of the posts created by the 612 Facebook users were related to learning and education. Facebook was maintained by these students as the platform for sharing and exchanging information with offline acquaintances. It was not used as a tool to expand social networks outside of the institution. Accordingly, Selwyn challenged the rhetoric surrounding SNSs and contemporary learners. Admittedly, one might argue that the pessimistic research results were due to a narrow focus on Facebook. However, this study does convey a message that the practices witnessed in the recreational use of Web 2.0 might not be found in the cases of learning and

education. As observed by Crook (2012, p. 63): "the social and cognitive practices young people cultivate through the recreational use of Web 2.0 tools and services should not be regarded as general competencies".

In the sphere of CALL, educators and scholars are beginning to admit that the availability and popularity of Web 2.0 does not automatically equate to the acceptance of the technology among 'digital native' language learners (Kukulska-Hulme, 2013). The primary concern is that they have different access to, and competences in terms of WELL use (Rosell-Aguilar, 2007). For example, Murray (2005) pointed out that language learners might not be aware of the available options and the reliability of online learning opportunities. In this vein, he argued it a necessity to teach the knowledge of 'know-how' and build up towards autonomous learners. In an action research project, Chen (2013) required EFL students to use tablet computers outside the classroom. It was found that the provision of mobile devices did not result in effective use of the technology. Chen (2013, p. 28) concluded that "some students may have a lack of necessary knowledge and experience to solve problems in the process of adopting new technologies". This echoes the observation of Felix (2008, p. 156), who highlighted the issues of access and literacy in the use of technology for language learning:

> We are beginning to see enough data in CALL that suggest positive effects on spelling, reading and writing….On the negative side there are still concerns about technical difficulties interfering with the learning process; older students not feeling comfortable with computers, younger students no possessing the necessary metaskills for coping effectively in these challenging environments; training needs in computer literacy for both students and teachers; problems with group dynamics; and time constraints.

However, such explanation of technology resistance is insufficient. While I acknowledge the importance of technology access and computer skills to the effective use of technology, I argue that the accounts above do not adequately acknowledge the individual, who makes choices in the use of technology based on their learning needs. I argue that granting a degree of agency to learners is important when it comes to understanding their behaviours surrounding digital technology. As Selwyn (2003) reasoned in the field of educational technology, the primary concerns of functional access, skills and knowledge of learning with technology are fashioned around a deficit model where less use of technology is undesirable. These 'problem' discourses

do not grant individuals "rational choice" and "free-will" (Selwyn, 2003, p., 107), and thus insufficiently account for unique ways of human thinking. In this vein, (language) learners might be as 'tech-savvy' as expected, but, equally, they might intentionally choose not to use technology for (language) learning.

In Gu and Lai's (2011) study, evidently, participants were reluctant to socialize in their target languages via the web. The explanation was that these participants were L2 beginners and thus did not consider such practices possible and necessary. Although Gu and Lai did not dig deeper into the non-use of technology, this study draws our attention to the perceived usefulness of technology on the part of learners. After all, it is acknowledged that human actions have meanings, which are reasonable and significant interpreted from individual perspectives (Taylor, 1985).

Accordingly, I argue that investigating language learners' non-use of technology choice from their own perspective is important. Such research can help move beyond the 'digital native' debate by identifying underlying barriers to 'Web 2.0 transfer' in the reality of out-of-class language learning. As pointed out by Bates (2010, cited in Jones, 2011, p. 34), "why it isn't happening" is the more interesting question to ask. Thus, an investigation into language learners' choices of technology use and non-use can deepen our understanding of this much speculated phenomenon in the field of CALL.

2.5 Peering into the (non)use of technology in out-of-class language learning

The arguments above highlight the need to shift the research focus from the new learning opportunities afforded by young people's access to the emerging technologies to more realistic treatments that uncover the choices and challenges confronting language learners in their particular context. That is, rather than exploring the promises and hopes of digital technologies in language learning, the present study is conceptualized to investigate the reality of technology (non)use among language learners. The goal is to understand why digital technologies are *actually* being used by language learners in the ways that they are. This research initiative answers the recent call identifying that "more CALL studies need to focus on how language

students are using their personal devices to help their language studies out-of-class" (Steel & Levy, 2013, p. 316).

When the present research was conceptualized, a few studies had begun to look explicitly at language learners' use of technology beyond formal educational settings. Although the empirical results and arguments derived are divergent, they are often less optimistic than the 'digital native' rhetoric (Conole & Alevizou, 2010). Among these studies, Toffoli and Sockett (2010; 2012) conveyed a sense of optimism. They surveyed 222 non-English majored students in a French university regarding their experiences of learning English with online technologies outside the classroom. In their follow-up study, six participants were selected and asked to keep an eight-week logbook about their daily activities conducted in English. The results showed that the participants were involved a wide range of activities, such as seeking entertainment via American TV series and music, commenting on multimedia resources, planning holidays on English websites and using online translation tools. These participants were also found to have used a variety of interactive tools such as SNS, forums and emails. Accordingly, Sockett and Toffoli reached the conclusion that online informal English learning went beyond the provision of English input, and enabled opportunities for meaningful interactions in English. They claimed that their participants were both language 'learners' and 'users' when involved in online activities. Admittedly, this study identified innovative patterns of language learning. However, the research focused primarily on the various ways in which technology was creatively used, rather than on providing a neutral account of language learners' experiences with technology. After all, the less active users of WELL were excluded in the in-depth study. The question raised is whether all of the participants were involved in the learning scenarios reported, and if not, why could this be.

In fact, this participatory sense of technology use is absent from large-scale studies. Winke and Goertler (2008) surveyed 911 beginners of different foreign languages at an American university. The aim was to examine these students' readiness to use WELL, via exploring their computer access, literacy, experiences and perceptions. They found that most students were as 'tech savvy' as expected, and that they frequently used online technologies exemplified by Facebook and MySpace for leisure purposes. However, the cases of technology use for language learning were

limited. At most, the students used films and songs to help them learn. That is, the web was mostly engaged by their participants as a static resource for language learning. The research concluded by pointing out that most participants lacked the appropriate digital literacy to realize the 'transformative' potential of the technologies with which they were aquatinted in daily life.

In Hong Kong, Lai and Gu (2011) surveyed 279 undergraduates regarding their 'self-regulated' and 'out-of-class' language learning experiences with digital technology. Here the target languages ranged from Japanese and English to German and Spanish, and most of their participants were language beginners. The results of this study demonstrated the widespread nature of using online technologies in particular to regulate language learning after class. However, similar to Winkle and Goertler's (2008) discovery, the students' use of the social web was found to be limited. Although Facebook was listed as the students' favourite Web 2.0 tool, they seldom used it to *create* social learning opportunities. In fact, 'social connection' via technology was ranked the least popular WELL activity. These results were in sharp contrast with earlier findings, where participants actively contributed and interacted with online non-peers.

Despite some differences, the research projects outlined above yield valuable information about out-of-class language learning with digital technology. On one hand, language learners can be innovative and vital in their use of technology. As expected, they seem to embrace the power of Web 2.0. On the other hand, language learners may not choose to use online technologies as much. The variations of usage patterns derived suggest that out-of-class language learning is a complicated phenomenon in the digital age. Different language learners might engage with technologies differently. This warns against generalizing the features of 'learner 2.0', as individuals or groups, their choices and practices with digital technology without considering their specific learning situations.

However, still, the existing research has been unable to explain why language learners are (not) doing what they are (not) doing. In most of the cases above, the gap between the rhetoric and the reality of out-of-class language learning with Web 2.0 has been gradually identified. Yet, the explanation of learners' choices is insufficient. In fact,

when met with the results of technology resistance, some research even proposed that the investigation of learner-directed use of technology should be conducted a few years later, when the use of learning technologies had become 'ubiquitous or normalized' outside the language classroom (e.g. Kaya, 2013, p. 137). That is, these research projects managed to avoid asking the deeper and systematic question of 'why this could be'. This negation runs the risk of obscuring many of the important issues underlying out-of-class language learning in the digital age. As Selwyn (2011a, p. 39) argued from a broader perspective of educational technology:

> There has long been a tendency among policy-makers and practitioners to shy away from what is seen as 'over-researching' and therefore over-scrutinizing important issues of contention or controversy in education…. Any educational technologist who only looks for examples of technology 'working' is likely to overlook the difficult-to-detect side effects and unexpected consequences of technology use…. Thus despite its forward-looking focus, the field of educational technology is in a position to learn from the more critical analyses of technology which have come to prominence in other social science and humanities disciplines.

Accordingly, the focus of the current thesis lies at the heart of exploring and understanding language learners' choices and behaviours surrounding online technology, and thus their technology (non)use. With learners themselves offering the best insight, this initiative can help identify the possible changes of language learning practices outside the classroom and uncover the possible barriers to the Web 2.0 transfer. As such, the realistic picture projected by this research will add to both the empirical and theoretical understandings of 'English learning with Web 2.0'.

2.6 Conclusion

This chapter set out to examine discussions and debates in the field of CALL. On one hand, Web 2.0 technologies claimed to extend classroom walls and promised changes to language learning and education. They seemed to be welcomed and actively engaged in by 'digital native' language learners out-of-class. On the other hand, the impact of Web 2.0 on out-of-class language learning was seen to be limited due to a number of reasons. This chapter then pointed out the weaknesses underlying these discourses surrounding WELL. Specifically, much of the discussion and debate were based on rhetoric and assumptions that lacked the support of empirical evidence.

Moreover, understanding of language learners' choices of technology (non)use was extremely limited. These gaps of literature necessitate the empirical investigation from 'state of the art' to 'state of the actual', and from the negligence to concentration on learners' resistance to the use of technology. Accordingly, this chapter argued for the need to investigate language learners' (non)use of the current web outside the classroom. Moving away from the much techno-deterministic literature reviewed in this chapter, Chapter 3 will involve more sociocultural work and concentrate on developing the conceptual framework for the research focus of this thesis.

Chapter 3 A sociocultural framework for the study of WELL use

3.1 Introduction

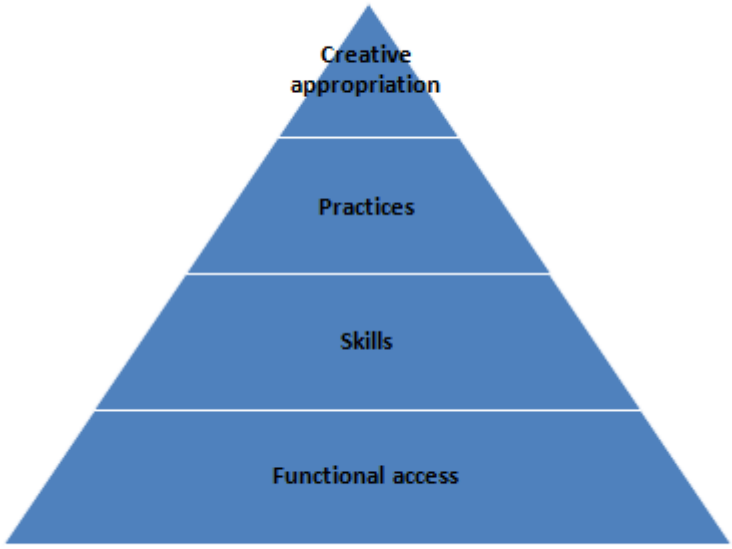
As introduced in the opening of this thesis and as argued in Chapter 2, the actual impact of Web 2.0 on L2 practices are revealed in the lived experiences of individual learners who are the ultimate 'end-users'. Chapter 2 argued for a particular research focus on language learners' choices of technology use and non-use outside the classroom. However, this is a complex topic to investigate, especially the attempt to gain an understanding of the 'big picture'. When explaining learner behaviours, much existing research tends to focus on the issues of access and digital skills, and pays little attention to the wider learning context. Different from this approach, I have instead viewed language learners as 'people' and endeavoured to examine their behaviours surrounding technology with a broader, sociocultural perspective (Lantolf & Pavlenko, 2001; Warschauer, 2005). This theoretical tradition offers a powerful set of toolkits that have proved useful for investigating the links between agency, choice and context. Moreover, as the current inquiry concerns technology (non)use and language learning, it brings the two fields of work into alignment. Accordingly, this chapter will take three steps to draw out the concepts and tenets of sociocultural theory of concern in this thesis, thereby leading to the formulation of the conceptual framework.

3.2 Step 1: Towards a sociocultural understanding of technology (non)use

3.2.1 Recognizing the weakness of existing accounts

As can be seen in Chapter 2, when considering the varied technology use of self-directed (language) learners, the standard explanation is that some lack the skills and knowledge to use learning technology (e.g. Kennedy et al., 2008; Winke and Goertler, 2008). These widely held beliefs are perhaps best summarized in Sharpe and Beetham's (2010) pyramid model. This model is constructed to inform the diversity of learners' digital experiences and guide curriculum interventions that aim to facilitate more 'effective' use of technology (Figure 3.1).

Figure 3.1: A developmental model of effective e-learning (from Sharpe & Beetham, 2010, p. 90)



This model is based on Sharpe and Beetham's (2010) five year project 'learner experiences of e-learning'. Here, 'e-learning' refers to learning with digital technologies in either a self-directed or structured manner. Specifically, the first step towards effective use of technology is that learners should have functional access to technology. This involves "ownerships, mobility, access to networks of people as well as information, and time to engage" (p. 90). At the skill stage learners are required to master the technical skills necessary for technology involved learning activity. 'Practices' indicate that learners are able to use technology strategically to meet their particular needs. Finally, 'creative appropriation' signifies the stage at which learners have become unconscious of the e-learning strategies they use. That is, technology has become an integral part of learning practices. While I acknowledge the importance of these developmental steps towards 'effective e-learning', I argue that the model has oversimplified the reality of learners' choices and practices with digital technology.

In particular, the primary focus of this model on issues of access and digital skills has treated learners in relative isolation from their context. Research in this vein endangers itself with a technology deterministic approach, where technology is taken

as the major force that determines practices in the social world. As Miller (2011, p. 3) notes, this approach takes "the vision of technology as something separate and independent of society". Such a view tends to portray learners as relatively decontextualized, cognitive individuals. This is because the 'creative appropriation' of technology seems to depend on learners' metacognitive knowledge on how to use educational technology. Consequently, little attention has been paid to the contexts within which the learners in concern are a part.

Crook's (2012) study of the 'digital native in context' provides a theoretically sophisticated treatment to understand technology use. Based on focus group interviews with secondary school students in the UK, Crook levied the opportunities afforded by Web 2.0 against 'school culture'. He found that although students were actively engaged with Web 2.0 technologies, many did not use or value their collaborative features for learning. Interestingly, such reluctance was found to be closely linked to "the implicit competitiveness that arises from the assessment regimes in which they are located" (p. 71). On the other hand, online multimedia resources were much used and celebrated by the students, as multimodality of presentation was encouraged by teachers and the school. These findings suggest that the use of technology has circumstances. Such activity is most likely to take place when it 'fits in' with the learning culture of a school. As Crook notes, "digital fluency should not be abstracted as if it was an idealized characteristic of people – decoupled from the situations in which they act" (p. 77). This belief echoes that of Warschauer (2005), who calls for the exploration of what technology can bring to language learning within a broader context.

Furthermore, despite the focus on the learner, Sharpe and Beetham's model does not adequately acknowledge that learners might make an informed choice of not using technology. A concept in the non-use of technology here is 'situational relevance' (Wilson, 1973). It suggests that the applicability of action is subject to the individuals' interests and needs (Selwyn, 2003). This notion seems apparent, but it justifies individual choices and sense-making, as argued by Chatman (1996, p. 194):

> Understanding the concept of relevance provides insight as to why potentially helpful sources might be ignored: because people who are

> experiencing a precarious existence do not see a generalised view of many sources provided by outsiders intended to respond to their situation. Even if a source is perceived as potentially useful, it will not do much good to the individual if that source is not legitimised by contextual others.

These remarks rationalize learners' behaviours surrounding technology and imply that the same technology might be interpreted and used differently by different groups of users. These observations highlight the importance of context in the interpretation of human agency. They encourage us to understand language learners' perspectives in specific learning contexts. That is, the use of technology might be a constrained choice that is shaped by wider learning contexts. Thus learner choice might be the choice informed by context. The concept of relevance, therefore, guides us to understand language learners' use of technology in their particular learning contexts.

Based on the arguments above, if we are to develop a deep view on language learners' choices and practices with online technology, there is a need to reconceptualise learners' experiences of technology in a particular context, from their own perspectives. In this sense, sociocultural theory allows us to see language learners as 'real individuals' acting in given situations, rather than 'idealized abstractions' of computational minds (Lantolf & Pavlenko, 2001, p. 143). Thus this theoretical position guides our understanding towards the contextually shaped (non)use of online technology for language learning.

3.2.2 Sociocultural theory: an overview

It is difficult to give a precise definition of sociocultural theory. As Francis (2010, p. 22) observes, sociocultural theory is "a broad church with multiple factions with different priorities and commitments". The starting point for understanding sociocultural theory usually begins with the work of Vygotsky (written in 1934, translated into English in 1962). For him and his followers in the Soviet school, to make sense of the 'human mind' is to understand its cultural history within which ways of thinking are developed. Thus these researchers linked the human mind with the social world and argued for a constitutive relationship between the two. This provided a different perspective to Western psychology, where individual

development was viewed as independent from social relations and primarily driven by biological mechanisms (Lantolf, 2000a).

One of the fundamental concepts tied to sociocultural theory is that the human mind is *mediated* (Lantolf, 2000b). Specifically, human activity is seen to be mediated by physical and symbolic tools. Physical tools encompass social agents with their own values, beliefs and goals, as well as material objects that are culturally defined. Symbolic tools are more abstract and exemplified by the property of language (Lantolf, 2000b). Of course, language can function as a system for social communication. Yet it also regulates our thoughts in the form of self-directed and inner speech (see Vygotsky, 2012). From this perspective, humans use these socially and culturally constructed tools to mediate and regulate their relationships with the social world. As Wertsch et al. (1995, p. 11) observe, sociocultural research usually aims to "explicate the relationship between human actions, on the one hand, and the cultural, institutional, and historical situations in which it occurs, on the other".

Accordingly, when looking at learners' use of technology, mediation can be conceived to take place at two levels. At the micro-level, learning is mediated by the uptake of technology. This line of research focuses on the activity of learning with technology itself – e.g. how the use of technology shapes or facilitates learning (Nardi, 1996a). At the macro-level, the relationship between learners' actions and the social worlds is a mediated one. Here the focus is on how properties of the social worlds mediate the technology decisions and practices of learners. This thesis is primarily concerned with the latter kind.

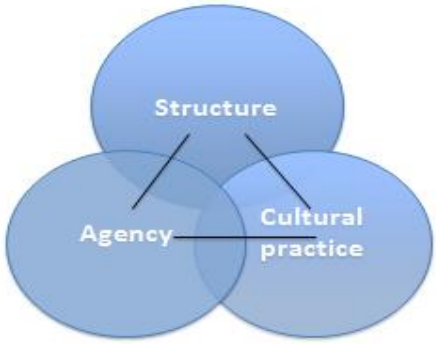
Sociocultural perspectives have spawned a growing influence in the fields of (language) learning and technology. As discussed earlier, most researchers and practitioners are enthusiastic about the 'power' of the social web, as learning is increasingly seen as a social practice. These groups focus on the 'transformative' power of technology and seek explanations of 'failed experiments' from material, cognitive and knowledge deficiencies of individuals. Yet, many of these groups neglect the mediating role of surrounding contexts. Contending such an approach, other scholars are beginning to acknowledge the importance of context and argue for a shift in attention from the inherent features of technology to the contextually shaped

use of technology (Selwyn, 2011a; Crook, 2012). The current study is concerned with out-of-class language learning using online technology and theoretically contributes to the latter school of thinking. As Warschauer (2005, p. 45) points out in his review of 'CALL research perspectives': "a sociocultural approach, which attempts to address rather than factor out the broader social context, is especially helpful for examining these types (out-of-class) of informal learning experiences".

3.2.3 The 'mobile complex': context, agency and technology appropriation

Having taken into account the various frameworks that have emerged within sociocultural theory, I find Pachler, Cook and Bachmair's 'larger frame' of the 'mobile complex' especially useful to conceptualize the links between the cultural practices of technology use, wider context and agency. In this work, Pachler et al. (2010a) argue that it is time for institutions to incorporate the cultural practices with mobile technology into curriculum. They argue that the key to the successful appropriation of mobile technology is governed by what they call the 'mobile complex' (see Figure 3.2). This model consists of the interrelated components of agency, cultural practices and structure. Briefly, 'cultural practices' include informal use of and learning through mobile technology, as well as the formal institutional practices of teaching and learning. In this case 'agency' refers to the user's will and capacity to act on the world via the use of mobile technology. Finally, 'structure' refers to "the sociocultural and technological structure" within which the *appropriation* of mobile devices takes place (Pachler, et al., 2010b, p. 14). In fact, central to the construct of the 'mobile complex' is the notion of appropriation. Here 'appropriation' is not limited to the traditional sense of learning with a particular technology, but additionally serves as an umbrella term that involves "all processes of the internalization of the pre-given world of cultural products" (Pachler et al., 2010b, p. 2). In other words, there is also an appropriative relationship between the use of technology and the components of 'mobile complex'. As Pachler et al (2010b, p. 6) observe, "the concept of appropriation focuses on the processes learners engage in when using mobile media with existing or new cultural practices of everyday life or educational institutions". When appropriation is initiated, a user will deconstruct the elements of the 'mobile complex' and reconstruct a situated context that is immediate, fluid and dynamic.

Figure 3.2: Key components of a sociocultural ecological approach to mobile learning (from Pachler et al., 2010a, p. 25)



The work of Pachler et al. has informed the current study in a number of ways. Firstly, it provides a starting point for conceptualizing the three salient components, i.e. the use of technology (modes of cultural practice), the will of language learners (agency), and wider learning context (structure). Secondly, it theorizes the interwoven relationship among these components. In particular, if language learners' use of technology outside the classroom is seen as a form of 'cultural practice' (i.e. informal learning), such use can be mediated by structure and agency. This is because the three components are shown to be interrelated in the original model. Finally, the appropriation of technology generates situated contexts for language learning, which informs the basic unit of analysis for the current inquiry. As elaborated by Pachler et al. (2010b), such an appropriation is shaped by the 'mobile complex', and accordingly the learner-generated contexts can be said to correspond with the structure within which the situated activities of technology use take place, as well as the interests and concerns of individual learners.

However, the 'mobile complex' does not work as the analytical framework in the current study, essentially because it is a general framework to understand experiences of learning with technology. In other words, it does not specifically inform the

English learning aspect in the use of technology which is important to the current study. Lack of insights into second language learning could endanger this inquiry with technology determinism. After all, the uptake of technology is orientated towards language learning, rather than the newness of technology per se. The review of relevant literature will help us to understand the behaviours and efforts of language learners, and thus pave the way for the development of the conceptual framework. As such, we need to be clear what second language learning is and what is known about its processes before we can make sense of language learners' behaviours surrounding technology. This echoes the belief of Stockwell (2012, p. 6):

> At the very minimum, any theory of CALL needs to take into consideration two aspects – the learning of the language, and the interaction between the learner and the technology through which they are learning. The first of these two aspects relies heavily on existing theories in second language acquisition.

3.3 Step 2: Understanding second language acquisition

There has been long debate about the precise nature of second language learning (L2 learning) or acquisition (SLA) (Norris & Ortega, 2003). Yet, the general definition of SLA seems clear. As illustrated by Klein (1986), SLA occurs when the learner has acquired a language, and now learns another. Thus 'second' refers to the language(s) that is acquired subsequent to the 'first'. Accordingly it does not necessarily imply the 'second' language a person acquires, but a language beyond their first.

'Second' language is not only contrasted with 'first', but also differentiated from 'foreign' (Ellis, 1997). This depends on whether the language acquired is used actively in the society where the language is being learnt. Indeed, foreign language acquisition is understood to take place when the target language carries little weight in the community and is primarily learnt 'academically' in the classroom. Learning English at university in China is precisely the case in point. In this sense, SLA researchers make a distinction between 'naturalistic' and 'instructed' SLA (Ellis, 1997). Naturalistic SLA refers to the second language learning that occurs in a 'natural' setting where communication is the primary means to acquire the target

language. In contrast, instructed SLA is seen to take place in a 'guided' situation (Klein, 1986), where the acquisition of formulaic and rule-based knowledge such as grammar and vocabularies are essential (Ellis, 2005).

Some SLA researchers also contrast 'acquisition' with 'learning'. It is argued that a language is subconsciously 'mastered' through exposure in the case of 'acquisition' whereas a language is consciously studied in 'learning' (Robinson, 1997). However, many educators strongly disagree with this definition, as it is difficult to distinguish 'acquired' from 'learnt' language knowledge (Ellis, 1997). Although this thesis mainly deals with adult 'foreign' language 'learning', 'acquisition' and 'learning' are used interchangeably, as are 'foreign' and 'second' in most cases. After all, these terms are not deliberately differentiated in much of the existing SLA literature (Ellis, 1997; Klein, 1986).

The question of "through what processes do learners learn a second language?" is the fundamental issue facing SLA researchers (Macaro, 2003, p. 21). It is perhaps best illustrated in Ellis's (1985) model of understanding SLA that the language acquisition process is closely related to five interrelated components, namely, input, output, learner process, situational factors and individual differences (Figure 3.3). Four of these components relate to external factors that govern the SLA process and one, the component of 'learner process', is more focused on the inner workings of learners' minds. Here, 'learner process' is replaced with 'interaction' for two reasons. Firstly, the primary concern of this thesis rests on learner behaviours and the social aspects of these behaviours. Secondly, interaction is widely embraced as a central ingredient of learning and knowledge construction (Van Lier, 2000).

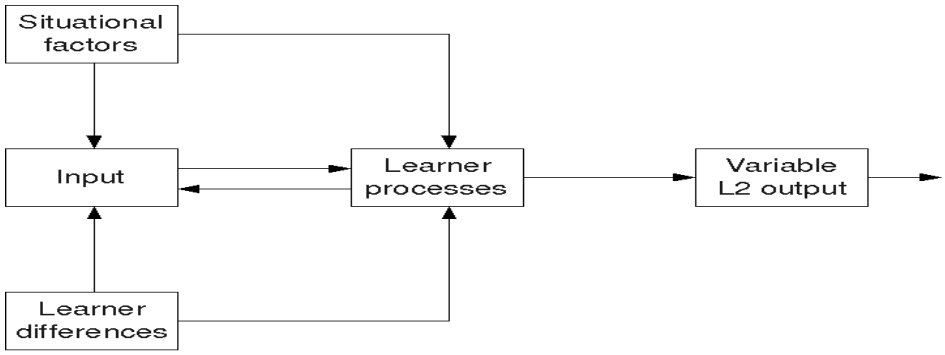
Several points are worth noting before passing on to the model itself. Firstly, Ellis's model is a highly condensed view of SLA. Underlying this construct is a complex learning process, involving the cognitive, psychological and linguistic developments of the learner, and influenced by many interrelated variables (Ellis, 1985; Klein, 1986). Moreover, there are significant differences in the concerns, methods, interpretations and terminology of SLA research (Klein, 1986). Thus, I do not seek to project a complete overview of SLA research. Rather, my accounts should help to

inform and orientate the present study's investigation of L2 learners' behaviours surrounding digital technology.

In addition, it must be acknowledged that there has been a more than decade-long debate between mainstream SLA researchers who exclusively deal with the individual mind, and sociocultural proponents focusing on using language in particular circumstances. Yet, the arguments derived are often concerned with the five components specified in Figure 3.3, although the weight and nature of these ingredients are inconsistently interpreted. As explained before, I view our relations with the world from a sociocultural perspective. Thus in the subject specific case of language learning, I take the position that learning occurs both in the head and in the world. As such, my accounts of SLA components are based on the discussions and debates of/between interactionist and sociocultural theorists. The prominence of the two perspectives, as argued by Lantolf (2000a), allows researchers to engage productively in the study of the language *per se* on the one hand, and language in use on the other.

Finally, the SLA components in this model are clearly interrelated, both within and across their respective categories. Thus, my intention to discuss these factors individually should not result in a false segmentation of the acquisition process. Rather, the discussions and analyses attempt to provide varied and balanced accounts of SLA theories and practices, thereby facilitating our understanding of language learners' technological experiences in the empirical study. Having made these clarifications, I will now discuss these SLA components and their implications for L2 practices respectively.

Figure 3.3: A framework for examining the components of SLA (from Ellis, 1985, p. 276)



3.3.1 Input

Traditionally, psycholinguists believe that three factors play major roles in the process of SLA, namely, input, interaction and output. The acknowledgement of 'input' can be traced back to the early research of Chomsky (1965). Chomsky assumed that the process of acquiring a language was relatively easier for children than for adults as what he termed the innate 'language acquisition device' is seen to be most powerful at the early stage of human life. In accordance with this assumption, Chomsky noted that 'input' is the key condition to language acquisition. Adding to this argument, Krashen (1982) proposed that the only way humans acquire a language is to understand the messages delivered. More specifically, L2 teachers are not necessarily attentive to instructing a new language structure, but to providing what he termed the "i+1" level of information that is relevant to the point of instruction, assuming that "i" is the level of learners' language competence. In this sense, the cognitive process of language internalization rests upon the reception of comprehensible input. Language 'output' in this sense is seen to be of little value unless learners treat it as another form of input. Thus, comprehensible input and cooperation from students is all that it takes for SLA.

Not surprisingly, Krashen's input hypothesis is constantly challenged, as revealed in the following sub-sections. However, few would question the significance of input in the SLA process (Zhao, 2003). Some scholars focus on the quantity and diversity of L2 input. For instance, both Freed et al. (2004) and Muñoz (2012) discovered that programmes such as studying abroad or increasing hours of input and output could

lead to a 'turning point' in SLA. Their participants attributed the L2 immersive experience as the basis of qualitative change in their language competence. Yet, the dearth of input has been recognised as a severe challenge to the provision of traditional foreign language classrooms (Chen et al, 2005b). In this sense, Ellis (2005) proposes that access to extensive L2 exposure can be gained by language learners outside the classroom.

On the other hand, many theorists have focused on the quality of L2 exposure (Ellis, 1997). In their eyes, mere exposure to L2 input is not ideal for SLA. Learners need to pay attention to, or *notice* specific forms of L2 input. Here, form may refer to "graphic or phonetic instantiations of linguistic forms […] specific linguistic items, as they occur in the input to which learners are exposed" (Ellis, 2005, p. 213). This act of noticing is widely recognised as a necessary requirement for acquisition to take place.

3.3.2 Interaction

Krashen's hypothesis was advanced by the seminal work of Long (1981, 1983). Long (1981) pointed out that the 'interactions of negotiations' facilitate the comprehensibility of input messages and are thus important to the overall process of SLA. According to Long (1981), negotiations of meanings, or what he originally termed 'interactional modification', are integrated in the interactions between learners and their interlocutors. This process is seen to be crucial as meaningful negotiation builds up the process of comprehension for inputs (Long, 1983; Pica, 1996). Thus in his 'Interaction Hypothesis', input remains as the prerequisite for SLA. 'Interaction' takes the forms of social interaction with significant others, and modified learner production. Interaction is important to SLA because it helps to transform 'input' to 'comprehensible input'. Accordingly, interactionist SLA values learners' interaction with the outside world, but emphasis is put on the individual cognitive mechanisms triggered by 'input'.

In sociocultural SLA theory, the construct of the zone of proximal development (ZPD) is foundational to understanding 'interaction'. ZPD is generally perceived as the distance between learners' 'actual developmental level' and their 'level of

potential development'. Thus it enlightens the idea of developing sensitivity to learners' actual and potential ability (van Lier, 2000). Here, the act of bridging the gap is essential, and accomplished through learners' social interactions with more capable others (Lantolf, 2000a). That is, social interactions no longer serve as a facilitator, but are considered as a significant part of language learning. Among sociocultural theorists, therefore, there is less concern about negotiated interaction discussed in the previous sense. In contrast, they take interest in collaborative learning, as well as how learners construct their knowledge through their own learning experience (Lantolf, 2000a).

These theoretical developments have been widely applied to SLA scenarios since the 1980s and have become the theoretical foundations for Communicative Language Teaching (CLT), a dominant model for L2 teaching in the western world (Thompson, 1996). While there are different versions of CLT, they generally share several pedagogical principles and emphases. First, as observed by Hu (2002, p. 95), "all versions of CLT take the position that meaning is primary and that teaching should be centred on communicative functions, rather than merely linguistic knowledge and the ability to manipulate structural patterns". Accordingly, learners are expected to pay attention to both form and meaning when coming across the target language (Ellis, 2005). In other words, communicative competence should be achieved alongside linguistic competence.

Moreover, it is believed that to develop communicative competence, learners should be provided with ample opportunities for L2 communication and production, and learn the language through practical experiences. Language learners are also encouraged to participate in pair-work and group activities (Thompson, 1996). Consequently, the role of a learner is shifted from "a passive receiver of knowledge" and "an obedient performer of teacher's direction" to "an active negotiator, communicator, discoverer and constructor" (Hu, 2002, p. 21). In addition to this sense of learner-centeredness, language learning is viewed as a pleasant experience (Hu, 2002). Of course, these descriptions of CLT do not necessarily reflect the reality of L2 classrooms, as evident in Chapter 1. Yet, it can exemplify L2 practices and opportunities, which seem to match well with the participatory culture of the social web.

3.3.3 Output

The 'Input Hypothesis' has also been challenged by other psycholinguistic theorists and educationalists. McLaughlin (1987), for instance, reasoned that the process of infant babblers acquiring their first language is different from that of adults learning a foreign language. Thus the wholesale application of Chomsky's input theory to adult language learners may be problematic. The results of several empirical studies further support the contention that input alone does not explain a fruitful learning outcome in SLA (Swain, 1985; Long, 1996). Taking an opposite position, Swain (1985) emphasized the role of output in SLA. She argued that it is insufficient output that distinguishes second language learners from native speakers in terms of target language competence. As observed by Ellis (2005, p. 212):

> To develop true fluency in an L2, learners must have opportunities to create pragmatic meaning. Engaging learners in activities where they are focused on creating pragmatic meaning is intrinsically motivating.

The emphasis on output echoes the belief of many language professionals that 'practice makes perfect'. In other words, it is the opportunity to produce meaningful output that underlies the successful acquisition of a second language. Of course, the input-output construct does not afford an exhaustive explanation of SLA. After all, learners are not machines that process information and demonstrate expected performances in ostensibly consistent manner. The diversity and dynamics underlying learner behaviours and achievements are therefore accounted for by the elements of 'situational factors' and 'individual differences'.

3.3.4 Situational factors

Ellis's identification of 'situational factors' is largely constrained to the setting within which language learners are placed. According to Ellis (1997), this variable is partially responsible for learners' target language exposure, because the constitution of linguistic input in a natural setting, for instance, might be vastly different from that in the classroom. In addition, situational factors are seen to affect learners' use of strategies and thus the learning process. For example, naturalistic language learners

might regularly employ communicative strategies whereas guided learners might do so less often. Yet the broad-brush picture of 'setting' explains very little as to what precisely contributes to the situational factors of SLA.

On the basis of sociocultural theory, it is perhaps reasonable to assume that many situational factors have their roots in the social conditions and cultural practices of the community or society in which they are located, and sometimes into which learners are socialised (Wenger, 1998). For example, the availability and quality of learning resources are influenced by the political and economic status of a society. This is because it affects national investment in ICT infrastructure and the Internet democracy that could impact on learners' access to learning technology. Examples of cultural influences can be easily located in a classroom. This is because, as discussed in Chapter 1, much behaviour in this case is set with a fixed framework of expectations, beliefs and values towards what makes an excellent learner and what constitutes a good language teacher (Cortazzi & Jin, 1996).

3.3.5 Individual differences

It is noticeable that some individual learners are more successful than others during SLA, in spite of the same learning context (Rubin, 1975). In fact, much SLA research over the last 40 years has tried to discover important learner factors and examine their relationships with language learning behaviours and outcomes (for example, see Rubin 1975; Wenden, 1986; Dörnyei, 1998; Norton & Toohey, 2001; Oxford, 2011). As a result, a wide range of individual factors has been identified, with each generating a considerable amount of discussion and literature. However, this sub-section does not aim to provide an exhaustive account of these SLA developments, but aims to draw out the individual factors that could potentially inform my investigation on language learners' behaviours surrounding digital technology. These include motivation, belief, style and strategies of L2 learning.

In particular, as observed by Oxford and Shearin (1994, p. 14), language learning motivation is conceptualized as "the desire to attain the goal, positive attitudes toward learning the language, and the effortful behaviour". Accordingly, language learning motivation is seen to be the essential determinant of learner behaviours surrounding

the input-output construct (Oxford, 2003). For example, learners with little motivation might choose to engage lightly in learning activities whereas motivated language learners are more active in terms of seeking learning opportunities and paying attention to forms and meanings of linguistic input (Dörnyei, 1998).

Four major kinds of motivation have been identified during the development of motivation theories – i.e. instrumental, integrative, intrinsic and resultative (Ellis, 1997). Despite some severe challenges (Ushioda & Dörnyei, 2009), learners are classified as integratively orientated if their motivation for SLA is linked to their sincere interests in the people and culture of the target language community (Gardner, 1985). Instrumentally oriented learners are learning the language for pragmatic gains, such as career success, language qualifications and a good education (Macaro, 2003). Particularly relevant to this inquiry is a recent finding by Chen and his colleagues (2005b) who surveyed 567 English learners in Taiwan. They pointed out that most of their participants were learning English so as to meet job or academic requirements. Accordingly, their participants viewed English learning not as a communicative system to acquire, but as a kind of *investment* for the future. The notion of investment was originally proposed by Norton (2000), who confronted psychologists with a sociocultural view on L2 motivation. The new perspective revealed the "socially and historically constructed relationship of learners to the target language, and their often ambivalent desire to learn and practice it" (Norton, 2000, p. 10). L2 investment or effort is connected to how learners understand their roles in a learning community. As reasoned by Ushioda and Dornyei (2009, p. 4), "an investment in the target language is the investment in the learners' own identity".

Intrinsic motivation is often applied to foreign language learners, indicating the internal motives such as learners' curiosity and their personal feeling of involvement (Ellis, 1997). This type of motivation is seen to be central to the overall learning process, as it reflects natural human inclinations (Ryan & Deci, 2002). Resultative motivation, unlike the aforementioned kinds, is the result of learning achievement, rather than a cause (Ellis, 1997). That is, successful learning outcomes could be transformed into immediate incentives that help maintain and encourage further efforts. Another factor in this line of reasoning is *self-worth,* which deals with an individual's anxiety of others' perception of their capacity (Macaro, 2003). Thus it is

closely linked to the willingness to take risks such as asking questions and socializing in a target language. Such social behaviours, as noted before, are seen to be beneficial to improving L2 competences.

The variety of motivation types and theories described above confirm Dornyei's (1998) claim that motivation is a complex and multi-faceted phenomenon. It should be noted that the identified types or components of motivation are seen to be complementary and sometimes convergent, rather than opposing or separate (Ellis, 1997).

Another topic on individual differences is learners' epistemological beliefs on L2 learning (Larsen-Freeman, 2001). Previous research found that adult students usually come to classroom with 'personal theories' of language learning (Hosenfeld, 1978; Wenden, 1986). Their learning philosophy is seen to be affected by language teachers in the past and subject to change in response to different pedagogies or contexts. In particular, Oxford (2001) explored university undergraduate and graduate students' constructions of their language teachers, based on their narratives of learning experiences in the USA and their home countries. She discovered that teachers play a role in constantly shaping students' beliefs about themselves as language learners and the learning activities they choose to undertake. However, the nature of these beliefs is less researched and little is known about the relationship between learning beliefs and behaviours (Ellis, 1997). A few researchers have established certain correlations between learning beliefs and choices of learning strategies. For instance, Mori (1999) located a modest, but statistically significant correlation between Japanese learners' conception of learning and their approaches to acquiring new vocabularies. However, learning beliefs are not recognised by some theorists as salient influences on learners' choices of strategy and are insufficiently discussed in SLA literature (Ellis, 1997; Oxford, 2002).

According to Oxford (2003, p. 273), learning style can influence learners' choice of strategies in an unpressured learning environment. In her accounts, learning style is defined as:

> The general approach preferred by the student when learning a subject, acquiring a language, or dealing with a difficult problem.[…] Learning style is an overall pattern that provides broad direction to learning and makes the same instructional method beloved by some students and hated by others.

In other words, learning style indicates, relatively, the fixed characteristic manners of individuals in terms of learning preferences and priority approaches to problem solving. Traditionally, learning styles are seen to be derived from the interplay of the individual variables (Ellis, 1997). But from a sociocultural perspective, learning style is more of a product of learning in a particular historical and cultural context (Oxford, 2002). Although different taxonomies are assigned to different models of learning styles, the general distinction is highlighted by Ellis (1994, p. 508) as "the experimental, communicatively-oriented learner as opposed to the analytical, norm-oriented learner". Of course, this simple dichotomy cannot account for the complexities of individual learning styles. Yet, it can inform us of what kind of language learners we are dealing with in this thesis.

Finally, despite some criticisms and disagreements, L2 strategies are commonly recognised as "the operations or processes which are consciously selected and employed by the learner to learn the TL (target language) or facilitate a language task" (White, 2008, p. 9). Thus, the practice of strategy is part of language learning behaviour. One fundamental concern of SLA research is to understand or establish the relationship between strategies and outcomes of L2 learning. This is reflected in the series of research publications on 'good language learners' (Norton & Toohey, 2001). The presupposition is that successful language learners somehow share common patterns of characteristics or strategy uses. Echoing L2 theories, it is found that 'good language learners' are attentive to both the meaning and form of their target language. They have a strong awareness of their learning processes and involve themselves actively in various learning tasks and activities (Ellis, 1997). Good language learners in this sense are seen to be responsible agents who are able to analyze their learning needs, goals and problems, and correspondingly adopt appropriate strategies in the given context (Chamot, 2005).

More recently, research of L2 strategies has begun to shift towards a sociocultural standpoint (Norton, 2000; Gao, 2010). In line with this change, Norton and Toohey

(2001) argue that the 'best practices' are more about communicating and socialising in a target language than taking wider control of linguistic forms and meanings. This is consistent with the norms of CLT and Ellis's (2005, p. 212) assumption that "only when learners are engaged in decoding and encoding messages in the context of actual acts of communication are the conditions created for acquisition to take place". However, sociocultural perspectives call for a more holistic view of not just strategies in context, but also of language learning behaviours which are not necessarily strategic. This is argued pointedly by Dörnyei (2005, cited in Gao, 2010, p. 16):

> Students tend to make several choices concerning their learning process that are not strategic in the strict sense, that is, which do not necessarily involve appropriate and purposeful behaviour to enhance the effectiveness of learning.

Accordingly, the current inquiry does not limit itself to strategic language learning with technology. Despite the limitations of L2 strategy research, scholars have uncovered a set of pedagogically desirable behaviours of language learning and thus contributed to our understanding of 'best practices' surrounding digital technology.

3.3.6 Towards a sociocultural view of language learning related use of technology

Originally, Ellis (1985, 1997) took an interactionist view to explain his model, and explicitly emphasized the overriding construct of input, learner processes and output. Situational and individual factors in this sense served merely as variables that manipulated, directly or indirectly, the quantity and quality of linguistic input and learner behaviours. This perspective advocated that learner variables are interwoven and somehow interdependent. For example, learning strategy in this sense is "the product of one's cognitive style, personality, or hemispheric preference" (Larsen-Freeman & Long, 1991, p. 199). In this vein, learners' personality traits and cognitive preferences are seen as interrelated, static and innate characteristics that are responsible for learning behaviours and outcomes. Therefore, the interactionist interpretation of this model, essentially, does not go beyond the linguistic description of language learning. While seeing learners as active contributors to the learning process, it fails to relate their behaviour to the wider context of 'the community of practices'. In other words, the influences of social and cultural aspects of language

learning remain absent in this interpretation despite an initial consideration of 'setting'. However, it provides much insight into the cognitive process of SLA, as well as what can be described as 'good' L2 practices and opportunities.

Considering the role of social and cultural elements in organising human thinking (Lantolf, 2001), I take a sociocultural approach to view Ellis's model. As can be seen from earlier discussions, this perspective of SLA accentuates the active role of the cognizing subject and views language learning as an internalisation of *mediation* between the learner and an ecology of resources comprising, for example, acquisition materials, significant others and tools (Luckin, 2008). Thus the mental process of knowledge internalization rests on the premise of practices in the world. Accordingly, language learning is both social and cognitive. In this sense, 'situational factors' and 'individual differences' are part of the phenomenon of L2 learning. L2 behaviours, motivations and beliefs are no longer the mere results of innate mechanism but also learners' interaction with the world. Thus, the variables of learning behaviours, situational factors and individual differences are interrelated components. This interrelatedness parallels the construct of the 'mobile complex', where the cultural practices of technology use, agency and structure are interwoven. In fact, it is noticeable that the 'situational factors' in the model of Ellis (1985) parallel the 'structure' in the construct of the 'mobile complex'. This is because, firstly, they both refer to the wider context within which a particular action is taking place and secondly, they are both seen to influence the behaviours of individuals. 'Individual differences' can be seen as part of 'agency', as they reflect individuals' ability to 'act on the world'.

Theorized as such, this thesis rearranges the constituent parts of the 'mobile complex' and puts 'English learning related use of technology' at the heart of the adapted framework (Figure 3.4). 'English learning related use of technology' refers to Chinese EFL learners' behaviours surrounding online technology. These learning related experiences occur in, and are primarily mediated by the wider context (situational factors). In the meantime, they are also the choices made by learners themselves (individual differences). Accordingly, the model integrates three salient components: context, agency and English learning related use of technology.

One notable aspect here is that in this line of thinking, L2 learning is not only concerned with metacognitive and cognitive efforts, but also involves social activities that are meaningfully associated with learners' identity formation (Gao, 2010). As noted by Norton and Toohey (2001, p. 311), L2 learners "participate in particular, local contexts in which specific practices create possibilities for them to learn English". For example, learners might develop their L2 competence when they endeavour to complete a class assignment. Such a theoretical position helps to capture the dynamics of L2 learning, and thus the diverse patterns of WELL use.

Figure 3.4: A sociocultural view of language learning related use of technology (adapted from Pachler et al., 2010a)

3.4 Step 3: Developing the analytical framework for this inquiry

Despite its relevance, Figure 3.4 still explains little as to what is meant by context, agency and the use of technology in the present study. As noted in Step 1, the interpretation of these concepts by Pachler et al. (2010b) offers a starting point for further explanations. However, my understanding is also informed and expanded by other important works in line with sociocultural traditions. For instance, Gao's (2010) work has been especially enlightening in terms of my understanding of wider contexts, and Engeström's (1996) theory of expansive learning has developed my understanding of agency. I will now discuss these notions respectively in relation to my conceptual framework (see Figure 3.5).

3.4.1 Learner agency

In this inquiry, I view language learners as *agents,* who make choices as to whether and how to use digital tools for language learning-related purposes. My view of agency has three dimensions: the capacity to act on the world, the will and beliefs in learning, and the capacity to act otherwise. Part of this understanding is gained from the proposal by Pachler et al. (2010b) that human agency is a capacity to perform and act on the world, and this capacity is closely linked to the construction of identity and subjectivity resulting from socialisation. Particularly in the case of the 'mobile complex', Pachler et al. (2010b, p. 7) regard agency as "the ability for users/learners to act on the world with and through the use of mobile devices" and "the capacity to construct one's own life-world and to use media for meaning-making". In their descriptions, mobile devices have become an integral part of modern life. In this vein, new habits of media use and meaning-making are seen to have emerged and constitute an important part of agency. Such an interpretation encourages us to connect agency with performance, or doing, particularly the competence of using technology to act on the world. Theorized as such, 'agency' in this thesis involves the capacity to manipulate online technologies and use them to produce facilitative language learning opportunities and/or environments. Indeed, as discussed before, CALL practitioners often link technology experiences with learners' ability to perform. The assumption is that unsuccessful and less innovative digital experiences are due to individual learner deficit.

However, when it comes to WELL use, the description of agency by Pachler et al. (2010b) also leads us to consider socially and historically constructed subjectivity in relation to language learning. After all, the use of technology here is linked to language learning, a central but often neglected element by technology enthusiasts. Particularly pertinent to this inquiry is that in line with this sense of subjectivity, human actions have meanings, which seem reasonable from the perspectives of individuals (Taylor, 1985). In other words, learner agency can be taken as the link between motivation and action (Lantolf, 2001). Learner agency is therefore connected to power, in the form of will, intent and beliefs in language learning (Gao, 2010). These interpretations encourage us to regard language learners as contextually shaped agents who are socialized into particular learning beliefs/motives. This can be identified in language learners' accounts of WELL use and language learning motivations. Accordingly, this inquiry endeavours to go beyond the discourses of learners' cognitive limitations and examines the role of social and cultural context in terms of framing learners' behaviours surrounding technology.

Finally, although agency is theorized as the will and capacity to perform, it is also linked to the power of self-consciousness, reflexivity, acting *otherwise* and so forth (Giddens, 1984). As Burr (1995, p. 90) notes, "human agents are capable, given the right circumstances, of critically analyzing the discourses which frame their lives, and of claiming or resisting them according to the effects they wish to bring about". This provides a perspective of agency different from that implied earlier, where humans are acculturated into habits of doing things and interacting with the environment. Here, agency involves the capacity to critically reflect on the contextual conditions. One result of this reflexivity can lead to the situation where individuals 'act otherwise'.

In fact, with the concept of *expansive learning*, Engeström (1996) proposes that individuals or groups are capable of 'breaking away' from traditional practices of institutions and reconstructing their contexts of learning and development. More specifically, Engeström (1996) argues that Vygotsky's view on development as "benign achievement of mastery", "individual transformation" and "vertical movement across levels" might be useful to understand institutionalized practices (p.

126). But they can hardly account for learning in work activities, which is often unplanned, unstructured and spontaneous. In this sense, Engeström (2006) challenges the traditional Vygotskyan view which holds individuals as acculturated agents who do not act in the setting of their choice. Engeström (2006) argues that individuals are able to change their situations. Development in this sense is understood as 'breaking away', which is defined as "resolving or escaping a contradictory situation by means of constructing mediating artifacts that enable the subjects to master their own actions in a qualitatively new way….when you break away, you also break something: a constraining rule, a limiting boundary or constraining relationship" (p. 29). Thus what is important for development is the identification of contradiction, which arises in situations such as a new demand meets the old system, or a new tool is brought in from outside (Engeström, 2001).

Accordingly, agency is seen as the capacity of learners to identify the tensions and contradictions in their own learning or/and their learning environment, and seek to transform existing learning disadvantages. As Engeström (2006) reasons, "rejection, undermining or destruction of the existing dominant pattern of activity is an important aspect of development" (p. 22). Chapter 1 notes that EFL contexts are traditionally deprived of intensive target language exposure and opportunities of language production. This might be seen as a contradiction by EFL learners who seek to improve their language competences. As technology has become an important part of their everyday life, the notion of 'breaking way' encourages us to envisage that in the so-called digital age EFL learners are seeking new tools (possibly Web 2.0 applications) to "transform the situation and take agentive action" (Engeström, 2006, p. 5). That is, EFL learners might 'break away' from classroom learning and create opportunities that are meaningful and conducive to their language development with the help of digital technologies. Such consideration of agency can help avoiding the deterministic discourses between context and behaviour, thus enabling the present study to explore the mediating role of context in a critical manner.

Taken together, the descriptions of agency in this subsection offer powerful tools to examine out-of-class WELL use, especially in relation to how learners' identities and subjectivities shape their practices with technology and how they might reconfigure a context of learning with digital technologies.

3.4.2 English learning related use of technology

The basic unit of analysis in this inquiry is the interaction between learners and online tools. Central to the analysis of such interaction are the elements of motivation, choice and appropriation and thus this learner-tool interaction is intimately linked to the 'agency' discussed above. When explaining the 'mobile complex', Pachler et al. (2010b) point out that user-generated contexts are 'an emergent property' of technology appropriation and constitute an important facet of their theoretical construct. Following this perspective, I conceptualize the use of technology as the construction of what I call the 'micro-context' of learning in this thesis. This improvisatory sense of micro-context foregrounds the situatedness of technology use and follows the line of 'situated actions'. An early articulation of situated action is "the *activity* of person-acting in *setting*" (Lave, 1988, cited in Nardi, 1996b, p. 36, original emphasis). Here setting refers to the individually generated context which is formed between individuals and the wider context. Activity is generally understood as a goal-directed action which stresses individual intent and motive (Lantolf, 2000b). Such interpretations have gained growing recognition among those working with sociocultural perspectives. For instance, Sharples (2005) proposes that learning context is constructed by learners themselves, through their interactions with technology. Luckin (2008, p. 451) also defines context as an "ecology of resources: a set of inter-related resource elements, including people and objects, the interactions between which provide a particular context". These descriptions of immediate context highlight learners' choices, their motivations and dispositions towards technology use.

In more specific terms, Nardi (1996b) compares the use of technology to the activity of shopping in a supermarket. She elaborates that in this case the supermarket constitutes the wider context or what she terms the *arena* of the activity. Yet, the supermarket is experienced by individuals as a self-generated context, or what is called a *setting*. This is because the individual only takes certain items from the shelf based on her needs and preferences. Thus, the institution of a supermarket is adapted for personal experiences. Accordingly, when I conceptualize the basic unit of analysis for this inquiry, I see learning institutions and society at large as a supermarket and the wide range of online applications as the products that are potentially accessible to

language learners. My focus is to see how language learners choose and use the tools to construct their micro-contexts of learning. One important dimension here is the matter of choice – i.e. whether the Internet is chosen, whether Web 2.0 applications are favoured, and whether online technologies are used in a participatory manner when it comes to language learning. Thus, when analyzing the English learning related use of technology, I endeavour to investigate how learners choose and use online tools to achieve their intended agendas. Notably, out-of-class language learning with technology could be informal, and thus unstructured and incidental (Sockett, 2013). In other words, language learners might be involved in activities of language development even if their dispositions towards technology use are not necessarily language learning related. Accordingly, this inquiry does not limit itself to the strategic use of technology, but is essentially open to the patterns emerging from WELL use.

Finally, the element of improvisation in 'situated activity' suggests that learners might adapt technologies for immediate needs and concerns. The process of adaptation is theorized as the *appropriation* of technology in this inquiry. This is developed from the work of Carroll et al. (2002), who took a socio-technical approach to understand how young people experience mobile technologies in their daily life. In their study, young people selected and adapted certain attributes of mobile technology to meet their own interests and concerns. Therefore, Carroll et al. (2002) proposed that the features of technology might be reshaped by young people to accommodate their individual concerns and interests (appropriation). In the meantime, young people might ignore some features of technology (non-appropriation) or abandon the use of technology at an early or late stage of technology use (disappropriation). The concept of appropriation sheds light on the current inquiry; in particular online technology can mean different things to different learners and thus is used differently, as they strive for different goals in their language learning (Nardi, 1995). Thus, the conceptualization of appropriation for current inquiry is narrower than that in the 'mobile complex'. The process of appropriation is another important aspect of data analysis.

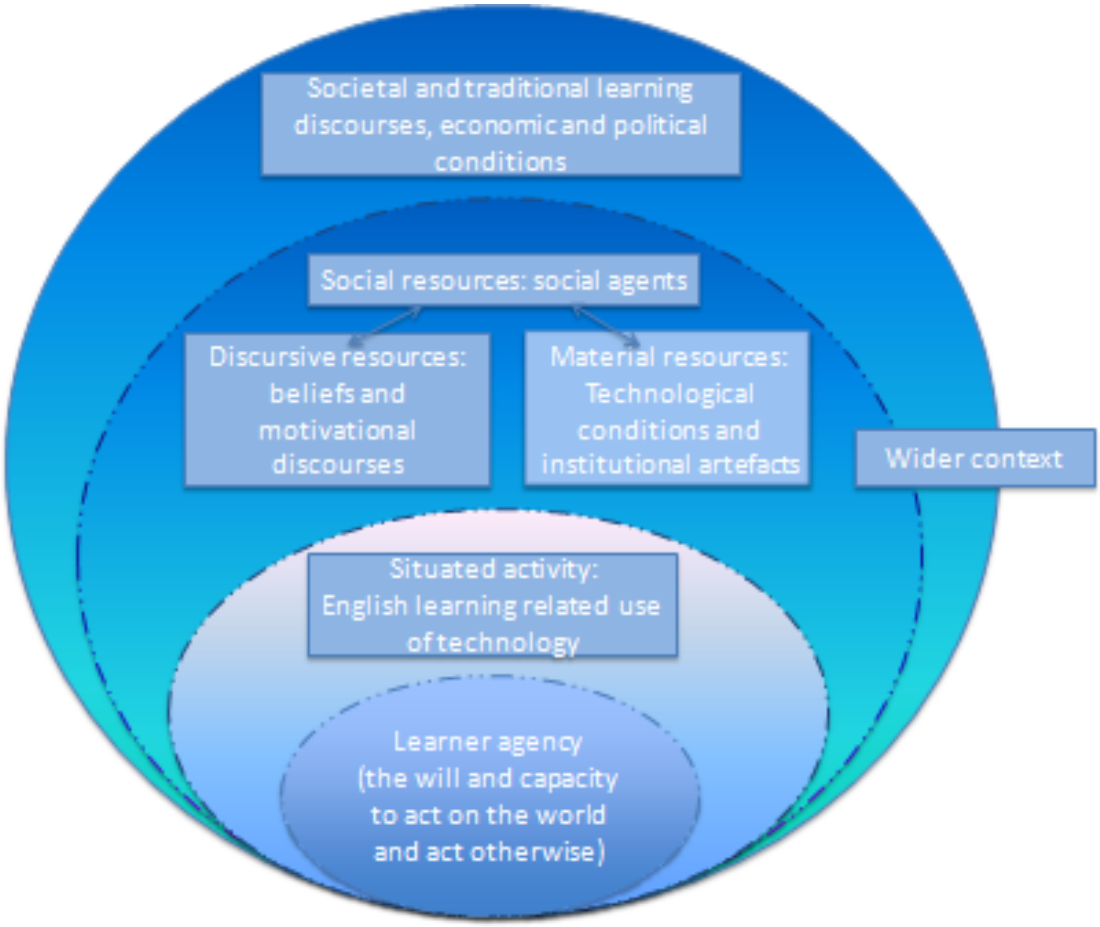
3.4.3 Context

Context in this study is particularly linked to the wider, sociocultural context for language learning. As can be seen from Figure 3.4, I regard context as the circumstances of learners' use of digital technology. This is in line with Cole's (1996) description of 'context', in which the use of technology is viewed as situated activities and circumstance as the container of these activities. In her theoretical review of context, Luckin (2010) points out that this 'context as shell' interpretation allows us to draw layers of circles that surround learners' use of technology. The aim is to understand how the patterns of learner-tool interaction at the centre are influenced by what is described about the surrounding concentric circles. In other words, such a construct sensitizes us to the contextual mediators that influence the behaviours of individual learners/users. In this respect, previous research on SLA suggests that the material, discursive and social resources that are potentially accessible in learners' wider context have the shaping forces of language learning behaviours out-of-class (Gao, 2010; Palfreyman, 2006; Tudor, 2001).

In particular, Palfreyman (2006) takes an ecological approach to understanding the social context that shapes the out-of-class English learning of female university students in the Gulf Arab society. Instead of viewing 'resource-based' learning as "independent interaction with learning materials" (Benson, 2001, p. 111), Palfreyman (2006) interprets it as the dynamic interaction between learners and their material and social resources. The term *resource* is employed so as to highlight the positive features of learning context. Accordingly, Palfreyman explored how the tools (material resources) and social agents (social resources) accessible to his participants had influenced and facilitated their English learning outside the classroom. These tangible elements in focus are indeed what Tudor (2001) terms 'pragmatic' mediators in his research on the complex realties of language teaching and learning. Tudor (2001, p. 19) also points out that cultural artefacts exemplified by examinations and mental mediators such as "attitudes, beliefs and behavioural expectations" are important influences on language teaching and learning behaviours.

Building upon Palfreyman's study, Gao (2009, 2010) also utilizes a sociocultural lens to investigate changes in the English learning strategies of some Chinese undergraduates when they moved from mainland China to Hong Kong. Gao (2010) discovered that the most popular strategies adopted by his participants in the mainland are memorising words and texts, and doing simulation exam papers/exercises. He has also found that his participants' choices of strategies are mediated by a range of contextual resources. In Gao's work, more specifically, context is stratified into macro-context and setting for English learning. Macro-context includes but is not limited to societal and traditional learning discourses, as well as economic and political situations of the state. Setting refers to the immediate environment or institutional context of English learning. This involves language learners' social relationships with teachers, peers and family (social resources), their material conditions such as books and dictionaries, and cultural artefacts exemplified by examinations (material resources), as well as the discourses of learning motives and beliefs (discursive resources). Gao's work is especially illuminating with regards to the construction of the conceptual model, as the learning context in his work is conceptualized in an empirically straightforward manner. Although the 'wider context' in my conceptual framework is developed from Gao's (2010) work, it is essentially different in the sense that the use of technology is the particular focus of my study. Therefore, the material resources concerned are the conditions for technology use and cultural artefacts for language learning. The outer circles drawn in Figure 3.5 constitute what I conceptualize as the 'wider context' for WELL use, and accordingly an important unit for data analysis.

Figure 3.5: The analytical framework for this study (adapted from Gao, 2010; Pachler et al., 2010a)



3.4.4 Interpreting the analytical framework of the study

Taking a sociocultural approach to investigate language learners' use of technology, this inquiry develops an analytical framework (Figure 3.5) by adapting the 'mobile complex' of Pachler et al. (2010b) and Gao's (2010) construct of learning context. This framework brings together the key elements for the current inquiry – e.g. language learner, choice, appropriation, technology and context. Accordingly the framework has three salient components: learner agency, situated activity of technology (non)use, and wider context. 'Situated activity' and 'agency' function as the basic and central units of analysis. At this level, interaction between learner and online tools is the research/analytic focus – particularly how language learners make

use of the wide range of online tools to construct their micro-context of learning. This includes learners' motivation and disposition to engage with a particular initiative and their choices and practices with technology. These issues are captured through learners' narratives of their English learning related use of technology. The questions to be asked could cohere around how learners use the technology and the learning purposes served. In this case, the reflexivity of agency will also help learners to conceptualize and make sense of their experiences of technology from their own perspectives.

At the explanatory level, the wider context consists of the macro-context and institutional environment. The macro-context indicates the societal discourses of learning and the political and economic status of the state. The discourse of society at large is reviewed in Chapter 1. The institutional context is of key importance in considering how context frames learner behaviours, especially for Chinese undergraduates who are required to live on campus during term time. It is comprised of material, discursive and social resources that are embedded in the learners' context (Palfreyman, 2006; Gao, 2010). In specific terms, material resources refer to Internet infrastructure and quality available to learners. Material resources could also include cultural artefacts such as the exams that are imposed on learners. Discursive resources refer to the institutional or classroom culture of English learning. Social resources refer to the social agents who could be teachers and peers. Social resources could impact both on the adoption and behaviours surrounding technology and on discursive discourses and material resources of English learning. In other words, social resources could influence the use of technology both directly and indirectly. The shaping force of context is captured through learners' accounts of the reasons underlying their choices and practices, their English learning experiences in general, their technology use for other purposes, their motivations and views about English learning at university.

Accordingly, this inquiry will ask both specific and broad questions in the data collection phase. The research is essentially open to what may be found in association with the use of technology as well as the shaping forces in the learning context. The consideration is that the use of technology is a complex issue to investigate which needs to be approached by wearing 'theoretical clothes lightly' (Castells, 2000). One

notable aspect of this conceptual framework is that agency might also have explanatory power, especially with regards to the emergence of the innovative usage patterns. In other words, although the choice of agency is theorized as the constrained choice by the wider context, agency also has the power to act and change the immediate learning context through the mediation of technology. After all, the interaction between context and agency is an ongoing debate in the field of social science (Carter & New, 2004). However, this inquiry will not complicate itself with such theoretical debates, as its aim is to make sense of learner initiated WELL use in the digital age. Instead, the consideration of agency can help to avoid the deterministic discourses surrounding the relations between L2 context and behaviour (Wenden, 1998), which manifests itself as English learning related use of technology in the current study.

Finally, of concern here is the theorizing of context at multiple levels – i.e. societal, institutional and learner-generated. Indeed, such categorization does not necessarily imply a segmentation of context. After all, these components are interrelated and thus no clear border could be drawn in this construct. However, the macro, meso and micro levels of context could help us to better understand the mechanism underlying the use of technology (Selwyn, 2011b), and informs the investigation and analyses in an empirically straightforward manner (Gao, 2010).

3.5 Conclusion

In this chapter I have drawn on literature in the field of educational technology and second language acquisition, and outlined three steps to conceptualize language learners' behaviours surrounding digital technology. First, I argued for the necessity of taking a sociocultural approach to explore learners' choices and locating a framework that could inform the current inquiry. Second, I examined the key theories and practices of second language acquisition, and adapted an existing framework to form a subject specific conceptual understanding of technology use. Based on these developments, I derived a more refined framework with references to existing work on agency and context.

The particular analytical framework adapted from Gao (2010) and Pachler et al. (2010a) forms the theoretical basis for investigating English learning related use and non-use of technology outside the classroom. The framework guides the present study in seeking and analyzing the accounts of students regarding both their interactions with digital technology, the purposes of their technology use, and their perceptions of the wider context. The analytical framework proposed is original in the sense that it acknowledges the capacity and needs of the individuals in a particular L2 context. Challenging the oversimplified beliefs about learning with Web 2.0, the framework guides the present inquiry to investigate the contextually mediated choices and practices of L2 learners in the so-called '2.0' era.

Chapter 4 Methodology

4.1 Introduction

To uncover and understand the complexity of L2 learners' choices and behaviours surrounding online technology, this chapter reports on the mixed methods research design and data collection involving 1,485 Chinese undergraduates. Chapter 4 starts by introducing the three research questions formulated through a review of existing literature. It then discusses the research design and methodological procedures used to 'fit' the research questions. First, the philosophical assumptions underlying educational methodologies are reviewed and my main concern related to answering the research questions is highlighted. This discussion is followed by a close examination of the nature of the research inquiry and the practical issues considered during the research design. These accounts pave the way for a theoretical justification of the appropriateness of using a mixed-methods research design to resolve the research concern. In particular, a mixed sequential approach was selected and a visual model was constructed to guide the empirical investigation. Then, this chapter provides a detailed description of the research procedures in accordance with the visual model presented. This includes the development of the specific research instruments, the sampling process, ethical considerations, the implementation of research instruments and the process of data analysis. Finally, this chapter outlines the approach taken to ensure the reliability and validity of the data collected and reported.

4.2 Research questions

Notwithstanding the existing body of research, as discussed in Chapters 2 and 3, little is understood about the reality of L2 learners' choices of technology use and non-use. With this gap in understanding in mind, my research is conducted in order to explore empirically Chinese undergraduates' use and non-use of WELL. In light of the discourses surrounding WELL, a number of questions are identified as worthy of empirical investigation:

1) Are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?

2) Does the use of technology facilitate a different approach to learning English as a foreign language?

3) How does such a use or lack of use relate to the wider context of language learning?

Despite the research focus on Web 2.0 use and out-of-class language learning, as suggested in the thesis title, the research questions do not explicitly mention Web 2.0 for two reasons. Firstly, as discussed in Chapter 2, Web 2.0 does not simply refer to a wide range of online applications. More important is the idea that users engage with online technologies in an interactive and participatory manner. Therefore, the second research question implies the focus on the use of Web 2.0 as it investigates whether learners are evolving from being solitary to more socially-orientated learners of English through the use of online technologies. Secondly, participants may not be familiar with the definitions and terminologies associated with Web 2.0. Thus, using the term might cause confusion and misunderstanding. Therefore, the research questions investigate the use of online technologies outside the language classroom, with a particular focus on the use of Web 2.0 among the participants, although the term is not particularly mentioned.

Moreover, the research questions above are hierarchical in nature. The first question necessitates a broad brush picture on the use and non-use of WELL. It provides a background as to whether or not participants are using online technologies for English learning related purposes. If confirmative, empirical efforts are directed towards participants' behaviours surrounding technology. Built upon the first, the second question is more analytical and digs deeper into whether the use of technology has brought different learning experiences, as assumed in much WELL literature. The final question deals with reasons, and endeavours to explain the phenomena of technology use and/or non-use. It contributes to knowledge of how learning context influences English learners' use of technology in the digital age. The hierarchical nature of the research questions means that the research interests evolve throughout the empirical research. As such, the research focus is informed by an understanding of

current literature, but develops and is being shaped in the light of initial empirical findings. The following sections deal with the methodology and methods employed to examine these research questions.

4.3 Rationale for the mixed sequential design

4.3.1 Comparing quantitative, qualitative and mixed methods research

As a key term in educational research, methodology is seen as "a way of thinking about and studying social reality" (Strauss & Corbin, 1998, p. 3). More specifically, methodology offers a logical route to follow when dealing with the research inquiry (Warring, 2012). This suggests that central to the choice of methodology is the research problem concerned. As Cohen and his colleagues (2007, p. 78) note: "[educational] research design is governed by the notion of 'fitness for purpose'. The purposes of the research determine the methodology and design of the research." Thus different problems necessitate different research approaches – quantitative, qualitative or mixed methods.

A quantitative approach is often associated with efforts to examine cause-and-effect relationships, locate correlations between selected variables, test existing theories, and measure variables in detail (Creswell & Plano Clark, 2011). Such a research approach is underpinned by the logic of reduction, which is argued by quantitative purists as an 'objective' way to research social reality. In contrast, traditional qualitative approaches embrace induction, a 'bottom-up' way of researching. Thus a qualitative approach is often seen as a dedication to exploration, discovery and the generation of theories. Its advocates reject what they call positivism and typically argue for a worldview of constructivism. Constructivists believe that truth is mind-dependent. In this line of thinking, the focus of educational research is the 'voice' of participants – their personal histories and understandings of their interactions with the world (Johnson & Onwuegbuzie, 2004). Traditionally, reduction and induction are perceived as 'incompatible' and often debated as to which is superior to the other (Morgan, 2007). Researchers are expected to follow one school of thought and employ either a quantitative or qualitative approach for research inquiry.

As early as the 1950s, educational researchers were calling for an end to the 'paradigm wars' (Creswell, 2009), and for the need to make the most of both methods (Johnson & Onwuegbuzie, 2004). The idea is that each research approach has its own strengths and weaknesses. When combined appropriately, they can be complementary. In recent years, the use of mixed methods has gained much popularity in educational research. According to Tashakkori and Teddlie (2003, p. x), "mixed methods research has evolved to the point where it is a separate methodological orientation with its own worldview, vocabulary, and techniques".

In particular, mixed methods research is generally defined as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (Johnson & Onwuegbuzie, 2004, p.17). Underlying this new wave of methodology are the philosophical advances prompted by scholars who argued to move beyond the quantitative and qualitative debate. These scholars have worked towards a paradigm that legitimizes rather than restrains empirical research choices. Advocates of mixed methods research do not reject the discourses of deduction and induction, but return essentially to the research questions raised. Such perspective is underpinned by abductive reasoning which emphasizes the consequences of research or the 'best' understanding of the research problem. The argument is often embedded within the worldview of pragmatism, which serves as the theoretical support of mixed methods research (Creswell & Plano Clark, 2011). This sense of pragmatism is further argued by Morgan (2007, pp. 70-71), who observes the context of real world research:

> Yet any experienced researcher knows that the actual process of moving between theory and data never operates in only one direction. Outside the introductory textbooks, the only time that we pretend that research can be either purely inductive and deductive is when we write up our work for publication. During the actual design, collection, and analysis of data, however, it is possible to operate in either an exclusively theory- or data-driven fashion. Try to imagine acting in the real world for as long as 5 minutes while operating in either a strictly theory-driven, deductive mode or a data-driven, inductive mode – I certainly would not want to be on the same road as anyone who had such a fatally limited approach to driving a vehicle!

While mixed methods research is challenged by qualitative and quantitative purists (Guba, 1990), Morgan's remarks lend support to the belief that one can hardly argue

against the empirical efforts of educational researchers seeking the 'best' path to discovering the truth. Admittedly, the distinctions made between deduction and induction are useful for making very basic decisions on the nature of research inquiry (Bryman, 2008). Yet, they should not isolate researchers from developing toolkits that might contribute to the understanding of the research problems. It is this spirit and philosophy of pragmatism that foregrounds the design of the current inquiry.

4.3.2 Nature of this inquiry and reasons for sequential mixed-methods design

The arguments above imply that the questions of interest play a significant role in the choice of methodology. As indicated earlier, the overarching aim of this study is to make sense of Chinese EFL learners' use and non-use of Web 2.0 outside the classroom. Their practices with technology and justifications of choices are central for me to understand the complexity of technology use in their particular context. Accordingly, this inquiry is largely formed through learners themselves and my interpretation of their behaviours and subjective views. From this perspective, it can be argued that the nature of this inquiry is mind-dependent, and thus falls into the paradigm of constructivism. In this sense the research should be descriptive and exploratory, and thus qualitative.

However, several issues might emerge if a qualitative research design was implemented. These issues are concerned with a problem that cannot be ignored – a pure qualitative design does not work well for the research questions proposed. As noted earlier, the questions 'are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?' suggest the needs to identify the overall trend and patterns of technology use among the participants. In addition, the questions imply the possibilities of extreme outcomes. For example, L2 learners might universally embrace or reject the power of Web 2.0. Correspondingly, I need to adjust the questions directed to participants and focus more on the power of Web 2.0 for language learning or the barriers to Web 2.0 transfer. Thus it works better to answer the research questions if I am informed of the overall patterns of technology use ahead of qualitative study. A qualitative research design is useful to reach the depth of the research problem, but it is not an efficient way to identify the overall patterns of technology choices and preferences (Robson, 2002).

Therefore, the use of a quantitative survey has been taken into consideration. If implemented before the qualitative phase, it brings a number of pragmatic advantages. First, the overview of technology use projected by the survey can shed light on the first research question, whilst laying a solid foundation for the qualitative phase of the study. The sequential design is especially helpful, in that unexpected findings that emerge from the quantitative analysis can be examined in more detail (Morse, 1991). Thus the survey study helps me to prepare for the in-depth study of learner experiences and perspectives. In addition, the larger scale sampling from the first phase can inform the purposeful sampling in the second (Teddlie & Yu, 2007). Since this research attempts to understand the use and lack of use of Web 2.0 for language learning, it is necessary to look into both 'highly using' and less active individuals. As such, the sequential design offers an efficient way to locate intended samples for in-depth study.

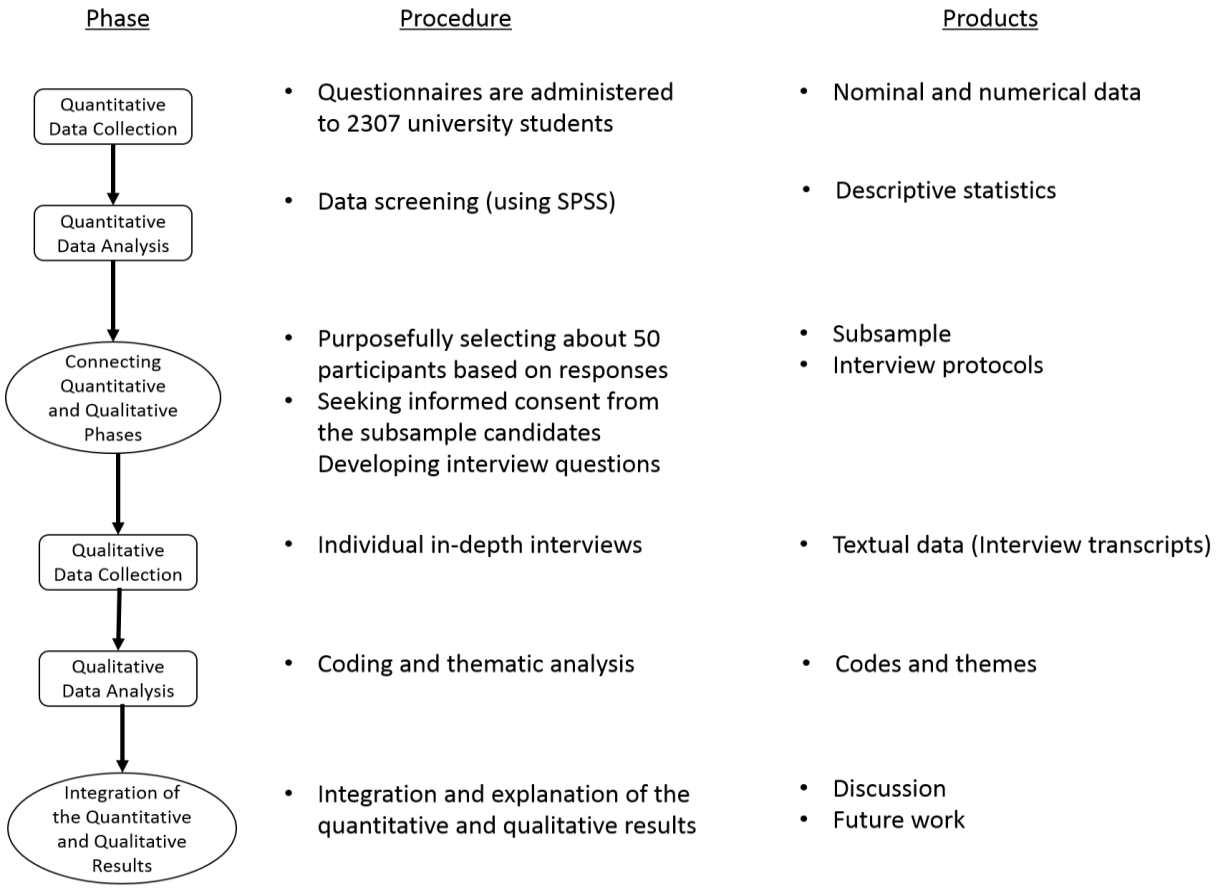
Based on these considerations, a mixed methods approach was adopted – in particular that of a mixed sequential study. The rationale for this particular research design was that the quantitative data and analysis were expected to provide a broad stroke of the research problem. This picture enabled the construction of the subsequent qualitative element of the research that aimed to refine and expand the quantitative phase, as well as to explore the research questions in more depth (Creswell, 2009). Underpinned by a pragmatic worldview that sees "truth is what works at the time", this mixed sequential design integrates both quantitative and qualitative data at some points of the research so as to accommodate the research intention and result in the 'best' understanding of the research problem (Creswell, 2009, p. 11). The sequential design was judged to 'fit' well with the hierarchical nature of the research questions posed.

One important question often raised in respect of mixed sequential study is the priority of the research phase(s). Here priority refers to which phase/approach, quantitative or qualitative, or both, receives more attention (Ivankova et al., 2006). In most cases where the quantitative phase comes first, the survey study is given more weight because the qualitative phase usually serves to explain the statistical data derived (Creswell & Plano Clark, 2011). However, in this study, more weight is given to the qualitative phase. This is determined by the exploratory nature of the current inquiry which probes learner behaviours and their justification of these behaviours.

The adoption of a survey does not necessarily contradict such nature, as Cohen and his colleagues (2007, p. 207) argued: "surveys can be exploratory, in which no assumptions or models are postulated". Thus, the survey of this study is mainly descriptive. While the sample of the survey is relatively large, the more important element is the in-depth qualitative study that follows.

A visual model of the research procedures is presented in Figure 4.1. Graphical presentation is widely perceived to help clarify the sequence of data collection and the connecting points of the quantitative and qualitative phases in mixed sequential study (Ivankova et al., 2006). Figure 4.1 shows that this inquiry consists of two distinct parts, with an initial survey phase to identify overall patterns of English learning related use of online technology, followed by an in-depth study to answer the research questions posed. As specified above, the qualitative phase carries more weight in this mixed sequential design.

Figure 4.1: Model for mixed methods design procedures (adapted from Ivankova et al., 2006)



4.4 Data collection procedure and analysis

This section describes the procedures of data collection and analysis. As discussed earlier, the mixed sequential design necessitated two phases of data collection in this inquiry – a quantitative and a qualitative phase. To some extent, the latter is built upon the result of the former. Each phase of data collection and analysis is described in the sequence presented in Figure 4.1. Thus this section includes the selection and preparation of research instruments, the choice of sampling strategies and the introduction of the research sites and participants. Steps of data analysis and considerations of ethical issues are also presented in this section.

The data collection was started in early December 2010 with the pilot study. The main data were collected from December 2010 to July 2011. The empirical research lasted over seven months due to the relatively large sample size and the sequential research design. According to Creswell and Plano Clark (2011), such design prolongs the fieldwork as qualitative and quantitative studies are not conducted concurrently.

4.4.1 Quantitative data collection and ethical considerations

Choosing the questionnaire for the survey

Self-completion questionnaires were chosen for the survey phase. This is not only because they are the "widely used and useful instrument for collecting survey information" (Cohen et al., 2007, p. 317). More importantly, the decision was based on the recognized strengths and efficiencies of questionnaires in describing general patterns and trends of a large sample group (Creswell, 2009). Despite the 'high-tech' focus of the study, the pen-pencil mode was adopted for two reasons. First, it is more likely to result in a higher response rate (Schonlau et al., 2002), and therefore reduce the risk of weakening the sample (Cohen et al., 2007). In addition, the current inquiry is about understanding language learning behaviours surrounding Web 2.0 technologies. The adoption of a paper questionnaire is important, as it is less likely to exclude the less active users of the Internet or those who have access issues. Thus, the paper mode helps to collect data that better reflects the trends of technology use

among participants. Compared to Internet-based surveys, the limitation here is that the paper questionnaires take more time and effort to distribute (Schonlau et al., 2002).

Developing and piloting the questionnaire

The *Questionnaire of Online Technology Use for Learning English* was designed based on my research enquires (see Appendix 6). To ensure its validity, it made use of previous examples of questionnaires on technology use and skills. In particular, most of the questions and items (sections 1.1-1.3, 2.1-2.4, 3.1, 3.2, 4.1-4.7) were developed and modified from established survey instruments – i.e. the *Information and Communication Technology Use and Skills for Learning English* (Jung, 2006, p. 170-179), and the *Statistical Report on Internet Development in China* (CNNIC, 2010). Other items were constructed based on my review of literature on Web 2.0 and language learning. Notably, the questionnaire does not aim to establish relationships, but to provide descriptive data that demonstrate the background information and trends of technology use among participants. The questionnaire was also piloted with a group of Chinese undergraduates which will be discussed in more details later in this subsection. On the whole, the questionnaire of the present inquiry was constructed to collect the following information from the participants: factual (demographic and academic factors, e.g. gender, age, learning discipline), behavioural (time spent on the web to learn English, choice of communication modes, etc.) and attitudinal (perceived usefulness and outcome of using WELL).

The questionnaire begins with a brief introduction to my background, the research purpose of the present study, the time approximately needed to complete the questionnaire, and the box to tick when accepting the invitation to participate. The questionnaire was designed in such a way that the respondents might encounter less ambiguity and could complete it relatively quickly and with less difficulty. For instance, I avoided long sentences in the questionnaire. Instead, neat and ordinary wording is used to ask questions. Bold or/and italic letters were also used to highlight some important inquiries and words in questionnaire. Finally, the questionnaire was constructed and administered in Mandarin Chinese so as to avoid confusion and misinterpretation on the part of the participants (see Appendix 5).

There were 20 questions in the questionnaire, which were categorized into four sections. Section one is about Internet access and the use of the Internet for general purposes. This provides a background for the use of WELL. Section two is dedicated to the use of the Internet for English learning related purposes. As a major part of the questionnaire, it deals with the duration of WELL use, choices of online tools and applications and so forth. Section three touches on the attitudes and perceived achievements of the respondents towards using WELL. This section is relatively short due to the limit of scope of this research. The final section collects information about the demographic and academic features of the participants. At the end of the questionnaire I show my gratitude towards the participants and politely request contact information from those who volunteer to participate in the qualitative phase of study. In several questions (3.1, 3.2, 4.8), the standard five-point Likert scale was used to provide the respondents with opportunities to clarify their positions. An example is demonstrated below:

1: Strongly disagree

2: Disagree

3: Neutral

4: Agree

5: Strongly agree

The respondents were also given the opportunity to explain and comment in the open-ended questions following the closed questions (1.1, 1.3, 1.4, 2.4, 2.5, 2.6). This is because this questionnaire is mainly descriptive and exploratory, and thus room is left for respondents who wish to add something about the issue in investigation (Bryman, 2008). Finally, the option of 'Not available' applies to the sensitive question on household income (Cohen et al., 2007).

To ensure validity and reliability, the questionnaire was piloted with a class of 27 volunteer undergraduates from a university in Chengdu before its final dissemination to the sample (Cohen et al., 2007). The purposes were, first, to calculate the time needed for the completion of the questionnaire, second, to check whether respondents would experience confusion and impatience during this process, and third, to check

whether the respondents would have the tendency to tick the mid-point in all Likert scale questions.

The pilot study drew three issues to my attention. First, some respondents constantly asked for clarification of technical jargon, typically exemplified by RSS and syndication. This echoed the trend observed in the Yahoo! report (2005) that only 12% of Internet users were aware of RSS technologies. I did not avoid jargon in the first place because the questionnaire did not leave much space to specify the wide range of applications gathered under each type of online service, and also I misjudged the familiarity with Web 2.0 jargon of 'digital natives'. To solve this problem, I used examples of popular applications or icons to illustrate the online services surveyed. Relevant modifications to the questionnaire were discussed and completed with the two respondents who asked for clarification most often. Second, several respondents forgot to tick the box of participation despite their willingness to cooperate. Thus I highlighted the statement of participation with larger and bold fonts and double underlining. Finally, some respondents were confused about questions 2.1 and 2.2. For example, when completing question 2.1, which originally was 'how many hours per week do you normally spend on learning English in general', some respondents asked whether the time of English classes should be included in the time spent on learning English. As the focus of the empirical research is the out-of-class English learning, I made it explicit in the questionnaire that relevant questions were directed towards English learning *after class*. Thus, clear and specific questions such as 'how many hours per week do you normally spend on the web for English learning after class' are asked, so as to avoid misunderstanding and confusion on the part of the students. Yet, one might argue about whether students would have a shared understanding of 'after class' English learning, as out-of-class L2 activities could be academic and students' notion of English learning could be constrained. However, 'after class' is a straightforward concept. To answer relevant questions, students do not necessarily have to have the knowledge of whether it refers to informal or relatively formal activities. Students would simply need to report what they do outside the classroom. This is corroborated with the findings in Chapter 5, where academic activities such as the use of institutional VLE are widely reported. Moreover, the reflexivity of learner agency can help students to identify English learning related activities when they reflect on their online experiences. This is also evident in Chapter

5, where online incidental learning is reported as a mainstream WELL activity, although participants do not necessarily value this type of learning practices.

Pre-empirical research preparation and ethical issues

As stated earlier, this thesis addresses Chinese undergraduates' use of online technology for English learning related purposes. The ideal population for this inquiry should be university undergraduates in China. However, a random sampling of Chinese undergraduates is not feasible for an individual researcher, given the diversity and number of Chinese higher education institutions. Thus, I adopted a convenience sampling of universities for the current inquiry. Despite this limitation, I endeavoured to include universities from different parts of China so as to increase variation in the sample. It was also hoped that a randomly selected sample could be obtained within each university involved. If successful, this study will entail some generalization from the survey results.

Given the involvement of adult participants, all procedural steps were bound by appropriate ethical principles and practices. First, before conducting the research, this project was approved by Ethics Committee of the Institute of Education, University of London. Second, I attempted to seek informed consent from the university authorities and individual students at an early stage of the research (Bell, 1991). Thus, an introductory package outlining this inquiry was prepared in Mandarin Chinese (for the English version, see Appendix 4), which includes full disclosure of the research purpose, procedures, requirement of personal involvement and the disposal of collected data (Bryman, 2008). This information was disseminated to prospective participants alongside the questionnaire, enabling them to make an informed decision of participation. In addition, all prospective participants were ensured of anonymity and confidentiality (Frankfort-Nachmias & Nachmias, 1992). They were also assured that the data collected from the research was used for the completion of this academic work only.

Access to participants

The sampling of the research sites and participants mainly aimed to maximize sample variation and the chance of obtaining a large and relatively representative sample

within the universities involved. These sample features are ideally associated with a survey style (Cohen et al., 2007). However, I encountered major setbacks when attempting such sampling in the real world research setting. I was aware that the faculty/school/college of foreign language studies was usually responsible for teaching English to undergraduates across different disciplines in that particular Chinese university. This meant that if I obtained permission from such a faculty, I could reach EFL learners of various academic backgrounds in that university. As early as November 2010, I emailed the faculty of foreign language studies of two large universities located in Sichuan, China, stating my intention, background, research purpose and agenda. In the meantime, I identified two universities located in the nearby city of Chongqing and wrote emails to the faculty's administration team respectively. Yet I did not receive any response from the four universities. I came to realize that this bottom-up approach to gaining permission from university authorities was fruitless.

In early December of 2010, I made initial contact with Professor Zhang, through the help of my BA tutor Professor Yan. Professor Zhang is the dean of the school of foreign languages and cultures in university A, Nanjing. I travelled to Nanjing and discussed the possibility of conducting the fieldwork there. Professor Zhang showed intense interests in the research project, stating that he had noticed instances of WELL use on campus. Yet Professor Zhang questioned my intention to secure a large and representative sample. He asked about the funding sources of the project, whether I was working for any organisations outside China, and who exactly would have access to the data collected. He stated that data handling for over 1,000 students was too much for a student-led project. When assured that this project was self-funded and for the purpose of a Ph.D. thesis only, Professor Zhang agreed to arrange another meeting including himself and two other authorities in the faculty to discuss the details of sampling size and strategy. A week later I went back to professor Zhang's office and presented my research agenda to a panel of three. They finally agreed to arrange the dissemination of some 1,300 questionnaires alongside the information sheet to undergraduate students across eight faculties. In return, I needed to 1) print out and deliver the relevant materials to the administration office of each college; 2) collect the questionnaires from the respective administration teams; 3) write a report of the

research results for the school of foreign languages and culture, university A, upon completion of the thesis. The data collection procedures were detailed as follows:

1) I printed 1,300 questionnaires and information sheets, and delivered them to each faculty. These faculties were scattered across two campus sites in Nanjing.
2) The questionnaires were given to the student advisers in each faculty. The monitors of the selected classes were asked to collect the questionnaires and information sheet from the student advisers.
3) The questionnaires were then administered to the students through the class monitors. If willing to participate in the survey, the students were required to complete the questionnaires at their time of convenience.
4) The completed questionnaires were returned to the class monitor.
5) The class monitors handed the questionnaires to the student advisers.
6) I collected the completed questionnaires from each faculty.

Thus, I was detached from the process of questionnaire administration. I was told by university authorities that this sample should be representative of the university population, as the classes involved would be randomly selected by each faculty. However, I did not receive clarification from each faculty as to how exactly the classes were selected. Moreover, the criteria for selecting the faculties were that they covered different academic disciplines, and that they were most likely to cooperate with the school of foreign languages and cultures. I accepted this arrangement because I understood that the school had already contributed much to this research. Thus, although I was aiming for a random sample, the participants from this university were more the result of convenience sampling. According to Bryman (2008, p.183), this type of sampling is "one that is simply available to the researcher by virtue of its accessibility".

As can be also seen from above, I did not have a direct contact with the students in university A at this stage. The advantage is that this method minimized the 'researcher effect' which might influence the survey results. However, one disadvantage is that the students were not able to raise questions (Cohen et al, 2007). In this case, the change made to the pilot questionnaire should have helped minimize any confusion and misunderstanding on the part of the students.

In order to maximize the sample variation, I contacted Professor Peng for help in March, 2011, since I knew her personally. Professor Peng works for university B, which is located in the city of Chongqing. After reading the introductory package relating to this inquiry, Professor Peng offered her advice. According to her, it was unlikely for the college of international studies in university B to cooperate with a student-led project and it was more realistic to contact individual teachers for help. She arranged a meeting between myself and Dr Chu to discuss the possibility of disseminating questionnaires in his classes. Dr Chu taught four classes of English major students at the college of international studies. He also taught two English modules to non-English majors each week. After a brief discussion of the research agenda, Dr Chu agreed to cooperate and distribute the questionnaires in his classes. He also kindly contacted his colleagues Dr Yang and a master student Ms Gu, to whom I was introduced. Ms Gu introduced me to an English lecturer and three other research students. I received tremendous help from this group of people. Accordingly, 'snowballing' was the sampling approach used in university B, which is defined as a strategy that "the researcher makes initial contact with a small group of people who are relevant to the research topic and then uses these to establish contacts with others" (Bryman, 2008, p. 184).

In the case of university B, this snowballing technique seemed to be the most feasible and appropriate way to access lecturers and classes. In particular, in addition to the four English major classes led by Dr Chu, Dr Yang approved my access to another four classes of English majors. Ms Gu was then the English teaching assistant to the students of Chinese Literature and students of Textile Engineering. According to her, the English lessons for non-English major students were sometimes provided by research students like herself in university B. Each lesson was usually attended by one or two classes of non-English majors. Ms Gu was well connected. When informed of my intention to access students of various academic backgrounds, Ms Gu offered generous help and introduced me to Ms Dai, Ms Zhu, Mr Dong, and Ms Li, who were teaching English across different faculties. Perhaps because these contacts were facilitated through Ms Gu, the teacher and the research students were willing to help. All this allowed me to access a total of 23 classes of students from eight different faculties in university B.

The questionnaires were distributed to the students in late March 2011, when the new term had just started and the class schedules were less packed. These English teachers agreed to spare 15-20 minutes class time on the questionnaires. I used five minutes to explain my background, the purpose of the research and its confidentiality, and politely requested the cooperation of the students. Those who accepted the invitation spent the following 10-15 minutes completing the questionnaire. In this case, where students could not complete the questionnaire in time, they were allowed to use as much time as they needed during class breaks. I would usually wait outside the classroom and collect the questionnaires after class. In addition, Dr Yang who taught four classes of English major students declined to use class time for the survey. Thus the questionnaires were given to the class monitors by Dr Yang. The monitors administered the questionnaires alongside the information sheet to the students. The questionnaires were then returned to Dr Yang, from whom I collected those which had been completed. A total of 1,007 questionnaires were distributed to the students in university B, most of which were directly administered by myself. Perhaps because the questionnaires were piloted and adjusted with a group of university students, the respondents did not ask so many questions during completion.

The difficulties encountered in university B were related to time management issues. For example, I was obliged to make strenuous efforts to coordinate the administration of the questionnaires as the schedules of English classes overlapped across the different faculties. Moreover, the data collection became especially frustrating when I had to wait for those students who took a much longer time than expected to complete the questionnaires. This was because another appointment for data collection was due at the same time. The large size and mountainous location of the campus made time management even more difficult. Quite often I had to take different university tour vehicle routes and climb many staircases while carrying over 100 questionnaires, when I went from one building to another. At the beginning I got lost easily and confused about the vehicle routes. In this case I had to apologize and reschedule the data collection with the teachers. I came to realize that getting a large sample was difficult and time consuming for a single researcher. There were many practical issues that needed to be considered and planned ahead in this real world research.

Introduction to the research sites

The two participating universities are located in the east (Nanjing) and west (Chongqing) of China respectively (see Appendix 3). They are involved in the '211 project'[7] launched by the Ministry of Education (MoE). This means that both of them are first-tier universities in China. In particular, university A which is located in the city of Nanjing, in the lower part of the Yangtze River Delta economic zone, is one of the richest regions in mainland China. As of 2011 when the research was conducted, the city's population was estimated at 8.11 million and its GDP per capita was 7,400 GBP (Wikipedia, 2012a). According to the statistics provided by Professor Zhang, university A offered 80 undergraduate programmes and had 16,213 registered undergraduate students in 2010. All the non-English major students were required to pass CET 4 to secure their graduation certificate. They were also encouraged to pass CET 6, but it was not compulsory. To help them achieve this, the students were required to take four English lessons per week. They could choose not to take any English lessons after successfully passing CET 6. English majors had to take 14 English lessons per week, and aimed to pass TEM 4 and 8. All of the undergraduates were required to take mid-term and final English exams each term. These descriptions are in line with the policy of MoE, which is detailed in Chapter 1.

In the meantime, university A did not provide Internet access in the dormitories for first year students who were not majored in foreign languages. Instead, low-cost Internet access was provided in the library and computer rooms. According to a student adviser, limiting Internet access among first year non-language major students was an attempt by the university to facilitate the transition of the students into university life. This was because the students were suddenly given much freedom at university and it was thought that they might become addicted to some Internet services exemplified by online gaming. The first year students could apply for the installation of Internet at their dormitory if they and their roommates had all passed the core module exams by the end of first academic year. These policies indicate that university A was very cautious about the Internet, but it did recognize its potential for language learning. However, in terms of Internet access, the first year non-language

[7] Universities involved in the '211 project' have to meet certain technical, teaching and research standards and are entitled to receive a huge amount of research funding from the government. Today, about 118 institutions (about 6 per cent) in China are included in the '211 project' (Wikipedia, 2014b).

major students provided a different picture during interview. Based on their accounts, some students violated the university regulations and installed the Internet at their dormitory through Internet providers outside of the campus. Many students chose mobile phones as the device to access the Internet.

University B is located in the city of Chongqing, the economic centre of the upstream Yangtze area. It has a total population of almost 29 million and an approximate GDP per capita of 2,800 GBP (Wikipedia, 2012b). This means that the region is economically less developed compared to Nanjing. Yet the scale of university B is larger than that of in Nanjing. According to the statistics on university websites (2013), university B has almost 40,000 undergraduate students and provides 97 undergraduate programmes across the spectrum of learning disciplines. Similar to their Nanjing equivalents, according to Dr Chu, English majors had to complete 14 classes each week. To pass TEM 4 was a requirement although TEM 8 was optional. The non-English majors had to attend three English classes per week. A CET 4 pass was required and CET 6 was recommended. Other than standardized national exams, English as a module was tested at the middle and end of each term among all the undergraduates.

Different from university A, however, university B provided wireless Internet access on campus and did not restrict its undergraduates in terms of Internet access. It acknowledged the power of Internet English learning. Evidently, university B had developed a virtual learning environment (VLE) for English learning. It *required* students to use the English learning platform of VLE after class for 12 hours each term at the minimum. The length of time students spent on the VLE was recorded and contributed to their termly English assessments. The VLE platform provided a range of multimedia resources for English learning, including films, TV series, and learning exercises. There was a forum on the institutional VLE dedicated to foreign language learning. The undergraduates were informed of how to use the university VLE in their first college English lesson.

It can be seen from these descriptions that in line with the MoE administered curriculum, the two large universities involved in this inquiry shared similar policies and agendas on English education at the time of data collection. However, with the Yangtze River being the symbolic and geographic thread, they are located in vastly

different regions of China and have different policies in terms of Internet access for first year non-language major students. These differences may increase variations in WELL use patterns, thereby producing a more balanced and holistic picture on whether/how Chinese undergraduates are using the Internet for English learning.

Introduction to the participants

The prospective participants in this mixed methods study were from the universities described above. As can be seen in Table 4.1, a total of 2,307 questionnaires were administered to undergraduates in the two participating universities and 1,485 valid responses were obtained. I acknowledge that the major limitation here is the non-probability sampling of the participants. This means that the survey results may not be generalized to the entire undergraduate populations in these two universities. Yet I made tremendous effort to access students from various academic backgrounds, and as described above, those from two geographically distant universities. In this sense, the sample obtained might have some implications for the use of WELL among other undergraduates in first-tier Chinese universities.

In particular, a total of 1,300 questionnaires were distributed to students in university A, and 1,024 were returned and analysed (Table 4.1). I received 621 responses at around mid-January 2011 and another 403 in early March 2011. Despite a high response rate, I found that only 654 responses were valid. Particularly I withdrew over 300 questionnaires that had either left at least one section uncompleted, or ticked the same point on the Likert scale in response to all the questions. The low rate of valid responses might be due to the administration of questionnaires through the university faculties. Although I made clear in the information sheet and at the beginning of the questionnaire that it should be completed on a voluntary basis, some students might have seen it as a task from the faculty and thus felt compulsory and frustrated to complete it.

A total of 1,007 questionnaires were distributed in university B and 961 were returned, of which 831 were valid (see Table 4.1). Notably, the valid response rate in Chongqing was higher than that in Nanjing, perhaps owing to the timing and my presence in the classroom. In particular, the survey in Chongqing was conducted in

late March rather than in January when, in China, students are busy preparing for their final exams. In addition, my presence as the researcher might have increased the feeling of relevance and importance, thus engaging students in the survey study.

Table 4.1: Numbers of participants and response rates

University	Participants	Response		Valid Response	
		No.	Percent	No.	Percent
Nanjing	1300	1024	78.8%	654	50.3%
Chongqing	1007	961	95.4%	831	82.5%
Total	2307	1985	86.0%	1485	64.4%

The demographic features of the participants detailed in Table 4.2 are now discussed in turn. First, nearly ¾ of the participants were female students. The high percentage of female participants might suggest a major flaw in the research sample. Yet, it is broadly concurrent with the proportion of female students in the two universities. According to the statistics provided by Professor Zhang, female students account for 67.2% of the undergraduate population in university A. University B did not provide relevant information on its website. In this case, I asked help from Professor Peng, who obtained a report that documents the demographic features of newly enrolled students. Based on this report, in the 2011 academic year 60.3% of new comers in university B were female. Thus, the survey sample obtained is only slightly skewed towards female participants, perhaps due to the snowballing technique adopted in university B.

The large proportion of female students might have an influence on the patterns of WELL use. For example, it is widely reported that females generally outperform males when it comes to L2 learning. Women's superiority in language development is largely attributed to their tendency towards engaging in more communicative activities and striving for social approval (Nyikos, 1990). Such behaviours seem to fit well with the characteristics of Web 2.0 activities. Accordingly, the participants

involved were more likely to adopt the communicative power of Web 2.0 for English learning. Moreover, the mean age of the participants in the 2011 cohort was 20.66 years, which falls into the age category of the so-called 'digital natives', or even the 'second generation of digital natives'.

Furthermore, half of the participants were first year undergraduate students. The other half consisted of mainly second year students, with some third year students, and a very few fourth year students. This pattern might be due to the fact that many third year students were undertaking their internships at the time of the research and the fourth year students were busy job-hunting. Since academic studies in the university were weighted towards the first three years, the absence of fourth year students should not unduly impact on the snapshot of WELL behaviours among undergraduate students.

In addition, 45.3% of the participants came from rural China. The monthly household income of the majority of the participants ranged between 1,000 – 5,000 RMB (see Table 4.2). The statistics were consistent with the finding of a larger scale national survey, which involved 47,170 undergraduate students from 175 universities in 31 provinces (Research Database of Higher Education in China, 2007).

Finally, these participants studied for various majors. The Nanjing participants were from eight different schools, including the Schools of Social Development, Education Science, Foreign Languages and Cultures, Computer Science, Physical Science and Technology, Chemistry and Material Science, Life Science and Dynamics Engineering. The Chongqing participants came from nine different colleges of university B, which included the Colleges of Chinese Language and Literature, International Studies, Political Science and Public Management, Education, Computer and Information Science, Chemistry and Chemical Engineering, Physics and Technology, Food Science and Plant Protection. These different faculties and majors were grouped into two main categories based on the curriculum classification systems of higher education in China – Science and Engineering, and Social Science and Humanity. As noted in Table 4.2, approximately 54% of these participants were involved in the latter learning category.

Table 4.2: Demographic features of the survey participants

Demographic features		Participants	Missing
Gender	Male	368(24.8%)	12
	Female	1105(74.4%)	(0.8%)
Age	17	9(0.6%)	15
	18	125(8.4%)	(1%)
	19	320(21.5%)	
	20	529(35.6%)	
	21	310(20.9%)	
	22	150(10.1%)	
	23	23(1.5%)	
	24	3(0.2%)	
	25	1(0.1%)	
Year of Study	One	711(47.9%)	12
	Two	559(37.6%)	(0.8%)
	Three	195(13.1%)	
	Four	8(0.5%)	
Origin	Rural	673(45.3%)	31
	Town	433(29.2%)	(2.1%)
	City	347(23.4%)	
Household	Below 1,000	260(17.5%)	85
Income	1,001-3,000	582(39.2%)	(5.7%)

(in RMB)	3,001-5,000	295(19.9%)	
	5,001-7,000	134(9%)	
	7,001-10,000	81(5.5%)	
	10,001-16,000	28(1.9%)	
	Above 16,001	20(1.3%)	
Major	Social Science & Humanity	799(53.8%)	9
	Science & Engineering	677(45.6%)	(0.6%)

Note: (N=1485; % within the N)

4.4.2 Quantitative data analysis

The information collected from the questionnaires was then coded for statistical analysis and entered onto a data sheet of the Statistical Package for Social Science (SPSS) Version 18.0 for Windows (for worked examples, see Appendix 9). To manage the questionnaires and reduce the risk of identifying the participants, the questionnaires were numbered from 1-654 (those collected in Nanjing) and 1,001-1,832 (those collected in Chongqing) on the SPSS data sheet. Students from university B were numbered from 1,001, rather than 655, in case more questionnaires from university A were added to the SPSS data sheet later. Thus, each participant was given the pseudonym of 'participant N' in the data analyses and thesis.

The SPSS data sheet was completed by May 2011. The techniques of descriptive analyses were then performed in SPSS so as to present the basic features of the data collected, such as frequencies and percentages. Notably, I did not use inferential statistics because, as discussed earlier in this chapter, the questionnaire was mainly descriptive and served more as background information for the qualitative study that followed. Thus basic descriptive analyses were sufficient to generate an overview of the trends and patterns of WELL use. After that, data derived from the open-ended questions were grouped into coherent and meaningful themes to help enrich the

quantitative data collected (Creswell, 1998). These data are included in Chapter 5 and 7 to shed light on answers to the first and third research questions posed.

4.4.3 Connecting the quantitative and qualitative phases

As noted earlier in this chapter, the qualitative phase was conducted to expand and explore the patterns derived from the survey phase, while seeking explanation of these behaviours from learner perspectives. Thus the results of the questionnaires had implications for the design of the qualitative phase. In particular, I used the survey results to determine which participants would be selected for the qualitative phase and to design the protocols for qualitative data collection (Creswell & Plano Clark, 2011).

Choosing semi-structured interviews

The quantitative survey approach is traditionally paired with individual and semi-structured interviews in mixed-sequential research design (Creswell & Plano Clark, 2011). This is because this practice triangulates the questionnaire data in a straightforward manner and allows for in-depth study of the research problem. In particular, the semi-structured interview is seen as "the principal means of gathering information having direct bearing on the research objectives", and is widely used to "follow up unexpected results, or to validate other methods, or to go deeper into the motivation of respondents and their reason for responding as they do" (Cohen et al., 2007, p. 351). For these reasons, semi-structured interviews were conducted face-to-face in the qualitative phase, so as to expand and make sense of the data collected in the quantitative phase, while disclosing the motives for unexpected learning behaviours surrounding digital technology.

Preparing the interview schedule

From initial analysis of the questionnaires, I found WELL use among the participants to be limited. An overview of the survey results revealed that most of the participants experienced web technologies not as a medium of interactivity, but rather as a repository of resources for English learning (for details, see Chapter 5). Accordingly, one important goal of qualitative study is to explore why this could be. The participants, of course, might not have been aware of the underlying reasons for their

limited and non-interactive use of WELL (Cohen et al., 2007). Thus the interview questions were also directed towards the perceived learning context and English learning in general. After all, as discussed in Chapter 3, the wider context influences English learners' behaviours surrounding technology. Based on these concerns, the open-ended interview questions were mainly about students' opinions regarding:

- the features of English education at university

- the features of English learning after class

-the features of learning experiences with online technology

- the reasons for their technology use or/and lack of use

-the role of online technology in English learning

These themes guided the interviews with the students (for details, see Appendix 7). The aim was to elicit students' perspectives on interactive English learning and the role of online technology in this process. However, I did not have a fixed list of questions for the interviews. This is because I intended to understand the picture of WELL use based on students' perspectives, in spite of my general interest in the mediating power of the learning context. Although the loosely structured interview schedule added substantial extra work in terms of data analysis, it allowed the students to be more open and reflective when telling their experiences based on their own logic of organization. Therefore, the interview schedule constructed facilitated investigation of the issues concerned in this thesis, while probing into students' WELL use in an exploratory manner.

Obtaining sample of interview participants

Purposive sampling was used in the qualitative phase. According to Cohen et al. (2007, p. 114), this technique indicates that "researchers handpick the cases to be included in the sample on the basis of their judgement of their typicality or possession of the particular characteristics being sought". That is, such sampling corresponds well with the research problem (Bryman, 2008). Since this inquiry concerns the use and lack of use of Web 2.0 for English learning, both active and less active users of WELL needed to be identified and included in the sample for the qualitative study.

Table 4.3 illustrates the initial results from the survey. Based on the patterns of WELL duration, the participants were categorized into four cohorts representing different levels of engagement. The interview candidates were then sampled from heavy and frequent (active) users, and light and non-users (less active) of WELL.

Table 4.3: Frequency of WELL engagement

Level of Engagement	Frequency	Percentage (N=1485)	Time spent on WELL
Non-participants	109	7	/
Light users	894	61	No more than 2 hours /week
Frequent users	306	21	Between 2-6 hours/week
Heavy users	145	10	At least 6 hours/week

Note: some columns may appear not to sum to 100 per cent due to rounding.

There were 239 questionnaires that fitted into these descriptions and had contact information on them. In both participating universities I narrowed down the interview candidates to a pool of 40, hoping to obtain a sample of 20 for the qualitative study. To increase the variation of interview samples, the short listed group consisted of both active and less active users of WELL, males and females, and students of various learning disciplines in different years of study.

Taken together, 50 students volunteered to participate in the qualitative study, and 49 interviews were recorded and analysed for this study. In Nanjing, the first round of emails calling for interview participants were sent out in May 2011, but only nine confirmative responses were received. As some candidates had left their contact numbers on the questionnaire, I was able to make calls to get direct responses. Initially, 26 students agreed to be interviewed, of whom 12 were categorized as active user of WELL. However, one interview with a heavy user of WELL was not recorded due to technology faults, which made a subsample of 25 in university A. While I was conducting interviews with students in Nanjing, I began to contact the 40 selected

interview candidates from university B. The procedures were similar to those used in Nanjing. Finally, 24 students from Chongqing agreed to participate in the qualitative study of which 15 were active WELL users (see Appendix 8 for the backgrounds of the interviewees).

4.4.4 Qualitative data collection and ethical considerations

From May to July 2011, 49 interviews with Chinese undergraduates of various majors were carried out and recorded in Mandarin Chinese. This choice of language was to enhance the interviewees' engagement and understanding during the in-depth interview. I was also aware of ethical concerns throughout the qualitative phase. For example, the prospective interviewees were informed that the interviews were digitally recorded and they had the rights to withdraw at any stage of the interview. I also used pseudonyms to reduce the risk of identifying the interviewees and thanked them for their participation. In addition, the interviews were conducted at the time and locations chosen by interviewees, quite often in an empty classroom or the student dormitory. This arrangement seemed to cause less trouble to the interviewees and foster a relaxed interview atmosphere for them. Generally, the interviews lasted from about 30 minutes to about 1 hour 20 minutes, depending on the information provided by the interviewees.

In terms of my role during the interviews, I established myself as a 'fellow student' of the interviewees, hoping to build trust and rapport with the interviewees. After all, a sound relationship between the researcher and the researched is not only ethically desirable, but also contributes to the validity of a research project (Cohen & Manion, 1994). In particular, before moving to the interview questions, I talked briefly about my background of being an undergraduate student in China. Describing my experience was especially helpful in eliciting and understanding the interviewees' perspectives in their specific context. That is, my insider's knowledge allowed me to delve into the use and choices of WELL among the interviewees, which was beneficial to the whole research. One might argue that this sense of subjectivity might bias the research results. However, as discussed before, this research is mainly built upon my interpretations and understanding of the interviewees' experiences and explanations. Attempts such as these are often witnessed in social science research, as noted by Cohen et al. (2011, p. 15):

> Individuals' behaviours can only be understood by the researcher sharing their frame of reference: understanding of individuals' interpretations of the world around them has to come from the inside, not the outside. Social science is thus seen as a subjective rather than objective undertaking, as a means of dealing with the direct experience of people in specific contexts.

To prevent influencing the responses of interviewees, I avoided evaluating their replies and asking direct questions. Furthermore, I started each interview with easy questions such as asking the interviewee to describe their daily schedules and what they usually did on the Internet. These questions were relevant to my research in the sense that they depicted the role of the Internet in university life and disclosed the online activities conducted by the interviewee. More importantly, these 'what' questions helped to relax the interviewee, as suggested by Cohen et al. (2007, p. 363) who advise that "easier and less threatening, non-controversial questions are addressed earlier in the interview in order to put respondents at their ease". I also took notes during the interview, which helped me to think and go back to the points of interest.

I sometimes found conducting in-depth interviews challenging. For instance, despite the planned interview schedule and the interview techniques employed, there were several cases where the interviewees either talked little about their WELL use, or roamed too far from the questions asked. In addition, I needed to fully concentrate during interviews as I had to listen to the interviewees carefully and asked appropriate questions. Thus I scheduled no more than two interviews within a day so as to assure the interview quality. I also paid attention to the pace of the interviews and sometimes adjusted the speed of the conversations.

Generally, the interviewees in this research were cooperative and provided valuable information for the present study. As described in this subsection, this might be because I made an effort to make each interview more like a conversation between fellow students, rather than a formal talk between the researcher and the researched. The interviewees were especially expressive about their concerns and experiences of learning English at university. Several students appreciated the opportunity to talk freely about their opinions of English classrooms and academic commitments. Some

asked about how to improve their English or pass standardized English exams. Some asked for the results of survey and wondered whether the Internet was used by their peers for English learning. All of these seem to mirror the self-directed and isolated nature of learning English at Chinese universities. As such, although the research took the interviewees some time, this ethical issue was minimized as the students were provided with the opportunity to reflect on their past learning experiences and think critically about their English learning at university.

4.4.5 Qualitative data analysis

Examination of qualitative data collected for this study employed thematic content analysis. This method is seen as "an unobtrusive technique" (Krippendorp, 2004, p. 40) with "explicit, transparent and public" rules (Mayring, 2004, p. 269), involving "a careful, detailed, systematic examination and interpretation of a particular body of material in an effort to identify patterns, themes, biases, and meanings" (Berg, 2007, pp. 303-304). Thus, content analysis was used to address word frequencies and reduce data to a manageable size (Cohen et al., 2007).

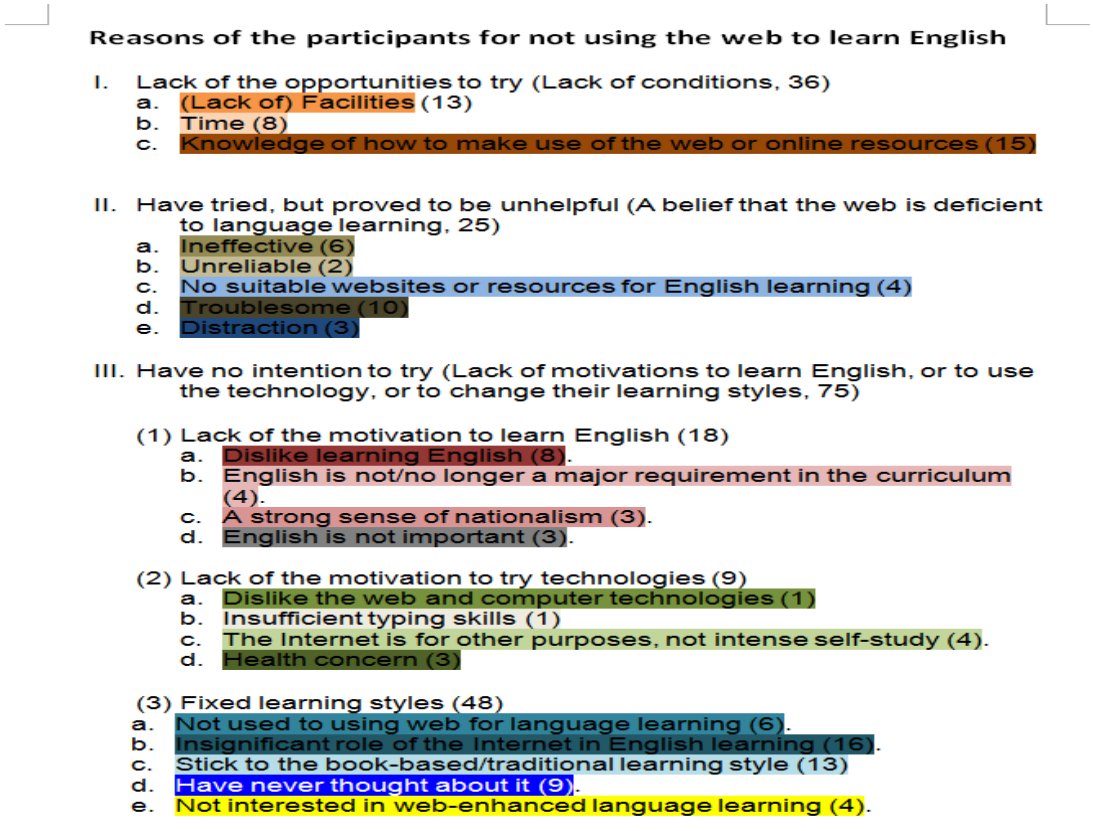
Initial analysis

At the beginning of data analysis, the 49 recorded interviews were transcribed in Chinese, as the interviews were conducted in that language. I did not translate all the transcripts from Chinese to English because it would have been time consuming, given the amount of data collected (N=512 pages). More importantly, translating all of the scripts into a second language might have incurred the loss or misinterpretation of some important information, thus undermining the validity of the research. The transcripts were then read through and several general and initial themes emerged from the data. These themes were as broad as the 'context of English learning', 'WELL experience' and 'reluctance of WELL use'. The process of transcription and creating initial themes was indeed an important part of my data analysis, as it helped me to gain an overall sense of the data.

Coding and theme creation

Next, the transcripts of 10 interviews were read through and coded line by line using 'paper and pencil'. This was because I intended to work on a small sample of scripts at first, identifying the codes and making amendments where necessary (Weber, 1990). Another intention was to develop a close relationship with the data. In particular, different colours were used to highlight different codes. These codes were then grouped into initial themes representing students' accounts and opinions of WELL use. The codes were documented in a Word file, and a worked example of initial coding is shown in Figure 4.2. Yet, I found it overwhelming to manage these codes manually. Even with the 1/5 of the transcripts it took much effort to go back to the original texts under a particular code. Moreover, the codes were changing and growing in number as I read new transcripts and did more thinking. As such, I began to learn to use NVivo through the courses provided at the Institute of Education and adopted this software package to assist with the coding process. This package proved to be especially useful, as it helped to organise the codes and themes, and record my interpretations of the data with its memo features (Cohen et al., 2007).

Figure 4.2: A worked example of the initial coding of interview data



Reasons of the participants for not using the web to learn English

I. Lack of the opportunities to try (Lack of conditions, 36)
   a. (Lack of) Facilities (13)
   b. Time (8)
   c. Knowledge of how to make use of the web or online resources (15)

II. Have tried, but proved to be unhelpful (A belief that the web is deficient to language learning, 25)
   a. Ineffective (6)
   b. Unreliable (2)
   c. No suitable websites or resources for English learning (4)
   d. Troublesome (10)
   e. Distraction (3)

III. Have no intention to try (Lack of motivations to learn English, or to use the technology, or to change their learning styles, 75)

   (1) Lack of the motivation to learn English (18)
      a. Dislike learning English (8).
      b. English is not/no longer a major requirement in the curriculum (4).
      c. A strong sense of nationalism (3).
      d. English is not important (3).

   (2) Lack of the motivation to try technologies (9)
      a. Dislike the web and computer technologies (1)
      b. Insufficient typing skills (1)
      c. The Internet is for other purposes, not intense self-study (4).
      d. Health concern (3)

   (3) Fixed learning styles (48)
   a. Not used to using web for language learning (6).
   b. Insignificant role of the Internet in English learning (16).
   c. Stick to the book-based/traditional learning style (13)
   d. Have never thought about it (9).
   e. Not interested in web-enhanced language learning (4).

Specifically, I imported and kept all the transcripts in NVivo (see Figure 4.3). That is, the first 10 interviews were coded again with NVivo. The other 39 interview transcripts were coded at the same time. When coding the data, I used the technique of constant comparison from the grounded theory method. I compared the new data with the existing data to see whether the codes could account for the new content. If not, I would add or modify the codes until they fitted all the data (Cohen et al., 2007). These codes were grouped into themes, which were further divided, evolved and adapted during the process of data analysis. A worked example of coding is shown in Figure 4.4. The labels for codes and themes came from the participants' accounts, CALL literature and my own words based on my understanding of the texts. When no insights could be further added to the codes, I started to reduce those which were overlapping and redundant and integrated them into the several key themes which had emerged.

Figure 4.3: A worked example of data management in NVivo

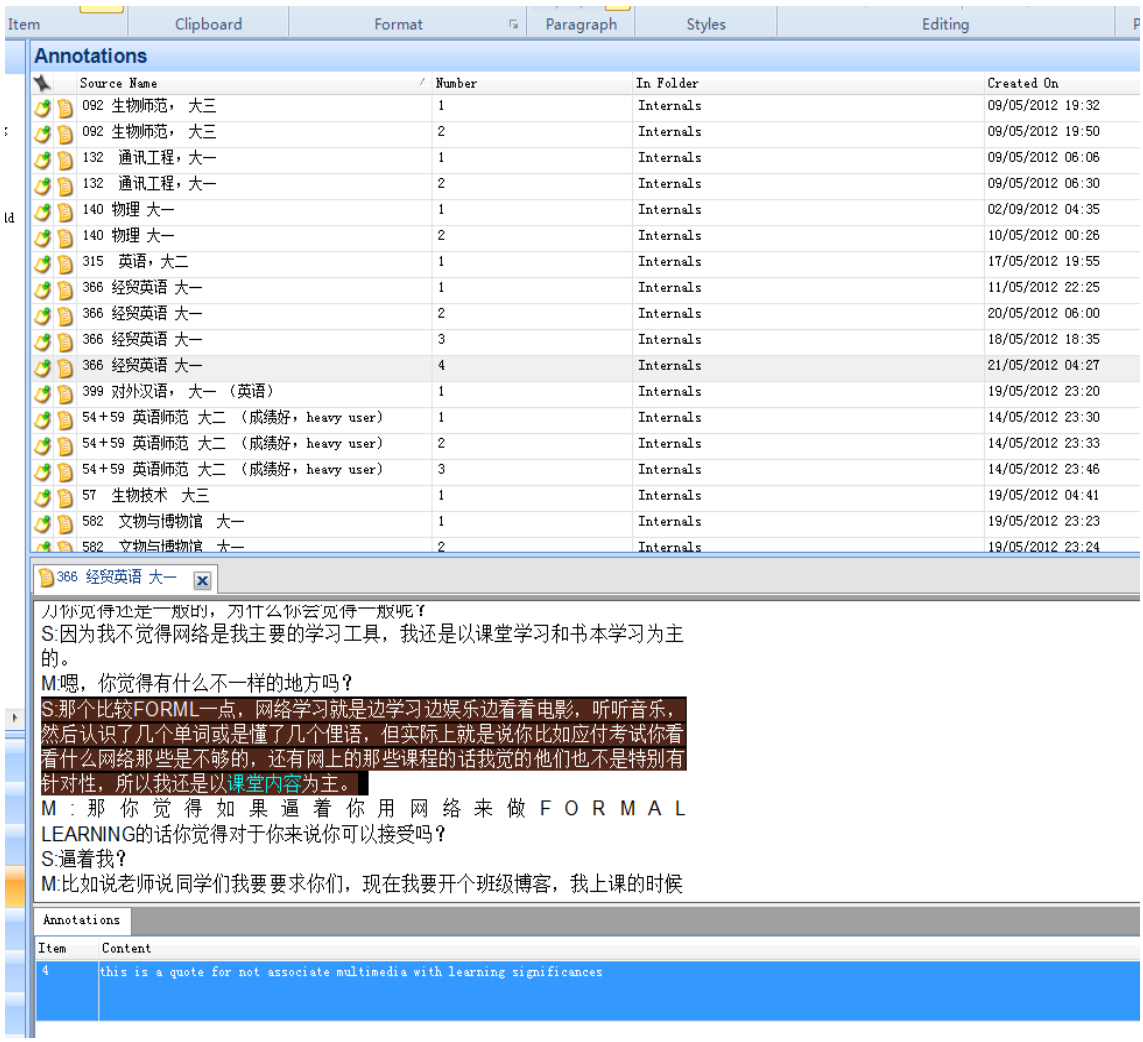
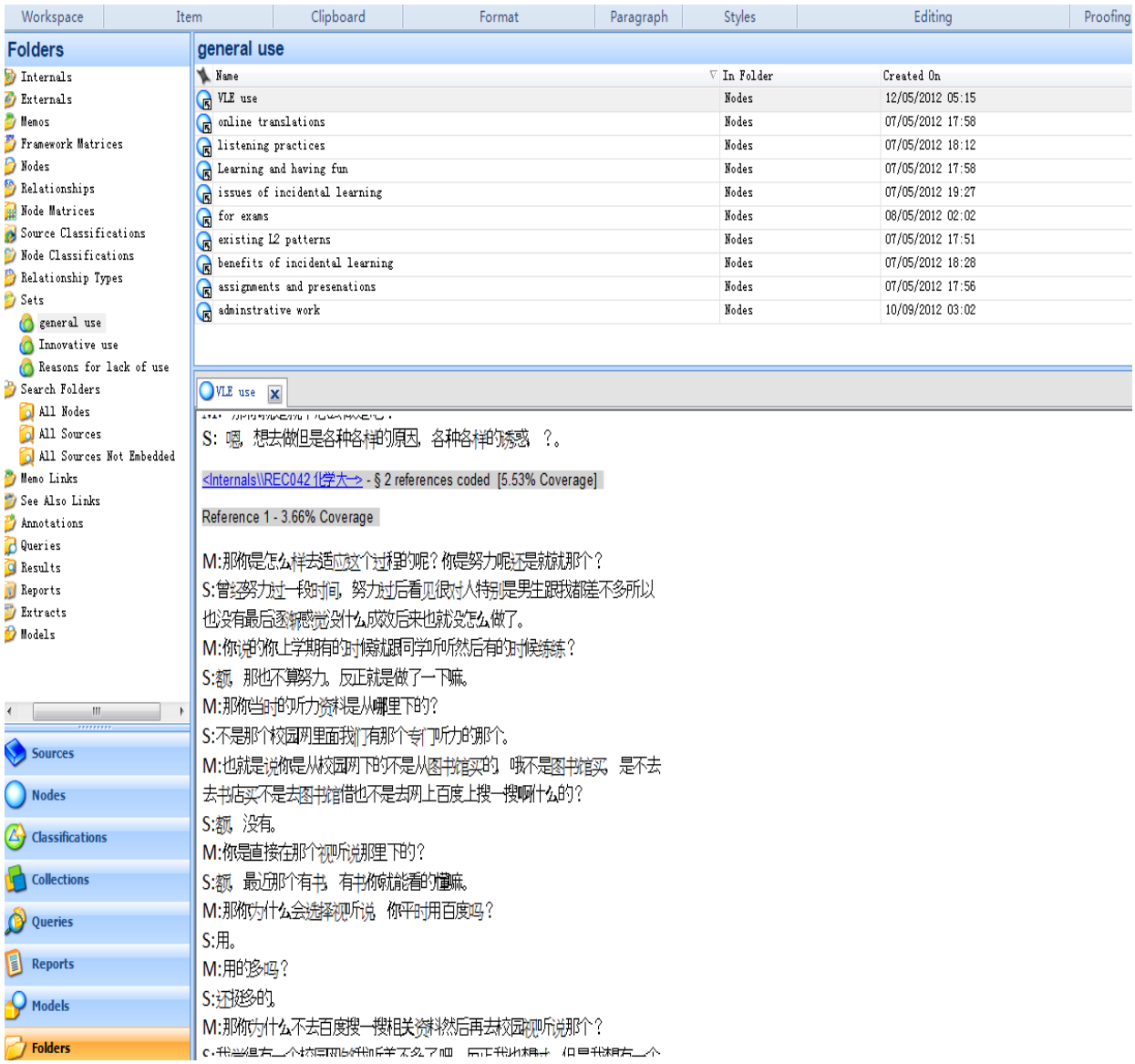


Figure 4. 4: A worked example of coding of interview data in NVivo



Developing a storyline

During the data analysis, I endeavoured to make links among the codes, so as to identify the 'core variable(s)' that connects other codes (Ezzy, 2002). This process was termed as 'selective coding' and described by Creswell (1998, p. 57) as "the researcher identifies a 'story line' and writes a story that integrates the categories in the axial coding model". Writing and rewriting reports of the findings was an important technique for enabling me to identify the 'core variable' during the data analysis. The process of writing helped me to reflect on the complexity of the data,

organize my thoughts and derive new insights into students' use of WELL. As Marshall and Rossman (1995, p. 117) noted, "writing about qualitative data cannot be separated from the analytic process".

4.5 Establishing trustworthiness

Reliability and validity are the key terms used to evaluate the quality of educational research (Cohen et al., 2007). Reliability refers to the "degree to which the finding is independent of accidental circumstances of the research", while validity indicates "the degree to which the finding is interpreted in a correct way" (Kirk & Miller, 1986, p. 20). That is, reliability is related to the transferability of the research in another context, and validity to the accuracy and credibility of the finding. Several techniques were used to maximize the validity and reliability of the present study.

The use of data triangulation

As can be seen in this methodology chapter, this research integrates both quantitative and qualitative methods. Although the decision was mainly based on the need to answer the research questions, the combination of research methods triangulates the data collected. This technique is seen as using two or more research instruments to overcome the problem of validity and bias in educational research (Cohen et al., 2007). This is because the information obtained from one research method is confirmed or challenged by that of another.

The use of peer debriefing

Peer debriefing involves working with experienced researchers outside the research project. In this study, I translated one page of transcripts and asked two qualitative researchers to check the codes and themes identified. In addition, I presented my research in department seminars and academic conferences. Thus this research was reviewed and challenged by other researchers inside and outside the Institute of Education.

Transferability and dependability

To establish dependability, I provided a detailed description of methodological procedures and issues concerning this thesis. In this sense, the study can be replicated, although subject to the influences of context. As to transferability, this thesis detailed the context of technology use and English learning in Chapter 1, as well as the research sites in this chapter, enabling readers to decide whether or not the findings could be transferred to similar contexts.

4.6 Conclusion

In this chapter, I have justified my worldview of the research design, elaborated in detail about how the empirical data was collected and analysed, considered ethical issues at various stages of the research as well as the ways to establish trustworthiness. Admittedly, I experienced much difficulty and made some inappropriate decisions during the research, especially in terms of accessing potential participants in the survey phase and coding interview data in the qualitative phase. However, my efforts to overcome these problems have proved to be constructive; they helped to derive extensive and informative insights for this inquiry. Chapters 5 to 8, following, will report and discuss the results of the survey and interviews with the 1,485 Chinese undergraduates, with attempts to disclose and make sense of their use and lack of use of Web 2.0 for learning English.

Chapter 5 The trends of English learning related use of technology

5.1 Introduction

This chapter exposes what the sample students are *actually* doing with the Internet for English learning related purposes, as well as delineating their perspectives of these digital experiences. These insights will shed some light on the first research questions posed in Chapter 4 – 'Are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?'. The data reported in this chapter are generated from two main sources. The first is the guided survey, involving 1,485 Chinese undergraduates from various academic backgrounds. Using the data from the survey, the first part of this chapter describes the *trends* of WELL use. As defined in Chapter 1, the term WELL indicates the L2 activities that involve the use of online technology. The survey results reported here inform us of whether the participants in this inquiry are committed to the use of online technology for their English learning, while providing an overview of the research question posed. Where appropriate, the patterns of WELL use are scrutinized in comparison with the students' general web use, so as to gain a fuller understanding of their behaviours surrounding technology.

The second source of data draws on the semi-structured interviews with 49 students who were strategically selected from the questionnaire respondents. Thus, the second source involves qualitative data obtained from 26 heavy and frequent users (active), and 23 light and non-users (less active) of WELL from different academic departments and different years of study (for details, see Appendix 8). As such, the picture that emerged from the interviewees should be more optimistic than normally expected from the questionnaire respondents, as most questionnaire respondents are found to beless active users of WELL in this study (see section 5.2.1). Data from the two non-users are included in the reporting of qualitative data, essentially because they noted certain WELL activity during the interviews, although claiming themselves as non-users in the questionnaire. Notably, the active and less active users of WELL will not be discussed separately, essentially because this chapter does not aim to define different groups of users, but to explore the commonalities and varieties

of usage patterns among the interviewees. Such exploration will help to further illustrate and expand the patterns of WELL use identified in the survey phase, and thus provide useful insights into the research question proposed. These in-depth descriptions uncover how online technologies assist or influence, if at all, the interviewees' approach to English learning, and enhance our understanding of the contextually situated phenomenon of WELL.

5.2 The view from the quantitative data

This section presents findings on patterns of WELL use from analysis of the survey. Particularly, it reports how often, if at all, the questionnaire respondents engage with WELL, in what contexts they choose to conduct these activities, what the widely chosen online applications for English learning are, what learning purposes these WELL activities serve and, what the perceived learning outcomes with WELL are.

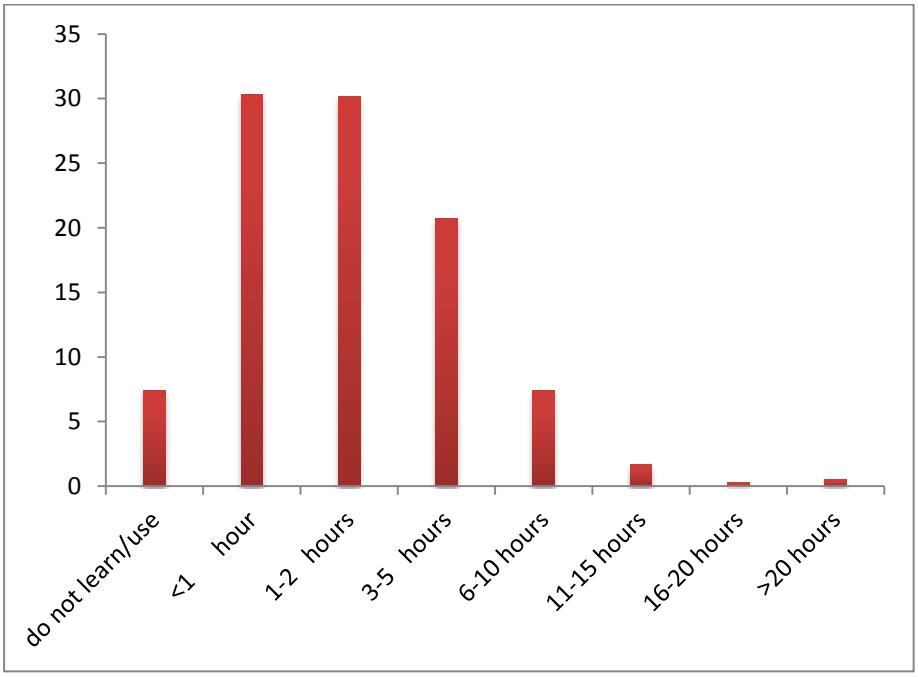
On the whole, this section found that the use of WELL among the respondents is widespread, but mostly limited and non-interactive. This is similar to the results of previous research that used surveys to investigate university students' use of technology for (language) learning (e.g. Winke & Goertler, 2008, Lai & Gu, 2011; Crook, 2012; Kaya, 2013). Such an overview constitutes a background for the in-depth discussion of WELL activities in the next section and the following two finding chapters. The relevant evidence is detailed as follows.

5.2.1 The adoption of WELL

One overwhelming feature that emerged from the data is that the adoption of WELL is reaching levels that might be considered ubiquitous. Evidently, online technologies are integral to English learning for the vast majority of the questionnaire respondents (92.6%), irrespective of their academic and socio-economic backgrounds (see Figure 5.1). However, the uptake of WELL does not necessarily indicate a prolonged engagement with this learning approach. A comparison of the data in Figures 5.1, 5.2 and 5.3 suggests that despite the frequent use of the Internet, most respondents spend much more time learning English *without* the help of the web. Specifically, most of

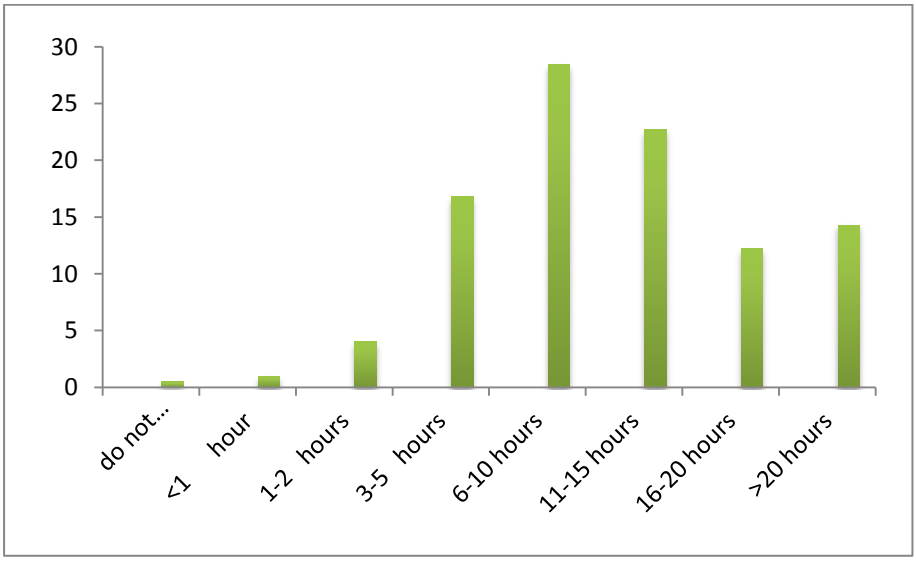
the respondents (61%) are not prolific users of WELL spending no more than two hours per week with it. The statistics reported here corroborate those published by the Research Database of Higher Education in China (2007), in which 79% of respondents spent less than three hours per week online for learning in general.

Figure 5.1: Weekly hours spent on English learning related use of online technology



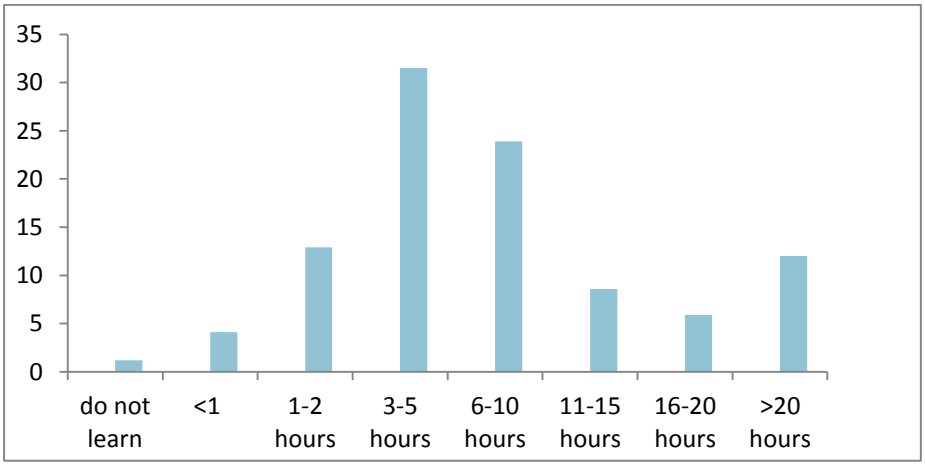
Note: data are percentage of all respondents (n=1,455)

Figure 5.2: Weekly hours spent on the use of the Internet



Note: data are percentage of all respondents (n=1,481)

Figure 5.3: Weekly hours spent on learning English

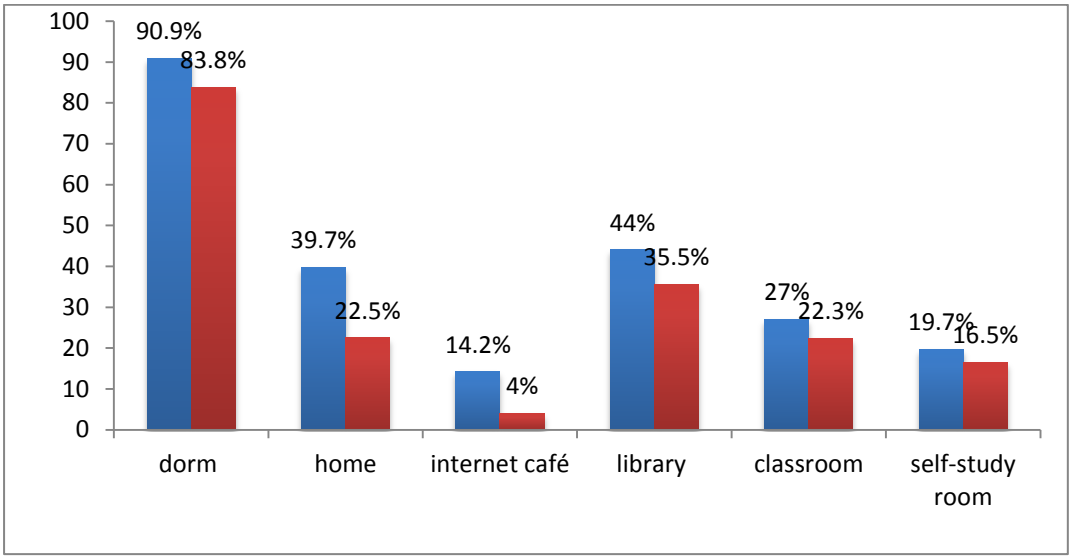


Note: data are percentage of all respondents (n=1,454)

5.2.2 Locations of self-accessed WELL

Figure 5.4 indicates that the location of WELL activities might be relatively fixed for most respondents. Evidently, the dormitory was selected as the dominant location for WELL use (83%), leaving the runner-up, the library, far behind (35%). This means that for many respondents the dormitory might be the only context of self-accessed WELL. Further examination of Figure 5.4 reveals the respondents' inclination towards engaging with WELL on campus sites. In particular, the respondents are in favour of the WELL locations where general web use is usually practiced. Yet, the contexts of home and the Internet café are exceptions in such patterning, as suggested by their sharp decreases in Internet and WELL use. Notably, these two locations can be categorized as off-campus sites. In other words, compared to off-campus sites, the respondents are more likely to conduct WELL activities in university contexts, including the student dormitory (83.8%), library (35.5%), classroom (22.3%) and self-study room (16.5%). This trend might indicate that the use of WELL is often related to academic duties and tasks.

Figure 5.4: Locations of WELL use and general web use

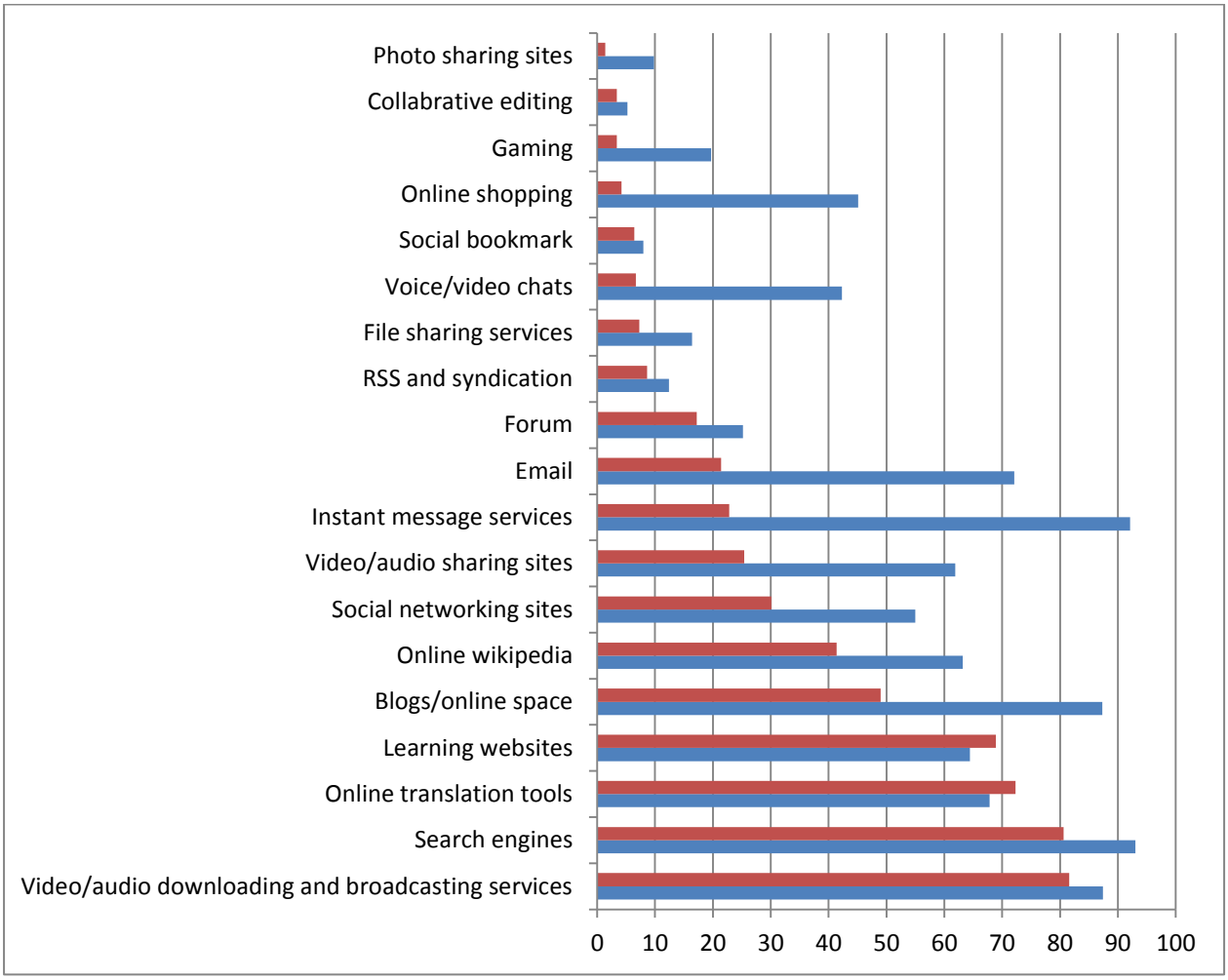


Note: data are percentage of all respondents; columns in red represent locations of WELL use (n=1,376), in blue represent locations of general web use (n=1,485).

5.2.3 Choice of WELL applications

Respondents' choices of WELL applications are revealed in Figure 5.5, and compared with general web use. Three overarching subthemes emerged. Discussion of these subthemes adds to current understanding of the respondents' preferred WELL tools, and thus English learning activities involving the use of digital technology.

Figure 5.5: Comparison of students' use of online applications for English learning and general Internet use



Note: data are percentage of all respondents; bars in red represent online applications used for WELL (n=1,376), in blue for general Internet use (n=1,485).

The dominance of information attainment tools

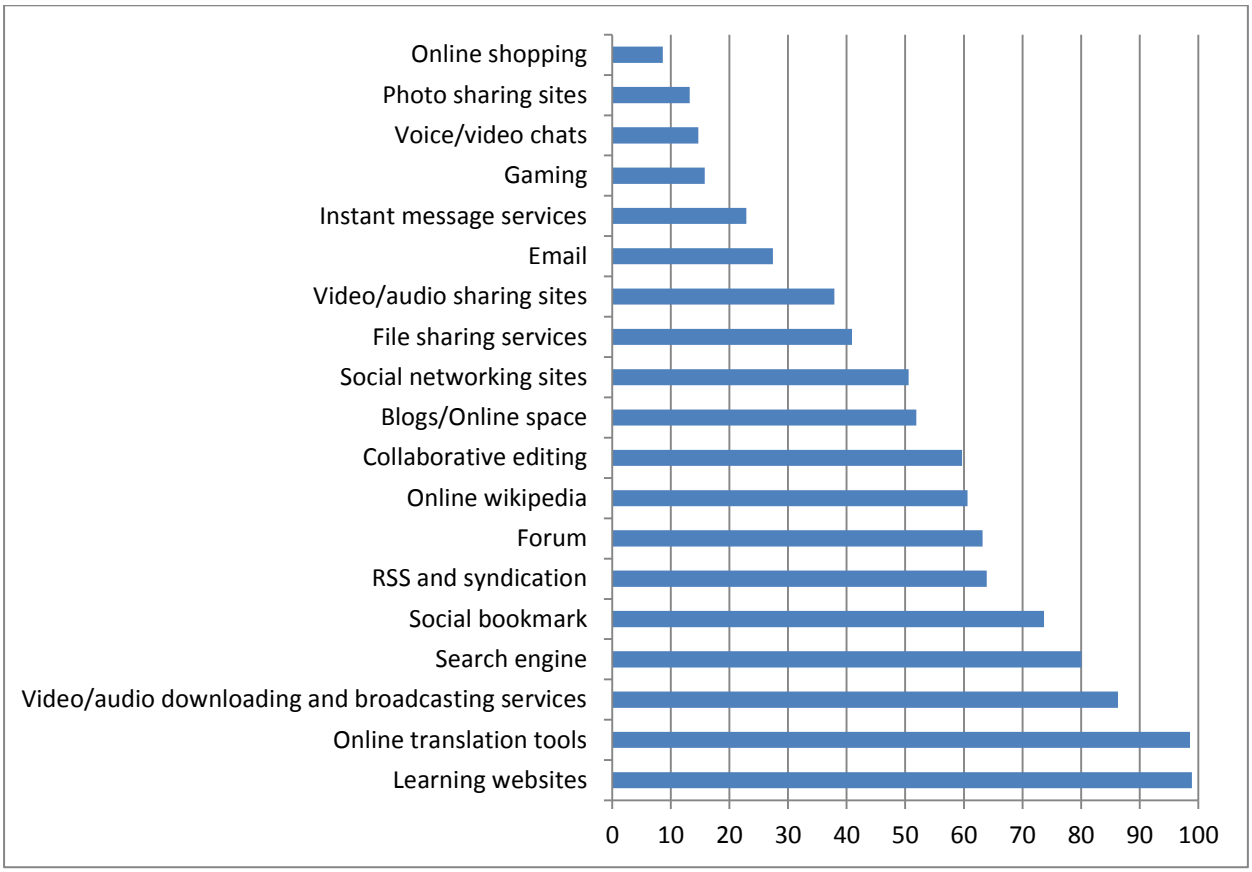
As can be seen from Figure 5.5, one outstanding pattern is that most respondents use web applications that are predominantly about static presentations of information, instead of more interactive tools for English learning. In particular, it can be seen that although there is a degree of diversity in terms of the WELL applications selected, the most widely used tools are from a narrow range. This pattern is consistent with previous survey results. For instance, 2,120 undergraduates in Australia were found to use a core set of online tools for academic studies (Kennedy et al., 2008). More specifically, Figure 5.5 shows that the list of popular tools is narrowed down to

information attainment services when it comes to English learning – i.e. audio/video downloading and broadcasting tools (81.6%), search engines (80.6%) and online translation tools (72.3%). The overwhelming uptake of audio/video downloads indicates that the vast majority of respondents are making use of the sounds and images enabled online for their English learning. The popularity of search engines and online translation tools suggests the widespread use of WELL for search inquiries, such as checking vocabulary, and locating information and resources on certain topics.

Notably, in light of the literature, it can be argued that such usage patterns are due to lack of access to or knowledge about emerging online technologies. In this sense, Figure 5.6 demonstrates how likely the respondents would be to use familiar online tools for English learning related tasks. Still, the pattern shows that the information obtaining tools are most readily used for learning English. Yet, the information management tools such as social bookmarking and RSS seem to hold potential for English learning related tasks. Even so, these data still constitute a picture where respondents are more likely to engage with the web as if it were purely a large knowledge database, and that Web 2.0 technologies have not transformed them into more socially interactive learners of English. In other words, respondents seemed inclined to make informed choices of WELL use for information consumption and management, rather than publication, networking and communication.

Finally, it is worth noting that with the exception of ‘video/audio downloading and broadcasting tools’, formal WELL applications are more likely to gain popularity among the respondents – i.e. English learning websites (98%), online translation tools (97%) and search engines (79%).

Figure 5.6: Students' use of online tools for learning English



Note: Data are percentage of the respondents reporting readily use of that tool.

The popularity of English learning websites

It can be seen from Figure 5.5 that 'English learning websites' are also popular among the respondents (68%). They are discussed separately from the information attainment tools, because they not only provide free English learning resources, but often feature a forum for learning discussions. In other words, these websites can also be rendered as platforms for learning participation. The nature of these WELL activities will be discussed in the next section.

Significantly, in the questionnaire respondents were also asked to list their three most visited websites and online services, respectively, for English learning. The vast majority of them (73.5%) supplied answers. Some listed three or more online tools or/and websites whereas others noted only one or two. These responses were then

accumulated and grouped according to the nature of the technology prescribed. A total of 4,262 items were gathered from this open-ended question, of which 1,947 were categorized as English learning websites (45.7%). Specifically, 98 different learning websites were identified by the respondents and the top ten are shown in Table 5.1.

Table 5.1: An overview of participants' most used websites for English learning

Nanjing	Chongqing	Total
1. BBC (147)	1. www.putclub.com (264)	1. www.putclub.com (406)
2. www.putclub.com (142)	2.BBC (217)	2. BBC (364)
3. VOA (97)	3.VOA (187)	3. VOA (284)
4. www.hjenglish.com (49)	4. www.foreign.swu.edu.cn (134)	4.www.foreign.swu.edu.cn (134)
5. www.bigear.com (29)	5. www.bigear.com (81)	5. www.hjenglish.com (111)
6. www.gter.net (28)	6. www.hjenglish.com (62)	6. www.bigear.com (110)
7.www.koolearn.com (15)	7. www.unsv.com (41)	7. www.gter.net (51)
8.www.kekenet.cn (10)	8.www.kekenet.cn (40)	8. www.kekenet.cn (50)
9.www.aisi.com (9)	9.www.gter.net (23)	9. www.unsv.com (41)
10. www.tingroom.com (9)	10. China Daily (16)	10.China Daily (16)

It can be seen from Table 5.1 that only two websites from English speaking countries are included, the BBC and VOA. Perhaps the popularity of the two websites can be linked to academic requirements, as the English exams administered by MoE and institutions include the BBC and VOA news in their listening sections. Other popular websites listed in Table 5.1 are professional English learning website from China. Indeed, all but the BBC and VOA appear to be local services, suggesting that instead of making use of websites where English is naturally used, the respondents favour websites that are specifically dedicated to English learning.

More specifically, the websites www.pubclub.com and www.bigear.com are mainly concerned with practicing English listening skills. They provide a wide range of audio and video materials for English learners to download. Their popularity echoes the almost universal uptake of audio/video downloads. The website www.gter.net is

dedicated to exam preparation and skills. It offers mock exercises of various English exams including TOEFL and IELTS[8], as well as interactive platforms for users to discuss and exchange exam preparation resources and experiences. Other websites provide space for both exam preparation and extra materials for English learning.

In addition, the institutional VLE is apparently not so popular among the respondents in Nanjing, whereas the one in Chongqing is well accepted (www.foreign.swu.edu.cn). As mentioned in Chapter 4, this might be because the institutional VLE is implemented and imposed by the university in Chongqing. Taken together, it can be seen from this subsection that the respondents seem to favour the website that is most closely linked to their academic duties.

Communication 1.0 vs. the social web

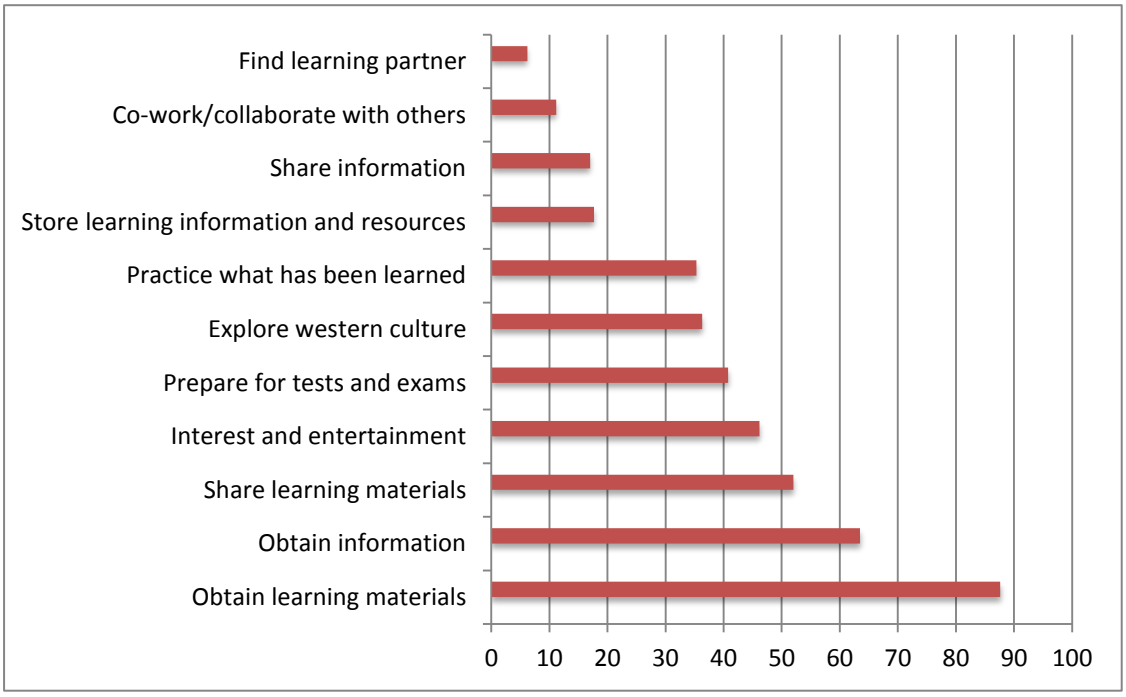
When it comes to English learning, as shown in Figure 5.5, the social web is only adopted by a minority of respondents. Despite this, its popularity surpasses the information communication tools that were born in the era of Web 1.0, or what is termed 'communication 1.0' in this study. In fact, communication 1.0 services have almost vanished from WELL despite their proliferation in general web use. This pattern is different from that identified in previous research, where emails and chat tools were found to be popular for academic studies (Kennedy et al., 2008). In the present study, however, respondents seem to embrace the social web, evidenced by their adoption of blogs and online space, and social networking sites (49.0% and 30.1% respectively). Yet, the uptake of Web 2.0 tools does not necessarily indicate that the respondents are actively creating and publishing via the social web. It is possible that the ways in which the respondents engage with these social tools are more consumptive than productive. The nature of these WELL activities will be explored later in the qualitative data analysis.

[8] Test of English as a Foreign Language (TOEFL) and International English Language Testing System (IELTS) are standardized tests of English proficiencies for non-native speakers around the world. They are usually taken by non-native speakers of English who seek education in the English speaking world.

5.2.4 The purpose of using WELL

Echoing the patterns of WELL use discussed above, the most reported purposes of using WELL pivot on resource consumption rather than learning contribution or participation (Figure 5.7). One exception that emerged is the sharing of learning materials (52%). This is most likely to be achieved through the use of the social web. Yet, barely mentioned is the utilisation of web applications for learning collaborations (11.2%) and networking with learning partners (6%). In other words, the respondents have the option of using the social web, but few choose to explore such services for more sophisticated language learning purposes. Of course, Figure 5.7 only presents a flavour of how the respondents are using online technologies, because such information is inductive in nature. Relevant descriptions are enriched and discussed by using the qualitative data in the next section.

Figure 5.7: Students' purposes for using WELL



Note: data are percentage of all respondents (n=1368).

5.2.5 The perceived learning outcome

Given the almost universal uptake of audio/video downloads and the popularity of websites for listening exercises, unsurprisingly, WELL is perceived by questionnaire respondents to be most helpful with improving listening skills. As shown in Table 5.2, respondents also perceive that their WELL experiences have promoted their interests and motivations for English learning. These perceptions of WELL will be explored in depth in the next section. In the meantime, the use of the web is also seen to help with vocabulary studies. This might be associated with the overwhelming uptake of search engines and online translation tools. Notably, WELL is deemed less useful in terms of promoting production skills, i.e. speaking and writing. This echoes the pattern of WELL use which shows that most respondents are choosing consumptive rather than interactive tools for English learning. Finally, grammar was seen to be the least improved aspect of English through WELL.

Table 5.2: Students' perceived learning outcomes through WELL

English learning outcome	Mean (SD)
Listening	4.11 (1.305)
Interest and Motivation	3.78 (.805)
Vocabulary	3.77 (.731)
Overall English skills	3.63 (.699)
Reading	3.55 (.778)
Writing	3.33 (.748)
Speaking	3.24 (.893)
Grammar	3.07 (.760)

Note: 1= Strongly disagree, 2= Disagree, 3= Neutral, 4=Agree, 5=Strongly agree (N=1,334)

5.2.6 Summary

This section has identified the commonalities or the 'trends' of WELL use among the sample students in this study. The key messages from the survey study are summarized below:

- Almost all of the respondents have more or less integrated WELL into their English learning;
- WELL use seems to be limited, and mainly directed towards seeking and managing learning information and resources that take different representational formats exemplified by video and sound;
- WELL use are more likely to take place on university campuses, rather than in off-campus sites;
- Respondents prefer to use the English learning websites that are closely linked to their academic study.

These usage patterns of WELL project a picture where most of the respondents are engaging with the web as if it is a large database, and perhaps for academic tasks. However, the nature of these technology involved learning activities is less defined with the quantitative data. In addition, although a group of respondents are beginning to adopt the social web for English learning, it is not clear at this stage whether it facilitates a communicative or participatory way of learning English. Bearing these findings and questions in mind, the following section aims to investigate the use of WELL in depth through the interview data.

5.3 The view from the qualitative data

While the previous section gives an overview of students' use of WELL, this section brings more information about the nature of their WELL activities, thus constituting an essential part of our understanding of the learning phenomenon researched. In the interviews conducted, the 49 students interviewed identified a rich variety of ways in which the web is approached and utilized for English learning. Accordingly, four

major themes have emerged and can be used to describe the digital experiences of most of the students interviewed. The themes, 'English learners as users', 'strategic use of the web', 'pragmatic use of the web' and 'procedural use of the web' for learning tasks, arise from my interpretations of the students' behaviours surrounding online technology. Respectively, most of the interviewees are found to be English users one the web; they also took the web as strategies for coping with academic tasks; many invented pragmatic uses to fulfil learning tasks; finally for many interviewees the use of WELL is a requirement of their academic course and a means of undertaking course administration. The themes outlined above are illustrated in the following, sections by examples ranging from *relatively* innovative instances of WELL activity to the more practical use of online technology.

5.3.1 English learners as users

Of the 49 interviewees, 41 are found to seek entertainment from online multimedia sources produced in English. Some interviewees also conduct other 'fun' activities in English. In other words, English is often used as the medium for pursuing personal interests on the web. Significantly, this study also explores student perceived benefits and limitations of these experiences in relation to their English learning. This type of technology use and the student perceived benefits and concerns are reported and analysed in this subsection.

<u>'Learning while having fun'</u>

'Learning while having fun' comes from existing literature of educational technology. This phrase is often used to describe digital game-based learning (Prensky, 2005; Duque et al., 2008), where learners are drawn to the 'fun' of playing games while acquiring certain knowledge at the same time. Accordingly, the scenario of 'learning while having fun' can be applied to the empirical data reported in this subsection, where the interviewees' efforts to acquire exposure to English are less related to learning intentions than personal interests.

For example, participant 4 is a student of Chemistry. To him, English learning was all about passing exams, and his learning routine focused on studying vocabulary and revision books for CET 4. On the other hand, participant 4 was very active on the Internet; he was even the webmaster of a sports forum. Very different from the passive picture of learning English described earlier, participant 4 mentioned his consumption of English sports news online: "I sometimes read English (sports) news online…usually at night in my room because we don't have classes then". One might argue that the choice of the news in English rather than Chinese signified the interviewee's hope to improve his English proficiency. This seems to be supported by the interviewee's recognition of how to improve reading skills: "I think reading articles and news (in English) have helped with my (English) reading". Yet, when asked how he accessed these materials, the interviewee explained:

> Interviewee: I would buy some books.
> Interviewer: Why didn't you use the web?
> Interviewee: I don't like downloading and reading them (English articles) on my PC or mobile phone…I don't like screen reading, because I simply can't follow….
> Interviewer: Haven't you read English news online?
> Interviewee: As for the sports news I'll use the Internet, because I'm interested.
> (Participant 4, chemistry, male, year 2)

This excerpt suggests that the increased exposure to English was not the main drive of reading English sports news online, but rather a by-product of such behaviour. That is, the focus of the interviewee here was not on the language learning per se but on its use. In fact, several interviewees who intentionally visited western websites did not claim that English learning was their major aim on such occasions, as one noted: "Foreign (western) and local (Chinese) websites are very different. I go to foreign websites for fun and for broadening my horizon, but you can always pick up some new words if you like" (Participant 629, engineering, female, year2).

Another typical example is demonstrated by a participant, who was a fervent admirer of western pop music. This interviewee assimilated a large number of English songs, downloaded lyrics and used online dictionaries of American slang. These activities certainly exposed him to the target language and perhaps engaged him in the meaning-making process. Indeed, when reflecting on his e-experiences, the

interviewee noted that his hobby enabled him to acquire a list of informal vocabulary and standardize his accents when singing along. Despite this, he considered it of little relevance to his intention to learn, as he explained: "I listen to those (English) songs just for entertainment, I simply enjoy it....it's got nothing to do with my study" (Participant 1793, English, male, year 2). Thus, the choice of WELL use here was more associated with general web use and the personal interests of the interviewee.

The examples above demonstrate cases where interviewees perform as English users and learning takes place incidentally. In fact, instances of incidental learning are widespread among the interviewees where English is learnt when it functions as the medium for activities of personal interest. In the vast majority of these cases, interviewees are downloading and consuming English music, films, TV shows and series, perhaps because these activities are part of popular culture and entertaining in nature, as one participant explained:

> The Internet is just for fun. Although you might get bored when surfing online, you can always find something to do, such as browsing renren.com (a SNS), and then you wouldn't think about learning English. Maybe sometimes you would watch (English) films, but you wouldn't think you were learning English, so maybe you were just not aware that you were learning. (Participant 582, cultural heritage and museum, female, year1)

Perceived benefits of incidental learning on the web

As in the examples demonstrated previously, interviewees seem to be aware of their learning gains arising from 'having fun' in English. They are led by their experiences to believe that the web has functioned positively for their English learning in three respects. First, consistent with the results of previous research (Lai & Gu, 2011) and the current survey, more than half of the interviewees noted that their engagement with online multimedia has improved their input skills exemplified by listening. This is revealed in the following excerpt:

> Interviewer: If any, what English skill do you think the web has helped most?
> Interviewee: I think it's my listening skills, after all, I have watched and listened to so much stuff, I think it's helpful to practice listening skills.
> (Participant 315, English, female, year2)

Secondly, the web helps to increase exposure to the English language and provide opportunities to exercises the language. This is revealed in the remarks of a non-English major who believed that watching English films helped to maintain language awareness in her learning context:

> Unlike English major students, we don't usually have the chance to use English and our course books are not in English and we don't usually come across the English language. So your English proficiency will drop dramatically, especially your listening and speaking skills…that stuff (English films and TV dramas) are very useful.
> (Participant 605, environmental engineering, female, year 3)

Last but not the least, the online activities conducted in English are perceived as a supplement to classroom learning. The benefits of such add-ons are twofold – they complement the English learnt in formal settings, and move from serious and achievement-driven learning to 'fun' and relaxed learning. Particularly, such words as 'standard', 'practical' and 'real' have been repeatedly mentioned when the interviewees attempted a description of online English resources. Although what the interviewees mean by these adjectives might be slightly different, the common belief is that the web has enabled access to the information and images coined by, and for, English speaking communities. These inputs are perceived by interviewees to be distinct from those learnt in the classroom, which are mostly 'formal', 'grammar-focused', or even 'Chinglish':

> The English in the (online) videos is very colloquial. The English we learn (in the classroom) is not everyday English, it's very formal and rigid… (Participant 315, English, female, year 2)

> The web has brought in the real English culture, whereas it has always been 'Chinglish' in class. (Participant 629, engineering, female, year 2)

> It (the web) can show you the real English. For example, when I am watching films online, it's a great fun, but in the meantime I know what they (the native speakers) are doing, why do they do it, and the English they use is very idiomatic. (Participant 49, English, female, year 2)

As these remarks suggest, the shifts brought by the use of online technology facilitate the acquisition of communicative English and the study of western culture. On occasion, the 'communicative' inputs online could shake the interviewees' attitudes towards English learning. For example, English learning was about doing mock tests and exercises to participant 1007. This learning approach was cultivated by her test-

based educational experiences from the past. In this vein, participant 1007 appeared to be a demotivated English learner, as she perceived this type of learning to be 'boring' and 'painful'. However, engagement with online multimedia brings this student a different learning experience, as revealed in the following remarks:

> Think about it, I sat there for three hours doing the mock tests in the morning. My mind drifted away easily and the result was not satisfactory. But I have no choice….Sometimes I think it's really nice to learn English online. When I watch English films online, of course they have subtitles, but the English they use is quite simple. At that time I felt English was actually not difficult to learn. But this only happened when I was watching films…I feel very painful (learning English) the rest of the time. (Participant 1007, female, Chinese literature, year 1)

Here the web seems to have enhanced the students' learning motivation. Her learning interests are boosted by the comparative ease of communicative English and the entertaining nature of some multimedia resources. This finding echoes the survey results, where, according to the respondents, L2 motivation and interest are enhanced via the use of digital technology. Despite the relatively pleasant L2 experience, however, this interviewee noted later that such use of technology took place only occasionally and did not change her exam-orientated routine of English learning. Such paradox is highlighted in the following subsection.

'Issues' of incidental learning on the web

Notwithstanding the awareness of what the Internet can bring to English learning, the actual responses of the interviewees to the 'colloquial' inputs online are ambivalent, with comments ranging from having a huge impact to making no difference to their English learning. Notably, the communicative inputs online were less appreciated by most interviewees. Such attitudes can be explained by their L2 motives and perceived realities about English learning. It should be noted that nearly all of these interviewees see academic achievement as their paramount learning goal, which will be discussed in more detail in Chapter 7. As the English exams are linguistically focused (see Chapter 1), interviewees often attach great importance to English that is relatively formal and academic. In this sense, the informality of the English provided by entertainment resources is understandably less significant to them. This point is vividly revealed in the story of another participant, who was about to enter her final

year of study at university. She was motivated to learn English, primarily because she was keen to join the postgraduate programme and English was involved in the admission exams. With this goal in mind, this interviewee was attending English classes, doing mock exercises and studying new vocabulary. Given these circumstances, the interviewee acknowledged the qualities of her incidental learning online, but did not perceive such engagement as important to her English learning:

> The English learnt in the classroom is more formal. But you can get something different on the web. The English there is more colloquial, more down to the earth and it could reflect the western culture… it focuses more on oral English….Usually the stuff you come across (online) when listening or watching stuff for entertainment can hardly appear in some serious articles. I mean it is more colloquial and won't have long sentences… this is not good for my exams…. It won't affect my (English) study if I don't do this". (Participant 605, environment engineering, female, year 3)

Here, this interviewee took a pragmatic view towards online multimedia, and put forward its learning limitations for exam preparation. Such a point of view reflects the power of assessment and the influence of learning motive on the interviewee's choice of technology use.

Furthermore, many interviewees do not associate their online multimedia use with learning significance, partly because the 'fun' and 'relaxing' nature of these activities contradicts their existing learning beliefs. As mentioned in Chapter 1, English learning is traditionally associated with exams, diligence and hard work in the Chinese EFL context. This is also confirmed by the interviewees in this study. For example, English learning was a serious matter to one participant, who commented on the classroom practices led by her foreign English teacher:

> I think the Chinese teacher (is more instructive than the foreign English teacher), perhaps because Chinese students have shared characteristics – we have received exam-orientated education since primary school, we are all pressured by study. Suddenly we've got a foreign teacher who organises activities, you'll find it fresh, so your attention is paid to the activities themselves, so we are just playing during class…you might learn nothing at all after it, you just had fun and that's it. (Participant 1828, English, female, year 2)

It can be seen here that 'fun' was not considered a criterion for effective learning. Indeed, this interviewee reported some 'serious' forms of learning being conducted in academic locations with tools exemplified by teachers, reference books and

dictionaries. On the other hand, the incidental learning she conducted online was noted to bring joyful experiences and often took place in non-academic locations such as the dormitory. As such, the online inputs were perceived by this interviewee to be less important, despite the fact that she was aware of their positive attributes to English learning:

> It (watching English films) is my personal interests. Because it's not something you can learn from books, so I feel I'm more interested in it. Secondly, this is something you can use in daily conversations….You can also get some authentic English in class, but it's very limited….But I only watch them (films) during the weekend….it's just adding some spice to my learning….self-study in the classroom is more serious. (Participant 1828, English, female, year 2)

In the view of the following participant, multimedia inputs were stillnot legitimate for English learning:

> I will watch the public lectures of Yale University…but these are so unimportant (to my study) because I don't study them in the library. If I have time I'll watch one or two clips when I go back to my room at night….That (classroom learning) is more serious. Learning English with the web is all about having some fun, like watching films, listening to some music, learning several words and slang… so I am still classroom based. (Participant 366, English, male, year1)

As can be also seen from the two examples above, the result of not valuing the experiences of using English online is the lack of regular and sustained practice of these activities. In addition, the interviewees are inclined to pay less attention to the forms and structures of the English encountered online, which is not considered 'good practice' in terms of language learning (see Chapter 3). Indeed 'fast food' and 'instant noodles' were employed by several interviewees to describe their consumptions of learning resources online – as in the following examples:

> Reading (English) on the web is like eating instant noodles, it's quick, and you forget it easily, it's not like the book we learn, you will read it several times. You would try to understand the contents and memorise the beautifully written paragraphs…. (Participant 366, English, male, year 1)

> I feel like eating fast food when I am browsing websites (in English). There is no way for you to dig out the structure and stuff. When it's done it's done. You've just got the information. (Participant 1686, English, female, year 2)

Taken together, the interviewees appear to be English users with the use of the current web. They seem to be aware of what these experiences can do for their English learning. Yet, as this type of technology use does not fit into their realities and beliefs about English learning, they take these learning opportunities less seriously. On the other hand, the availability and diversity of online multimedia resources attract attention from some interviewees whose intention is to improve listening skills. This type of technology use is discussed in the following section.

5.3.2 Strategies for coping with academic tasks

This section reports interviewees' intentional use of the web for English learning. More specifically, students are found to use the online resources strategically to improve English listening skills, and handle exams and other academic tasks. Here, strategy indicates the efforts of learners to fulfil certain learning tasks in a conscious manner. In this study, these strategies are found to be influenced by teaching authorities or/and the interviewees' learning experiences from the past.

The practice of listening skills

Eleven interviewees mentioned the strategic use of online resources for listening practice. Six noted specifically that they visit English learning websites for dictation or gap filling learning exercises on them. Five interviewees listen to certain online materials repeatedly, making use of the text, sound and images to understand the messages delivered. One example is demonstrated by an English major student, who received much guidance from her teacher on how to improve English with online multimedia resources. Indeed, she is one of three interviewees who mentioned receiving formal instruction on how to use WELL. As a 'good' student, this interviewee followed the teacher's advice and used the web to practise her listening and speaking skills respectively:

> Our teacher recommended some websites to us, such as the BBC and VOA. Our teacher suggested that we should listen to VOA news from the first year, and start with the help of the scripts and then try to manage without them. We should understand each item of news, and then do more exercises later. So now I would collect some news reports and practise my listening skills. I

> (also) download the mock dictation exercises of TEM 4 (Test for English Majors), and do at least one dictation item per week.
> …
> Our teacher said that if you want to rely on (English) films to improve speaking skills, usually you should first watch the film with subtitles. In this way you can understand what it means, and then you should watch it without subtitles, and the third time you should repeat each sentence. But I usually don't have the patience to do so, unless it is strongly recommended by our teacher. (Participant 399, English, female, year 1)

With the teacher's instructions, it seems that this interviewee had clear strategies to practising her English with the help of online multimedia resources. Yet, one other notable aspect emerged: the interviewee's listening exercises with online multimedia appeared more sustained than her practices of speaking skills. Perhaps this is because the former concerned exam preparation whereas speaking skills do not. In other words, there seem to be a penchant on the part of the interviewee to make strategic use of the web for academic concerns. This motive for WELL use echoed her effort to achieve academic excellence: "I have been a good student since I was little. I'm so afraid of not doing great in exams, and I simply can't accept that".

Another example in this vein is demonstrated by an interviewee whose learning goal was clearly exam-orientated throughout his English learning history: "In the past you had to face the entrance exams to college …now (at university) I don't like English classes but I have to take them. After all, I still have to pass the exam…" (Participant 1651, food science, male, year 1). Influenced by this exam-orientated style, this interviewee only exerted much learning effort when the exams were approaching. As 'listening' was involved in the formal assessment, this interviewee noted how he used the web to improve his listening skills:

> If CET 6 is around the corner I will do some mock exercises and practise my listening. I would also download some English songs. If I can't understand them, I would download the lyrics. After studying the lyrics I would listen to the songs again…. Although the teacher would provide us with some listening practices in class, they are not enough. (Participant 1651, food science, male, year 1)

Here, the adoption of online technologies for learning was triggered by the force of assessment. Online resources were used strategically and served as an add-on for exam preparation. Notably, this interviewee is one of a limited number of cases where entertainment resources were used intentionally for exam preparation.

When asked why they had chosen the Internet for listening tasks, interviewees usually used such words of 'new', 'diverse', 'free' and 'convenient' to describe the potential learning resources online and hence justify their learning choices. Alternatively, these descriptions indicate a shift towards a more individualized learning experience on the web. This sense of learner-centeredness has distinguished learning materials on the web from those obtained in the formal context. This is demonstrated in the following examples:

> I think online stuff is more lively. It has many different kind of stuff, such as the Obama's lectures, totally unlike the listening exercises for CET 4 and 6, ouch, so boring, I can fall asleep listening to them. (Participant 1164, chemistry, female, year1)

> It (the web) helps me to find learning resources of my interest. I don't like those dull learning materials…I'll listen to the English, for example, spoken by good-looking guys for several times. I also like to listen to Chinese celebrities talking in English, so I'll find videos like these and take time appreciating them…. (Participant 629, engineering, female, year 2)

Technology use for existing learning practices

The more commonly adopted strategies using the web are, nevertheless, less related to practising skills than preparing for exams. One very popular strategy to handle exams is to download mock exam papers or relevant materials on the Internet. This pattern of technology use seems to resonate well with students' learning aspirations and their accustomed ways of English learning, as in this example:

> Interviewer: So what else do you use these learning websites for?
>
> Interviewee: Downloading exam papers from the past….The exam is approaching, so I'll start to do mock tests right after I am done with the review. My years of experience tell me that it is rewarding to repeatedly do exercises and mock tests before the exam. The teacher won't usually give us mock tests, although last term he handed out the exam papers from 2008 to 2010, altogether four sets. They were finished quickly by mock test nuts like me. Usually I can handle one set of exam papers for maths, English and Chinese per day… (Participant 399, English, female, year 1)

It can be seen here that the web was just an option which allowed the interviewee to prepare for exams in the same way. Thus it was clear that the interviewee's online

behaviour was only replicating her existing learning patterns. Other frequently occurring instances include note-taking of important vocabulary and phrases encountered online, as elaborated by the following interviewee:

> Er, when I read books sometimes I like to write down the good stuff, so as to accumulate those good English expressions. I also read and share stuff about CET 4 and 6 on my (online) space and Renren. When I come across these materials, I'll write down the phrases I think useful and memorise them when I read them in the morning. (Participant 1164, chemistry, female, year1)

As introduced in Chapter 1, university students in China are commonly seen to repeatedly read English vocabulary or paragraphs of texts in the early morning. Thus, what became clear from this interviewee was that this seemingly original management and consumption of online content was only replicating the interviewee's practices with paper-based materials. Another example in this vein was demonstrated by the following interviewee:

> I'll preview and review the lessons, and I use (traditional) dictionaries very often…I haven't changed this habit in study (from senior middle school)…Now when learning a new lesson, I'll consult (traditional) dictionaries, and after it I'll search for some background information (online). (Participant 1717, English, female, year2)

In this case, the patterns of learning behaviour developed from the past remain active in the student's language acquisition activities. In other words, although the application of the web seemed to add some 'newness' to the interviewee's language learning, the web was only utilized to enhance well established learning patterns. In this sense the web did not 'transform' the interviewee's English learning, but served as a tool to assist her academic study after class. As WELL was rendered as a means to enhance existing learning patterns, the use of the web was sometimes performed in conjunction with traditional methods, as demonstrated by the following interviewee:

> Interviewee: It's very easy (to handle English writing), because I have books, the books dedicated for writing (preparations for exams).
> Interviewer: do you use the Internet for writing preparation?
> Interviewee: Yes, yes, I have actually searched for writing templates and other stuff… (Participant 653, engineering, male, year2)

5.3.3 Pragmatic use for the fulfilment of learning tasks

In light of the interview data, interviewees' engagements with the web are not confined to those which are strategic. Some practices encompass a pragmatic use of online information to complete learning tasks. Here, pragmatism indicates the case where technology is used more as an effort-saving tool for English learning related tasks. Examples are demonstrated below.

Enquiries for online translations

Checking vocabulary through key word searches in Google or Baidu, or copying and pasting new words into online translation tools are welcomed by interviewees. This is because these approaches are seen to be quick and efficient compared to the standard point of research – traditional dictionaries.

> I think it (online dictionary) has got a real advantage. Imagine if you have to carry a big dictionary to the library. It certainly weighs much less if you carry a small laptop. Besides, it is quicker if you look up a new word with it. (Participant 366, English, male, year 1)

> It (the web) is very helpful. Without it I cannot look up the new (English) jargon in my field. I can only get to know the meaning of some English words on the Internet. It will also provide some examples of the word use in sentences and academic articles, and this is very important. (Participant 57, biology, female, year 3)

On the other hand, many interviewees recognise the issues that arise from this mode of web use. According to them, the convenience brought by online technology has somehow undermined their strategies for vocabulary learning. This is illustrated in the following two examples:

> The downside (of using an online dictionary) is very clear too. When you come across a new word, you will no longer guess or try to recall what it means, which you would do with the (traditional) dictionary. Besides, with the (traditional) dictionary there are usually a number of words with the same prefix on the same page. So you can try to memorize them all. But you can't do this with the online dictionary. (Participant 366, English, male, year 1)

> It (online dictionary) makes me lazy. With a paper dictionary you have to look up the word manually, so it takes a while, but you can remember the

> word well. With an online dictionary I would look up the word and just get the meaning. I won't try to memorize the word, and this is not good….
> (Participant 379, English, female, year 1)

Despite awareness of these learning issues, the use of the Internet to check new words is still one major activity identified with the interviewees. Perhaps this is because in many cases the Internet is treated more as a convenience tool than a learning aid, as revealed in this account: "I prefer paper dictionary. Sometimes when I read something fast and don't feel like looking up the word in the (traditional) dictionary, I would use online dictionary" (Participant 92, biology, male, year 3).

Indeed, fourteen interviewees are found to indulge in some form of extreme practice with online translation tools or search engines. In these cases, the use of the Internet is for pragmatic reasons rather than learning purposes. That is, the technology is not used to facilitate learning comprehension, but instead applied as a short path to complete the tasks in hand. This point is demonstrated in the following excerpt:

> The Google or Youdao translations are used for translating web pages. When I volunteered in some international events, I found that English was all over their websites. Then I used these (online translation) tools to translate them…when you found something that didn't make sense in Chinese, you could check the original texts…because reading English makes you tired, and sometimes you can't understand it. Online translations are very convenient. If I find something wrong, I can go back to the original texts, which saves a lot of trouble. Here my goal is to understand the language, not to learn English.
> (Participant 444, classic literature, female, year2)

Other instances of extreme practice are related to the completion of academic tasks assigned to the interviewees, as revealed in the examples below:

> Aren't the paragraphs for translation assignments quite long? I'm not an English major, and feel quite painful in doing it, so I'll turn to Baidu (search engine) and the stuff. And sometimes I can get it….In the cases where I can't find it, I'll have to totally depend on myself, that is, I have to do and revise it for many times. (Participant 605, environmental engineering, female, year 3)

> When I am given a writing topic, I'll think about how I am going to write it in Chinese, and then type Chinese (into online translation tools), to get it translated (into English)…I'll usually read it through and then send it to the teacher. (Participant 616, environmental engineering, female, year 2)

Unsurprisingly, the online practices stated above had certain negative influences on learning English, as the interviewees were making less cognitive effort. Yet, different from the findings of previous research, it is important to note that such tensions regarding online practices were not expressed in the interviews in negative terms. Indeed, these instances were often reported alongside the sensible use of the Internet. For instance, the participant immediately above continued: "I often use Jinshan and Youdao (online translation tools), quite often for translations. If the exam is coming soon I'll also use them to check some words and get a better grasp of new vocabulary". It seems that this interviewee, perhaps like many others, is somehow caught between the 'use and abuse' of the web in terms of learning related initiatives. One possible explanation is that the interviewee is aiming to complete learning tasks and the Internet is just an instrument to help achieve this end. As can be seen from her remarks, online translation service was used as a shortcut to complete class assignments during term time and it was used for vocabulary study when the exam was approaching. That is, the interviewee chose to use the same online service differently as her learning needs and situations changed. Accordingly digital technology played an instrumental role in English learning for this interviewee. This pragmatic use is confirmed by another interviewee when asked why she ticked 'neutral' to her WELL experiences in general: "I think it (the Internet) is just like a tool. You use it when you want to. I don't hate or like it. It's just very convenient" (Participant 315, English, female, year2).

Inquiries for essay assignments and presentations

Similarly, many interviewees embrace online searches for information and resources when they write essays or prepare for class presentations. This type of technology use is especially popular among the English major students, mainly because they have many more English classes and assignments compared to non-English majors. Notably, this mode of inquiry seems to be expected and approved by teaching authorities, and thus fits well with the culture of formal learning. This is clearly revealed in the following remarks:

> You have to use it (the web). The teacher assumed that you were able to use it. She assumed that everyone has a computer and can use it…and you have to search for some information. She (the teacher) assumed that you could deal with the computer….so without the computer you can't finish your tasks and these tasks are part of your learning. (Participant 1727, English, male, year2)

Again, this type of inquiry has become dominated by search engines exemplified by Google and Baidu. Interestingly, among these interviewees, eight also mentioned the use of SNS for addressing their research inquiries. In particular, 'sharing' via the use of SNS is found to be popular, which corresponds the survey results demonstrated earlier in this chapter. Instead of a contribution to online knowledge, however, 'sharing' is rendered as means to store 'useful' information for future reference. One case in point is demonstrated by an interviewee who shared resources for pragmatic reasons:

> When I find something useful online I will share it on my (online) space.... I mean I might use them (the materials) sometime in the future…. Sometimes when I can't find any resources when I am writing essays, I'll go to my Qzone. Recently our teacher asked us to write an essay, and much stuff I used came from this online space of mine. (Participant 57, biology, female, year 3)

As can be seen from this example, 'sharing' appears to be a form of information management. Despite the fact that use of the web had become a mandatory element in the academic tasks, few of the interviewees mentioned receiving any guidance on information literacy. Indeed, similar to what happened in the previous subsection, online technologies were sometimes used as shortcuts to complete academic tasks, as noted by this interviewee:

> When I do the exercises in the textbooks….I'll sometimes simply get the answers (online). It would take a long time to do them and I really don't want to.... I won't copy (essays) directly from others online. I'll make many changes instead. Even the teacher won't recognise that I actually borrowed from others. (Participant 1735, English, female, year 2)

Preparation for exams

Pragmatic use of the Internet can be again found in the cases where interviewees are preparing for exams. It is clear in these instances that English learning is not about improving language skills but about dealing with the learning task in hand. One typical instance of this kind is demonstrated by a participant who was academically pressured:

> If, I do a mock test of CET6 and write an article tonight, it (the test) will provide you with a writing sample. I'll search the articles on the relevant topic online, just to see whether there are alternative ways of expression…because I am not an English major, I can't possibly spend much time memorizing beautifully written articles. So this is a tactful way. My current task is to pass standardized tests, and I think this (online search) is a straightforward way. (Participant 1199, chemistry, female, year1)

It can be seen here that this non-English major participant has limited time for learning English. Yet, she is under considerable pressure to pass the English exams required by the authorities concerned. To deal with the dilemma of limited time and academic assessments, her solution is to use the web as a shortcut for exam preparation. Such use of technology might not be desired by language professionals, but it seems to be a rational choice from where this interviewee is situated.

Furthermore, eight interviewees also noted the use of exam experiences and skills shared by online individuals. In the interviewees' opinion, such information usually unveils the contributors' strategies and experiences of exam preparation. The information can be found on English learning websites where exam forum and communities are established and thrived. Most of these interviewees visit the exam forum and websites regularly before exams. Two radical cases are demonstrated by interviewees who were preparing for international English exams at the time of the research. During the interviews both students repeatedly mentioned the use of 'Ji Jing', a newly coined Chinese word indicating test items, procedures and summaries which some examinees post online. The phenomenon of 'Ji Jing' originated from the belief that although the questions in these international exams are randomly selected, there are high-frequency topics which can be identified from scrutinizing databases of test items. Thus by posting the questions the examinees remembered during these

exams, they wish to, in collaborative efforts, build up a sort of database of high-frequency topics for those preparing for exams. 'Ji Jing' was important to some interviewees, as suggested in the following excerpts:

> I have to learn English now because I have to take GRE[9]…. I knew nothing about GRE when I just started the exam preparation. I was clueless. I even didn't know of the existence of such a thing as 'Ji Jing' for GRE writing. I knew nothing about this exam! And then I read those posts and summaries (online). They guided my exam preparation and I have gained much after I read them all…I didn't know about the exam procedures and relevant matters, and all of these could be found online. (Participant 623, environmental engineering, male, year2)

> I can find many 'Ji Jing' examples on the web, and that's it, and if I can plus finish the test book handed out by the New-Oriental school, my TOEFL score can't be bad. I don't aim at a very high score, just over 90, so I'll find some resources online, perhaps Ji Jing. I'll also go to xiaoma.com and do a mock test. In this way you can pretty much predict how many points you can get in the real test. The mock test I did was based on Ji Jing. (Participant 641, engineering, male, year 2)

It can be seen that these two interviewees have the explicit goal of dealing with the exams in question. In this sense, the web is used as a shortcut to achieve the best exam results, rather than as a learning aid to improve language competences. Interviewees' exam-orientated learning intentions even have their influences on how the information is managed and consumed online. At least five interviewees adopt a pragmatic approach to handling the exam-centred materials and information, as in this example:

> When I got useful materials I would download them directly to my computer. As to those mock tests I downloaded, I would delete them after I was done with the exams…they (peers) shared CET4 vocabulary lists (on Renren, a social networking site), and some stuff like 'these vocabularies can be memorised like this'. I usually marked them as my favourite. <u>When the exams are coming, I'll print them out and study them for the finals…I'll delete them afterwards</u>. (Participant 399, English, female, year1)

Clearly, the behaviour of this interviewee was exam-orientated. Another notable aspect here is the interviewee's attempts to transfer digital data to paper-based materials. This strong propensity towards texts on paper is also manifested in other

[9] Graduate Record Examination

cases, perhaps because resources managed this way could better support interviewees' accustomed learning patterns, as occurs in the following remarks:

> After all, the stuff (language learning resources) I bought was on paper because you can read it repeatedly. I'll even print out the resources I found online. (Participant 20, chemistry education, female, year 2)

> A few months ago, I printed out all the resources I shared, and studied them at night and read them in the morning. (Participant 60, engineering, male, year 1)

5.3.4 Procedural use for academic tasks

In this study, 'procedural use' means that the use of technology is required to fulfill academic tasks. This includes completing assignments on the web, as requested, or using web technology for administrative purposes. Procedural use of WELL is widespread and mentioned repeatedly by interviewees. In light of the interview data, teaching authorities and assignments can be said to play an important role in this type of online engagement. The details of procedural web use are discussed as follows.

<u>'Use' of the institutional VLE</u>

It may not be surprising to find in the interview transcripts that some English teachers enable or even require students to use online technologies after class, given the popularity of technology in young people's everyday life. During the interviews, 32 interviewees talked about using a certain type of online technology which was imposed on them for English learning related purposes. Institutional VLEs were mentioned by as many as 23 interviewees. Despite the adoption of technology, the data suggest that most of these interviewees did not really value or appreciate bringing these technologies into their English learning.

In particular, 21 of the 23 interviewees who mentioned the use of the institutional VLE were from Chongqing. This echoes the survey results where the institutional VLE appeared to be proliferating among the questionnaire respondents from Chongqing. According to this group of interviewees, critical factors with respect to

the adoption of the institutional VLE is centred on whether it is part of formal assessment rather than whether it is helpful for English learning. In this sense, mandatory use does not necessarily equate with meaningful use of technology, as 14 interviewees confirmed when talking about how they avoid, or 'get by' spending the number of compulsory hours on the institutional VLE for English learning. One typical case is demonstrated by an interviewee, who made it seem as if he had used the institutional VLE in the way expected by teaching authorities:

> I didn't use it (VLE). I think the listening exercises on it are a bit silly. I usually log on (to the VLE account) and then do something else. In this way I can handle the assessment and then learn something interesting….I would find some English to read when I surf online, or I would download the latest VOA news to listen to. (Participant 1299, engineering, male, year1)

This interviewee's account suggests that he did not value the learning opportunities provided by the institutional VLE, nor did he use it in a meaningful manner. Although he 'cheated' with the VLE system, his choice of engagement was rational from his perspective. That is, he tended to consume the learning materials of interest to him after class but in the meantime, he had to fulfill his academic duties. Therefore, it is not surprising to see that interviewees such as participant 1299 described the requirement of VLE use as 'a burden', 'trouble' or 'boring' for their English learning. Even two interviewees from Nanjing mentioned their experiences of using a 'trick' with the institutional VLE. According to them, the university in Nanjing used to require its undergraduates to spend time on the institutional VLE for English learning. Yet, the interviewees themselves and many others faked their use of the institutional VLE. As the 'trick' was discovered by the teaching authorities, the requirement to use the VLE had been aborted. As a result, neither of the Nanjing interviewees continued using the institutional VLE for their English learning. Their stories shed light on why the institutional VLE is not popular among the questionnaire respondents from Nanjing.

As to the few interviewees who do make a use of the institutional VLE, their experiences are usually less than positive. One typical example is demonstrated by an interviewee, whose English proficiency level is self-rated as 'very low'. She felt lost in her English learning as she received insufficient guidance at university. Despite this situation, she was motivated to improve her English due to the pressure of CET 4. To

this student English learning was 'painful' and test-based. She followed the teacher's instruction if there were any, and was accustomed to doing learning exercises as part of her exam preparation. In this sense, she tried to complete the teacher assigned tasks on the institutional VLE. However, her attempts did not prove successful and she gave up her efforts eventually:

> You have to log on it (the institutional VLE) and use it for 12 hours (each term). I didn't have a computer last term, so I went to the computer room (of the university). But I was very upset…because the book (version) has both vocabulary and exercise pages, and I could check the vocabulary when doing the paper exercises. My vocabulary is very limited, and I could memorize some words in this way. But on the web, the exercises are all over the screen, and they are such a headache. So I bought the book, and it has the answers (to the exercises on VLE) on it … and I just copied the answers (onto the VLE)….Let me put it this way, it's totally a waste of my time. It would be better if I could just do the exercises on the book. I would work harder this way. But now (with the VLE) I have practiced my typing skills at most. (Participant 1007, Chinese literature, female, year 1)

As this example illustrates, the digital experience imposed on the interviewee failed to attract sustained effort from her. Perhaps this is because in this case technology did not bring an essentially different experience to English learning. In fact, the online exercises seem to be a replication of paper-based learning exercises. It is unsurprising that the interviewee was more used to the traditional than the digital version. As a result, this interviewee seemed to be forced to use the VLE by formal assessment but deemed its use as 'a waste of time'.

Only two interviewees talked about their use of the institutional VLE in a positive manner. Both of them showed intense interest towards English learning and saw the tasks on the institutional VLE as extra learning exercises after class. For example, one interviewee was keen to improve her communicative skills and she used the VLE to do so: "I like it (the institutional VLE). I want to improve my spoken English, and it has many listening materials on it, and I would do them all" (Participant 1129, education, female, year 1). Another case was revealed by an interviewee, who valued classroom learning and complained about the limited exposure to teacher-guided exercises. In this vein she took the institutional VLE as extra learning exercises:

> Interviewer: will you use the VLE if it's not a part of the assessment?

> Interviewee: I think many classmates might not use it, but I think I will….The teacher only gives us one or several essay assignments, or asks us to do one or two sets of exercises, and that's it. So you can do some exercises (via VLE) by yourself. We don't have a lot of English classes each week, so if I want to learn I would use it. (Participant 1199, female, chemistry, year1)

These instances indicate that besides technology access, one important prerequisite of making meaningful use of digital technology involves learners' impetus to make such use of technology.

Administrative work for academic study

Aside from doing learning exercises, three interviewees also uploaded their English assignments onto the institutional VLE. According to them, such use is compulsory: "the (English) teacher asked us to put the assignments on Moodle" (Participant 1409, English, female, year 2). Other interviewees began to use the communicative web technologies to support their academic studies. In these cases the communicative feature of the institutional VLE was often neglected. Instead, interviewees were using the online applications they were familiar with. For example, one popular online service among the interviewees is QQ, an online application providing social networking, community building, email and instant messaging services. Fifteen interviewees mentioned that they had class discussion groups on QQ. These groups are usually established by their class monitors. Although these online spaces are less formal, English class schedules and notices are usually shared on these platforms.

In addition, at least nine interviewees submitted their English assignments to class monitors via the QQ class discussion group or emails. Five interviewees noted that they sent assignments to their English teachers via other email services. The use of these communicative technologies seems to be an integral part of their academic studies, as noted by one interviewee: "the Internet develops so fast that as a college student you have to master it…. Without it things will become difficult. You can't even hand in your assignments, so how can you manage your studies?" (Participant 1727, English, male, year 2).

5.4 Summary: Are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?

In providing a picture of what the majority of the students in this study are doing with online technologies, this chapter has addressed the first research question posed. In particular, the participants in this study have begun to use online applications for English learning related purposes. However, such activities are often limited, conducted on university campuses, facilitated by non-communicative online tools, and directed towards the consumptive use of online information and resources. Notwithstanding these trends of WELL use, the subsequent interview data have exposed the complex and diverse nature of WELL use among students. The themes and subthemes regarding the students' use of technology for English learning related purposes are listed in Table 5.3.

Table 5.3: Themes and sub-themes regarding student trends of WELL use

Major themes	Learner as users	Strategic use	Pragmatic use	Procedural use
Sub-themes	Learning and having fun	Practice listening	Use of online translations	The use of the institutional VLE
	Perceived benefits	Existing learning patterns	Resources for completing assignments and presentations	Administrative work
	Perceived issues		Exam preparation	

Despite the diversity of WELL use revealed in Table 5.3, there are far more instances where some of the students use the Internet to seek specific English learning resources

and information for specific and pragmatic purposes (e.g. completing required tasks on VLE and translating English texts into Chinese), instead of making communicative use of Web 2.0 services or learning English in a more sustained manner. In fact, as suggested by the names of the major themes, interviewees' use of WELL is mostly strategic, pragmatic and procedural, all evolving around their academic duties and existing English learning patterns. Admittedly, as suggested in Chapter 2, the Internet provides new and extra L2 opportunities outside the classroom. However, it is found in this study that in practice the use of the web is often taken by students as a means to 'get by' rather than 'get on' with their English learning. In addition, as revealed in Table 5.3, one notable aspect is that some of the students are language users outside the classroom. In the light of the interview data, these informal attempts at language learning are mainly incidental and associated with pop culture such as consuming English films and music. However, activities as such are not engaged with in a sustainable manner. This is because many of the students interviewed do not see these activities of incidental learning as a legitimate means of learning English. This is due to their views about English learning and their understanding of the exam-orientated learning reality. These findings enlighten understanding of what the students *actually* do with online technology, and highlight the mediating role of context in their use of technology. A discussion of these findings follows.

5.5 Discussion

It was noted in Chapter 2 how the opportunities afforded by Web 2.0 applications and services are seen to resonate with current thinking about foreign language learning and education. Given the popular discourses of 'digital natives' and Chinese undergraduates' appetites for English learning, it might be expected that Web 2.0 tools and communications would be eagerly appropriated into their out-of-class English learning activities. However, by investigating '*Are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?'*, this inquiry has painted a different picture, which highlights what can be said as linkages and disconnections with past studies.

In particular, as described in Chapter 2, many CALL practitioners believe that contemporary students are confident computer users, who are enthusiastic about and comfortably acquainted with L2 activities that involve new technologies (Rosell-aguilar, 2004; Toffoli & Sockett, 2010; Chen, 2013). Admittedly, the present study found the use of WELL widespread among the participants. However, the empirical findings of this chapter also show that "the Net Generations are not (necessarily) big users of Web 2.0 technologies" when it comes to L2 learning (Kennedy et al., 2008, p. 517). It can be noted from both survey and interview data that the participants' use of Web 2.0 is limited. Their behaviours surrounding digital technology are often biased towards passive consumption, rather than communication and production. The reluctant use of Web 2.0 technologies has confirmed the findings of previous research, where interactive and collaborative use of online technologies is not embraced by most of the (language) learners (Winke & Goertler, 2008; Luckin et al., 2009; Lai & Gu, 2011; Crook, 2012). Based on empirical evidence with American university students, as detailed in Chapter 2, Winke and Goertler (2008) concluded that despite the students themselves being 'digital natives', their leisure skills and practices of Web 2.0 do not necessarily migrate to out-of-class L2 learning. Lai and Gu (2011), too, found that the social web was popular among their university participants from Hong Kong, but insufficiently exploited in their self-regulated L2 learning outside the classroom.

Furthermore, in the current study where Web 2.0 *is* sometimes adopted for English learning related scenarios, it is often rendered by students in a decidedly Web 1.0 manner. That is, the interactive features of technology are *appropriated* by the students to accommodate their learning concerns and interests (Carroll et al., 2001). In particular, the current survey shows that a group of students begin to use the social web and possibly the interactive platforms of learning websites. In addition, 'sharing' is listed as a popular online activity. However, as revealed in the interview data, the social web and the act of 'sharing' are often used as a means to maintain online resources that are useful for future academic tasks. The use of learning websites is restricted to the obtaining of learning resources and information. At most, the interactive online tools are used by the interviewees as a backstage platform to support the administration of academic work. Although the involvement of Web 2.0 can be said to add some newness to the learning activities reported, such use can be

hardly labelled ‘ground breaking’ or ‘pioneering’ (Green & Hannon, 2007). This poses challenges to rhetoric such as ‘learner 2.0’ and ‘new millennium learner’ (Pedro, 2007; Guerin et al., 2010), which draws attention to the possibly *new* practices of ‘net generation’ students (McLoughlin & Lee, 2007).

Significantly, the findings presented here go beyond the digital native debate. The portrayal in this thesis of what actually takes place among Chinese EFL learners suggests that their use of WELL is varied. This variety is reflected in both the levels of engagement and the patterns of WELL use. As shown in the survey results, participants can be categorized as non-participants, light users, frequent users and heavy users based on the number of hours per week they spend on WELL. In addition, although the popular choices of online applications concentrate on only a few, the survey results also demonstrate that in reality the use of WELL can be at different locations, with different online tools, on different learning websites, and for different reasons. Consistently, the semi-structured interviews in this inquiry have identified different patterns of WELL use, including but not limited to consuming English films and music, checking vocabulary, translating texts, and collecting information for assignments, class presentations and exam preparation. The varieties of WELL use described in this chapter suggest a greater level of complexity of technology use than is normally recognised, which encourages us to “acknowledge the diversity of the lived experiences” of the participants (Buckingham, 1998, p. 556).

Despite this sense of diversity, the key concern here is that most of the identified usage patterns ostensibly ‘fit in’ with the ‘job’ of being a Chinese undergraduate. That is, online technologies are inclined to be used to do familiar academic tasks after class. These findings are new to the existing CALL literature, perhaps because previous empirical studies were conducted in the context where the target language was learnt on a voluntary basis. However, the patterns of usage identified by the current study corroborate the findings of literature in the wider field of educational technology. For example, both the university students in the UK (Selwyn, 2009b) and Australia (Kennedy et al., 2008) are found to use the emerging online technologies to support their academic studies, such as essay writing and administration. Perhaps this suggests that English learning is viewed by the students in the present study as just another academic subject to deal with, rather than a communicative language to be learnt. As suggested in the conceptual framework established in Chapter 3, this is especially true

given the stress of securing academic success in their context of learning (see Chapter 1).Thus, instead of improving their language skills, many learners might simply use online applications for the sake of handling and excelling in academic tasks.

In this vein, some interviewees are found to conduct activities of online plagiarism, e.g. by copying essays and learning exercises, and using online tools to do translation assignments. These instances are consistent with the type of behaviour identified by Brabazon (2007, p. 113), who claimed that the 'net generation' undergraduates tend to "behave rashly, make poor judgements and cut corners". Like many critics of the 'digital native' rhetoric (e.g. Fearn, 2008; Keen, 2008), Brabazon (2007) challenged the legitimacy of the Internet as an appropriate learning tool and argued that the Internet has 'disempowered' young people. Although similar patterns of technology use are witnessed in this chapter, the current study has found limited evidence to support such arguments. Significantly in the present study, many interviewees who have 'cheated' online seem to be aware of the potential harm that such behaviour might bring to their English learning. Yet they continue to do so as they only aim to complete the academic tasks in hand. In other words, the self-reported cases of plagiarism and misbehaviour are deliberate. It can be argued accordingly that what Brabazon (2007, p. 16) called 'clicking replacing thinking' activities do not stem from the use of the Internet *per se*, but are driven by the participants' contextually mediated motives of 'getting by' in EFL learning at Chinese universities.

Finally, we know from previous research that L2 learners are using online multimedia exemplified by films and music for their language learning (e.g. Winke and Goertler, 2008; Toffoli and Sockett 2010, 2012; Lai & Gu, 2011). This is confirmed by the current study, where the vast majority of the questionnaire respondents listed online multimedia as tools for learning English. Particularly, interviewees are found to use English for online entertainment as well as activities of personal interest. When so doing, they are involved in online incidental learning. Significantly, what the present study contributes to this range of literature is that these EFL learners might not necessarily value this type of learning as much as 'serious' L2 learning. As suggested in the conceptual framework (see Chapter 3), this learner perspective is again found to be contextually mediated. Firstly, interviewees seem to be aware of the learning potential afforded by online incidental learning. Yet, they consider such activities less relevant to the reality of academically focused English learning. Secondly, the online

experiences of ‘learning while having fun’ seem to contradict their culture of learning, which highlights ‘hard work’ and ‘serious effort’. Taken together, the context of English learning seems to have mediated interviewees’ perspectives about learning opportunities on the Internet and thus influenced their behaviours surrounding online technology. In light of the data, the result of not valuing the opportunities of incidental learning is that the interviewees engage with such activities less sustainably, or pay less attention to the forms and structures of the target language. As discussed in Chapter 3, such behaviours are less conducive to the acquisition of the target language (Ellis, 2005).

5.6 Conclusion

In answer to the research question ‘are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?’, this chapter has presented evidence using both the survey and interview data collected from 1,485 Chinese undergraduates. In providing an overall and detailed description of what the majority of the students are doing with online technologies, this chapter has reached some rather bleak conclusions – the web is often taken by many of the students as the means to complete their academic tasks rather than a platform that provides different and communicative L2 opportunities. The students’ use of technology is mostly instrumental and unspectacular, which is different from the picture envisaged by some CALL practitioners in Chapter 2. However, a small group of the interviewees stand out from these trends and engage with the current web differently. These patterns of WELL use are explored and analyzed in the following chapter.

Chapter 6 'Breaking away' with digital technology

6.1 Introduction

As observed in the previous chapter, the trends of technology use among the students seem to fit into their pre-existing English learning patterns, norms and values. Different from the mainstream use of technology, the interview data also demonstrate a few embryonic signs of how Chinese undergraduates try to make a difference to their English learning via the use of online technologies. These cases are discussed and analysed in this chapter, and thus contribute to our understanding of the research question, '*does the use of online technology facilitate a different approach to learning English as a foreign language*'.

In particular, a small group of interviewees start to radically question their EFL context and attempt to make changes with the help of online technologies. Such use of technology can be linked to Engeström's (1996, p. 126) notion of 'breaking away', which sensitizes us to the power of agency to 'act otherwise'. That is, as detailed in Chapter 3, learners have the capacity to reflect on their learning disadvantages and reconstruct their context of development. In the light of the interview data, 'breaking away' in this study suggests two points. First, some interviewees are trying to locate learning opportunities that do not usually exist in the traditional EFL context. Second, some interviewees attempt to get away from the traditional modes of English learning and instruction. These activities constitute the two major themes in this chapter and are named respectively as 'breaking away from the EFL context' and 'breaking away from the traditional learning patterns and institutions'. These terms come from the concept of 'breaking away' mentioned in the relevant literature and my interpretation of what interviewees are doing with online technology for English learning related purposes.

More specifically, six sub-themes emerged under these headings. In order to break away from the traditional EFL context, a few interviewees discovered how to use the web to create input-intensive contexts, and opportunities for natural English production. To break away from the traditional learning patterns and institutions, a few interviewees created opportunities for English language production with online

non-peers (see definition in section 6.2.2). A number of interviewees sought help from other online individuals and in some rare cases contributed to collective knowledge online. With the help of the web, several interviewees also discovered new learning communities or ways of learning, so as to keep themselves motivated for English study. The sub-themes outlined above are reported and analyzed in turn, beginning with activities of breaking away from the broader EFL context before moving onto ways of challenging the more immediate contexts of learning institutions.

6.2 Breaking away from the EFL context

Learning English is seen to be a daunting task in the Chinese EFL context, as described in the existing literature:

> For many EFL learners in the East Asian contexts, there are enormous difficulties to overcome in their language learning….Such learners have extremely limited opportunities of using English. As they have little change to use English in their daily lives, their actual use of English inevitably tends to be confined to the classroom where a teacher teaches about 40 students (more often than not, using a native language as the medium of instruction, in varying degrees at least). (Tsuda & Nakata, 2013, p. 72)

In other words, L2 learners in this context have very limited English language exposure and few opportunities to engage in authentic English conversation. In this study, however, such learning disadvantage does not appear to worry those who confine their English learning to academic 'jobs'. Yet, it does create learning barriers for those who are keen to improve their English language skills. Interestingly, some learners interviewed have reported their experiences of how to overcome these difficulties through the use of online technologies. These activities are discussed as follows.

6.2.1 Creating an input-intensive context with digital technology

Five interviewees signified their approaches to create an input-intensive context via the use of online technologies. That is, they intentionally exposed themselves to a large quantity of English language input through *sustained* engagement with online resources. In so doing, they attempt to alleviate the lack of target language exposure

in their EFL context. One shared feature among these interviewees is that they were motivated to learn English as a communicative system, rather than a subject or task imposed by a curriculum. Although at some point of their study these interviewees also followed exam-orientated learning patterns, none of them was happy about this learning approach and tried to escape from it when they could.

One interviewee, for example, tried to find the balance between coping with English exams and improving language skills: "Most of the time (learning English) was for the exams. But since the TEM 4 is history, I pay less attention to the mid-term and final exams. I care less about them as long as my English is really good". For this interviewee, the exposure to the target language was imperative to improve English proficiencies, as she explained her beliefs about English learning:

> My dad told me that I could skip the classes, even all of them, and spent my days following my foreign teacher. If she went for a meal I should do the same. If she went back to her room I should go with her and only come out when she wanted to rest. He said in this way my English was bound to be good. I agreed with my dad. You really need that kind of environment. (Participant 1686, English, female, year2)

This excerpt indicates that this interviewee was aware of her situational disadvantage and that she recognised the importance of language exposure to SLA through the influence of her family. Of course, in reality it is difficult to put this vision into practice. The interviewee turned to the web after class, intentionally immersing herself in a large quantity of target language:

> Let me tell you my daily schedule. Usually I have classes in the morning, but I'll get up earlier and listen to some short video clips, and then go to some classes. At noon, I'll usually use the Internet for half an hour, listening to the VOA news while downloading stuff. I'll not download the VOA news but some short cultural stories. I'll usually finish my study around 10 (p.m.) and come back to my room and listen to some VOA news…and after 11:30 (p.m.) I'll listen to my MP3…I'll also watch (English) films online, no matter how busy I am I'll make sure to watch at least one film per week… (Participant 1686, English, female, year 2)

Clearly for this interviewee, the use of the web constitutes an important part of her English learning. She is exposed to significant English input, even though she is

situated in the EFL context. Notably, the cases of students constructing input-intensive contexts are *not* limited to language majors. Participant 602, for instance, is a student of sociology. Unlike many other interviewees, her use of entertainment resources is intentional and deliberate for English learning:

> I may finish the vocabulary assignments, but it would only take me less than an hour. Then I would watch a lot (of videos) – I watch three or four episodes of American TV series, and sometimes films. One film takes about two hours. Then I would spend much time listening to English songs. I even listen to the music when I am doing class assignments….actually I would listen to it all the time, even when I am walking or eating in the dining hall….I like browsing photos and going to websites of LA magazines….(Participant 602, sociology, female, year2)

In this case, the use of the web and mobile technology made the construction of input-intensive contexts possible. In addition, the interviewee's learning intention through the use of entertainment resources made these activities sustained. Significantly, the notion of 'input' for her is not constrained to language itself but also include the images and culture of English speaking communities. Thus, in her case the web seems to have simulated an English speaking world for learning English, as speculated in Chapter 2. Notably, such use of technology is closely linked to the interviewee's motives and beliefs about English learning, as she explained later: "I think English learning is more about experiencing western culture, so I pay attention to everything western, such as photos, American TV series, their lifestyles and food" (Participant 602, sociology, female, year 2).

Another case in point is demonstrated by a student of engineering. Interestingly, this interviewee is from the rural area of China. According to her, she did not have much opportunity to use the Internet before attending university. She also had scant educational resources in her primary and secondary schools. Yet, this interviewee was motivated to become a proficient English speaker by a TV programme, in which children of her age were giving speeches in English. She was inspired by what her counterparts on TV had achieved, as well as their diligence and determination towards English learning. Since then the student has developed a strong interest in the English language. In fact, unlike many others who are instrumentally motivated, this

interviewee also demonstrated an intrinsic motivation towards English learning, as she noted:

> I don't know what I'd like to do (in the future) but so far I know I like hanging out, films, English and food. My major is a bit boring, and I think learning English can add some fun to my life. (Participant 629, engineering, female, year 2)

This student quickly grew familiar with the computer and information technology at university. In these changing times, she began to adopt digital tools for her English learning. Indeed, her report of WELL use is quite unexpected given the description of her pre-university education and technology use. In particular, she claimed herself to be 'a downloading expert' who constructed an input-intensive context via the use of online technologies:

> I can search and get all kinds of resources…I can download all sorts of videos, including American TV series. I think their values in life are very different from ours, and I like to watch 'Boston Legal' or 'Lie to Me', the ones about law and crime. I have recently watched some video clips called TED (Technology Education Design), each is eight minutes long, and is about the newest thoughts in certain fields, such as the collision of thoughts. I spare some time to watch them every day. I also like to listen to music, both in English and Chinese…I often browse and lurk on websites like 21century.com or hj.com (learning websites)….I have been a little bored lately, so I got several film scripts. And I have to say that I'm kind of good at computers. I used 'QQ cinephile' or Movie Maker to get the audio tracks of the (English) films. Then I put them in my MP3 player and listen to them when I can't fall asleep at night. (Participant 629, engineering, female, year 2)

Such use of digital technology is more sophisticated than that observed among most of the interviewees. This interviewee not only increased her language exposure through the sustained use of technology, but also edited and 'mashed up' digital resources to advance her own learning purposes. As demonstrated throughout this subsection, how interviewees define their 'learning purposes' seems to be an important influence on how they choose to use the technology at their disposal.

6.2.2 Widening opportunities for natural language production

As discussed in Chapter 2, many CALL researchers and practitioners value the networking and communicative features of the social web and highlight its value for

L2 education. In this study, a small group of interviewees cited the web as a platform for natural English production. That is, they used the web to contact or network with internationals and engage in authentic English conversations. Admittedly, such use of technology is not observed among the majority of interviewees. However, these minority cases of WELL use demonstrate the potential of how online technologies can be used to make a difference to English learning after class. I will illustrate this point by looking at two groups of conversants mentioned by the students – international online non-peers and associates. Here, the term 'non-peers' indicates individuals who are not acquainted with the interviewees offline, whereas interviewees got to know 'associates' in real life situations.

Networking with international online non-peers

Two interviewees talked with enthusiasm about networking with international online non-peers via web-mediated communication. Notably, before they decided to make use of online technology, they had already been motivated to seek opportunities for conversational exchanges with native speakers. For these interviewees the web is seen as a key means of providing enhanced opportunities for natural English production that existed outside their EFL context. One example is provided by an interviewee who described her level of English as such that, "you can understand others, but you can't make yourself understood" (Participant 1164, chemistry, female, year 1). Her frustration at her lack of communicative competence motivated her to seek and even create English communicative opportunities outside the classroom. For instance, she tried to practice English with her Chinese peers – only with less success: "we couldn't continue (speaking in English), after all, our mother language is too powerful". She was also keen to pursue social contact with native speakers of English, but such opportunities were very rare in her learning context, as she pointed out:

> Take our department—the department of chemistry— for example. It doesn't provide us with opportunities to communicate with foreigners. Those who go out with foreigners are from the department of teaching Chinese as a foreign language, or from the faculty of foreign language studies. It can't be in a research oriented department like ours. (Participant 1164, chemistry, female, year 1)

Yet, this deprivation of communicative opportunities in reality made way for her explorations with the social side of the web. This interviewee talked at length in the interview about how she expanded her social networks and engaged in English conversation online:

> Interviewer: So how do you approach foreigners?
>
> Interviewee: I use MSN and 'shared talk' (language exchange community online), websites like this.… Actually, because English is not our mother tongue, many of us pay little attention to grammar. So the expressions might be very wrong, but you can understand them. I think I get to know more about their way of thinking and logic. But as to the language itself, I think I learned several words at best. For example, you would remember it when (s)he 'speaks' a word that you don't understand. So the (English) learning is about words, not sentence structure or grammar….
>
> Interviewer: Is it different from face-to-face talk in English?
>
> Interviewee: I think it's very different. When you type you don't know the tone of the other person and you can pause and think. But you would be embarrassed if this happened in the real conversations. And people are always shy in front of strangers, so when you can't see the other person, the conversation can be longer….Voice chat? I definitely can't understand them, if the content is a bit more complicated…. You can't stop (in conversations) when in voice chat and you don't know what to say. After saying 'where are you from', it's over…. First of all it (the online communication opportunity) makes you curious about the world. Because of this curiosity you would be interested in getting to know them (foreigners). But how? Language is the tool, so you would be motivated (to learn it)….We are always busy with other subjects and don't have much time for English. Without this platform I would basically give up English….I may get bored studying science. But if you ask me to memorize (English) vocabulary, I would rather go and study science. (Participant 1164, chemistry, female, year1)

This example of networked learning highlights a number of 'transformative advancements' that the web can bring to English learning practices among Chinese undergraduates. First, participant 1164 gained access to informal interactions in English through her new social networks enabled by online communities. Alternatively, the web seems to have provided opportunities for the student to use or practice her English through meaningful and authentic interactions. This provision, as evidenced both in this interviewee's unsuccessful learning attempts and the finding of previous research (Hu, 2002; Wen & Clement, 2003), is sporadic in the Chinese EFL setting.

The interviewee also seems to have enjoyed this social approach of language learning. Here her attention had naturally shifted from grammar and linguistic structure to content and meaning. Tellingly, she was not interested in the independent study of vocabulary after class but was acquiring new words in the online interactions with international non-peers. The inconsistency of learning attitudes seems to suggest a web-empowered cycle from learning as 'torture' to learning as 'fun'.

In addition, web mediated written communication seems to offer more comfortable or non-threatening environments than face-to-face settings. Perhaps this is because the time allowed for planning in written communication can relieve the pressure of the language producer, as documented in the existing literature and discussed in Chapter 2 (Chappelle, 2003; Ullrich, 2008). Evidently in the present study, this interviewee seems to find the exercise of autonomy over whom to converse with and the varying forms of communication, e.g. text or oracy, especially appealing. This interviewee was concerned with the flow of conversations as well as her inadequate language proficiencies. Thus, she chose textual communication, as the output could be constructed at her own pace. Such web provision seems to have encouraged the interviewee's efforts to practise English communication. In this sense, the choice of online communicative forms not only catered the interviewee's individual needs and interests, but also alleviated the obstacles for her in socializing in English.

Most importantly, the interviewee's online engagements seem to have reinforced her impetus to place a greater priority on social and contextual orientations of language learning. Clearly the interviewee was motivated to improve her communicative competence but in the meantime the web kept her motivated to communicate with the world. Thus, there seems to be a benign circle in interviewee's learning efforts as she discovered in her online experiences the necessity of acquiring the language as a social tool rather than a curriculum imposed by the institution. As she clarified: "I would have to deal with the exams at university, but I think the real learning depends on myself". Her remarks suggest that she views the L2 communications out-of-class as opportunities for 'real learning'.

Another case in point is demonstrated by participant 582, who seems to be temporarily less pressured by formal assessment: "it's very relaxing at university. All I need to do is to pass CET4 and 6. Now I don't have to take CET4 because I am in my first year, but when I do I'll have to learn some (English) myself…. ". In such circumstances, participant 582 expressed a desire to improve her communicative English ability and described her experience of using networking websites to expand international connections. This is revealed in the following interview excerpts:

> Interviewee: I do want to improve my spoken English, so I try to find some foreigners. Recently I used a postcard communication service called 'postcrossing'. You have to fill in your address and then you get an address to send to. These (addresses) are outside of the country and from all over the world. You send your card and they will write back. Through this I get to know many people from other countries….Many people might not like learning English, but they would like to get to know people outside (of China) and experience different culture. But they don't really have the chance (in reality)…. Now I am still a novice (to 'postcrossing). I have a classmate who has sent out 85 postcards and got 82 postcards in return. They are from all over the world, including Portugal….Although you are writing to people living in different countries, you have to write in English…I usually use Baidu (a search engine) to get some greeting phrases and add some of my own words… Because I don't know about those greeting phrases, and my English might be too childish to attract feedback.
>
> Interviewer: Have you learned anything?
>
> Interviewee: Yes. For example, I found English (language) is similar to Chinese in a way that they both have idioms and stories. So it helps me to know about their culture. Different places also have different customs, so you have to be sensitive and show your respect…. Sending postcards is not like learning English. If you say you learn English my response is that I learn a subject, using books and stuff. I know that communications like sending postcards can improve my English, but my main purpose here is not to improve English, but to communicate with others, I do it for fun…. (But) I have to write grammatically correct sentences to others.
> (Participant 582, cultural heritage and museum, female, year1)

Likewise, it can be seen here that the web provided the interviewee with the valuable opportunities of natural language production in the EFL context. Interestingly, these web-mediated activities seemed to draw her in, capture her attention, and enable her to acquire and produce 'grammatically correct sentences', as well as to enhance her cultural sensitivity to the English language. Although she started the activity with learning initiatives, language learning here seems to be 'fun'. However, as this sense

of playfulness contradicts pre-existing belief about English learning, English learning has become a by-product of interacting with international online non-peers. This suggests that with the assistance of the web, the interviewee's English learning has indeed gone beyond her academic duties and moved into the social and leisure aspect of her life in an unconscious manner.

Maintaining contacts with international associates

Whilst in most cases the web is not used to expand social networks with international individuals and practice English with them, it is sometimes used by interviewees to maintain any existing international contacts. This observation concurs with the research findings of Lai and Gu (2011), whose participants were found to network with their offline associates in English via Facebook, instead of using technology to expand their social connections. In the present study, such examples are usually found among motivated learners who are actively seeking L2 communication opportunities in their offline learning context. For example, when asked about the opportunity of English communication via the web, one interviewee recalled her experience of meeting an international individual in her voluntary work, with whom she had email correspondence in English:

> I got to know a grandpa like Japanese man when I was volunteering. He is a teacher at Ocean University of China. I don't speak Japanese so when we write (emails) we use English (to communicate)…some of my classmates were there (for the voluntary work) too, but it was just me trying to talk to him. I suppose other people were thinking, 'What are you doing? Why are you talking to him?'" (Participant 585, cultural heritage, female, year 2)

Participant 1686 told a similar story, in which she was actively making friends with international individuals in her learning context and used the web to maintain the established connections:

> In the affiliated high school of xx University there is a foreign teacher. He is from Australia, very nice personality and then I added his QQ (a Chinese chatting and social networking tool). At the beginning we chatted a lot, but later on he said he was busy and I was busy too, so we chatted less often.…He used to be a foreign teacher in the class next to ours. One day when I passed by I heard so many laughs….compared to our teacher, I was

> thinking ‘wow, the class could actually be so interesting’. So we asked him for his QQ and mobile number. (Participant 1686, English, female, year 2)

Despite these interesting cases of English communication with ‘real-life’ acquaintances online, it is important to note that these interactions are unsustainable, as reflected in the example above. Moreover, there are only a minority of interviewees who report instances such as these. After all, the opportunity of acquainting native speakers is rare in the Chinese EFL context. In addition, it can be seen in the case of participant 585 above that the learning culture is not particularly supportive for making English conversation. Indeed, this issue will be uncovered and discussed further in the following section.

6.3 Breaking away from traditional learning patterns and institutions

As detailed in Chapter 1, English learning at Chinese universities is often labelled as ‘non-interactive’, ‘teacher-dominated’, ‘textbook-based’ and ‘exam-orientated’. The previous chapter discussed how the wider context mediates the use of technology for English learning. In this subsection, however, attention is paid to cases where interviewees are acting differently. Particularly, to break away from such contexts, a few motivated English learners in this study began to *create* situations where English is used for communication with online peers and non-peers after class. Moreover, a group of interviewees become independent of the traditional social resources for learning English, i.e. teachers and peers. Instead, they are reaching online communities and individuals outside their immediate learning context. Finally, several interviewees are following a different way of learning with digital resources, when they are less academically pressured. These points are encapsulated in the sub-themes which emerged and are illustrated as follows.

6.3.1 Constructing opportunities for English language production

As discussed in Chapter 2, the so-called ‘read/write web’ is believed to have the potential of amplifying and extending the opportunities of target language production owing to its capacity for online publishing, communication and sharing. Evidently in this study, five interviewees endeavour to engage in English conversation with online

peers and non-peers. Different from the sub-themes reported earlier, social communication here should be conducted in Chinese but instead carried out in English. It is clear for these interviewees that the web is contributing in this way to some forms of English language production. Notably, these intentional and uplifting learning practices are often conducted with peers or non-peers outside the university. More specifically, these web-mediated practices often occur in the context where communication in English is welcomed, as demonstrated in the following examples:

> Some of them (classmates in the past) are now studying overseas, so sometimes I deliberately talk to them in English (online). Because of their international experience, their English proficiency is a bit high, and sometimes they will point out and explain my mistakes….
> (Participant 1383, teaching Chinese as a foreign language, male, year 1)

> I have joined an English discussion group (on QQ), and we all use English to communicate in this group. (But) sometimes I simply ignore it, and sometimes I take part in the conversations…. Sometimes I might type something which even I think of as weird. And they would point out my grammatical mistakes and I felt a bit embarrassed. And then when I wanted to say something but I forgot the expressions or there was a word that I couldn't spell, I would look them up immediately. So it will help (learning English) if you could do this for a while. (Participant 1135, education, female, year 1)

Two notable aspects have emerged from these two examples. First, with clear learning intentions, both interviewees highly value these peer-based language practices. This is because the interviewees perceive their conversants to be supportive and even have a 'high' level of English proficiency. Second, the conversants gave meaningful feedback, when the interviewees made mistakes. In this sense, two self-reported advanced learners of English found it difficult to locate appropriate opportunities for language practice on the web:

> I used to be the member of an English learning group (online) and we made it clear that we had to communicate in English. But their proficiency levels were lower than mine, so I quit. (Participant 366, English, male, year1)

> I've added some friends from bigear.com (an English learning website). It has English learning groups, but it was very upsetting to find them using 'Chinglish'. Perhaps there were some good learners, but most people there used Chinglish when you spoke to them. So I blocked that group and never used it again. (Participant 1686, English, female, year2)

These remarks suggest that these advanced English learners are more critical of their potential learning partners on the web. The access to L2 groups or individuals online does not necessarily involve them into communicative language practices. Such findings contrast with that of previous research (Lai & Gu, 2011), where proficient L2 learners were found to be more inclined than those less proficient to use the communicative features of online technology. Perhaps this is because the previous research is primarily survey-based. Yet, the present study is mostly built on qualitative data, which are more likely to uncover the complexity of technology use outside the language classroom.

More importantly, as demonstrated throughout this subsection, all these interviewees used the web to build bridges to individuals or groups outside their immediate learning context. Successful or not, their efforts to practice English were exercised either with established Chinese associates overseas, or with online groups dedicated to learning English. These instances lead us to ask: Why do these conscious and motivated learners hunt communicative opportunities with online non-peers, instead of choosing to interact with their university peers and teachers? These dilemmas are explored in the following chapter (see section 7.5.2).

Finally, what is interesting to note from the interviews but more difficult to pin down is a few informal practices of English that took place on the social web. In these cases the online audience functions as a stimulus for linguistic production, as acknowledged by many CALL practitioners (see Chapter 2). A case in point is illustrated below:

> I'm a Sina blog user. I would write some diaries when I was feeling down. Sometimes I would write some English diaries…. Writing English diaries can't attract many readers, because it gives headaches to people and they don't want to read (English)…I just wanted to, well, show off and practice my English by the way. (Participant 366, English, male, year 1)

Here the web is utilized as a channel for English production and a means to demonstrate English proficiency. Of course, such instances of technology use do not necessarily lead to an observable improvement in language competence. Yet, they have demonstrated the learning possibilities brought by the social web in terms of supporting English language production for Chinese EFL learners.

6.3.2 Seeking collective intelligence

As described in Chapter 2, 'collective intelligence' refers to the phenomenon where ordinary people publish and share their knowledge on the web. It is believed that the shared information and resources surpass the intelligence of any one individual (Anderson, 2007). This subsection draws attention to those interviewees who are breaking away from a dependence on teachers, and use collective intelligence online to solve their learning problems. This agrees with the findings of previous research on 'digital natives' at university (Francis, 2010). Significantly in the present study, such use of technology is explained by interviewees so as to shed some light on *why* they choose to do so. In light of the interview data, such use of technology is 'inevitable'. The reason is that English learning programmes at university provide less support for learners than those in secondary school. Individual guidance from teaching authorities is rare during and after class. This is especially true for non-English majors, given that 'significant others' are hardly available on university campuses, as explained by this interviewee:

> The (English) teacher just disappeared right after the class and we seldom met, perhaps only once or twice a week in the classroom. In high school the teacher was always there, and it was convenient to find her….My classmates are not at my English level, so they can't help me either. (Participant 1383, education, male, year 1)

It can be seen from these remarks that 'problem solving' is an issue for English learners at university. Reflecting on the differences between undergraduate and secondary school programmes, the interviewee mentioned the use of the web in smoothing this learning transition. Particularly this interviewee elaborated on his experience of seeking learning scaffolding on the web:

> When I look up some words or idioms, I use Baidu (an online service that combines search engine, forum, document sharing and Wikipedia). If I can't find the answer I will ask the question. Anyway, it would pop out a reminder on the screen asking me whether I would like to direct this question to Baidu Knows (the online forum). It's very convenient….Many people online are knowledgeable, and the answers from them are always better than mine….This (asking questions online) is what I do at university. While in high school, I would just ask the teacher. (Participant 1383, education, male, year 1)

Participant 1383 is not an isolated case. Further examples are demonstrated in the following passages:

> At university the teacher just leaves after the class. Sometimes you don't even know the name of the teacher when the term finishes. The communication between the teacher and us is very rare, so you feel more attached to Baidu than to the teacher (Participant 585, cultural heritage, female, year 2).

> I should say it (the web) is important. If you have something you don't understand, you turn to it. You can hardly contact the teacher, so the Internet is the inevitable way-out if you are seeking answers to a burning question… (Participant 605, environmental engineering, female, year 3).

Clearly the web plays an important role in the process of problem solving for these university students. Such use of technology seems to be of assistance in the adaptation from teacher-dependent learning in the past to learner-directed language learning of the present. Notably, the examples given are from interviewees who are already motivated to ask questions. Their choice of technology use seems to be the result of insufficient learning support in their offline contexts.

Interestingly, some interviewees are relying on the Internet even though learning support is available from their teacher. In the case of participant 1007, for example, the use of the web encouraged her to ask questions. Participant 1007 claimed herself as an unsuccessful English learner. Asking the teacher questions poses two challenges for her. First, it seems that behaviour such as this would undermine her identity as a passive English learner. As a student of Chinese literature, she was surrounded by less motivated learners of English. In this sense the interviewee was concerned about demonstrating learning efforts in public, as she explained:

> My roommates are complaining all the time 'we are learning Chinese Literature and will be Chinese teachers in the future. Why do we have to learn English? I just want to stay with them. How to put it? My English is not good. If I ask the teacher questions, they would think I am working very hard and am very active in my learning. But I am not. (Participant 1007, Chinese literature, female, year 1)

Here it seems that her situated community is not particularly encouraging with regards to her learning of English. In this case she turned to an online forum for

learning assistance, where she stayed anonymous. The second challenge to ask the teacher questions is that the interviewee feared that she would be judged by what she asked. In this sense, her use of technology encouraged her to direct learning questions to the online audience, as she noted:

> I asked how to improve my English (online). I indicated my proficiency level and learning methods and asked whether there was a better way to learn….They didn't know who I am and they couldn't see me anyway. (Participant 1007, Chinese literature, female, year 1)

Another case of using collective intelligence is provided by an interviewee who self-reported as a 'good' English learner. As an English major student, this interviewee was privileged by receiving regular learning guidance. Yet, she still chose to solve her learning questions with the help of the Internet, as she explained:

> In high school, we were all encouraged to first solve problems by ourselves. If we still couldn't, we asked the teacher. After entering the university, I don't have many questions to ask, I don't know why. Anyway, even if I have I can handle them myself. I don't know whether my answer is correct or not, but I'll have an answer. Unlike maths which is always black or white, with English you can ask your classmate or simply turn to the Internet. (Participant 1727, English, female, year 2)

It can be seen from this testimony that such use of technology fitted well with her established learning patterns. The 'independent' style that had been developed in the past seems to have paved the way for her adoption of the Internet as a problem-solving tool in the present.

However, such use of the Internet sets up tensions for many of these interviewees. On one hand, the web is readily available when learning problems emerge. On the other hand, the information provided is produced by mixed groups and thus in need of arbitration. Moreover, besides the issues of authority and validity, frustration also arises around the unstructured nature of the information provided by online individuals. These points are vividly revealed in the remarks below:

> If you are in a forum, you won't know which translation is correct, or, you've no idea whether they've taken the translations seriously… The merit of it is that some people are very proficient, but I've seldom interacted with them so I don't know much about them. The downside is, well, the good

> ones and the bad ones are mixed together…so the information is jumbled. (Participant 605, environmental engineering, female, year 3)

These issues are in line with the descriptions of some commentators who term online information as 'infoxication 2.0', as discussed in Chapter 2 (Benito-Ruiz, 2009). However, different from their speculations, interviewees in this study do not get confused or abandon the web for that reason. Instead, they appear to be critical of the online information obtained and take what they consider to be useful to address their immediate learning problems, as demonstrated in the following examples:

> Many people would reply (to the question asked), but I'll have to select the right one. Some people are not professional and I can't take their answers word for word. (Participant 582, cultural heritage and museum, female, year 1)

> Some answers are very subjective and not authoritative. You have to tell yourself. You have to take the good answer. But if all of them are not so good, you'd better turn to some other resources. (Participant 1409, English, female, year 2)

Obviously, some of the interviewees face the question of how to critically analyse online information and distinguish what is of good quality from what is of interior quality. In the cases above, the interviewees' knowledge of English enables them to filter learner-generated information online. This might cause trouble for those who have a lower level of English proficiency.

6.3.3 Contributing to online knowledge

Consistent with the findings of previous research (Kennedy et al., 2008; Luckin et al., 2008; Crook, 2012), four interviewees mentioned their contribution of knowledge to online databases. As expected by technology enthusiasts, these learners are not just 'listening' but also 'participating' in the use of online technology (Gibson, 2005). Significantly in this study, the interviewees demonstrated a sense of community building when they explained why they chose to do so. In particular, since these interviewees benefited from collective intelligence in relation to English learning, they felt obliged to produce 'appropriate' information for other online community members, as revealed in the following excerpt:

> I sometimes upload my (English) articles to Baidu (database), and I sometimes answer the questions if I know the answer. The articles I uploaded were those that received positive feedback from my (English) teacher, or those that have already been revised by my teacher…because it's not good to mislead other people…(as to answering the questions) If my answer to the question is subjective, I would take time to think about it myself. But if the question is very objective, I would go and look up the answer in some reliable sources such as reference books….I usually download other people's stuff and learn a lot. So if possible, I will share what I know with them. (Participant 1409, English, female, year2)

Here the interviewee did not take collective intelligence for granted and attempted to contribute her work and knowledge to online databases. Notably, she is also cautious about what she has offered online. Perhaps this can be explained by the discussion of 'altruism' embedded in the Chinese learning culture – one would not make public utterance in a learning community unless the content delivered is of some value, sophistication and necessity (Jin and Cortazzi, 2002).

Another example of online contribution is provided by an interviewee, for whom collective intelligence became all the more important to her English learning at university. Evidently, this interviewee was actively involved in two types of learning community online. One was about how to handle exams administered by her institution and MoE; she was engaging with the learning experiences and resources shared by online non-peers. The interviewee believed that such engagement had guided her learning efforts and directions. In return, she shared her own experiences with the online audience: "I summarized the key points of the final exam last term. I uploaded them to Baidu Articles….I figure people might find them useful" (Participant 57, biology, female, year 3).

In addition, the same interviewee aimed to seek education overseas after graduation. As a third year student, she was preparing for IELTS at the time of the research. She used English learning websites and visited the embedded forum dedicated to IELTS preparation. In this excerpt, she elaborated on what she would do in return:

> I haven't uploaded any resources yet. I don't have really good experience to share with everyone. But I will do something after I have taken the exam. Some people will post the test items they remembered after the exam, and I think I will do the same….because <u>you can't just get stuff from others and never share</u>.

This sense of community is more obvious in the case of participant 1727. Different from the two examples above, this interviewee was actively involved in the online community that is affiliated to his offline context:

> Some people will ask for help on it (the institutional BBS). I don't know why but some fourth year fellows can't even translate their essays (into English). Sometimes I will help them. They have to take CET 4 and 6. I don't take these exams, but I'll take a look at their preparation materials. CET 6 is coming this month, so sometimes they will ask for help for some translation work, usually about a paragraph or a sentence that they consider difficult. I will try to translate some for them. I like doing translation work and reading other people's comments….Anyway people using this community are at the same university, we all know that. We are all about the same age. (Participant 1727, English, male, year 2)

To this interviewee, the sense of community seems stronger given that the users of the institutional forum are his university peers. To him, the choice of knowledge contribution is less related to repaying the help extended by online individuals. Rather, both helping university peers and doing English translation work are enjoyable and sensible. Similarly, another interviewee, an English major and the monitor of her class, felt responsible for bringing useful learning resources to her classmates. Since most of her classmates are also her SNS friends, she shared what she considered as 'interesting' English learning resources on the social web:

> I have many learning resources stored in my computer. I have selected and shared something that might be interesting to them (classmates). This included some fashionable words, or even something I can't translate properly. I would put them in my Qzone to share with everyone. (Participant 1686, English, female, year2)

These cases of knowledge contribution have demonstrated how language learners are involved in the active participation of English learning related activities on the web. Thus, different from the picture depicted in the previous chapter, the findings reported in this subsection have highlighted the potential of the web to accommodate peer-based learning outside the L2 classroom.

6.3.4 Seeking English learning motivation

As identified in the previous chapter, one of the perceived benefits brought by the use of online technology is enhanced motivation for English learning. This finding is intimately associated with the proliferation of incidental learning enabled by online entertainment resources. Conversely, in this subsection, the interviewees are found to intentionally use the web to motivate their L2 efforts and to learn the English language. These cases are illustrated as follows.

Seeking motivation from online community

In order to stimulate learning efforts, participant 444 demonstrated an example where L2 learner is reaching the learning community outside their immediate context with online technology. This interviewee is a student of classics. As a non-English major, she was deprived of a rich language-learning atmosphere in reality. Particularly her peers were less motivated to learn English and much autonomy was given to learners themselves. Situated in this 'flexible' L2 environment at university, this interviewee could not guarantee learning English 'on a daily basis', even though she was motivated to do so. Reflecting on this learning disadvantage, the interviewee reported how she escaped from her learning context and sought motivation through engagement with an L2 community online:

> People in my class are quite lazy, they'll play truant if they want to, and the teacher won't check their attendance anyway. When the teacher sometimes does check attendance, they are forced to attend the class, which they don't want to from the bottom of their heart. But in hujiang.com (a learning website) there is a check-in system called '21 days'. The idea came from hatching, which takes 21 days. Similarly, it takes 21 days to develop good learning habits. I checked in once, and saw so many hard working people saying 'I checked in today'. Some other messages were also very funny. When you saw that everyone was studying so hard, you thought you were not alone. It's just like the case where your classmates are reading English aloud every day, you'll be like 'wow, I'll follow them'…When you see a group of people so crazy (about English), you'll feel yourself very much shamed. (Participant 444, classic literature, female, year2)

Here the technology use of this interviewee somehow minimized the learning disadvantage she was experiencing as a non-English major, in the sense that it

empowered the interviewee with a group of enthusiastic English learners. Particularly, the diligence exhibited by these online non-peers enabled the interviewee to reflect on her own behaviour and provoke increased learning motivation. Thus the highlight is the inspirational messages in the follow-up where the interviewee's learning efforts are stimulated and exercised. Accordingly, the use of the web helped the interviewee to advance her goals and reach the community that encouraged her learning efforts in a less encouraging EFL context.

Finding different ways of learning English

As observed in the previous chapter, most interviewees do not value the learning opportunities presented by entertainment resources online. In this subsection, two interviewees are found to take these 'fun' resources seriously. This can be linked to their learning motives and beliefs, which are no longer confined by academic achievement but extended to becoming fluent speakers of English. Participant 602, for example, complained about instructional EFL in her setting:

> I think English learning should focus on practical points, but the (language) education system in China makes it exam-oriented. The grammar, I think, should not matter much, because if you go overseas, they won't emphasise the grammar as much as in China…. (Participant 602, sociology, female, year2)

This interviewee's learning philosophy reflects her focus on developing competences beyond the grammatical and lexical domains. Unlike most of her peers, as demonstrated in the previous chapter, she put her learning enthusiasm into practice. In fact, she maintained two different learning patterns so as to deal with her academic commitments and her desire to become a fluent speaker. Specifically she tried to improve her communicative English during term time, but switched back to test-based learning when exams were approaching. As she was negative towards exam-orientated language learning, she used entertainment resources to keep her motivated:

> I hate English so much when attending English classes or taking exams. But when I watch movies or listen to English songs, I find myself in love with the language. You may say I've got totally different attitudes. The classroom instruction is too rigid and the English learnt is totally for exams, so I basically just don't want to learn. But the English learnt from movies can be used in daily life. You can really use it. Although we've learnt loads of big words and different sentence patterns from English classes and books, you

> can't recall any of those in daily conversations….I have to take exams. If I were preparing for the CET 6 exam, I would go crazy. I would have to memorise new words every day. But if I have my laptop I would be interested in learning again….after all watching American TV series and listening to those English songs can put me into an English speaking environment. I feel more relaxed to learn in this kind of environment. (Participant 602, sociology, female, year 2)

Here it seemed that the student's enthusiasm surrounding WELL is linked with her wish to improve communicative English. As such, online multimedia resources appeared to be complementary to classroom practices and necessary to access what she considered 'daily English'. Further scrutiny of the interview excerpt revealed that for this interviewee English learning without technology is 'unacceptable'. Notably, this was due to the idea that online activities seemed to represent a new way of learning English. Specifically these informal engagements with WELL signified a shift from 'serious' and 'excruciating' exercises to more 'relaxed' and 'fun' language learning. These joyful experiences fuelled the students' motivation and consequently her learning efforts in her context of English learning.

As English major, participant 1500 wished to become competitive in the job market. Although she attended English classes on a regular basis, she considered them 'far from enough' for English learning:

> I think the stuff you learn (in classrooms) is just the beginning. It's far from enough. For example the module of Advanced English will tell you the future direction of learning. But you actually learn very little during the class. Anyway, it's never enough to deal with your job in the future if you don't learn something afterwards. (Participant 1500, English, female, year 3)

Reflecting on her learning experiences in the past, the interviewee felt that the out-of-class learning should no longer revolve around formal practices but turn into a motivating and relaxing experience. Thus, instead of following the pre-existing learning patterns, she chose to learn English differently with the help of online multimedia resources:

> Two of my roommates often get up at 7 a.m. and go to bed at 11:30 (p.m.). They bring their backpacks and go to the classrooms for self-study then. Once I asked them 'what on earth did you do (when self-studying)?' They told me they were memorising new words, previewing and reviewing the textbooks. I really think they are living a life of high school students. I can no longer live like this, it's too rigid. I think we should learn something we are actually interested in…I usually watch English video clips between 10

> p.m. and 1 a.m., because it's very quiet then and I can learn very well, and you can also learn about western culture and much stuff…. (Participant 1500, English, female, year 3)

Here the online multimedia resources functioned positively to the interviewee's motivation for learning English. In the meantime, such action had extended the interviewee's exposure to the English language and hence her learning opportunities. Appreciating the value of online multimedia, the interviewee had made it part of her learning routine. In this vein, the use of technology seems to have blurred the boundary between leisure and learning activity.

6.4 Summary: Does the use of technology facilitate a different approach to learning English as a foreign language?

While it is clear that the use of technology is a peripheral part of 'getting by' the academic duties for the majority of interviewees, this chapter has drawn attention to the minority of interviewees who use technology to 'escape' from their EFL context and 'get on' with their English learning. Thus, this chapter contributes to the research question '*does the use of technology facilitate a different approach to learning English as a foreign language'*. In light of the data, the answer is confirmative for this small minority of the interviewees. The interviewees are found to use digital technology for constructing an input-intensive context, creating opportunities for English production, seeking learning scaffolding, and intentionally reinforcing learning motivation, just to name a few. A fuller spectrum of innovative WELL uses is listed in Table 6.1. Here the themes identified regarding the patterns of technology use constitute a significant dimension of the forms of online engagement described in this thesis. The identified use of technology can be described as 'ground-breaking', as it helps to minimise the learning disadvantages rooted in the Chinese EFL context, e.g. lack of L2 input and opportunities for English communication and learning interaction. In other words, with the help of technology, these participants were able to experience what the traditional learning context is not able to offer. These themes and major themes listed in Table 6.1 demonstrate how Chinese undergraduates are making use of new tools in changing times and how this might change the ways in which they are

learning. Accordingly, traditional EFL learning mechanisms and patterns seem to be challenged or perhaps changed by this web-assisted English learning.

Table 6.1: Spectrum of themes regarding innovative uses of WELL

Major themes	Breaking away from EFL context	Breaking away from traditional learning institutions and patterns
Themes	Creating an input-intensive context	Constructing opportunities for English production
	Widening opportunities for natural English production	Seeking collective intelligence
		Contributing to online knowledge
		Seeking English learning motivation

6.5 Discussion

The empirical findings of this chapter have demonstrated the power of technologies to support out-of-class language learning. Evidently, some of the interviewees are exploiting possibilities for English learning with emerging technologies, which offer "obvious potential for increased student interaction and collaboration as well as output in the target language" (Wang & Vasquez, 2012, p. 423). As expected by CALL practitioners, the interactivity enabled by the current web has provided the interviewees with extra opportunities for English production and communication. The collaborative style of Web 2.0 has also empowered the interviewees through opportunities to engage with and contribute to 'collective intelligence'. In the meantime, some of the interviewees are found to have reached the type of online learning community that stimulates their learning efforts. Finally, the multimodality of the web has afforded a new way of language learning for interviewees, where they can immerse themselves in English language and culture. Of course, as noted in Chapter 2, Web 2.0 still has a lot more to offer. However, these innovative cases of technology use have made the point that the current web is powerful in terms of

supporting language learning out-of-class. The use of Web 2.0 has made 'breaking away' possible.

Nevertheless, the empirical findings have also confirmed the need to recognise the role of 'agency' when considering the power of emerging technologies in terms of 'transforming' L2 learning, as suggested in the conceptual framework of the thesis. It was theorized in Chapter 3 that agency has the power to act otherwise and 'break away' from the immediate learning context through the mediation of technology (Engeström, 1996).

Admittedly, in this chapter the use of online technology seems to empower interviewees by assisting them in making changes to their English learning. Take participant 1164 for example, her intercultural exchanges on 'shared talk' have 1) enabled a cycle from learning as 'torture' to learning as 'fun', 2) alleviated the obstacles in socializing in English, and 3) reinforced her social orientations of English learning. However, to claim that such a use is led by technology *per se* is to ignore the nature and circumstances of the participant. In this case, the participant was reflexive about her EFL context and weaknesses in English learning. Before she turned to the web, she had already been motivated to 'escape' her EFL context and improve her communicative competence instead. Of course, online technology facilitated her interaction with international individuals. However, it is likely that this participant, having already made the decision to 'break away', would have engaged in other L2 activities such as registering for native speaker-led courses outside the campus were it not for Internet availability. Thus, whilst the Internet is catering for such EFL learners, it cannot be said to be 'creating' cases of 'breaking away'.

These insights highlight the significance and power of agency to 'act otherwise'. They caution against the celebrative and conclusive discourses of WELL derived from technology determinism, as reviewed in Chapter 2. The role of 'agency' also calls for a considered consideration of what technologies can and cannot do, thus escaping from the Web 2.0 related hyperbole (Gouseti, 2010). After all, a hyperbolic sense of optimism and positivity can, as argued by Selwyn (2011c, p. 714), "serve to limit the credibility and usefulness of educational technology within the wider social sciences…a peripheral distraction from the more pressing 'real' issues of education and society". In light of the empirical data presented in this thesis, such an issue is

less concerned with the potential of technology, and more with the will and power of language learners to make innovative use of technology.

6.6 Conclusion

In contrast to the previous chapter where trends of WELL use were reported, this chapter has mainly discussed cases of 'good practice'. These instances have demonstrated how learners use online technologies to minimise their learning disadvantages as foreign language learners and, in some cases jump out of their exam-orientated learning patterns. We learn from these 'success stories' that technology has the potential to 'transform' language learning. However, this potential is not materialised through mere access to technology. Of primary significance here is the will of learners and their power to make a difference through the use of digital technology

However, it is important to note that the changes and 'good practices' identified in this chapter are small in size, as the examples introduced are not typical. This raises an important question, namely, why do interactive and innovative uses of technology appear to be marginalized for all but a minority of the English-learning population? The next chapter will attempt to identify the reasons behind the lack of use of online technology and the communicative features of Web 2.0 in particular. It is hoped that the efforts made in this vein will uncover the 'real issues' to Web 2.0 transfer and thus help to accelerate the change towards a participatory learning experience for Chinese EFL learners at university.

Chapter 7 Resistance to moving to Web 2.0

7.1 Introduction

As shown in the findings of the previous chapters, although the vast majority of participants reported using online technology for learning English, these activities are marginal and often conducted in a non-communicative and unspectacular manner. Such usage patterns tend to corroborate the findings of earlier research (Luckin et al., 2009) where learners' use of technology, although proliferating, was found to be 'superficial' and 'lack sophistication'. Significantly, following the narratives and discussion of WELL use presented in the previous chapters, this chapter will consider in more detail the reasons behind the limited adoption of online technology and its communicative features in particular. With the learners themselves offering insights, these findings can help us to identify the contextual barriers to the Web 2.0 transfer, and thus enlighten understanding of the final research question – *how does such a use or lack of use relate to the wider context of language learning*?

Similar to Chapter 5, the data reported in this chapter are generated from two main sources. The first source is the survey where particular attention is paid to the responses stimulated by the open-ended items. Specifically, among the 1,485 questionnaire respondents, 109 claimed themselves to be non-participants of WELL. These respondents were asked to comment on why they choose not to use WELL at all. Nearly all respondents, 103 out of the 109, specified their reasons in the open-ended items on the questionnaire. In total, 136 accounts were elicited, as some respondents presented more than one reason. These accounts were then sorted and grouped into coherent themes. Using these data from the survey, this chapter is able to demonstrate the popular discourses used by participants in support of their technology non-use.

The second source of the data is the semi-structured interviews with 49 questionnaire respondents. As detailed in Chapter 4, almost half of the students interviewed spent less than two hours per week using WELL. These interviewees were asked to explain

their limited use of WELL. In addition, other interviewees also contributed to the data reported in this chapter, as they elaborated on the reasons underlying their modest use of interactive technologies. The themes that emerged from the interview data are grouped separately from those derived from the questionnaires. When comparing both sets of themes, I found that the major themes overlapped to some extent, with the interview data explaining and enriching the survey data obtained. In this sense, each major theme is reported and illustrated by two data sources, with the interview data offering explanatory power and carrying more weight in the discussion. These major themes regarding resistance towards the Web 2.0 transfer are reported in sequence, from the relatively objective to the subjective.

7.2 Access and technical issues

As detailed in Chapter 3, the notion of 'functional access' proposed by Sharpe and Beetham (2010) has three elements – ownership of technology, access to networks of information and people and time to use technology. These issues of access are basic to the 'effective' use of learning technology. The present study confirms that not every participant has equal access to the Internet – a topic that features heavily in the literature of digital technology. However, it is found that the continued presence of digital divide, perhaps more accurately termed by Haythornthwaite (2007) as digital spectrum, is not the main driver of technology non-use among the participants. Among the 136 accounts elicited from the questionnaire, issues of access only appeared in 19 accounts (13.5%). Commentaries on these issues of access often concern the unavailability of 'proper' devices for WELL, instead of having no access to the Internet at all. For instance, one respondent noted, "it's inconvenient to use my mobile phone for online learning and I don't have wired Internet access at my dorm." Another example is, "I don't have a computer and it's inconvenient to study online using mobile phone". Notably, most non-access cases are reported by first-year, non-English major respondents from Nanjing, perhaps due to institutional constraints regarding Internet access in the student dormitory. Yet, it can be seen from the comments above that such Internet access constraints are alleviated by the proliferation of mobile phones. Both respondents complained about the lack of 'convenient' facilities for WELL use, rather than the complete isolation from Internet

access. Here, the mobile phone was not perceived as a 'proper' learning tool, perhaps because the Internet was found by students as a means to handle academic duties (see Chapter 5). Thus for these respondents, sustained networking and large screens seem to have been more important than the educational possibilities afforded by mobile technology.

In fact, students complained little about the lack of Internet access during interviews. Although the university in Nanjing limited the Internet access for its first year students, many interviewees noted that they had hired Internet providers outside the university campus, as noted in Chapter 4. Instead, technical problems were mentioned more frequently by interviewees. At least 12 interviewees complained about the fluency of the campus network which presented serious problems in terms of their use of learning technology, as revealed in these examples:

> The Internet is very bad sometimes and the computer in the library is very slow. You have to wait for a long time to open a webpage. We now use blogs to hand in our assignments. But it takes a long time to send them. If you accidentally close it you would have to do it all over again. I just hate it.
> (Participant 140, physics, male, year 1)

> It's troublesome (to use WELL)…first of all, I don't bother myself to start the computer. Secondly, the Internet is crap…it is way too slow…Sometimes it would take minutes to open some webpage.
> (Participant 1086, teaching Chinese as a foreign language, female, year 1)

> I wanted to download some VOA news quickly, but it turned out to be very slow, so I just gave up. (Participant 653, engineering, male, year 2)

It can be seen from these examples that some interviewees lost patience and saw hostile Internet conditions as the reason behind their unsuccessful use or non-use of technology. Yet, others did not abandon the use of technology completely. Instead, their learning behaviours were structured in such a way as to circumvent such technological barriers, as can be seen in the examples below:

> The Internet in our school is on and off. But it's very fast if you surf online at three o'clock in the morning…I choose to download stuff at midnight. It's very fast then. (Participant 653, engineering, male, year 2)

> I like downloading stuff…I don't watch live videos. The Internet is really bad sometimes. (Participant 1164, chemistry, female, year 1)

> It's sometimes very slow when you download stuff from the Internet. Sometimes I think it's very troublesome. I don't like doing this, especially for learning English…. What I mostly do is to locate some resources and then, I will copy and paste the content directly to Word. That's the way I like it.
> (Participant 1199, chemistry, female, year 1)

As can be seen from these examples, while hostile Internet conditions did function negatively in the adoption of technology for English learning, it did not stop the interviewees from using technology. Perhaps the reason is that these usage patterns mainly involve the consumptive use of online information and resources. In other words, the cases above do not speak of situations where the communicative use of learning technology is involved.

Apart from the issue of Internet fluency, another technical obstacle is the national blocking of some western websites, as reflected in the two cases below:

> The point is you can't visit many webpages. I think it would be good to log onto some foreign websites, because they are all in English and you will have that kind of English speaking environment. Then you won't even think in Chinese…I would try them out (if it is allowed). (Participant 1793, English, male, year 2)

> (I use) MSN and Skype. I tried to use Facebook once. Isn't it blocked? So I tried to climb the great firewall. But once I started to browse some pages my computer crashed. (Participant 1164, chemistry, female, year 1)

It is worth noting that such learning disadvantage does not bother most of the interviewees. In fact, during the interviews many students noted that they prefer to use domestic English learning websites, rather than the websites visited by English speaking communities. This chimes with earlier survey findings where a large group of local websites were prescribed for use by the questionnaire respondents, whereas a limited number of western websites were listed as 'often visited' for learning English (see Chapter 5). In light of the interview data, the possible explanations for the preference of students to use local learning websites are twofold – learning scaffolding is provided by local websites and secondly, the support they provide for academic work is useful. In particular, local learning websites usually provide instructions so as to facilitate learning comprehension. This is demonstrated by an

interviewee, who explained her transition between using western and local learning websites:

> When I just entered the university, I was asked to practice English listening three times a week. At first, I went to some English learning websites such as bigear.com or hj.com and then moved on to the VOA website. But I couldn't follow the news at all and there were so many words that I didn't understand. So I found another website called 51voa. It taught me how to listen to VOA news step by step…There were also explanations about American culture behind the news or words...it guided me in learning because the (English) teacher does not explain how to understand VOA news when she assigns the task. But the computer can. (Participant 1686, English, female, year 2)

In addition, the learning resources provided by local websites are more organized and oriented towards Chinese EFL learners. Many learning websites aggregate materials for both learning expansion and exam preparation, and put them in different categories. The learning materials of interest are presented to the visitors at a click of the mouse. Thus compared to western websites, local learning websites are able to cater for different learning needs, as shown below:

> Sometimes I'll watch English videos. The website I often use is Hujiang,com. It also has many learning exercises and mock papers for us university students. I usually look for learning exercises and mock papers of CET exams on it. (Participant 1383, education, male, year 1)

Perhaps because the local learning websites can satisfy learning needs, most interviewees did not complain or even mention about the blockage of some western websites when elaborating on their learning experiences with online technology. However, the influence of the Internet blockage over technology non-use is manifested elsewhere, as demonstrated in the next section.

7.3 Skills

It is clear that basic information technology (IT) skills are important prerequisite for the educational use of digital technology. Recent studies on educational technology have expanded the notion of 'skills', and included knowledge of how to use digital technology for learning related purposes (Macdonald, 2008). Thus, 'skills' in this

section refer to both IT skills and the metacognitive knowledge of 'know-how'. In CALL literature, cases of technology non-use are often explained in terms of deficits. From this perspective L2 learners are held to lack the skills to make educational use of emerging technologies (Steel & Levy, 2013).

In this study, a group of participants also demonstrated a lack of skills when explaining their technology resistance. In particular, three questionnaire respondents seemed to lack the capacity to cope with the complexity of online resources, as one stated, "the Internet is a messy place and I am afraid to be misled". Another nine noted that they had never come across the notion of WELL. For instance, one respondent explained, "ah, it has never occurred to me that I can use the Internet to study English". Other accounts in this category were usually short and straightforward, as respondents wrote "how?" or "I don't know how" after the open-ended question regarding technology non-use. These findings are not surprising, given the fact that during the interviews later students mentioned little about receiving formal guidance on how to transfer IT skills to English learning scenarios.

Notably, it is further revealed in the interviews that the issue of skills can also be linked to the online resources that are available in the Chinese EFL context. This is because the students were socialised into patterns of technology use, especially with regards to the use of the social web. In particular, although interviewees are found to be proficient users of social networking sites (SNS), these websites are largely localized and dedicated for use by Chinese nationals. This is because popular SNSs such as Facebook and Myspace are not available in China and substituted by Renren or Qzone. As interviewees were isolated from the international SNSs, they might demonstrate a lack of skills in terms of pursuing social contacts with international online non-peers – as in this example:

> I've never had voice chat with foreigners online, I've only chatted with us Chinese (in English). I wanted to find foreigners (online) but I couldn't. I asked my western friend why and he said there were two reasons: first they were busy and couldn't possibly help you and chat with you, and then that they were certainly not used to the social websites we were using. Then my classmate registered a MSN account for me, and told me there were many foreigners there. But I couldn't get used to it, so possibly the bridge was burnt like this. (Participant 1686, English, female, year 2)

Here, the interviewee was unable to locate native speakers using the interactive platform she was acquainted with. Yet she found it difficult switching to the tools that 'bridge' the communities of native speakers. Thus the localization of interaction and social tools certainly created a boundary between English-speaking individuals and the few interviewees who attempted to establish social contacts with international online non-peers. As a result, these interviewees demonstrated a lack of 'know-how', even though SNS has become a part of their everyday life. This is echoed by the following cases:

> They (international online non-peers) don't use QQ and we don't use MSN, so we don't have a shared platform. (Participant 399, English, female, year1)

> I can't find (foreigners)….Other countries have Facebook, but I don't use it because I haven't reached that level…. I am still at the QQ phase. Perhaps I'll use it in the second or third year. You know you get bored using this kind of stuff easily, so I'll save it for later….Is there any website where I can find native speakers? I really want to find one.... (Participant 379, English, female, year 1)

7.4 Time

'Time' has long been identified as a condition of adopting technology for teaching and learning (Eynon, 2008). Participants of the present study also listed lack of time as an inhibiting factor in their use of technology for English learning. In particular, among the 136 elicited accounts from the questionnaire, 17 can be grouped into this category (13%). Typical answers include: 'I have no time', 'I'm way too busy', or 'my major subjects are overwhelming'. Remarks such as these are also found in the interview data. Thus, lack of time to use technology seems to be part of the access issue, as noted in the existing literature (Sharpe and Beetham, 2010). In the present study, however, it is interesting to find that this seemingly simple reason for technology non-use is sometimes not so straightforward. Rather than an issue of access, it is revealed that underlying the comments of 'no time' are the learners' attitudes and perceptions towards the use of technology for English learning. One typical example is demonstrated by an interviewee who claimed to 'often stay up surfing online'. Although this interviewee spent a lot of time on the Internet, he considered a lack of time as the reason for his resistance to technology use:

> I don't have that much time…I prefer to buy some stuff (English learning resources). For now my goal is very clear and I just want to pass CET 6. I think I can pass it by simply studying the vocabulary and doing some listening exercises. I don't have to use the web. But I'm considering finding some mock papers online. I may do that. (Participant 653, engineering, male, year 2)

These remarks suggest that 'lack of time' can also be interpreted as interviewees' not valuing the use of WELL outside the classroom. That is, digital technology does not play an important or essential part of their English learning. Evidently in the example above, the learning priority of this interviewee was to handle assessment and for this matter, he might 'not have that much time' to digitize his existing learning methods. In other words, the non-access of learning technology in this example is intentional. A similar case is found in the following interview excerpt:

> I don't know why, maybe I'm too busy to use them…You can't say I'm against using computers. But sometimes it's really bad for your study. It's not just me, my roommates won't use computers to study. I usually use it to chat, watch movies and do other stuff. Maybe it'll bring a lot of good stuff, but for people who are less self-disciplined, like myself, (using) computer is not a good option.
> (Participant 1088, teaching Chinese as a foreign language, female, year1)

Scrutiny of this interview excerpt reveals that lack of time is not the main driver behind the non-use of technology. Rather, this interviewee was making an informed choice not to use online technology, as the Internet was considered distracting to English learning. To some extent, the comment that 'I'm too busy to use them' reflects that the interviewee lacks conviction regarding the significance of online technology use for learning English. More cases of intentional resistance to technology are discussed in the following section.

7.5 Intentions towards WELL use

It is clear that Internet access and skills are important pre-conditions for informed WELL practices. In '*Rethinking Learning for a Digital Age*' (2010), many cases of technology non-use are explained from the perspectives of the digital divide and digital literacy. The possibility that learners might make an informed choice not to use

technology is recognised but rarely discussed and emphasized as the reason behind resistance to digital technology. However, in the present study, the dominant theme that emerged from the survey data is that the majority of respondents lack the intention to use technology for learning English (75 accounts, 55.1%). Three sub-themes have transpired, including 'lack of intention to learn English', 'lack of intention to exploit digital technology' and 'perceived deficiency in using technology for learning English'. All these terms came from my interpretations of the survey data that can be used to explain learners' informed choices of technology non-use.

The interview questions concerning technology non-use are mainly directed towards the limited use of digital technology and the non-use of interactive technology for language learning. Accordingly, in this section, the notion of 'technology non-use' has gone beyond non-participation and includes the limited and non-interactive use of digital technology. Thus, most of the interviewees are included in the report and discussion here.

The collected interview data have confirmed the findings of the survey data above. They further revealed that underlying these seemingly straightforward reasons for technology non-use are learners' discourses about learning English and their existing learning patterns. Both factors feature the power of 'agency' to act on the world. Importantly, this power is found to be mediated by contextual learning discourses, the cultural artefact of examination and social agents such as teachers. These three contextual elements are suggested in the conceptual framework of this research (see Chapter 3). The contextual learning discourses and the cultural artefact of examination are also found to have direct influence on learners' choice of technology non-use. Notably, these findings do not suggest causal relationships between certain identified elements and the non-use of technology. Rather, learners' decisions are mediated by the interplay of these elements, which can be related to the conceptual framework of the thesis. Therefore, some of these explanatory sub-themes are interrelated, and illustrated in detail as follows.

7.5.1 English learning motives and beliefs

In the light of the survey data, 18 of the 103 respondents seemed to be devoid of English learning motivation when explaining why they did not use WELL at all. Specifically, some respondents displayed a strong sense of nationalism while others considered English learning not so important. Exemplary comments are: "English is not my major so I spend little time studying it after class"; "China has five thousand years of splendid culture and a beautiful language. So I don't care about learning English". As discussed in Chapter 3, this lack of L2 motivation might minimise learning efforts (Dornyei, 1998) and thus, justify the non-use of technology for learning English. In fact, it is further revealed in the interview data that learners' reluctance to use technology and their non-use of communicative technologies can be linked to their motives and beliefs about learning English.

As discussed in chapter 3, L2 motivation is traditionally seen as the determinant of learner behaviour (Oxford, 2003). This inquiry acknowledges that students' motivational discourses about learning English could possibly reveal the processes underlying their choices of technology use. Thus, participants were asked about their L2 motives during the interviews. It was found that the vast majority of interviewees emphasized the instrumental value of learning English. This echoes cultural and societal learning discourses in China, which highlight the significance of assessment and associate education with individual success and social mobility (see Chapter 1). According to interviewees, "English is an important academic subject" (participant 51, engineering, female, year 2), which is closely linked to qualification, better education and employment. Even a small group of the interviewees who showed intrinsic interest towards the English language and culture were instrumentally motivated at the same time. The popular motives given by interviewees are demonstrated below：

> When I began to learn English as a child, I saw it as an academic subject. As an academic subject it will give you much pressure to learn.
> (Participant 582, cultural heritage and museums, female, year 1)

> Well, how to put it, first of all, you have to take the (English) exam. And then, it (English) is useful when you read some literature, and also it is something you have to improve if you plan to study overseas.

> Interviewer: Haven't you already passed CET 4 and 6?
>
> Yes, but it (English) is also part of the entrance exams to postgraduate study. (Participant 605, engineering, female, year 3)
>
> Why I'm not so interested in learning English now? Because I don't have to use it lately. I mean it's not that important to me right now. But when I enter the second year and have to take CET 4, it will become very important. (Participant 132, engineering, female, year 1)

Although varying in tone and expression, these examples highlight the paramount importance of assessment in English learning. It seems that in most cases English is learnt so as to meet academic requirements. As can be seen in the examples above, English learning is more about passing high-stakes examinations than communicating with English speaking individuals. This echoes the finding of Chen et al. (2006), where university participants from Taiwan tended to neglect the communicative aspect of the English language and viewed the learning of English as a kind of *required* investment for future. Of course, interviewees in the present study were not born with such L2 motives. As revealed in the first quoted example above (participant 582), such motivational discourse is absorbed and shaped through learners' educational experiences. More examples are provided below:

> I'm from Sichuan. There was a big earthquake when I was in year 10. Since then the listening section was cancelled in the Entrance Exam for College and we never had never done listening exercises since…But the CET 4 exam at university has a listening section and so do the mid-term and final exams. I had a very rough beginning but I can handle it now…I have just experienced the Entrance Exam for College, and I realize that no matter how good you are in high school, people would not value you once you fail in the Exam. Even if you are a bad kid and cheated in the Exam without being caught, people would say 'look at that kid, he got into the university'. Anyway, I think the competition is really cruel.
> (Participant 1086, teaching Chinese as a foreign language, female, year 1)
>
> In high school our teacher focused on how to get high marks. The teacher didn't give us opportunities to practice spoken English. When I came to the university I realized that English was not just something on paper, it is also about speaking and listening...(because) I almost dared not to make a sound when I first communicated with foreigners…But taking exams is a must. This is the tradition. Passing CET 4 and 6 is a must. (Participant 1088, teaching Chinese as a foreign language, female, year 1)

It can be seen here that the teaching authorities have played an important part in mediating interviewees' motives and beliefs about learning English. To some extent, teachers' behaviours also reflect the significance of assessment in the Chinese social and educational contexts. In addition, the reality of foreign language learning projected by some interviewees seemed to justify their exam-orientated discourses about learning English, as revealed in the story of this interviewee:

> I think it (English) is for exams, really. Last time I bumped into a foreigner on campus. He asked me to take a picture of him and his friend in English…I can understand simple English like this, but when I took the shot, I found the focus of the camera was not right, I wanted to ask him how to adjust it. Then I thought since he spoke English to me he mustn't speak Chinese. So I just didn't say anything because I didn't know how to put it (in English). I told my friend afterwards that I felt really sorry that I couldn't speak better English. But opportunities like this are extremely rare. If my social circle is more international I might force myself to learn for communication. But now, how to put it, exams, final exams, CET 4 and 6, you can't fail in any of them, so it's really all about exams. (Participant 1007, Chinese literature, female, year 1)

These remarks show that the L2 motives of interviewees are also influenced by their perceived learning reality, which seems to be deprived of communicative opportunities but overwhelmed by the power of assessment. Some of those who did not see the communicative value of learning English began to question it as a compulsory subject and appeared reluctant to learn English, as argued by the next interviewee:

> I have a point to make. I think not everyone needs to learn English. The atmosphere for learning English might appear to be thick in China, simply because we've been learning English since primary school. Although you have spent almost ten years to learn a foreign language by the time you attend university, you don't speak it well. Why? I think it's a matter of interest. Many people are not particularly interested in learning it. How can you learn well without interest? It's all for exams. When you graduate from college you will find that English is just an academic subject that you used to learn, but you won't need it afterwards. So I think if you are interested in learning it, you will learn it faster. In college you can spend two or three years to master a foreign language out of personal interest. Like myself, I'm now learning Japanese very fast. (Participant 653, engineering, male, year 2)

As shown above, for interviewees with less learning motivation, English was merely regarded as an academic subject, or a task to 'get by' in along their university life. On

the other hand, a group of interviewees sensed the importance of English in their lives. In these examples, the expectation of career success is another justification for English learning:

> Since I've chosen it (English) as my major study, I have to learn it. I have to do something to prepare for my job hunting next year. I must learn it; otherwise people will laugh at me and think it's weird if I can't speak proper English. They will look down upon me. (Participant 1500, English, female, year 3)

> I think it (English) is very helpful. It's an international language….it should be useful to my future career. The employer will hire the one with better English. (Participant 315, English, female, year 2)

These motivational discourses echo the existing belief that employment is an important educational driver (Thogersen, 2002). The discourses also reflect the social attitudes and values attached to the learning of the English language. As detailed in Chapter 1, English language learning has been promoted at national, institutional and individual levels owing to the country's preparation for its 'modernization process' (Gao, 2009). Some of the interviewees might have acquired and internalized these discourses as they grew up and in return, such expectations have become an inner driver for learning English. In this vein, a group of interviewees began to pay attention to the communicative aspect of the English language. For themselves, achievement in written exams does not necessarily represent the communicative competence of English, thus creating a dilemma in their learning efforts. This is vividly revealed in the story told by the following interviewee:

> Most of the time it (learning English) was for the exams. But since the TEM 4 is history, I pay less attention to the mid-term and final exams…I know a senior (English major) student. He skipped all non-major classes and some core courses that he considered not important. But he practiced his spoken English and in the end it became super good, and so did his listening skills. He shouldn't have any problems when communicating with foreigners or even living abroad. He found a job in a very good secondary school in Beijing. They gave him the job offer on the spot. But he had to come back to the school because his graduation certificate was not even secured. He failed many exams. His student adviser asked him not to tell this to the employer and come back immediately for a second chance…. I think there is an issue of balance. Not many people can be so sure about what they want and you can't do everything. I really envy him, from the bottom of my heart. But I can't follow his example. (Participant 1686, English, female, year 2)

The conflicts witnessed between written exams and communicative competence are not surprising, given that the former focus primarily on linguistic knowledge and grammar instead of basic language skills in China (Luchini, 2004). Although in the present study there seems to be a gradual shift from an emphasis on learning for written exams to the broader context of communicative competencies, the former remains the priority. In particular, some of the interviewees did not believe that English learning was about passing exams but nevertheless they did so due to the perceived contextual reality. Evidently in the example above, this motivated English learner admitted that 'most of the time it (learning English) was for exams'.

So far, the examples in this subsection have demonstrated that the shared discourses about learning English is academically focused, although some interviewees began to pay attention to the communicative competence of the language. Far from a straightforward choice by the learners, these motives and beliefs are mediated by social (the role of English in economic development), cultural (educational attachment to assessment), and contextual (the lack of opportunity for authentic English communications) reality in China. The findings of instrumental learning discourses are important, as they shed some light on learners' reluctance to use the Web for social and communicative learning activities, as well as their behaviours of using technology to 'get on' with academic tasks. After all, technology was mostly adopted by learners as a tool to advance individual learning goals. These points are demonstrated in the examples below:

> I think the stuff like Renren and QQ are in an awkward spot as if all your social connections are in them. But as to the help they can offer your language learning, well, I think it will work better if you spend one or two hours finishing a book, or even half of the book. It's not very meaningful to me to make comments and replies….I think sharing stuff is fun, but that's almost it, speaking of my (learning) motivation, it works better if I force myself to get a certificate, whatever the certificate is, perhaps the interpretation certificate, or business English certificate. At least I will work hard for a whole month preparing for the test. During that month I will be in the English learning mode, and this is really motivating. (Participant 605, engineering, female, year 3)

> I never make replies or comments…I think I'm not used to this kind of communication and the resources I can get online have already satisfied my needs. When I can get what I want, I won't communicate with others.

(Participant 444, classics, female, year 2)

I really don't think it (the web) is important (for English learning)….Even if it is, it's only for our assignments on VLE. You have to do it because the teacher would mark it. (Participant 1245, physics, female, year 1)

I'm a bit lazy and don't have time to search (English learning) resources online…. If I want to take CET 6 now I can deal with it by simply memorising CET 6 vocabulary and doing some listening exercises. So I don't think it's necessary to find this stuff online. But now I'm considering whether to download some mock tests online….because it's cheap. (Participant 653, engineering, male, year 2)

7.5.2 Contextual discourses about learning English

The previous sub-section has revealed that the contextual discourses about learning English could in part mediate L2 motives and beliefs, which influence the learning behaviours surrounding digital technology. Interestingly, this study found that the contextual L2 discourses can also have direct influence on learners' choice of technology non-use, especially in terms of creating English production opportunities via the social web. In Chapter 6 (see section 6.3.1) there is mention that some interviewees avoided making communicative use of the web with peers in their immediate learning context. In the light of the data, such reluctance is intimately linked to the institutional culture of English learning. To shed light, one interviewee mentioned her experience of creating communicative opportunities with peers via the class discussion group online:

I proposed (to chat in English with classmates). I often used English in our class discussion group (online). I then tried to drag our teacher into this…. because I think she could force us to speak English and correct our grammatical mistakes. But I think she might have blanked us. I talked to her several times about this, and she said we were too noisy (laugh)…And then we couldn't continue, and we used Chinese in the end.
…
Basically if you type English, not many people would respond. Anyway I did it and no one replied to my message…I think perhaps they were not happy about it, so I felt like I silenced our (online) class group. (Participant 1686, English, female, year 2)

Despite being an English major student, participant 1686 met with considerable difficulties when initiating English conversation with her peers. In fact, it seems that both her teacher and peers were not enthusiastic about opportunities for peer-based communicative practices of English.

As a non-English major, the next interviewee told a similar, if not more extreme story. According to him, his university peers seemed to be even more disturbed when he attempted to make English conversation via the class discussion group online:

> With classmates we definitely use Chinese. Sometimes when I type one or two English sentences (in a class discussion group) I would be attacked by them….Because there are many classmates who don't like learning English, they would ask 'why do you speak English to us?'…I think English majors might like this, as this is their thing. But with those from the engineering and science departments, English is not so popular. (Participant 1135, education, female, year 1)

It can be seen from these examples that the interviewees' communicative learning efforts do not fit into the institutional context of English learning. Respectively, participant 1686 encountered resistance and participant 1135 was even questioned when attempting to initiate English communication in online class groups. Such responses mirror the indifference or even negativity held by many interviewees towards peer-initiated and peer-based English practices outside the classroom. Perhaps the reason lies in the fact that most of the interviewees only aim to complete academic tasks and pass exams, as discussed in the previous subsection. Given such discourses about English learning, individual efforts towards 'breaking away' from existing learning patterns are not welcomed in public.

Similar concerns are reported by six interviewees who intended to write English on the social web. In particular, the learning culture described by interviewees is less enthusiastic and more exam-oriented. This is partially revealed in the motivational discourses specified by the individual interviewees above. The exam-oriented learning culture is also clearly demonstrated by a few interviewees when talking about the perceived motivational discourses of their peers:

> I've actually discussed this (why learning English) with many classmates. Maybe they just don't want to tell me. They are either lost in silence, or simply say 'it's just for exams'. (Participant 1164, chemistry, female, year1)

> The people I know don't like you speaking English. They would think you are showing off, or having blind faith in foreign things…I think spoken English is our weakness. You know, we all know how to do cloze reading and reading comprehension, but we rarely use English to communicate, very rarely….Many classmates are forced to learn English, because this is a subject. We don't have other choices. I think everybody wants to pass CET 6, because after that we can just forget about learning English. (Participant 585, cultural heritage and museums, female, year 2)

> One of my roommates complained all the time 'we'll be Chinese teachers after graduation, then why we have to learn English?' (Participant 1007, Chinese literature, female, year 1)

Due to these perceptions of contextual learning discourses, some of the interviewees felt intimidated by the idea of producing English language on the social web:

> I didn't know what I was thinking, but if I wrote on it (online space), I was not sure what others would think of me. I do care about that….They (others) would think what I meant by putting English articles there: did I need to demonstrate something or was I simply showing off. They wouldn't think that I actually wanted them to point out my mistakes and give me feedback. (Participant 20, chemistry, female, year 2)

> I'm worried that my English is not good enough. It is such a shame if I misspell some words or make some grammatical mistakes (on my space). And secondly, no one would read (the English I wrote). Even if they did they would ask why I would write English. I would give some weird impression. (Participant 582, cultural heritage and museums, female, year 1)

Here, the lack of use of the social web can be related to the notion of 'self-worth', where language learners might be concerned with others' perception of their L2 proficiencies (see Chapter 3). More importantly, these cases of technology non-use challenge the established view in the CALL literature, where the awareness of a potential audience online is seen to abound with educational possibilities for L2 learning and encourage target language production (Bloch, 2007; Lee, 2010). The inconsistency suggests that supportive online groups could transform the social web into a platform for the negotiation of meanings to take place and promote opportunities for language production. Yet, a less communication-oriented group could dispirit language learners and deter them from making use of the social web. In

other words, while the social web has provided new possibilities for L2 learning, the uptake of this learning tool is not driven by the 'newness' of the technology *per se*, but mediated by the culture of language learning within which these choices are made.

7.5.3 Existing learning patterns

In light of the survey data, among the 136 elicited accounts towards technology non-use, 48 signified that the respondents lack the motivation to exploit online technology per se. A variety of sub-themes emerged. Except for the one respondent who demonstrated animosity towards computer technology, four respondents expressed great concern for their eye comfort and health, as in this example: "my eyes are not comfortable with screens and I like paper resources better".

Moreover, 11 respondents claimed that they were not comfortable with the use of technology for learning English. Many of them used words such as 'troublesome' or 'inconvenient' to justify their non-use of learning technology. Some examples are: "it's troublesome and it's more convenient to carry books around", and "It's inconvenient to use the Internet while reading books". Four respondents claimed that they were simply not interested in using technology without explaining why this was so. Another four respondents believed that the Internet was for purposes other than learning English. One typical comment is, "the Internet is for entertainment. I sometimes search for information online, but I only do so for my core courses". 17 respondents claimed that they only use technology for learning English occasionally. As one stated, "I won't turn to the Internet unless, very rarely, it's absolutely necessary. For example, I only use online dictionary to look up a new word". Other respondents demonstrated an exclusive use of traditional learning resources such as books and dictionaries for English learning.

Comments such as these challenge the 'digital native' narrative, in which young people are described as proficient in and comfortable with digital technology. Yet, beyond the debate of young people's responses to digital technology, what these various tones and expressions mainly suggest is the view that online technology was insignificant for learning English. This perspective is confirmed and further explained

by the interview data. Significantly, 'existing learning pattern', the term used in my own interpretations, is a crucial theme that explains technology resistance in this study.

When asked about how they usually go about learning English at university, most interviewees seem to follow a set of learning patterns, e.g. memorising vocabulary, studying grammar books, and doing learning exercises. They seem to be exam-driven which stems from their past educational experiences, as illustrated by the following excerpt:

> To us learning English has certain procedures and you would find it rigid. Since primary school learning English has been about memorising words, reading aloud textbooks by ourselves, memorising grammatical rules and doing mock exercises. But now we rarely read textbooks aloud.
> (Participant 1245, physics, female, year 1)

> My high school (English) teacher used to tell me that we have to rely on ourselves at university, and the teacher began to teach us to how to learn by ourselves. For example, when we were doing reading exercises, she told us to circle the new words and put them in a notebook, a small notebook that you can carry around. I rarely go back to the notebook, but even now I'll circle and note down the new words I have come across when doing mock reading tests. You can memorise the words after you've noted them down several times. (Participant 582, cultural heritage and museums, female, year 1)

As can be seen from these remarks, the described learning patterns are mostly cognitive and non-communicative. They echo the description of the Chinese undergraduate as an 'analytical learner' described in Chapter 1. This relatively non-interactive learning approach was regarded by many interviewees as 'serious English learning' and effective for handling academic duties. Moreover, the non-interactive sense is also noted as a strategy to stay competitive for exams, as revealed by this interviewee:

> I think we are all very isolated (learning English). I have a roommate who listens to English from 10 p.m., until she falls asleep. It's a bit annoying because she turns it so loud that even I can hear it. In the morning she will sit in her bed memorising new vocabulary. She is always like that. But she has never said anything in English, never….what did we study for in high school? It was all for exams. We were all used to working hard ourselves but didn't like seeing other people working hard. I think this little bit of selfishness is

> natural….so when you see someone communicate in English, you would think this person was showing off or something. Everyone does something for a reason. (Participant 585, cultural heritage and museums, female, year 2)

As demonstrated in Chapter 5, some interviewees began to use online technology to assist these existing learning patterns, which involve little learning communication. However, in other cases it seemed even easier not to use the web for these learning initiatives. One typical case was demonstrated by participant 1007, who struggled greatly with her English learning. English learning for this interviewee was about passing exams and unsurprisingly her learning style was exam-oriented. Required to engage with the institutional VLE, she attempted to replicate this learning approach on the web, but with less success:

> Interviewee: First thing I want to say is screen reading. I get a headache once I read English. If it is on paper, I can find a quiet place and force myself to study. But if it is on the Internet, well, in the dorm, I am easily distracted by my roommates, or, as I just mentioned, if English is all over the screen, and you want to do exercises, you have to scroll up and down, that's terrible. I think books (paper-based materials) are more convenient….
>
> Interviewer: Why are you so happy with these learning exercises? Why don't you try something else?
>
> Interviewee: As I said before, my English was very poor in middle school, so I was desperate to catch up with others in high school. All I could do was memorising and doing as many exercises as I could. In high school the teachers were worried that you would do something else online, so they wouldn't allow us to use the Internet. I was a boarding student, so I sometimes lived without the Internet for two or three months. At that time the (English) teacher would give you a lot of learning materials, and you just did these exercises. You didn't have to look for stuff yourself, as that was done by the teacher. I think since then I didn't like to do things myself. Maybe I was lazy and just didn't want to do it. So after entering university I didn't want to try new things and just study the textbooks, complete the tasks and learn as much as I can by myself. (Participant 1007, Chinese literature, female, year 1)

This example of technology resistance concurs with those identified in the survey data – the interviewee considered digital technology inconvenient and uncomfortable for learning English. Significantly, there are some important issues lying in this excerpt that explain her reluctance towards technology use. First, the interviewee came to the

university with established patterns of English learning; in particular she was equipped with the exam-oriented pattern of learning from her past education. It seemed difficult for her to jump out of the circle and invent new ways of language learning at university, essentially because the interviewee continued to view English as 'a task' to be completed rather than a language to be learnt. Although the interviewee endeavoured to 'expand' her English learning with digital technology, her attempts only replicated the earlier 'tasks' or the exam-oriented patterns of English learning. As such, the web merely functioned as an additional tool for exercising established learning methods. In this case, the web was easily abandoned when it was deemed less efficient compared to traditional learning tools.

In addition, it could be seen from these remarks that retrospectively the interviewee had limited contact with the web in secondary school. Her teacher saw the web not as a learning aid, but as a distraction from academic studies. Consequently the interviewee constantly practised exam-orientated learning with paper-based materials. As her learning methods had not changed at university, it is understandable that she demonstrated her preference for traditional learning methods over the use of learning technology.

The salient issues discussed above make the point that existing learning patterns have mediated this interviewee's learning behaviours surrounding digital technology, as well as her choice of technology non-use. Participant 1007 is not an isolated case. Similar issues were discovered in the reluctance other interviewees showed regarding the use of WELL. In these cases where traditional methods were seen as sufficient and more accomplished, the interviewees were happy to ignore the 'help' from the web, as demonstrated in the following examples:

> You'll never use something for communication and entertainment to memorise stuff. If I want to study vocabulary I won't carry something like a USB stick or a digital book. It's so inconvenient, and it's not good for my health. It's more normal to prepare a notebook for new vocabulary and carry it around.
> (Participant 366, English, male, year 1)

> No (I don't download mock tests online), because I haven't even completed the mock tests I bought last term. (Participant 1313, chemistry, male, year1)

> I bought them all (mock test exercises), so did my classmates. Basically, I think we are very narrow-minded, we don't use the Internet (for learning English), and we always think we have to buy everything, like the listening exercises for CET4 and mock exercises for CET6…I just aim to pass them. (Participant 1088, teaching Chinese as a foreign language, female, year1)

> I usually buy English magazines like 'Crazy English' and 'China Daily'…I don't like reading them on the computer, because it's not good for the eyes. Besides, I am used to taking notes on the articles, and how can you do that on the web? (Participant 1164, chemistry, female, year 1)

The light-engagement and non-use of WELL are understandable in these instances. After all, these interviewees mainly aim to pass exams and focus on self-studying new vocabulary and grammar. In this vein, the web does not bring essentially different learning experiences. Hence, the web is perceived by many interviewees as a discretionary tool for learning English. Such a point of view is revealed in the remarks of this interviewee:

> My English was not bad when I didn't use it (the Internet). I mean I can use it freely. I would decide whether to start and use the computer or not. I think learning is the same with or without it, because I haven't changed my learning methods….I would read some information, such as the news or watch some videos (via the web). I think that's almost about it….I didn't use it (WELL) extensively. Your English will be improved if you talk with your foreign friends (on the web), but I don't do this…. I usually memorise vocabulary, study grammar, do some exercises, practice listening, that's it and has always been.
> (Participant 1245, physics, female, year 1)

Thus, instead of asking 'why language learners did not make communicative use of the social web for learning English', the more sensible question is 'why should they?'. After all, learners do not have to 'put old wine into new bottles', and thus their resistance to WELL is understandable.

7.5.4 The cultural artefact of examination

Previous sections have demonstrated cases where the cultural artefact of examination has mediated L2 motives and beliefs, established learning patterns and the contextual discourse of learning English. Quite often, the artefact of examination even has direct influence on learners' choices of technology use and non-use. In these cases, learners

seem to be aware of the learning possibilities enabled by the Web. However, they chose not to exploit these learning benefits or take them seriously, because they perceive them as less relevant in their preparation for upcoming exams. One example is demonstrated by an interviewee, who constrained her use of WELL as her learning tasks shifted:

> Interviewee: The problem is my own. It (the web) will help a great deal if you really want to make good use of it (for learning English). But no matter how beneficial it could be, if you have no intention in using those tools, you won't find them useful at all….Now, it (the web) is no longer attractive to me...Because the English I need, anyway, the goal for my English learning is very clear – to pass CET6.
>
> Interviewer: Were you interested in it before?
>
> Interviewee: At that time I went to some (learning) websites. The stuff there was interesting and very good, so I wanted to learn more. At that time I just entered university, so I just finished the Exams (Entrance Exams for College) and didn't have the pressure from exams. I wanted to do something different and improve my real English skills. But now the exams are coming, my goal becomes clear again.
> (Participant 1135, education, female, year 1).

It can be seen here that the interviewee adopted two sets of methods for her English learning – one for exam preparation, the other for expanding her language learning with the web. Less pressure from assessment at the beginning allowed the interviewee to expand her English learning with the web. However, she abandoned the Internet and went back to 'the English I need' under the pressure of exams, despite her positive learning experience with the web. Participant 605 provides another example which shows the mediating power of exams:

> After I'm done with the exam for postgraduate study, I may take some time to explore it (L2 group on local learning websites), now it's a bit unrealistic…spending too much time discussing something is not time efficient. I can use the time to do some more meaningful things….like doing papers and memorising words. (Participant 605, engineering, female, year 3)

It can be seen here that examination is an overwhelming factor for this interviewee in her choice of technology use. For her, it seems that traditional learning methods are the most effective for exam preparation. Although online interactive learning opportunities are detected, they are not valued and considered 'not time efficient' by

the interviewee, when facing the academic duties of a university student. Thus, the use of technology is to some extent dependent on the interviewee's pragmatic concerns and her focus on exams in particular. Accordingly, the mediating power of exams has also shed some light on the patterns of WELL use identified in Chapter 5, where interviewees do not value the incidental learning with online multimedia, despite their recognition of the learning advantages brought by such activity.

7.5.5 Deficiency as a language learning tool

Finally, nine questionnaire respondents have no intentions of using WELL, because they view it as ineffective or even deficient for learning English. For instance, one stated, "I think classroom teaching is more effective than using the Internet to learn English". Another complained, "The outcome from the Internet is not good because there is too much distraction and I can't concentrate on learning while surfing online". These perceived deficiencies are also mentioned and further explained during the interviews, in which 'learning distraction' and 'competency for intercultural communications' emerged as major sub-themes.

Learning distraction

It was found more than a decade ago that distraction is a big disadvantage in self-directed language learning outside the classroom (Felix, 2001). Thus, the finding that many interviewees in the present study found the Internet as a distractive learning tool is not original. However, it is notable that for some interviewees, 'learning distraction' is not only seen as a weakness in learning with digital technology, but indeed listed as one of the reasons behind their choice of technology non-use. In light of the interview data, the established discourses about the Internet pivot around its entertainment nature. In this sense, interviewees seem to deliberately avoid using the Internet when they intend to exert serious learning effort:

> There is so much distraction on it (the web) and you couldn't possibly concentrate on learning. There is too much fun stuff...when I was preparing for IELTS I even cut myself off the Internet…I was self-studying in the classroom, and following the old steps. (Participant 57, biology, female, year 3)

> I'll try to minimise the time spent on the Internet (before exams), because it brings me more harm. For example, I printed out all the (English learning) resources in my space and study them….because most of the time you won't see it (the Internet) as an English learning tool. It is interruptive, especially for less self-disciplined people like myself. For example, when I was about to look for some English words, some classmates sent me messages via QQ, and then I began to chat until I realized that I didn't have much time left. (Participant 582, cultural heritage and museum, female, year1)

It can be seen from these remarks that the learners are autonomous. They weighed the advantages and disadvantages of learning with the web and made their choices accordingly. As demonstrated in the previous subsections, the Internet was not considered an essential tool for learning English. Thus, it is understandable that the Internet was abandoned when it was seen to be more distracting than effective, as summarized by this interviewee: "When I'm online, I seldom thought about learning English. When I'm learning English I seldom thought about the Internet. So I don't use the Internet for learning English" (Participant 132, engineering, male, year 1).

One notable case of learning distraction is provided by an interviewee who was one of the few interviewees to mention and value the collaborative tasks assigned by teachers. While some interviewees would use the Internet for the administration of their class assignments and to exchange learning resources, this interviewee and his peers tried to avoid online communications in their learning discussion:

> We would meet up (for the discussion) because you can't concentrate online. The information you get or provide might not be accurate because you might do other things online at the same time, so you won't think as hard. But if we gather together you would think really hard and you can always learn more. (Participant 1727, English, male, year 2)

Here the interviewee did not perceive the web as an ideal channel for learning discussion. Such finding is interesting, as so-called digital natives are described as a 'multitasking generation' (Wallis, 2006). The inconsistency also suggests that the patterns of technology use do not necessarily speak for the learning behaviours surrounding digital technology. The choices of technology use and non-use for language learning are complicated and unstraightforward.

Incompetency in intercultural communications

In contrast to the possibly 'good practices' demonstrated in the previous chapter, where students delineated the fun, flexibility and sociability of WELL, interviewees also mentioned some limitations. In light of the interview data, one constraining factor is the perceived lack of appropriate scaffolding. For instance, one interviewee perceived her online socialization with international non-peers as 'pointless':

> I basically use the web to get resources. I have tried (to make interaction), on a website, where you could chat with a random foreigner. But it was pointless if I really wanted to improve my spoken English, because all you were able to say and could say were sentences like 'what's your name' 'how are you', 'where are you from' – these low-level sentences….And many people on that website were from Vietnam. Their English was not good either, they were there to practice their English, so you couldn't get what you wanted, so I seldom make interactions (online). (Participant 602, sociology, female, year 2)

Clearly this interviewee was attentive to the linguistic gains derived from online socialization in English. In this respect, the communicative efforts with international online non-peers were unsatisfactory. There was a repetitive pattern of language production with different conversants who failed to provide or practice English that was beyond her linguistic knowledge.

Besides the issue of learning scaffolding, another interesting subject that emerged from natural communication has something to do with the authenticity and appropriateness of the English language and culture online. These issues have also appeared in earlier research (Lee, 2006), where students grew frustrated by the issue of distinguishing the standard and non-standard forms of the target language online. One typical example demonstrated in the present study is provided by an interviewee, who went from excitement to disappointment and abandonment in terms of using the web for authentic English conversations:

> Interviewee: When you chat with foreigners you found they had different ways of thinking. I didn't like or even hated some of them. For example, I met a guy (on this website) and his first sentence was 'I'm gay'. I didn't feel good about this….My ideal (interaction platform) is something like QQ in

> China, a place where you could have a good start and nice ending, unlike some foreigners, who are very straightforward.
>
> Interviewer: Have you learnt anything from it?
>
> Interviewee: I think so. At least (s)he asked something like A-S-L. I didn't know what it indicated at first, and then I looked it up online and found it means your age, sex and nationality.
> (Participant 1717, English, female, year 2)

As can be seen here, the culture demonstrated by some of the native speakers is sometimes at odds with the way they behave in reality. Moreover, the language used online is also non-standard, as reiterated by one interviewee: "I've been to English chatting rooms. I typed English and there was either no response or I couldn't understand the replies….I don't know whether it's still English or not" (Participant 582, cultural heritage and museums, female, year 1). Accordingly, the online communication in practice seemed to have misled the interviewees regarding the English language as well as its culture. These findings challenged the assumption made by Ducate and Lomicka (2008) that the 'boundary-less' web opens a window into the target culture by providing the opportunity of interaction with native speakers.

7.6 Summary: how does such a use or lack of use relate to the wider context of language learning?

This chapter endeavours to contribute to the research question that '*how does such a use or lack of use of technology relate to the wider context of language learning'*. The previous chapters found that students are generally reluctant users of the web when it comes to learning English. In this chapter, it was found that such resistance is intimately associated with students' wider context of language learning. This includes the social, material and discursive resources that are available to the students.

Unsurprisingly, Internet access and quality were reported as influential elements of technology use. However, it is interesting to note that the online applications and services available to the students also confined their knowledge of WELL, e.g. how to expand social networks and locate international individuals. Moreover, it was found

that in some cases, the element of time could be interpreted as students' lack of recognition of WELL.

In fact, one prominent reason underlying the lack of technology use was that the students had little interest to do so. In the light of the interview data, there was no direct explanation of this subjective resistance towards digital technology. Instead, decisions as such are contextually mediated. In this study, many of the students were learning English because they were required to do so. They focused mainly on the cognitive efforts of learning English, with the aim of passing or excelling in the exams. These views and motivations about English learning were mediated by their past learning experiences, teachers and the exam-orientated learning reality. Besides, the students' past experiences of English learning shaped their current patterns of language learning. All these factors have confined their understanding of what language learning is and thus what they should do with digital technology for English learning related purposes.

For some students, moreover, the contextual discourses of language learning directly impacted on their L2 behaviours surrounding digital technology. This is because communicative learning efforts were not encouraged by their peers on SNSs or in group chats. Finally, back to the reality of language learning, the students were under huge pressure from exams, which focused primarily on grammar and linguistic knowledge. Taken together, all this evidence suggests that the lack of technology use and Web 2.0 in particular is indeed not the choice of individual learners. Out-of-class language learning is subject to the wider context of language learning, even if empowered with 'transformative' technology in the digital age.

7.7 Discussion

In seeking to answer the research question of *how does such a use or lack of use relate to the wider context*, this chapter explores the lack of use of technology and Web 2.0 in particular. This is because, as demonstrated in Chapter 5, most of the participants were found to be reluctant users of technology when it came to English learning. Their use of WELL was limited and mostly non-interactive. Accordingly,

the barriers to Web 2.0 transfer are worth further investigations and analyses. However, the non-use of digital technology is not a conventional topic to explore in the field of CALL (Kaya, 2013). As suggested in Chapter 2, much workin this academic field focuses on exploiting the learning potential of digital technology, seeing it as an innovative remedy to the pressing problems in L2 learning and education. As such, the findings reported in this chapter are also compared with the literature in the field of educational technology, thus highlighting the contribution of this inquiry to understanding of (L2) learners' lack of digital technology use.

In particular, drawing on a broader literature on resistance to change and innovation, one commonly and long discussed barrier to technology use concerns issues of access (Bennett & Maton, 2010). However, L2 learners in the present study did not appear to suggest any major difficulties in terms of Internet access. Admittedly, for some participants the Internet access was constrained by a variety of issues ranging from institutional regulations to facilities and connectivity speed. Yet, many of them invented ways to circumvent these barriers when they were motivated to do so. For instance, since the institution in Nanjing does not provide Internet access in dormitories for some first-year students, where necessary they would use wireless Internet access via their mobile phones, or hire Internet services outside the campus. Some participants stated that they would download English multimedia resources rather than consume them online so as to avoid hostile Internet fluency. Moreover, the national blocking of possible English learning resources (e.g. Facebook and YouTube) is little mentioned. In fact, most of the students preferred to use local learning websites, noting them as practical and organized resources for their English learning.

The interesting cases of 'issues and solutions' above have certainly revealed the ability of learners to 'act on the world'. Yet, they have also confirmed the often unspectacular use of the Internet among the EFL learners (e.g. passive consumption of information). It is likely that the issues of Internet speed and blockage would be of greater concern if EFL learners began to use the Internet for more sophisticated activities such as networking and synchronous English communication.

Notably, lack of time is traditionally categorized as another contributor to the issue of technology use (Eynon, 2008). Interestingly in this study, the time element can also be interpreted as learners not valuing the use of technology for English learning. For

example, it can be seen from the data that some interviewees appear to have experienced lack of the time for the use of WELL, but the essential reason might be that they did not consider the time spent with WELL to be cost effective in terms of achieving their exam-orientated learning goals. Thus, while the findings of the present study parallel those in the field of educational technology, they add a deeper layer of explanation to these seemingly obvious barriers to technology use. They rationalize participants' choice of non-use. Accordingly, the claim of insufficient time can be intimately linked to learners' perceptions and choices of WELL use, which will be discussed in more detail later in this section.

From a technical perspective the EFL learners in the present study did not appear to have much trouble engaging with Web 2.0 services exemplified by blogs and SNSs – echoing the findings of other studies that suggested "Web 2.0 activities are prolific (among the young people)" (Luckin et al., 2008, p. 3). However, a group of participants in the current study seemed to lack the skills and 'know-how' in terms of using online technology for learning English. This is not surprising, given that only a few students interviewed mentioned receiving formal guidance on this matter.

On the basis of the empirical findings, Figure 7.1 develops the conceptual framework established in Chapter 3. As suggested in Figure 7.1, the 'knowledge of WELL' can be conceptualized as part of 'agency' in this thesis, as it reflects L2 learners' ability to 'act on the world' and mediates their choices of technology use. As discussed in Chapters 2 and 3, (L2) learners' proficiency and knowledge of technology has been seen as a deficit on the part of learners, and often used in existing literature to explain cases of technology non-use (e.g. Kennedy et al., 2008; Winke & Goertler, 2008; Chen, 2013). Interestingly, the current study found that such a capacity could be, in part, contextually mediated. In the light of the data, learners have been accustomed to the local Web 2.0 services that are available in their wider context. This has created a boundary between learners and potential English conversants, and thus partially responsible for their lack of skills and knowledge to engage in certain activities (e.g. networking and having English conversations with international individuals).

Figure 7.1: A framework for understanding L2 learners' technology resistance (adapted from Gao, 2010; Pachler et al., 2010a)

One major finding of the current study is that the non-use of technology is often a deliberate choice mediated by the wider learning context. Evidently, having 'no need' or 'no interest' was found as the dominant rationale among the participants who were not making use of digital technology and the social web in particular. Although learner intention as such have been little recognised and discussed in CALL literature, it has been brought up and drawn to attention in the field of educational technology. For example, Selwyn (2006) identified that 'no interest or need' is an important theme for technology non-use. This is confirmed by Conole and Alevizou (2010, p. 22), who listed the following commonly cited reasons by learners for their non-use of technology:

> ‘I haven’t got time’, ‘My research is more important’, ‘What’s in it for me?’, ‘Where is my reward?’, ‘I don't have the skills to do this’, and ‘I don't believe in this, it won’t work’.

As shown above, an important issue underlying these reasons is that learners do not value technology involved learning activities and thus choose not to engage with them after class. The ‘willingness to use technology’ is also found by MacLean and Elwood (2010) as an important mediator of learners’ perceptions and use of technology. In their study, interestingly, statistics were used to demonstrate that this willingness has little correlation with learners’ digital literacy. Taken together, these studies and discussions highlighted the need to recognise the choices of learners.

Significantly, the findings of the current study have contributed to this line of thinking by explaining the decisions behind technology non-use from a sociocultural perspective. In particular, this study has found that many participants in the current study have shown no interest or need to use the Internet and the Web 2.0 in particular for their English learning. Learning opportunities with such technologies are less valued and practiced by most of the participants in the present study. The data have revealed that such perspectives and choices are mediated by the contextual elements and contextually mediated characteristics of the individuals, as suggested in the conceptual framework of this study.

As shown in Figure 7.1, these mediating elements include English learning motives and beliefs, existing learning patterns, contextual discourses about learning English, institutional artefacts exemplified by exams, and social agents such as teachers and peers. Here, English learning motives, beliefs and patterns are conceptualized as important parts of learner agency. This agency is shaped by contextual learning discourses, and social agents including school teachers as well as past exam-orientated L2 experiences. As a result, learners place a great emphasis on academic success and value cognitive efforts and behaviour in English learning. These perspectives, together with the pressure from high-stakes exams, have driven most of the participants to continue their L2 journey using traditional methods (e.g. purchasing mock exam papers, studying reference books and memorising dictionaries etc.), or at best putting some of this ‘old wine’ in the ‘new bottles’ of Internet involved L2 activities.

As reviewed in Chapter 3, what is important here is the *relevance* of technology use to learners' goal of language learning (Chatman, 1996). In particular, the major barriers to (communicative) technology use might not lie in the issue of access or rest on individual learners not spotting learning opportunities with digital technology. Instead, it results from the fact that the interviewees do not regard the opportunities provided by the Internet as necessary or essential to handle their learning tasks as Chinese undergraduates. They do not see what online technologies and particularly its communicative features can essentially do for their exam-orientated English learning, although these technologies are much celebrated by language professionals and CALL practitioners. After all, the learners are able to 'get by' with their academic tasks by repeating their existing learning patterns with traditional resources or the non-interactive use of the Internet. This to some extent fits Crook's (2012, p. 64) observation of digital practices in education:

> We are living in a time of participatory tools, participatory attitudes and participatory aspirations; yet educational practice does not seem to be easily bringing these elements into an expected alignment.

In the field of CALL, as discussed in Chapter 2, emerging online technologies are often taken as innovative means to address the long-standing issues and problems associated with foreign language learning. However, the findings reported in this chapter suggest that it is these inherent problems of L2 learning prohibit the proliferation of innovative technology use among 'digital native' L2 learners. Specifically, the Chinese undergraduates *choose* not to make extensive and interactive use of online technologies, primarily because the important tenets and practices of Web 2.0 clash with the learning expectations and realities that are deeply rooted in the Chinese EFL context. As such, when seeking to understand technology resistance, the present study has gone beyond the issues of the 'digital divide' (e.g. the access to and knowledge of digital technology), and demonstrated the role of context in mediating language learners' 'digital decision' (Selwyn, 2006).

7.8 Conclusion

This chapter has shifted attention from the narratives of learners' choices and behaviours to a more subtle investigation of why they choose (not) to use online technologies for English learning related purposes. Thus it has dealt with the puzzles that emerged from the usage patterns identified in Chapters 5 and 6 – why the participants made limited use of online technologies, and why such a use is often unspectacular (if not conservative). In the light of the interview data, this chapter has focused on a number of elements that prevented learners from intensive technology use and its communicative features in particular. The identified issues appear not merely to be about 'having' or 'not having' access to online technologies, or the skills and knowledge to use them for English learning related purposes. The issues involve learners' motives and beliefs about English learning, their existing learning patterns, as well as the contextual learning discourses, material resources and social resources exist in their wider context. These non-technical elements highlight the choices of learners and demonstrate the significance of context when seeking to understand these choices of technology resistance.

Chapter 8 Conclusion

8.1 Introduction

This thesis has uncovered L2 leaners' choices of technology (non)use. It identifies a range of contextual elements that mediate L2 behaviours surrounding digital technology and individual characteristics underlying such a use – justifying the sociocultural approach adopted in this thesis. Accordingly, L2 learners' choice of technology (non)use is a complex one. Against this background, this final chapter identifies the main contribution of the present study in two steps. First, the foregoing empirical chapters, 5, 6 and 7 are summarized. Second, the background and theoretical literature reviewed in Chapters 1, 2 and 3 are related to and compared with the findings presented in this study. A sociocultural understanding of 'English learning with Web 2.0' is proposed, together with a framework that demonstrates the roles of context and agency in out-of-class language learning with online technology. On the basis of these findings and arguments, this chapter then considers how the potential of online technologies can be maximized for university EFL learners in China. After that, this chapter acknowledges the limitations of this study and makes suggestions for further research. Finally, this chapter concludes by highlighting the need to research learner voices in the field of CALL, as well as the importance of context and agency when seeking to understand learners' behaviours surrounding digital technology.

8.2 English learning related (non)use of technology, agency and the wider context

As reviewed in Chapter 2, it is arguably believed that new patterns of (language) learning have emerged outside the classroom. As such, this study explores what *actually* takes place among Chinese EFL learners at university, and contributes to an understanding of language learners' (non)use of online technology outside the classroom. This section summarizes the empirical findings of the present study by returning to the research questions raised. It then revisits the conceptual framework developed in Chapter 3 and draws out the contribution of this study to existing beliefs about (language) learning with Web 2.0.

8.2.1 Summary of the findings

Three hierarchical questions are raised to guide and organise the empirical findings of this study, as detailed in Chapter 4. The portrayal in this thesis of what actually takes place among the participants has multiple dimensions and implications. In particular, by investigating 'are Internet tools used by most of the participants for English learning related purposes outside the classroom? If so, how are Internet tools mainly used?', Chapter 5 revealed the trends of English learning related use of technology among the participants. Notwithstanding their widespread and diverse nature, the usage patterns identified demonstrate certain resistance among the participants towards the use of online applications and the communicative features of Web 2.0 in particular for English learning. In fact, participants' use of technology can be generally described as mediocre and unspectacular, as it mainly involves 'getting by' with the role of being an undergraduate student in China.

Conversely, in seeking to address the next research question, 'does the use of technology facilitate a different approach to language learning', Chapter 6 exhibited a few relatively innovative uses of online technology. The behaviours reported in this chapter indicate that some participants are reflexive about their learning context and experiences. They use the web, especially its communication, publication and community-building features, to bypass their contextual disadvantages. These efforts help the participants to 'get on' with their English learning.

Significantly, in seeking to address the third and final research question, 'how does such a use or lack of use relate to the wider context of language learning', Chapter 7 explored why these 'good practices' are only seen in a minority of cases. This chapter explained the usage patterns and trends identified earlier by focusing on participants' various resistances towards technology use. It explored the explanations of participants for their reluctant use of (Web 2.0) technology and their perceptions of their own L2 contexts and learning, thus enlightening understanding of Chinese undergraduates' non-use of online technology. This chapter found that the resistance towards the Web 2.0 transfer is mediated by the L2 context within which the participants are situated. The mixed sequential design of this research is especially

helpful here, as it allows the problems and issues identified from the survey phase (i.e. the reluctance of technology use) to be explored further in the follow-up interviews.

8.2.2 Contribution of the thesis

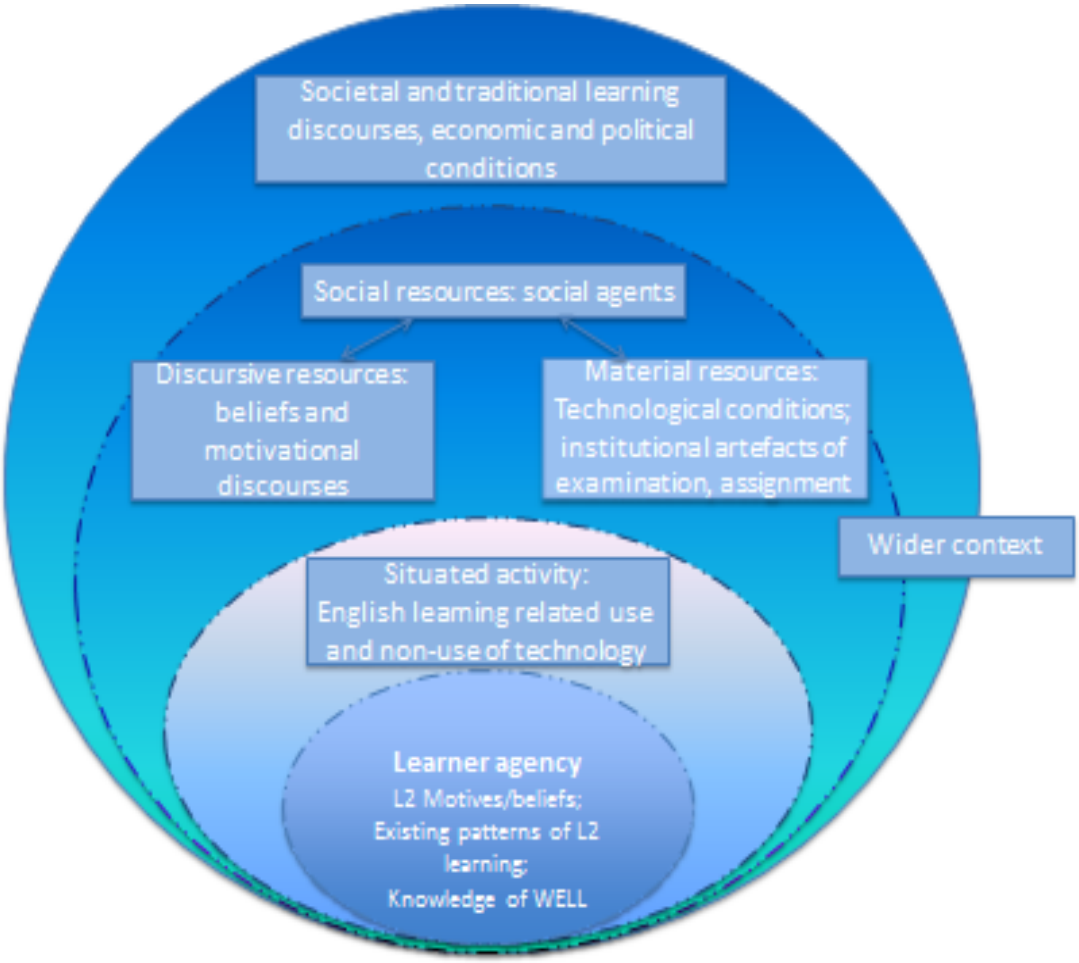
As demonstrated above, this thesis attempts to investigate, at a deep level, language learners' choices and behaviours surrounding online technology. The contribution of the thesis lies in the way in which it challenges key beliefs about (language) learning with Web 2.0 technology and problematizes them within a complex context of language learning.

At a basic level, this thesis offers a balanced and research-based account in the field of CALL of what is *actually* taking place outside the language classroom in the digital age. The empirical findings of this inquiry have yielded valuable information about Chinese undergraduates' use and lack of use of online technology for learning English. These insights, as discussed in Chapters 5 to 7, acknowledge the diversity and complexity of technology use for language learning related purposes. Thus, the findings of this study pose challenges to the blanket rhetoric of 'digital natives' and 'learner 2.0'. These findings caution against the belief that "contemporary students are fundamentally different to traditional students" (Maclean & Elwood, 2009, p. 157), as well as some other hasty but much embraced assumptions in the field of CALL. In short, the findings of the present study call for a shift of attention from the 'potentiality and possibility' of digital technology to the lived digital experiences of language learners.

More significantly, this thesis answers the call of moving beyond the 'digital native' debate (Thomas, 2011; Crook, 2012). The sociocultural approach adopted in this thesis has drawn on conceptions of learner agency and wider context to *understand* the reality of English learning related use and non-use of technology outside the classroom. On the one hand, in Chapters 5 and 7 the participants' decisions and behaviours surrounding digital technology are found to be contextually mediated and thus the choice of technology (non)use is a mediated one. On the other hand, there are a few cases in Chapter 6 where participants have been reflexive about their EFL context and intended to make a difference with online technology. Thus the use of

technology is still the learners' choice. Revisiting the conceptual framework constructed in Chapter 3, Figure 8.1 shows a more developed version based on the empirical findings of this study. Accordingly, the following subsections discuss the roles of context and agency in English learning related use and non-use of technology, thus highlighting the key conceptual contributions of this thesis to existing knowledge of out-of-class (language) learning with Web 2.0.

Figure 8.1: A framework for understanding L2 learners' (non)use of online technology (adapted from Gao, 2010; Pachler et al., 2010a)



Technology (non) use: the role of context

It is clear that the findings and issues presented in the Chapters 5 and 7 contribute to a growing realisation that (L2) learners' choices and behaviours surrounding digital technology are contextually mediated. If we revisit Nardi's (1996b) analogy of shopping in a supermarket (see Chapter 3 section 3.4.2), it can be noted from the empirical findings of this study that EFL learners choose a core set of online tools to create their micro-contexts of language learning. In the light of the data, these online tools are inquiry based and exemplified by search engines, multimedia downloading services and online translations. These commonly chosen applications are comparatively formal and used by learners to aid a range of academic activities such as completing English assignments, preparing for classroom learning and cramming for exams. In other words, the micro-contexts of language learning created with these online applications seem to fit comfortably with the academically focused wider context of English learning, as suggested in Figure 8.1.

Likewise, the so-called 'Web 2.0 communicative opportunities' are not adequately valued and only modestly used by the participants, as these opportunities are perceived to bear little relevance to the context of English learning. When adopted, the Web 2.0 services are often adapted for non-communicative activities. For example, SNSs and blogs are rendered as spaces for obtaining and storing resources rather than as platforms for networking, publication and communication. Such *appropriation*s of technology, as well as the mainstream WELL use observed, indicate that the tools learners chose to engage with do not shape their micro-contexts of learning. Rather, the self-generated contexts echo the wider learning context of learners, which may lead L2 learners to choose whether and how to engage with online technologies.

Therefore, the findings of the current study have drawn attention to the significant role of context in terms of mediating learners' choices and behaviours surrounding digital technology. These findings support the argument made in Chapters 2 and 3 which suggest that there are more fundamental issues other than digital access and literacy underlying (L2) learners' constrained use of technology. As Crook (2012, pp. 65-66) reasoned:

> It is unsatisfactory simply to declare that 'the digital natives are not *that* native'…. An assumption to be developed here is that the form taken by any

> such set of communicative or intellectual practices will always be shaped by the socio-cultural context within which those practices are enacted. So, that context (its traditions, resources, and design) will therefore dictate both the motives and confidence of individuals adopting that technology – constraining or empowering what they might do as communicative agents acting with a novel resource.

In other words, in many cases technology (non)use is not an individual choice but a contextually shaped decision. A notable feature of the present study is that the examination of contextual influences is subject specific. Chapter 3 explained that the context concerned in this study specifically refers to the circumstances for L2 learning. Previous SLA research suggests that the discursive, material and social resources that are available in wider context play a mediational role over self-directed L2 behaviours (Tudor, 2001; Palfreyman, 2006; Gao, 2010). Accordingly, this study materialised the context of English learning and investigated how learners' choices of technology (non)use can be related to the elements in their wider context of L2 learning. The current study found that the contextual elements identified in earlier SLA research remained powerful in shaping L2 learners' choices and behaviours surrounding digital technology outside the classroom. Figure 8.1 details these elements based on the current findings, which are discussed as follows.

In this study, the material resources identified include information technology (IT) infrastructures and institutional artefacts exemplified by assessments and assignments. Of course, the IT facilities on campus influence Internet access and quality and thus learners' experiences with WELL. As shown in Figure 8.1, the Internet conditions reported by learners can be said to echo the national policies and projects described in Chapter 1. Similar to research conducted in the UK (Luckin et al., 2009; Crook, 2012), learners in this study have high levels of access to the Internet. Those who did not own a desktop or laptop computer used computer rooms or mobile phones instead for Internet access. These IT infrastructures might be boosted by the country's economic development and national projects such as 'China Education and Research Network' (CNNIC, 2011). Admittedly, the university in Nanjing did not encourage the first-year non-English majors to use the Internet in their dormitories. Beside the issue of slow Internet speed, a few learners also complained that some potential learning resources were unavailable to them due to political sensitivities (Yang, 2013). Even so, learners in this inquiry did not list Internet access and quality as major barriers to their use of learning technology. Instead, some of them have reported ways to

circumvent these technical obstacles in order to use learning technologies as necessary.

On the other hand, the institutional artefacts such as examinations and assignments are important mediators. In the light of the data, many learners' online technology use pivot on these academic activities. The English assignments and intensive arrangements for assessment at both universities reflect the significance of English in Chinese higher education, which corresponds to the national policy of preparing the country for its 'modernization process' (Gao, 2009).

In this study discursive resources, as noted in Chapter 3, refer to the institutional and classroom culture of English learning. Consistent with the description of English learning at Chinese universities in Chapter 1, English learning in classrooms is often described by participants as teacher-dominated, textbook-based, and exam-orientated. Moreover, many participants also demonstrated that the learning motives and behaviours of their peers were exam-orientated and often reluctant. That is, non-communicative and cognitive learning efforts prevail in the institutional culture of English learning. These discursive resources echo the societal learning discourses, which emphasize the instrumental value of education and the 'hard work' and 'self-discipline' embedded in learning (McGrath et al., 2007, p. 63; Cheng, 2010). As a result, a small group of learners who attempted to make communicative and output-orientated use of Web 2.0 felt uncomfortable or even discouraged to do so.

Finally, the social resources of teachers and peers are found to impact on discursive and material resources and thus learners' behaviours surrounding digital technology. In particular, when talking about the institutional culture of English learning, learners always elaborated on their L2 experiences in the teacher-led classroom, or/and their perceptions of English learning behaviours valued and exercised by their peers. In addition, some English tests and assignments are set by teachers. The assignments that require students to complete online usually result in instant engagement with certain online technology; although some participants do not choose to use it in a meaningful manner (see Chapter 5 section 5.3.4).

Importantly, this study also found that the contextual elements discussed above have a mediational power over some individual features underlying participants' intentions to (not) use online technology. These include English learning motives, beliefs,

patterns and knowledge of WELL (see Figure 8.1). This finding is largely consistent with previous SLA research, where L2 motives and beliefs, learning styles and strategies are identified as the individual factors affecting learner behaviours (Larsen-Freeman, 2001; Oxford, 2003; Ellis, 2005; White, 2008). As revealed in Chapter 7 (section 7.5.1), most of the students interviewed aim to 'get by' in the high-stake examinations and assignments. To them the English language is just 'another academic subject' to deal with, rather than a communicative system to be learnt. Although a group of students begin to value the communicative features of the English language, they fail to make efforts at the implemental level. As a result, these students are often found to use online technology to 'get by' in their English assignments, or prepare for their exams in the same way. After all, as Francis (2010, p. 56) observed that, "learners are agentic. They seek out new mediational means to advance their (learning) purposes". Of particular concern here is the fact that these L2 motives are contextually mediated. Far from a straightforward choice by the students, the initiatives and motives of English learning are mediated by social (the role of English in economic development), cultural (educational attachment to assessment), and contextual (exam-orientated and the lack of opportunity for making English conversation) reality in China. In other words, these seemingly individual choices of technology (non)use are possibly the choices made by the wider context of language learning.

At the same time, the students interviewed seem to have had an established idea of what counts as English learning and what the paths are to achieve this from their educational experiences in the past and at present. The exam-orientated classroom learning and the learning discourses at large encourage them to value and take cognitive and serious learning paths, instead of the social route and 'learning while having fun'. Even if they have benefited from the activities of incidental learning online, they do not often appreciate them as L2 opportunities. This is because activities such as these contradict their existing beliefs, patterns and exam-orientated reality of English learning. In fact, many students followed a set of learning patterns acquired from their past learning experiences, so as to achieve the best exam results. It seems difficult for them to escape from these non-interactive patterns of English learning. As a result, their use of the current web is found to be unspectacular, which do not bring essentially different experiences to their English learning. All this echoes

the sociocultural perspective of L2 learning taken by this thesis – individual characteristics are not merely innate mechanisms but also the result of learners' interaction with the world (Lantolf, 2004).

Finally, it is found that the skills and knowledge of WELL can be another barrier to the adoption of online technology. This is not surprising given that in existing literature the cases of technology non-use are often explained from the perspective that L2 learners lack the skills to make educational use of emerging technologies (Felix, 2008). What is interesting to note from the current study is that the skills and knowledge of WELL can be partially linked to learners' patterns of general web use. In particular, learners are accustomed to the Web 2.0 services available in their local context and thus found themselves lacking the skills or knowledge to use other online social services through which they can network with international individuals.

To sum up, the findings of this study have highlighted the mediational role of wider context in learners' choices of technology (non)use. They confirm that the contextual elements, including discursive, material and social resources that are potentially available to L2 learners, are still influential when technology is taken into consideration. On this basis, it can be argued that we should caution against the notion of technological determinism and instead acknowledge the role of context when seeking to understand learners' decisions and behaviours surrounding digital technology. As observed by O'Dowd (2007, p. 21), "any online activity does not exist in a vacuum, but rather belongs in a particular sociocultural context".

Technology (non)use: the role of learner agency

As demonstrated in the previous subsection, learner agency seems to have been acculturated into certain motives/beliefs about English learning, patterns of English learning and knowledge of WELL through learners' technological and educational experiences. Thus, to a large extent, the role of agency in technology (non)use again reflects the mediational power of wider context. After all, agency in this study is partially theorized as 'socially and historically constructed subjectivity in relation to language learning' (see Chapter 3).

While this thesis acknowledges the significance of context, importantly, learner agency is also found to assume some explanatory power in terms of L2 learners' use of digital technology. In Chapter 6, a small group of students are reflexive about their exam-orientated learning context. The power of reflexivity is intimately linked to their will to improve their language skills and make a change. With the learning possibilities afforded by digital technology, these students were able to 'escape' from their learning context and make a difference to their language learning. Their behaviours can be described as the "destructive rejection of the old" (Engeström, 1996, p. 126), and thus make exemplary cases of technology use. Therefore, the notion of agency also challenges the perspective of technology determinism. After all, 'good practices' do not stem from mere access to the Internet, but are driven by students' motives to learn English differently and their capacity to make such changes via the use of digital tools. In addition, as expected in Chapter 3, the power of learner agency cautions against the deterministic discourses about context and behaviours (Wenden, 1998). It has facilitated a critical understanding of the mediational power of context.

A sociocultural proposal for understanding 'English learning with Web 2.0'

All of the issues discussed above have pointed towards the view that learners' decisions regarding 'English learning with Web 2.0' are best understood in terms of their wider understandings about their L2 study and context. This knowledge has contributed to the two areas of debates that concern the change of L2 practices outside the classroom, as reviewed in Chapter 2.

First, the present study confronts the technological determinist mindset, which is 'treating new technologies as autonomous forces that compel society to change' (Nye, 2007, p. 27). In particular, in much of the CALL literature discussed in Chapter 2, the focus is primarily on the 'newness' of web technologies and concludes that these Web 2.0 qualities are fuelling a revolution for L2 learning and education. Critical voices in this vein often questioned the web as an appropriate learning platform, arguing that its use is causing trouble for contemporary L2 learners (e.g. Benito-Ruiz et al., 2009). The tacit assumption underlying these discourses is that the Internet, for better or worse, is impacting on (L2) learners.

However, the empirical findings of 'English learning with Web 2.0' do not substantiate this perspective. Evidently, online technologies do make a change for a small group of participants. They help to create English-intensive contexts, initiate English conversations, publish articles in English and contribute to online knowledge, thus exhibiting certain revolutionary power of Web 2.0 for L2 learning. However, it is noticeable that these 'groundbreaking' uses of technology do not stem from mere access to the emerging technologies. In fact, the same technologies are found to be used differently by different individuals in this study. For instance, whereas a small group of participants intentionally used online multimedia to 'break away' from limited exposure to the target language, others might not have valued the learning opportunities afforded by online multimedia. While only a few discovered platforms for English communication, others used technology to replicate or enhance their typical learning practices and continued to do what they had always done as Chinese undergraduates. Some participants initiated research inquiries and located useful resources for their essay assignments with the help of search engines. Yet, some used these online applications to translate paragraphs of texts and copy and paste them into their translation assignments. All this highlights the choices of L2 learners and their understanding of their L2 tasks. Accordingly, the 'transformation' of language learning, if any, is not caused by technology per se. Here, the empirical findings of the thesis contribute to the debate on learning technology by highlighting the significant role of language learners. These findings call for the need to research 'learner voices', while giving a considered consideration of what technology can and cannot do in a particular context of language learning (Sharpe et al., 2010).

Second, this study suggests that 'digital native' learners do not necessarily embrace the use of technology for their language learning, or engage with technology for more sophisticated learning activities. This is not only because 'digital natives' are not digital enough, or that they are excluded from the Internet access, as emphasized in much CALL research (Steel & Levy, 2013). This thesis found that language learners' (non)use of technology is a much more complex phenomenon. Evidently, language learners' behaviours and decisions surrounding digital technology are contextually mediated. They choose to use technologies when they consider them relevant and necessary for their language learning. Yet in this study, the participants' understanding of L2 tasks and context make them less socially-orientated and more

achievement-centred. Despite the access to the social web, many participants remain "analytical, norm-oriented" rather than "experimental, communicatively-oriented" (Ellis, 1994, p. 508). The barriers to innovative use of technology therefore do not just lie with the preconditions of technology use, but are associated with the long-standing issues exhibited in the EFL context and education in China. It can be argued that the reasons underlying Web 2.0 resistance somehow echo the contextual barriers to implementing communicative language teaching in the Chinese EFL context, such as the societal learning discourses that emphasize academic achievement and cognitive learning efforts (Hu, 2002).

Nevertheless, this is not to say that online technologies do not play a role in out-of-class language learning, or that L2 practices are not changing in the era of Web 2.0. In fact, the empirical findings of this study support the sociocultural perspective in the debate on educational change and technology. Recently, some scholars have begun to highlight the contribution of sociocultural theory to understandings of technology use. For example, Francis (2010) discovered the tendency of graduate students at Oxford University to become less dependent on social resources and communities provided by the institution. He argued that this change was not started by technology per se, or the authorities and policymakers. Instead, it was driven from 'bottom up' by advanced learners, as they started to exploit the potential of technology and gain an edge with the use of these tools. The educational change is the result of the dialectic between learner and technology. Such explanations highlight the significance of learner agency and particularly its ability to 'act otherwise'. In contrast, Crook (2012) investigated students from a UK secondary school, and found that the learners' choice of technology use usually depended on whether such a use fitted into their particular learning context. From a different angle, Crook's study draws attention to the mediational role of the context.

Accordingly, the sociocultural perspective provides a model for interpreting the choices and behaviours of the participants in the present study. In particular, although it is small scale, a few students do begin to make a difference to their language learning outside the classroom. They reflect on their learning reality and reconstruct their learning needs and plans. Their 'agency' enables them to 'break away' and make changes with the help of online technologies. Their understanding of their L2 study is different from most of their peers. These cases of 'good practice' imply that changes

seem to be started by a small group of learners, and *achieved through their appropriation of emerging technologies* that might afford new possibilities for language learning. Thus, the technology still plays an important role in out-of-class language learning.

However, this is not to suggest that students are free from their particular context or circumstances. After all, it can be noted from this inquiry, as suggested in other studies, that intensive and innovative use of the Internet remained "the exception rather than the rule" among the participants (Lin & Kelsey, 2009, p.145). In fact, it can be seen from Chapters 5 and 7 that students usually use online technologies to advance their learning goals, which are mediated by their contextual learning discourses, their teachers and the institutional artefacts of exams and assignments. Instead of valuing and making innovative use of online technology, students are often found to replicate their task- and exam-orientated learning patterns with online technology. In other words, the technology (non)use of students is controlled or manipulated by their L2 context. As Selwyn (2011a, p. 115) argued in the same vein, "students' 'choices' and 'decisions' (of technology use) need to be understood within the wider contexts of schools and schooling".

The foregoing arguments highlight the significance of 'context', while acknowledging the role of 'agency'. On the one hand, context has a strong mediational power over students' choices and behaviours surrounding digital technology. On the other hand, 'agency' has the capacity to 'break away' and make a difference. Accordingly, the sociocultural perspective embraced in this study places L2 learners at the heart of educational change outside the classroom, and encourages us to understand learners' choices and behaviours in relation to their role of being an English learner in the Chinese university context. Given all of the issues and arguments presented throughout this thesis, the next section considers how the minority cases of 'good practices' can be expanded within the Chinese university context.

8.3 Implications for future practice

Having commenced its discussion by outlining the potential of online technologies for language learning, this thesis holds that it is important to maximize this potential for

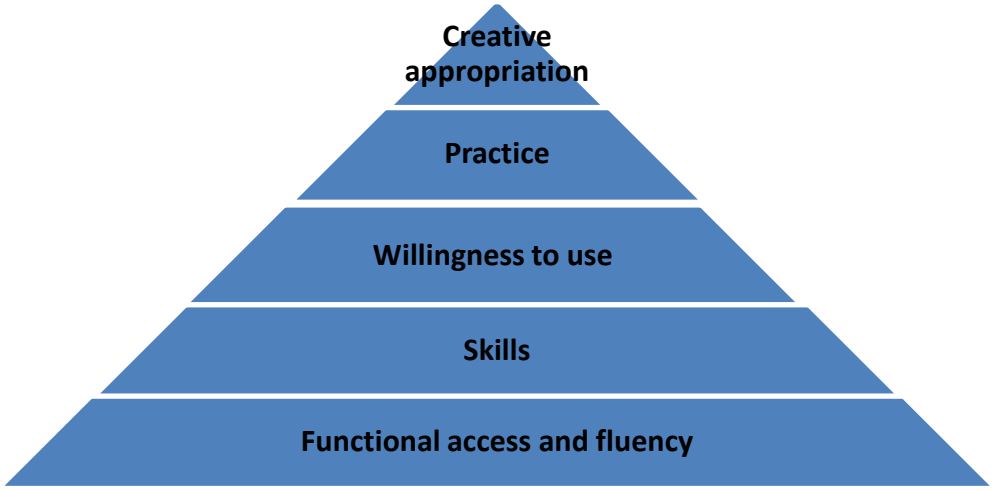
Chinese university EFL learners outside the classroom. As Kennedy and Judd (2011, p.133) noted:

> It is perhaps time, therefore, to dispense with manifestly inadequate labels of categories (such as 'digital native'), and begin focusing on how we, as educators, can help students move beyond Google so they can harness the Internet for greater academic advantage.

According to Sharpe and Beetham (2010), it takes four steps to materialise the 'effective' use of learning technology – functional access, skills, practice and creative appropriation. As discussed in Chapter 3, the first two criteria are concerned with learners' entitlement to technology use. Practice indicates that learners are able to make informed choices of using technology to meet their particular interests and needs. Creative appropriation is the stage where technology involved learning strategies have been practiced repeatedly and thus become unconscious activities.

Nevertheless, Sharpe and Beetham (2010)'s discourse can be seen to have its limitations, especially in the light of Figure 8.1 which demonstrates the mediating role of context on digital choices and behaviour (see Section 8.2). Chapter 3 argues that Sharpe and Beetham's accounts fail to recognise learners' intention of whether and how to make use of digital technology. As can be explained in Figure 8.1, such intention is mediated by a wider learning context in terms of the motivation of technology use (situated activity) and the disposition towards technology use (learner agency). As such, when attempting to encourage 'effective use of digital technology', learners' willingness to use technology in their particular learning context has to be considered. In order to inform future practice, Figure 8.2 introduces an additional layer to the previous model of 'effective e-learning'. Here, 'willingness to use' indicates learners' motivation and disposition towards technology use. Accordingly, Figure 8.2 highlights three key messages for institutions and teaching authorities.

Figure 8.2: A model of effective use of digital technology outside the classroom (adapted from Sharpe & Beetham, 2010, p. 90)



First, **institutions should be more open-minded about the educational possibilities of online technology.** As can be seen from this study**,** the Internet is becoming normalized in everyday life and much involved in academic activities outside the classroom. Yet, many institutions still try to 'protect' their students from overuse of the Internet. In the present study, for instance, the university at Nanjing does not provide Internet access in the dormitories of first-year non-English major students. This indicates that the institution is aware that although the Internet can bring potential benefits to language learning, it can also distract students from their academic studies. As noted by Pachler et al. (2010a), the possible learning distraction of digital technology use is usually a big concern for school authorities. However, banning access to the Internet is not the solution. Evidently, some participants of this study hired Internet providers outside the campus. In fact, as the participants of this study are adult students, some of them even intentionally avoided the use of the Internet themselves, fearing that it might turn out to be a learning distraction. However, the restriction of Internet access could contradict some of the learning practices assigned by teachers and thus create dilemmas in students' learning practices. As discussed in Chapter 7, one first year student in this study complained of poor Internet access and fluency when he tried to upload his English assignments onto a class blog. Therefore, institutions should not situate themselves outside what Pachler et al. (2010b) called the 'new habitus of learning'. In the same vein, Green

proposed that the "formal education system needs to find ways to intersect with this kind of (informal) learning as a valid curriculum aim" (Sefton-Green, 2004: 30). Admittedly, the findings of the present study do not necessarily provide implications for institutions in terms of how to incorporate the out-of-class practices into formal education. Yet, they do suggest that institutions should value these out-of-class practices and make efforts to maximize the learning potential of emerging technologies for the students. To start with, institutions should ensure that students have convenient and effective access to the Internet.

Second, **institutions should equip Chinese university students with the skills and knowledge to use the current web for English learning related purposes**. This responsibility is indeed becoming enshrined in the politics of MoE in China, as the module of 'computer skills' has been implemented in the national curriculum for young people at secondary and higher education institutions. On the basis of this inquiry, however, it can be argued that student training should go beyond digital skills and cover the knowledge of how to make educational use of digital technology. This includes the introduction of WELL practices, as well as students' roles in these learning practices. As argued by Dooly et al. (2008, p. 82), "training the students is more than just getting them used to the technical aspects; it is also getting them to reflect on their roles and responsibilities in the interaction-taking place in the ICT format". Admittedly, the innovative use of online technology does not always involve interaction and communication, as evident in Chapter 6. Yet, the arguments above do suggest that it is important to familiarize students with both the online tools and practices that can be potentially useful to their L2 learning.

Third, **institutions and teaching authorities should give students, where necessary, a genuine need to use the Internet for English learning related purposes, rather than assuming that such a motive exists**. This suggestion comes from the core findings of this study, because for many participants English learning does not necessarily involve the use of digital technology. It can be also noted from the data that the introduction and implementation of technology involved learning practices is no guarantee that students will turn away from surface approaches to English learning. Evidently in Chapter 5, many participants of this study do not make meaningful use of the institutional VLE even if it is part of their academic tasks. Therefore, it is important to motivate students to use learning technology, rather than impose

technology involved tasks on them. Relevant work includes guiding students' English learning motives/beliefs, expanding their learning patterns and stimulating their agency, as suggested in the framework for understanding L2 learners' (non)use of online technology (see Figure 8.1).

In particular, the key to students' intentions towards technology use is their motives and beliefs about English learning. In order for more Chinese university students to value the L2 possibilities brought by online technologies, it is important for institution to shift students' attention towards the communicative nature of the English language. That is, students should be informed of the importance of communicative English, rather than be encouraged to focus only on knowledge that is of little use outside the academy. This requires certain changes in classroom teaching, assignments and assessments, all of which should place greater emphases on students' communicative competence of the English language. After all, as demonstrated throughout this thesis, students' educational experiences and their contextual learning discourses have a profound influence over their motives and views about L2 learning.

In addition, teaching authorities should push the boundary of students' conventional understanding of English learning. Fundamental questions should be asked to students, such as what is (English) learning (Pachler & Daly, 2011)? What are the possible ways to learn? Students' attention should be drawn to how 'activities for fun' can be linked to the acquisition of the English language. They should be informed of the possibility that "play is a serious matter" (Roger and Sharapan, 1994, p. 13). As such, we might be able to expand students' horizon of English learning and therefore guide them to value and practice the so-called 'Web 2.0 communicative opportunities'. In fact in a broader sense, as Sefton-Green (2004) has already proposed, we should in the first place re-define learning in "the wider culture" inclusive of informal learning and apply key theories such as constructivism, Vygotskian concepts, situated and experimental learning to explore the fundamental question of what learning is.

Finally, the agency of students should be stimulated. Students should be encouraged to reflect on their English learning in terms of how their existing learning patterns and learning context have constrained their development of language skills. Students who claim to have used digital tools to solve their L2 problems should share their stories

and thus accelerate this 'bottom up' change that is taking place among the university EFL students outside the classroom.

8.4 Acknowledging the limitations of the present study

Methodologically, the major flaw of the present study is the non-probability sampling obtained for the survey study. As can be seen in the methodology chapter, the two researched universities are not randomly selected, although they happen to be situated in two different regions of China. Moreover, although I attempted a large probability sampling within each university, in practice the participants involved are more of the result of convenience sampling. This means that the results of this study are subject to generalisation and thus do not speak for the population of the universities within which the present inquiry was conducted, nor students from other Chinese universities.

Nevertheless, the findings of this study did not show much differentiation between participants from the two different institutions. In fact, the descriptions of the 49 interviewees about their choices of WELL use have many similarities. Perhaps this is because the two chosen institutions are both first-tier universities in China, and thus have similar academic requirements for learning English. Moreover, although the participants of this study might come from different parts of China, they have all experienced the entrance examination to college and thus shared the exam-orientated English education experiences in the past. It is admitted that this piece of work is not subject to generalisation due to the non-probability sampling. However, it is safe to say that the findings of this study have some implications not only for the two universities studied in this research but also for other higher education institutions in China.

Furthermore, the transferability of the research findings to other contexts remains unclear, as the present study specifically targeted Chinese undergraduates' use and non-use of WELL. For example, how might students from secondary schools or different cultural heritages exhibit dissimilarities from this Chinese university EFL group? Questions such as this merit further investigation. Nevertheless, the results of this study have called for greater attention to learning context when trying to understand students' choices of technology use for L2 learning.

Like most studies, this thesis does not exhaust every aspect of digital technology and L2 learning in its analysis. For instance, participants did mention that the use of online technology had improved certain language skills on the questionnaire. Yet, discussion of the data did not talk at length about how each of these skills might be improved by technology. Similarly, a wide range of online applications have been listed by participants as the tools for learning English. Yet, the use of each tool is not discussed in turn. This is partially because some of these applications have only been listed by a small percentage of questionnaire respondents, and thus might not be adopted and discussed by the students interviewed. In addition, participants' classroom activities with technology, if any, were not involved in the discussion. Yet it is notable that the topics mentioned above are deliberately avoided, as the aim of this thesis is to look at L2 students' (non)use of technology and the reasons underlying such use, rather than the educational potential of particular technology, or the learning results from the use of these technologies.

Finally, it should be noted that, despite the range of quantitative and qualitative data collected, this mixed methods research represents just a snapshot in time and is only a glimpse into the participants' (non)use of online technology for L2 learning. However, the present study is more than a narrative of L2 students' response to the increasingly digitalized environment. It emphasizes why students are (not) doing what they are (not) doing with digital technology when it comes to L2 learning. In other words, it aims to identify the underlying reasons behind the (non)use of online technology. It is admitted that technologies develop fast and students' use of technology is subject to change in the future. Yet, based on the findings of this study, it should be noted that whatever the circumstances, we have to take into consideration the wider learning context when we attempt to understand students' choices and behaviours surrounding digital technology.

8.5 Implications for future research

On the basis of the empirical findings and the limitations of this study, this section recommends four major directions for further studies. First, a more nuanced longitude case study should be put on the research agenda, so as to see how students' use of technology changes as the context alters. For example, as can be seen from the

empirical data of the current study, a group of Chinese undergraduates are actively seeking opportunities for education in the English speaking countries such as the UK and US. Case studies of technology use can be conducted to this group of students whose context of English learning changes dramatically when they are studying overseas. Such research can inform whether and how the use of technology changes in different learning contexts, and thus enhance understanding of the roles of context and agency in mediating L2 behaviours surrounding digital technology.

Second, the current study focuses primarily on the trends and different patterns of technology use. Future research may pay more attention to the differences in technology use among different groups of (L2) students. For example, research can be directed at whether and how students of different age, gender and family background might engage with learning technologies differently. That is, the topic of technology (non)use can be approached from social science perspective. After all, as argued by Selwyn (2011a, p. 40), "there is no one 'correct' reading of technology and society". In this sense, a large-scale research project with more representative sampling should be facilitated, so as to provide more convincing results when performing referential statistics.

Third, the survey study in the present research found that students might engage with different digital facilities (e.g. mobile devices, laptops, desktops) in different places (e.g. dormitory, classroom, library, dining hall). However, due to the scope of the present study, how students' behaviours might differ in different locations with different digital facilities are underexplored and deserve more subtle investigation in future research.

Finally, while the CALL community perhaps gets too enthusiastic about the new learning possibilities brought about by certain technology, it might be sensible to slow down and invest more thought in what is happening with (language) learning in the digital age. After all, it has been argued based on the findings of this study that we should move beyond the hype of Web 2.0 and the rhetoric of 'digital natives'. Thus, future research should work towards a more realistic and robust approach to consider what technologies can bring to L2 learning and education, as well as how these learning potentials can be accepted and harvested to a greater extent.

8.6 Concluding remarks

This thesis presents a mixed sequential study on English learners' (non)use of online technology in the Chinese university context. A few cases of 'good practices' have caught our attention, and exhibited some of the 'transformative' power of learning technology. However, these cases will not overshadow the bigger picture where the use of digital technology is limited and often unspectacular among the 1,485 participants. Compared to the existing CALL literature, these findings seem to demonstrate a disconnection between the rhetoric and the reality of technology use. While acknowledging the explanatory power of agency in the minority instances of 'good practices', this study identifies that the barriers to Web 2.0 transfer is largely contextual. Particularly, the so-called 'Web 2.0 communicative opportunities' did not fit into students' sociocultural context of language learning.

From the time when I was a university student to the time when I was researching university students, the online technologies available to L2 learners have certainly changed. As Steel and Levy (2013, p. 316) observe, "new technologies are more varied, more powerful and more affordable than they were previously". However, looking back at my experiences of being an English learner in China, the changes in out-of-class L2 practices, if any, do not really parallel the development of the technology. At the time of completion of this thesis, technologies continue to evolve and many university students who are labelled as 'digital natives' might choose to appropriate or disappropriate new technologies for their (English) learning. It is hoped that through this piece of work more scholarly attention in the field of CALL will shift away the mania surrounding the emerging technologies that are termed Web 2.0 or even Web 3.0. It is hoped that more attention will be directed towards the voice of students, their reasons and hopes for technology involved activities, especially in their particular context of L2 learning. After all, as has been argued throughout the thesis, the technology facilitated changes in L2 practices, if any, are a 'bottom up' process that is taking place in day-to-day situations, and constrained by the learning context within which the student is situated.

Bibliography

Alm, A. (2009). 'Blogging for self-determination with L2 learner Journals'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. London: IGI Global.

Allford, D. and Pachler, N. (2007). *Language, Autonomy and the New Learning Environments*. Bern: Peter Lang.

Anderson, P. (2007). 'What is Web 2.0? Ideas, technologies, and implications for education'. [Online]. *JISC Tech Watch,* Available at: http://21stcenturywalton.pbworks.com/f/What%20is%20Web%202.0.pdf [Last accessed 11th July 2011].

Bachman, L.F. (2010). 'Foreword'. In L. Cheng and A. Curtis (Eds.), *English Language Assessment and the Chinese Learner*. New York: Routledge.

Bateson, G. and Daniels, P. (2012). '8 Diversity in technologies'. In G. Stockwell (Ed.), *Computer-Assisted Language Learning: Diversity in Research and Practice*. Cambridge: Cambridge University Press.

Beer, D. and Burrows, R. (2007). 'Sociology and, of and in Web 2.0: some initial considerations'. [Online]. *Sociological Research Online,* 12, Available at: http://www.socresonline.org.uk/12/5117.html.

Bell, J. (1991). *Doing Your Research Project*. Milton Keynes: Open University Press.

Benito-Ruiz, E. (2009). 'Infoxication 2.0'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. New York: IGI Global.

Bennett, S. and Maton, K. (2010). 'Beyond the 'digital natives' debate: Towards a more nuanced understanding of students' technology experiences'. *Journal of Computer Assisted Learning*, *26*(5), 321-331.

Bennett, S., Maton, K. and Kervin, L. (2008). 'The 'digital natives' debate: A critical review of the evidence'. *British Journal of Educational Technology*, *39*(5), 775-786.

Benson, P. and Reinders, H. (Ed.) (2011). *Beyond the Language Classroom*. Basingstoke: Palgrave Macmillan.

Berg, B. L. (2007). *Qualitative Research Methods for the Social Sciences (sixth edition).* Boston: Allyn and Bacon.

BERNERS-LEE, T. (1999). *Weaving the Web*. New York: Orion Business.

Biber, D. and Kurjian, J. (2007). 'Towards a taxonomy of web registers and text types: A multidimensional analysis'. *Language and Computers*, 59(1), 109-130.

Black, R. W. (2005). ‘Access and Affiliation: The Literacy and Composition Practices of English-Language Learners in an Online Fanfiction Community’. *Journal of Adolescent & Adult Literacy, 49*(2), 118-128.

Bloch, J. (2007). ‘Abdullahs blogging: A generation 1.5 student enters the blogosphere’. [Online]. *Language Learning & Technology,* 8(3), 66-82. Available at: http://llt.msu.edu/vol11num2/bloch/default.html.

Block, D. (2003). *The Social Turn in Second Language Acquisition*. Washington: Georgetown University Press.

boyd, D. and Ellison, N. B. (2007). 'Social network sites: Definition, history, and scholarship'. *Journal of Computer-Mediated Communication*, 13 (1), 210-230.

Brabazon, T. (2007). *The University of Google*. Ashgate: Aldershot.

Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. New York: Peter Lang Publishing.

Bryman, A. (2008). *Social Research Methods* (third edition). Oxford: Oxford University Press.

Buckingham, D. (1998), ‘Children of the electronic age?’. *European Journal of Communication*, 13(4), p. 557-565.

Burr, V. (1995*). An Introduction to Social Constructivism*. London and New York: Routledge.

Burston, J. (2014). ‘MALL: the pedagogical challenges’. [online]. *Computer Assisted Language Learning* (ahead-of-print), 1-14. Available at: http://dx.doi.org/10.1080/09588221.2014.914539

Castells, M. (2000). 'Materials for an exploratory theory of the network society'. *The British Journal of Sociology*, 51 (1), 5-24.

Carney, N. (2009). ‘Blogging in foreign language education’. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. New York: IGI Global.

Carroll, J., Howard, S., Vetere, F., Peck, J. and Murphy, J. (2002). *Just what do the youth of today want? Technology appropriation by young people*. In *Proceedings of the 35th Annual Hawaii International Conference on* January 2002. [Online]. Available at: http://www.hicss.hawaii.edu/HICSS_35/HICSSpapers/PDFdocuments/ETMIRO2.pdf (Last accessed 11th August 2014).

Carter, B. and New, C. (2004). ‘Introduction: Realist social theory and empirical research’. In B. Carter and C. New (Eds.), *Making Realism Work: Realist Social Theory and Empirical Research.* London: Routledge.

Chamot, A.U. (2001). 'The role of learning strategies in second language acquisition'. In M.P. Breen (Ed.), *Learner Contributions to Language Learning: New Directions in Research*. Harlow: Longman.

Chapelle, C. (2003). *English Language Learning and Technology: Lectures on Applied Linguistics in the Age of Information and Communication Technology*. Amsterdam: John Benjamins Publishing.

Chamot, A. U. (2005). 'Language learning strategy instruction: Current issues and research'. *Annual Review of Applied Linguistics, 25,* 112-130.

Chatman, E. A. (1996). 'The impoverished life-world of outsiders'. *JASIS, 47*(3), 193-206.

Chen, J.F., Warden, C.A. and Chang, H. T. (2005b). 'Motivators that do not motivate: The case of Chinese EFL learners and the influence of culture and motivation'. *TESOL Quarterly,* 39(4), 609-633.

Chen, X.B. (2013). 'Tablets for informal language learning: Student usage and attitudes'. [Online]. Language Learning & Technology, 17(1), 20-36. Available at: http://llt.msu.edu/issues/february2013/chenxb.pdf

Chen, Y., Huang, X. and Huang, H. (2005a). '当代大学生消费观存在的问题极其引导 (Investigation on university students' consumption concept)'. *Journal of Guangdong University of Technology (Social Science Edition),* 5, 366-367.

Cheng, L. (2010). 'The history of examinations: Why, how, what and whom to select?' In L. Cheng and A. Curtis (Eds.), *English Language Assessment and the Chinese Learner*. New York: Routledge.

China Internet Network Information Centre (2010). *第26次中国互联网络发展状况统计报告(The 26th statistical report on Internet development in China)*. Available at: http://www.cnnic.net.cn/hlwfzyj/hlwxzbg/hlwtjbg/201206/t20120612_26717.htm [Last accessed 10th August 2014].

China Internet Network Information Centre (2013a). *2012年中国青少年上网行为调查报告 (The 2012 survey report on young people's use of the Internet in China)*. Available at: http://www.cnnic.net.cn/hlwfzyj/hlwxzbg/qsnbg/201312/P020131225339891898596.pdf[Last accessed 10th August 2014].

China Internet Network Information Centre (2013b). *第31次中国互联网络发展状况统计报告(The 31th statistical report on Internet development in China)*. Available at: http://www.cnnic.net.cn/hlwfzyj/hlwxzbg/hlwtjbg/201403/P020140305344412530522.pdf [Last accessed 10th August 2014].

Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge, MA: The MIT Press.

Collins, A. and Halverson, R. (2009). *Rethinking Education in the Age of Technology: The Digital Revolution and Schooling in America*. New York: Teachers College Press.

Cohen, M. and Manion, L. (1994). *Research Methods in Education* (fourth edition). London: Croom Helm.

Cohen, M., Manion, L. and Morrison, K. (2007). *Research Methods in Education* (sixth edition). London and New York: Routledge.

Cohen, M., Manion, L. and Morrison, K. (2011). *Research Methods in Education* (seventh edition). London and New York: Routledge.

Cole, M. (1996). *Cultural Psychology: A Once and Future Discipline*. Cambridge, MA: Harvard University Press.

Conole, G. and Alevizou, P. (2010). *A literature review of the use of Web 2.0 tools in Higher Education* (*A report commissioned by the Higher Education Academy)*. [Online]. Milton Keynes: The Open University. Available at: http://www.jisctechdis.ac.uk/assets/EvidenceNet/Conole_Alevizou_2010.pdf [Last accessed 6th May 2014].

Cook, V. (2008). *Second Language Learning and Language Teaching*. London: Routledge.

Cortazzi, M. and Jin, L. (1996). 'Cultures of learning: Language classrooms in China'. In H. Coleman (Ed.), *Society and the Language Classroom*. Cambridge: Cambridge University Press.

Creswell, J. W. (1998). *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oaks: CA Sage.

Cresswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approach* (third edition). Thousand Oaks, CA: Sage.

Creswell, J. W. and Plano Clark, V. L. (2011). *Designing and Conducting Mixed Methods Research (second edition)*. London: Sage.

Crook, C. (2008a). 'What are web 2.0 technologies, and why do they matter?'. [Onling]. In N. Selwyn (Ed.), *Education 2.0? Designing the Web for Teaching and Learning.* ESRC Teaching and Learning Research Programme commentary. Available at: http://www.tlrp.org/pub/documents/TELcOlmn.pQf [Last accessed 11th July 2011].

Crook, C (2008b). *Web 2.0 technologies for learning: The current landscape opportunities, challenges and tensions.* [Online]. Coventry: Becta. Available at: http://dera.ioe.ac.uk/1474/1/becta_2008_web2_currentlandscape_litrev.pdf [Last accessed 15th August 2011].

Crook, C. (2012). 'The 'digital native' in context: tensions associated with importing Web 2.0 practices into the school setting'. *Oxford Review of Education, 38*(1), 63-80.

Dai, L. and Zhang, X. (2004). 'A survey on the qualification of English teachers in the university setting'. *Journal of PLA University of Foreign Language*, 27(2), 42-47.

Danet, B. and Herring, S. C. (2003). 'Introduction: The multilingual internet'. [Online]. *Journal of Computer-Mediated Communication*, *9*(1), 0-0. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2003.tb00354.x/full.

Davies, G. (2008). *ICT4LT Module, 1.5: Introduction to the Internet*. In Information and Communication Technologies for Language Teachers (Modules in English). [Online]. Available at http://www.ict4lt.org/en [Last accessed 2nd August 2010].

Dörnyei, Z. (1998). 'Motivation in second and foreign language learning'. *Language Teaching*, *31*(03), 117-135.

Dooly, M., Masats, D. and Muller-Hartmann, A. (2008). 'Building effective, dynamic online partnerships'. In M. Dooly (Ed.), *Telecollaborative Language Learning: A Guidebook to Moderating Intercultural Collaboration Online*. Bern: Peter Lang.

Du, H. S. and Wagner, C. (2005). *Learning with weblogs: An empirical investigation*. Paper presented at the 38th Hawaii International Conference on System Sciences. [Online]. Available at: http://ieeexplore.ieee.org/iel5/9518/30166/01385240.pdf?tp=&isnumber=&arnumber=1385240 (Last accessed 12th July 2010).

Ducate, L. and Lomicka, L. (2008). 'Adventures in the blogosphere: from blog readers to blog writers'. *Computer Assisted Language Learning*, 21(1), 9-28.

Duque, G., Fung, S., Mallet, L., Posel, N. and Fleiszer, D. (2008). 'Learning while having fun: the use of video gaming to teach geriatric house calls to medical students'. *Journal of the American Geriatrics Society*, *56*(7), 1328-1332.

Egbert, J. L. (2005). 'Conducting research on CALL'. In J. L. Egbert and G. M. Petrie (Eds.), *CALL Research Perspectives*. London: Routledge.

Egbert, J., Hanson-Smith, E. and Chao, C. (2007). 'Introduction: Foundation for teaching and learning'. In J. Egbert and E. Hanson-Smith (Eds.), *CALL Environments: Research, Practice and Critical Issues* (second edition). Alexandria, VA: TESOL.

Elia, D. A. (2007). *An analysis of Wikipedia digital writing*. In Proceedings of the 11th Conference of the European Chapter of the Association for Computational Linguistics (pp. 16-21). Available at: http://www.sics.se/jussi/newtext/ [Last accessed 3th April 2010].

Ellis, R. (1985). *Understanding Second Language Acquisition*. Oxford: Oxford University Press.

Ellis, R. (1994). *The Study of Second Language Acquisition*. Oxford: Oxford University Press.

Ellis, R. (1997). *Second Language Acquisition*. Oxford: Oxford University Press.

Ellis, R. (2005). 'Principles of instructed language learning'. (Online). *System, 33*(2), 209-224. Available at: http://www.finchpark.com/courses/grad-dissert/articles/methodology/instructed-language-learning.pdf

Elman. B. A. (1991). 'Political, Social, and Cultural Reproduction via Civil Service Examinations in Late Imperial China'. *The Journal of Asian Studies*, 50 (01), pp 7-28.

Engeström, Y. (1996). 'Development as breaking away and opening up: A challenge to Vygotsky and Piaget'. *Swiss Journal of Psychology, 55*, 126-132.

Engeström, Y. (2001). 'Expansive Learning at Work: Toward an activity theoretical reconceptualization', *Journal of Education and Work*, 14:1, 133-156.

Engeström, Y. (2006). 'Development, movement and agency: Breaking away into mycorrhizae activities'. [Online]. In K. Yamazumi (Ed.), *Building Activity Theory in Practice: Toward the Next Generation*. Osaka: Center for Human Activity Theory, Kansai University. Available at: http://lchc.ucsd.edu/mca/Mail/xmcamail.2008_12.dir/att-0247/Yrjo.dev.pdf [Last accessed 22th January 2015].

Eraut, M. (2004). 'Informal learning in the workplace'. *Studies in Continuing Education*, 26(2), 247-273.

Eynon, R. (2008). 'The use of the world wide web in learning and teaching in higher education: Reality and rhetoric'. *Innovations in Education and Teaching International*, *45*(1), 15-23.

Ezzy, D. (2002). *Qualitative Analysis: Practice and Innovation*. Crows Nest, Australia: Allen & Unwin.

Farmer, J. (2004). *Communication dynamics: Discussion boards, weblogs and the development of communities of inquiry in online learning environments*. Proceedings of the 21st ASCILITE Conference (pp. 274-283). Available at: http://www.ascilite.org.au/conferences/perth04/procs/farmer.html [Last accessed 10th August 2014].

Fearn, H. (2008). 'Grappling with the digital divide'. *Times Higher Education Supplement*, 14 August, pp. 37-40.

Felix, U. (2003). 'An orchestrated vision of language learning online'. In U. Felix (Ed.), *Language Learning Online: Towards Best Practice*. The Netherlands: Swets & Zeitlinger B.V..

Felix, U. (2008). The unreasonable effectivness of CALL: What have we learned in two decades of research?. [Online]. *ReCALL*, *20*(02), 141-161. Available at: http://journals.cambridge.org/abstract_S0958344008000323

Francis, R. J. (2010). *The Decentring of the Traditional University: The Future of (Self) education in Virtually Figured Worlds*. London and New York: Routledge.

Frankfort-Nachmias, C. and Nachmias, D. (1992). *Research Methods in the Social Science*. London: Edward Arnold.

Freed, B. F., Segalowitz, N. and Dewey, D. P. (2004). 'Context of learning and second language fluency in French: Comparing regular classroom, study abroad, and intensive domestic immersion programs'. *Studies in Second Language Acquisition*, *26*(02), 275-301.

Gan, Z.D., Humphreys, G. and Lyons, L. H. (2004). 'Understanding successful and unsuccessful EFL students in Chinese universities'. *The Modern Language Journal*, 88, 229-244.

Gao, X. (2010). *Strategic Language Learning: The Roles of Agency and Context*. Bristol: Multilingual Matters.

Gao, Y. (2009). 'Sociocultural contexts and English in China: Retaining and reforming the cultural habitus'. In J. Bianco, J. Orton, and Y. Gao (Eds.), *China and English: Globalization and the Dilemmas of Identity*. Bristol: Multilingual Matters.

Gardner, R. C. (1985). *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. London: Edward Arnold.

Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structure*. Berkeley, CA: University of California Press.

Godwin-Jones, R. (2008). 'Emerging technologies: Web-writing 2.0: Enabling, documenting, and assessing writing online'. [Online]. *Language Learning & Technology*, 12(2), 7-13. Available at: https://resources.oncourse.iu.edu/access/content/user/mikuleck/Filemanager_Public_Files/L750%20Electronic%20Lang%20and%20Lit/Electronic%20Evaluation/Emerging%20Trends%20Assessing%20Writing%20Online%202008.pdf.

Golder, S. A. and Huberman, B. A. (2006). 'Usage patterns of collaborative tagging systems'. *Journal of Information Science*, *32*(2), 198-208.

Gouseti, A. (2010). 'Web 2.0 and education: not just another case of hype, hope and disappointment?'. *Learning, Media and Technology*, *35*(3), 351-356.

Gouseti, A. (2012). *A comparative investigation of the use of digital technologies to facilitate school collaboration within the framework of the eTwinning programme.* Unpublished PhD thesis. Institute of Education, University of London.

Graddol, D. (2000). *The Future of English? A guide to forecasting the popularity of the English language in the 21st century*. London: The British Council.

Green, H. and Hannon, C. (2007). *Their Space: Education for a Digital Generation.* London: Demos.

Gu, W.P. and Liu, J. (2005). 'Test analysis of college students' communicative competence in English'. (Online). *Asian EFL Journal*, *7*(2), 7. Available at: http://www.asian-efl-journal.com/June_05_wg.pdf?origin=publication_detail.

Gu, X., Lin, Z. and Wang, Y. (2012). '理解与应对: 千禧年学习者的数字土著特征及其学习技能(Understanding and response: The millennium learners' characteristics and their appeals for learning technology)'. *现代远程教育研究 (Journal of Modern Distance Education Research)*, 1(8), 23-29.

Guba, E. G. (Ed.) (1990). *The Paradigm Dialog.* London: Sage.

Guerin, E. M. C., Cigognini, M. E. and Pettenati, M. C. (2010). 'Learner 2.0'. In S. Guth and F. Helm (Eds.), *Telecollaboration 2.0: Language, Literacies and Intercultural Learning in the 21st Century* (Vol. 1). Bern: Peter Lang.

Hanson-Smith, E. (2001). 'Computer-assisted language learning'. In R. Carter and D. Nunan (Eds.), The Cambridge guide to teaching English to speakers of other languages. Cambridge: Cambridge University Press.

Haythomthwaite, C. A., and Andrews, R. (2011). *E-Learning Theory and Practice.* Los Angeles: Sage.

Hegelheimer, V. and O'Bryan, A. (2009). 'Mobile technologies, podcasting, and language education'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. New York: IGI Global.

Helsper, E. J. and Eynon, R. (2010). 'Digital natives: where is the evidence?'. (Online). *British Educational Research Journal*, *36*(3), 503-520. Available at: http://eprints.lse.ac.uk/27739/1/Digital_natives_(LSERO).pdf (Last accessed 10th August, 2014).

Holliday, A. (2007). 'Response to ELT and the spirit of the times'. [Online]. *ELT Journal*, 61(4), 360-366. Available at: http://eltj.oxfordjournals.org/

Hosenfeld, C. (1978). 'Students' mini-theories of second language learning'. *Association Bulletin*, *29*(2), 269-293.

Hoven, D. (1997). 'Instructional design for multimedia: Towards a learner-centred CELL (Computer-Enhanced Language Learning) model'. In K. A. Murphy-Judy (Ed.), *NEXUS: The Convergence of Language Teaching and Research Using Technology*. Durham, NC: CALICO.

Howe, N. and Strauss, W. (2000). *Millennials Rising: the Next Great Generation*. New York: Vintage.

Hu, G. (2002). 'Potential cultural resistance to pedagogical imports: The case of communicative language teaching in China'. *Language, Culture and Curriculum*, 15(2), 93-105.

Huffaker, D. (2004). 'The educated blogger: Using weblogs to promote literacy in the classroom'. [Online]. *First Monday*, 9(6). Available at: http:// rstmonday.org/ [Last accessed 2nd August 2010].

Ivankova, N., Creswell, J. and Stick, S. (2006). 'Using mixed-methods sequential explanatory design: From theory to practice'. *Field Methods*, 18(1), 3-20.

Jenkins, H. (1992). *Textual Poachers: Television Fans and Participatory Culture*. New York: Routledge.

Jenkins, H., Purushotma, R., Weigel, M., Clinton, K. and Robison, A. J. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. Macarthur.

Jin, Y. (2009). 'The national college English testing committee'. In L. Cheng and A. Curtis (Eds.), *English Language Assessment and the Chinese Learner*. New York: Routledge.

Jin, L. and Cortazzi, M. (2002). 'English language teaching in China: A bridge to the future'. *Asia Pacific Journal of Education*, 22(2), 53-64.

Jin, L. and Cortazzi, M. (2006). 'Changing practices in Chinese cultures of learning'. *Language, Culture and Curriculum*, *19*(1), 5-20.

Johnson, R. B. and Onwuegbuzie, A. J. (2004). 'Mixed methods research: A research paradigm whose time has come'. *Educational researcher*, *33*(7), 14-26.

Jones, C. (2011). 'Students, the net generations, and digital natives: Accounting for educational change'. In M. Thomas (Ed.), *Deconstructing Digital Natives*. New York and London: Routledge.

Jung, S. H. (2006). *The use of ICT in learning English as an international language*. Unpublished PhD dissertation. University of Maryland. Available at: http://drum.lib.umd.edu/bitstream/1903/3885/1/umi-umd-3733.pdf [Last accessed 7th June 2014].

Kang, F. and Song, G. (2007). 'E-learning in higher education in China: An overview'. In H. Spencer-Oatey (Ed.), *E-Learning Initiatives in China*. Hong Kong: Hong Kong University Press.

Kaya, T. (2013). *Does ICT teacher training bring benefits to the language classroom?* In Proceedings of WorldCALL. Glasgow, 10-13 July 2013. [Online]. Available at: http://www.researchgate.net/publication/251232220_Effects_of_online_gaming_experience_on_English_achievement_in_an_MMORPG_learning_environment/file/3deec51ef324086829.pdf#page=138 [Last accessed 11th August 2014].

Keen, A. (2008). *The Cult of the Amateur: How Today's Internet is Killing Our Culture and Assaulting the Economy*. London: Nicholas Brealey Publishing.

Kennedy, G. E. and Judd, T. S. (2011). 'Beyond Google and the 'satisficing' researching of digital natives'. In M. Thomas (Ed.), *Deconstructing Digital Natives*. New York and London: Routledge.

Kennedy, G. E., Judd, T. S., Churchward, A., Gray, K. and Krause, K. L. (2008). 'First year students' experiences with technology: Are they really digital natives'. *Australasian Journal of Educational Technology*, *24*(1), 108-122.

Kessler, G. (2009). 'Student-initiated attention to form in wiki-based collaborative writing'. [Online]. *Language Learning & Technology*, *13*(1), 79-95. Available at: http://llt.msu.edu/vol13num1/vol13num1.pdf?origin=publication_detail#page=86.

Kilgarriff, A. and Grefenstette, G. (2003). 'Introduction to the special issue on the web as corpus'. *Computational linguistics*, *29*(3), 333-347.

Kirk, J., and Miller, M. L. (1986). *Reliability and Validity in Qualitative Research: Qualitative Research Methods, v. I*. Beverly Hills: Sage Publications.

Klein, W. (1986). *Second Language Acquisition*. Cambridge, UK: Cambridge University Press.

Krashen, S. (1982). *Principles and Practices in Second Language Acquisition*. New York: Pergamon Press.

Krippendorp. K. (2004). *Content Analysis: An Introduction to its Methodology*. Thousand Oaks, CA: Sage.

Kukulska-Hulme, A. (2013). *Re-skilling language learners for a mobile world.* Monterey, CA: The International Research Foundation for English Language Education. Available at: http://www.tirfonline.org/english-in-the-workforce/mobile-assisted-language-learning/ [Last accessed 10th April 2014].

Lai, C. (2014). 'Perceiving and traversing in-class and out-of-class learning: accounts from foreign language learners in Hong Kong'. [Online]. *Innovation in Language Learning and Teaching*, (ahead-of-print), 1-20. Available at: http://www.tandfonline.com/doi/abs/10.1080/17501229.2014.918982#.U-LwVHJO6UQ

Lai, C. and Gu, M. (2011). 'Self-regulated out-of-class language learning with technology'. *Computer Assisted Language Learning*, *24*(4), 317-335.

Lai, C. and Zhao, Y. (2005). 'Introduction: The importance of input and the potential of technology for enhancing input'. In Y. Zhao (Ed.), *Research in Technology and Second Language Education: Developments and Directions*. Charlotte: Information Age Publishing.

Laningham, S. (2004). *Developer Works Interviews: Tim Berners-Lee.* [Online]. Available at: http://www.ibm.com/developerworks/podcast/dwi/cm-int082206txt.html [Last accessed 11th August, 2009].

Lantolf, J. P. (2000a). 'Introducing sociocultural theory'. In J. P. Lantolf, (Ed.), *Sociocultural Theory and Second Language Learning*. Oxford: Oxford University Press.

Lantolf, J. P. (2000b). 'Second language learning as a mediated process'. *Language Teaching*, *33*(02), 79-96.

Lantolf, J. P. (2004). Sociocultural theory and second and foreign language learning: An overview of sociocultural theory. In K. V. Esch and O. S. John (Eds.), *New Insights into Foreign Language Learning and Teaching*. Frankfurt am Main: Peter Lang.

Lantolf, J. P. and Pavlenko, A. (2001). '(S)econd (L)anguage (A)ctivity theory: understanding second language learners as people'. In M. P. Breen (Ed.), *Learner Contributions to Language Learning: New Directions in Research*. Harlow: Pearson Education Limited.

Larsen-Freeman, D. (2001). 'Individual cognitive/affective learner contributions and differential success in second language acquisition'. In M. P. Breen (Ed.), *Learner Contributions to Language Learning: New Directions in Research*. Harlow: Pearson Education Limited.

Larsen-Freeman, D. and Long, M. (1991). *An Introduction to Second Language Acquisition Research*. New York: Longman.

Lee, L. (2006). 'Exploring the relationship between electronic literacy and heritage language maintenance'. *Language Learning & Technology*, 10(2), 93-113.

Lee, L. (2009). 'Promoting intercultural exchanges with blogs and podcasting: a study of Spanish–American telecollaboration'. *Computer Assisted Language Learning*, *22*(5), 425-443.

Lee, L. (2010). 'Fostering reactive writing and interactive exchange through blogging in an advanced language course'. *ReCALL*, 22(2), 212-227.

Lee, L. and Markey, A. (2014). 'A study of learners' perceptions of online intercultural exchange through Web 2.0 technologies'. [Online]. *ReCALL*, 1-20. Available at: http://journals.cambridge.org/abstract_S0958344014000111.

Lenhart, A., Purcell, K., Smith, A. and Zickuhr, K. (2010). *Social media & mobile Internet use among teens and young adults*. Pew Internet & American Life Project. [Online]. Available at: http://wenku.baidu.com/link?url=wWjJfjeHLtTvgCz0-kYzxCDcOLhm8mA7tyKfkKGdsEj-YJ3qz5n9ZJSJ4oc8PapvReLXEiJX86YD-i_jQLxK_u9UrGLxHRuKRIP2XWb3Fme [Last accessed 28th September 2014].

Levin, D. and Arafeh, S. (2002). *The digital disconnect: The widening gap between Internet-savvy students and their schools (*Pew Internet and American Life Project*).*

[Online]. Available at: http://files.eric.ed.gov/fulltext/ED471133.pdf [Last accessed 10th July, 2014].

Levy, M. and Hubbard, P. (2005). 'Why call CALL "CALL"'. *Computer Assisted Language Learning*, 18(3), 143-149.

Levy, M. and Stockwell, G. (2006). *CALL Dimensions: Options and Issues in Computer-Assisted Language Learning*. New Jersey: Lawrence Frlbaum Associates.

Levy, M. (1997). *Computer-assisted language learning: Context and conceptualization*. Oxford: Oxford University Press.

Li, J. Y. (2009). 'Motivational force and imagined community in 'Crazy English''. In J. Bianco, J. Orton, and Y. Gao (Eds.), *China and English: Globalization and the Dilemmas of Identity*. Bristol: Multilingual Matters.

Lin, H. and Kelsey, K. (2009). 'Building a networked environment in wilds: The evolving phases of collaborative learning in a wikibook project'. *Journal of Educational Computing Research,* 40 (2), 145-169.

Lin, P. C., Hou, H. T., Wu, S. Y. and Chang, K. E. (2014). 'Exploring college students' cognitive processing patterns during a collaborative problem-solving teaching activity integrating Facebook discussion and simulation tools'. [Online]. *The Internet and Higher Education*, *22*, 51-56. Available at: http://www.sciencedirect.com/science/article/pii/S1096751614000220 [Last accessed 11th August, 2014].

Liu, C., Lin, H.F. and Gu, W. (2004). 'Bring Internet into campus: experience from mainland of China and Taiwan'. [Online]. In AE1MC Midwinter Conference. Available at: http://iip/ist/psu.edu/publication/students/aejmc2004.pdf [Last accessed 5th May, 2008].

Long, M. H. (1981). 'Input, interaction, and second-language acquisition'. *Annals of the New York Academy of Sciences, 379*(1), 259-278.

Long, M. H. (1983). 'Native speaker/non-native speaker conversation and the negotiation of comprehensible input'. *Applied Linguistics*, 4(2), 126-141.

Long, M. H. (1996). 'The role of the linguistic environment in second language acquisition'. In W. C. Ritchie and T. K. Bhatia (Eds.), *Handbook of Second Language Acquisition*. London: Academic Press.

Luchini, P. L. (2004). 'Developing oral skills by combining fluency-with accuracy-focused tasks: A case study in China'. *The Asian EFL Journal, 6*(4), 129-138.

Luckin, R. (2008). 'The learner centric ecology of resources: A framework for using technology to scaffold learning'. *Computers & Education*, *50*(2), 449-462.

Luckin, R., Clark, W., Graber, R., Logan, K., Mee, A. and Oliver, M. (2009). 'Do Web 2.0 tools really open the door to learning? Practices, perceptions and profiles of 11–16-year-old students'. *Learning, Media and Technology*, *34*(2), 87-104.

Luckin, R. (2010). *Re-designing Learning Context: Technology-rich, Learner-centred Ecologies*. London and New York: Routledge.

Macaro, E. (2003). *Teaching and Learning a Second Language: A Review of Recent Research*. London: Continuum.

MacLean, G. R. and Elwood, J. A. (2009). 'Digital natives: learner perceptions and the use of ICT'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. PA: IGI Global.

MacLean, G. and Elwood, J. (2010). *Mobile Phone Usage and Perceptions in Japanese University EFL Classrooms*. In *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010* (pp. 1774-1783). Chesapeake, VA: AACE.

Madden, M. and Fox, S. (2006). 'Riding the waves of 'Web 2.0''. [Online]. *Pew internet and American life project, 5*. Available at: http://clearwww.co-bw.com/Ethics/ethics_Web_2.pdf [last accessed 2nd September, 2011].

Marshall, C. and Rossman, G. B. (1995). *Designing Quality Research*. Thousand Oaks, CA: Sage.

Martins, M. L., Moreira, G. and Moreira, A. (2014). *Web 2.0 enhanced language learning: Fact or fad?* Paper presented at the 6th International Conference on Education and New Learning Technologies. Barcelona, Spain. 7-9 July 2014.

Mayring, P. (2004). 'Qualitative content analysis'. In U. Flick, E. von Kardoff and I. Steinke (Eds.), *A Companion to Qualitative Research*. London: Sage.

McCarty, S. (2009). 'Social networking behind student lines in Japan'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. PA: IGI Global.

Mclaughlin, B. (1987). *Theories of Second Language Learning*. London: Edward Arnold.

McLoughlin, C. and Lee, M. J. (2007). 'Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era'. [Online]. In *ICT: Providing choices for learners and learning. Proceedings of ascilite Singapore 2007* (pp. 664-675). Available at: http://www.dlc-ubc.ca/wordpress_dlc_mu/educ500/files/2011/07/mcloughlin.pdf [last accessed 31th, July, 2014].

McGrath, I., Sinclair, B. and Chen, Z. (2007). 'Designing an innovative online course in language teaching methodology for middle school teachers of English in China: Encouraging learner and teacher autonomy'. In H. Spencer-Oatey (Ed.), *E-Learning Initiatives in China*. Hong Kong: Hong Kong University Press.

Miller, V. (2011). *Understanding digital culture*. London: SAGE Publications.

Ministry of Education (2001). *基础教育课程改革纲要（Curriculum development and teaching requirements for Schools)*. Beijing: Ministry of Education.

Mishan, F. (2005). *Designing Authenticity into Language Learning Materials*. Oregon: Intellect Books.

Morgan, D. L. (2007). 'Paradigms lost and pragmatism regained methodological implications of combining qualitative and quantitative methods'. *Journal of mixed methods research*, *1*(1), 48-76.

Mori, Y. (1999). 'Epistemological beliefs and language learning beliefs: What do language learners believe about their learning?'. *Language Learning*, *49*(3), 377-415.

Morley, J. (1991). 'The pronunciation component in teaching English to speakers of other languages'. *TESOL Quarterly*, 25(3), 481-520.

Morse, J. M. (1991). 'Approaches to qualitative-quantitative methodological triangulation'. *Nursing Research*, 40(1), 120-123.

Muñoz, C. (2012). 'The significance of intensive exposure as a turning point in learners' histories'. In C. Muñoz (Ed.), *Intensive Exposure Experiences in Second Language Learning*. Multilingual Matters.

Murray, D. E. (2005). 'Technologies for second language literacy'. *Annual Review of Applied Linguistics*, *25*, 188-201.

Murray, G. (2008). 'Pop culture and language learning: Learners' stories informing EFL'. *Innovation in Language Learning and Teaching*, *2*(1), 2-17.

Murray, L. and Hourigan, T. (2006). 'Using micropublishing to facilitate writing in the foreign language'. In L. Ducate and N. Arnold (Eds.), *Calling on CALL: From Theory to Research to New Directions in Foreign Language Teaching*. Texas: CALICAO monograph series.

Nardi, B. A. (1996a). 'Activity theory and human-computer interaction'. In B. A. Nardi (Ed.), *Context and Consciousness: Activity Theory and Human-computer Interaction*. Cambridge, MA: MIT Press.

Nardi, B. A. (1996b). 'Studying context: A comparison of activity theory, situated action models, and distributed cognition'. In B. A. Nardi (Ed.), *Context and Consciousness: Activity Theory and Human-computer Interaction*. Cambridge, MA: MIT Press.

Norton, B. (2000). *Identity and Language Learning: Gender, Ethnicity and Educational Change*. Harlow: Pearson Education Limited.

Norton, B. and Toohey, K. (2001). 'Changing perspectives on good language learners'. *TESOL Quarterly*, *35*(2), 307-322.

Norris, J. and Ortega, L. (2003). 'Defining and measuring SLA'. In Doughty, C. J. (Ed.), *The Handbook of Second Language Acquisition*. Oxford: Blackwell Publishing.

Nye, D. (2007). Technology Matters: Questions to Live With. Cambridge, MA: MIT Press.

Nyikos, M. (1990). 'Sex-Related Differences in Adult Language Learning: Socialization and Memory Factors'. *The Modern Language Journal, 74*(3), 273-287.

Oblinger, D. and Oblinger, J. (2005). 'Is it age or IT: first steps towards understanding the net generation'. [Online]. In D. Oblinger and J. Oblinger (Eds.), *Educating the Net Generation*. Boulder, CO: EDUCAUSE. Available at: http://digitalcommons.brockport.edu/bookshelf/272/ [Last accessed 10th August, 2014].

O'Dowd, R. (2007). 'Foreign language education and the rise of online communication: a review of promises and realities'. In R. O'Dowd (Ed.), *Online Intercultural Exchange: An Introduction for Foreign Language Teachers*. Multilingual Matters.

Oladi, S. (2005). *Study of Tehran medical students' social interaction in cyber blogging environment and its effect on IELTS writing proficiency*. Unpublished master thesis. Tehran University.

Oskoz, A. and Elola, I. (2011). 'Meeting at the Wiki – The new arena for collaborative writing in foreign language courses'. In M. J. Lee and C. McLoughlin (Eds.), *Web 2.0-Based E-Learning: Applying Social Informatics for Tertiary Teaching*. PA: IGI Global.

O'Reilly, T. (2009). *What is Web 2.0? Design patterns and business models for the next generation of software.* [Online]. O'Reilly Media, Inc. Available at: http://books.google.com/books?hl=en&lr=&id=NpEk_WFCMdIC&oi=fnd&pg=PT3&dq=O%27reilly&ots=OYLFSblBLX&sig=2ub3PSOjj-q0XmSMnU3F8kmvM6k#v=onepage&q=O'reilly&f=false [last accessed 10th December, 2011].

Oxford, R. L. (2001). "The bleached bones of a story': learners' constructions of language teachers'. In M. P. Breen (Ed.), *Learner Contributions to Language Learning*. Harlow: Pearson Education Limited.

Oxford, R. L. (2002). 'Language learning strategies in a nutshell: Update and ESL suggestions'. In J. C. Richards and W. A. Renandya (Eds.), *Methodology in Language Teaching: An Anthology of Current Practice*. Cambridge, UK: Cambridge University Press.

Oxford, R. L. (2003). 'Language learning styles and strategies: Concepts and relationships'. *IRAL, 41*(4), 271-278.

Oxford, R. L. (2011). 'Strategies for learning a second or foreign language'. *Language Teaching, 44*(02), 167-180.

Oxford, R. and Shearin, J. (1994). 'Language learning motivation: Expanding the theoretical framework'. *The Modern Language Journal, 78*(1), 12-28.

Pachler, N. and Daly, C. (2011). *Key Issues in E-learning: Research and Practice*. London: Bloomsbury Publishing.

Pachler, N., Bachmair, B., Cook, J. and Kress, G. (2010a). *Mobile Learning*. Boston, MA: Springer.

Pachler, N., Cook, J. and Bachmair, B. (2010b). Appropriation of mobile cultural resources for learning. *International Journal of Mobile and Blended Learning*, 2 (1). pp. 1-21.

Palfreyman, D. (2006). Social context and resources for language learning. [Online]. *System, 34*(3), 352-370. Available at: http://www.sciencedirect.com/science/article/pii/S0346251X06000601.

Payne, J. S. and Ross, B. M. (2005). 'Synchronous CMC, working memory, and L2 oral proficiency development'. [Online]. *Language Learning & Technology*, 9(3), 35-54. Available at: http://llt.msu.edu/vol9num3/payne/default.html.

Pedró, F. (2008). *New millennium learners: A project in progress*. [Online]. Available at*:* http://www.indire.it/db/docsrv/acqua/NML.pdf [Last accessed: 10th August, 2014].

Peyton, J. K. (1999). 'Theory and research: Interactive via computers'. In J. Egbert and E. Hanson-Smith (Eds.), *CALL Environments: Research, Practice, and Critical Issues*. Alexandria, VA: TESOL.

Pica, T. (1996). 'The essential role of negotiation in the communicative classroom'. *JALT Journal, 18*(2), 241-268.

Prensky, M. (2001). 'Digital natives, digital immigrants part 1'. [Online]. *On the horizon, 9*(5), 1-6. Available at: http://www.nnstoy.org/download/technology/Digital%20Natives%20-%20Digital%20Immigrants.pdf. [Last accessed 20th July 2011].

Prensky, M. (2005). 'Computer games and learning: Digital game-based learning'. In J. H. Goldstein and Raessens, J. (Eds.), *Handbook of Computer Game Studies*. Cambridge, MA: MIT Press.

Prensky, M. (2011). 'Digital wisdom and homo sapiens digital'. In M. Thomas (Ed.), *Deconstructing Digital Natives*. New York and London: Routledge.

Raith, T. (2009). 'The use of weblogs in language education'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. New York: IGI Global.

Research Database of Higher Education in China (2007). *The freshmen survey* (The Institute of Education, Xiamen University). [Online]. Available at: http://www.hedb.xmu.edu.cn/english/das.asp [Last accessed 20th August, 2013].

Ryan, R. M. and Deci, E. L. (2002). 'Overview of self-determination theory: An organismic dialectical perspective'. In E. L. Deci and R. M. Ryan (Eds.), *Handbook of Self-Determination Research*. Rochester, NY: The University of Rochester Press.

Robinson, P. (1997). 'Individual differences and the fundamental similarity of implicit and explicit adult second language learning'. *Language Learning*, *47*(1), 45-99.

Robson, C. (2002). *Real World Research*. Oxford: Blackwell.

Rogers, F. and Sharapan, H. (1994). 'How children use play', *Education Digest*, 59(8): 13-16.

Rosell-Aguilar, F. (2004). 'Well done and well liked: online information literacy skills and learner impressions of the web as a resource for foreign language learning'. [Online]. *ReCALL*, *16*(01), 210-224. Available at: http://oro.open.ac.uk/5422/1/ReCALL2004_ORO.pdf .

Rosell-Aguilar, F. (2007). 'Top of the pods - In search of a podcasting 'pedagogy' for language learning'. *Computer Assisted Language Learning*, 20(5), 471-492.

Rubin, J. (1975). 'What the 'good language learner' can teach us'. *TESOL quarterly*, 41-51.

Schonlau, M., Ronald Jr, D. and Elliott, M. N. (2002). *Conducting Research Surveys via E-mail and the Web*. Santa Monica, CA: RAND.

Sefton-Green, J. (2004). *Literature review in informal learning with technology outside school*. (Future lab). [Online]. Available at: http://telearn.archives-ouvertes.fr/docs/00/19/02/22/PDF/Sefton-Green_2004.pdf [Last accessed 20th August 2014].

Seipold, J. and Pachler, N. (2011). 'Evaluating Mobile Learning Practice'. [Online]. *MedienPädagogik–Zeitschrift für Theorie und Praxis der Medienbildung*, *19*. Available at: http://scholar.google.com/scholar?cluster=9393710801087813739&hl=en&as_sdt=0,5 [Last accessed 10th July, 2013].

Selwyn, N. (2003). 'Apart from technology: understanding people's non-use of information and communication technologies in everyday life'. *Technology in Society*, *25*(1), 99-116.

Selwyn, N. (2006). 'Digital division or digital decision? A study of non-users and low-users of computers'. [Online]. Poetics, 34(4-5), 273-292. Available at: http://dx.doi.org/10.1016/j.poetic.2006.05.003 [Last accessed 10th September 2014].

Selwyn, N. (2009a). 'The digital native–myth and reality'. [Online]. *Aslib Proceedings*, 61(4), pp. 364-379). Available at: http://www.emeraldinsight.com/doi/abs/10.1108/00012530910973776 [Last accessed 5th August 2014].

Selwyn, N. (2009b). 'Faceworking: exploring students' education-related use of Facebook'. *Learning, Media and Technology, 34*(2), 157-174.

Selwyn, N. (2011a). *Schools and Schooling in the Digital Age: A Critical Analysis*. London & New York: Routledge.

Selwyn, N. (2011b). *Education and Technology: Key Issues and Debates.* London: Continuum.

Selwyn, N. (2011c). 'Editorial: In praise of pessimism – the need for negativity in educational technology'. *British Journal of Educational Technology*, 42(5), 713-718.

Sharpe, R. and Beetham, H. (2010). 'Understanding students' uses of technology for learning: Towards creative appropriation'. In R. Sharpe, H. Beetham and S. De Freitas (Eds.), *Rethinking Learning for a Digital Age.* London & New York: Routledge.

Sharpe, R., Beetham, H. and De Freitas, S. (Eds.) (2010). *Rethinking Learning for a Digital Age.* London & New York: Routledge.

Sharples, M. (2005). *Learning as conversation: Transforming education in the Mobile Age*. Centre for Educational Technology and Distance Learning. University of Birmingham. [Online]. Available at: http://www.eee.bham.ac.uk/sharplem/Papers/Theory%20of%20learning%20Budapest.pdf [Last accessed 10th August 2014].

Sheaffer-Jones, C. (2000). 'Designing a community learning environment using a bulletin board system: a trial with advanced French written communication'. In T. Lewis and A. Rouxeville (Eds.), *Technology and the Advanced Language Learner*. London: Centre for Information on Language Teaching and Research.

Sockett, G. (2013). 'Understanding the online informal learning of English as a complex dynamic system: an emic approach'. [Online]. *ReCALL*, *25*(01), 48-62. Available at: http://journals.cambridge.org/abstract_S095834401200033X

Sockett, G. and Toffoli, D. (2012). 'Beyond learner autonomy: a dynamic systems view of the informal learning of English in virtual online communities'. [Online]. *ReCALL*, *24*(02), 138-151. Available at: http://hal.archives-ouvertes.fr/docs/00/93/11/04/PDF/Sockett_Toffoli_Recall2012.pdf

Solomon, G. and Schrum, L. (2007). *Web 2.0: New Tools, New Schools*. Washington: International Society for Technology in Education.

Steel, C. H. and Levy, M. (2013). 'Language students and their technologies: Charting the evolution 2006–2011'. [Online]. *ReCALL, 25*(03), 306-320. Available at:

http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8971762&fileId=S0958344013000128.

Stockwell, G. (Ed.) (2012). *Computer-Assisted Language Learning: Diversity in Research and Practice*. Cambridge, UK: Cambridge University Press.

Strauss, A. and Corbin, J. (1998). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* (second edition). London: Sage.

Sturm, M., Kennell, T., McBride, R. and Kelly, M. (2009). 'The pedagogical implication for Web 2.0'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. PA: IGI Global.

Su, D. F. (2004). *外语教学改革：问题与对策 (EFT IN China: Problems and Suggested Solutions).* Shanghai: Shanghai Foreign Language Press.

Sun, Y. (2009). 'Voice blog: an exploratory study of language learning'. [Online]. *Language Learning & Technology*, 13(2), 88-103. Available at: http://llt.msu.edu/vol13num2/sun.pdf .

Swain, M. (1985). 'Communicative competence: Some roles of comprehensible input and comprehensible output in its development'. In S.M. Gass and C. G. Madden (Eds.), *Input in Second Language Acquisition*. Newbury House Pub.

Sykes, M. J., Oskoz, A. and Thorne, S. L. (2008). Web 2.0, synthetic immersive environments, and mobile resources for language education. [Online]. *CALICO Journal*, 25(3), 528-546. Available at: http://journals.sfu.ca/CALICO/index.php/calico/article/view/794.

Tapscott, D. (2008). *Grown Up Digital: How the Net Generation is Changing Your World HC*. New York: McGraw-Hill.

Tapscott, D. and Williams, A. (2010). 'Innovating the 21st century university: It's time'. EDUCAUSE Review, 45(1), 17-29.

Taylor, C. (1985). *Human Agency and Language. Philosophical Papers (1).* Cambridge, UK: Cambridge University Press.

Tashakkori, A. and Teddlie, C. (2003). 'The past and future of mixed methods research: From data triangulation to mixed model designs'. In A. Tashakkori and C. Teddlie (Eds.), *Handbook of Mixed Methods in Social & Behavioral Research*. Thousand Oaks, CA: Sage.

Teddlie, C. and Yu, F. (2007). 'Mixed methods sampling: A typology with examples'. *Journal of Mixed Methods Research,* 1(1), 77-100.

Thomas,M. (Ed.) (2009). *Handbook of Research on Web 2.0 and Second Language Learning*. PA: IGI Global.

Thomas, M (Ed.) (2011). *Deconstructing Digital Natives*. New York and London: Routledge.

Thompson, G. (1996). 'Some misconceptions about communicative language teaching'. *ELT Journal, 50*(1), 9-15.

Toffoli, D. and Sockett, G. (2010). 'How non-specialist students of English practice informal learning using web 2.0 tools'. [Online]. *ASp. la revue du GERAS*, (58), 125-144. Available at:
http://ww.w.asp.revues.org/1851

Travis, P. and Joseph, F. (2009). 'Improving learners' speaking skills with podcasts'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. PA: IGI Global.

Tsuda, A. and Nakata, Y. (2013). 'Exploring self-regulation in language learning: A study of Japanese high school EFL students'. *Innovation in Language Learning and Teaching, 7*(1), 72-88.

Tudor, I. (2001). *The Dynamics of the Language Classroom*. Cambridge, UK: Cambridge University Press.

Ullrich, C., Borau, K., Luo, H., Tan, X., Shen, L.and Shen, R. (2008). *Why Web 2.0 is good for learning and for research: principles and prototypes*. [Online]. In *Proceedings of the 17th international conference on World Wide Web* (pp. 705-714). Available at:
http://halshs.archives-ouvertes.fr/docs/00/58/87/57/PDF/ULLRICH-CARSTEN-2008.pdf [Last accessed 13th August, 2011].

Ushioda, E. and Dörnyei, Z. (2009). 'Motivation, language identities and the L2 self: A theoretical overview'. In Z. Dornyei and E. Ushioda (Eds.), *Motivation, Language Identity and the L2 Self*. Bristol: Multilingual Matters.

Vallance, M., Vallance, K. and Matsui, M. (2009). 'Criteria for the implementation of learning technologies'. In M. Thomas (Ed.), *Handbook of Research on Web 2.0 and Second Language Learning*. PA: IGI Global.

Van Lier, L. (2000). 'From input to affordance: Social-interactive learning from an ecological perspective'. In J. P. Lantolf (Ed.), *Sociocultural Theory and Second Language Learning*. Oxford: Oxford University Press.

Vygotsky, L. S. (2012). *Thought and Language*. Cambridge, MA: MIT Press.

Wallis, C. (2006). 'The multitasking generation'. *Time Magazine, 167*(13), 27th March, pp. 48-55.

Wang, S. and Vásquez, C. (2012). 'Web 2.0 and second language learning: What does the research tell us?'. [Online]. *Calico Journal, 29*(3), 412-430. Available at:
http://journals.sfu.ca/CALICO/index.php/calico/article/viewFile/25/35 .

Wang, W. (2002). 'Bridging the digital divide inside China'. [Online]. In Annual Conference of the Association of Internet Researcher, Available at:

http://wendang.baidu.com/view/1e955cdbce2f0066f533229f.html [last accessed 31th, July, 2014].

Warschauer, M. (1997). 'Computer-mediated collaborative learning: theory and Practice'. *Modern Language Journal*, 81(4), 470-481.

Warschauer, M. (1999). *Electronic Literacies: Language, Culture, and Power in Online Education*. Mahwah, NJ: Lawrence Erlbaum Associates.

Warschauer, M. (2005). 'Sociocultural perspectives on CALL'. In J. L. Egbert and G. M. Petrie (Eds.), *CALL Research Perspectives*. London: Routledge.

Warschauer, M. and Grimes, D. (2007). 'Audience, authorship and artefact: the emergent semiotics of Web 2.0'. *Annual Review of Applied Linguistics*, 27, 1-23.

Waring, M. (2012). 'Finding your theoretical position'. In J. Arthor, M. Waring, R. Coe and L. Hedges (Eds.), *Research Methods and Methodologies in Education.* London: Sage.

Watkins, D.A. and Biggs, J.B. (2001). *Teaching the Chinese Learner: Psychological and Pedagogical Perspectives*. Hong Kong: CERC and ACER.

Weber, R. P. (1990*). Basic Content Analysis* (second edition). Thousand Oaks, CA: Sage.

Wen, W.P. and Clement, R. (2003). 'A Chinese conceptualization of willingness to communicate in ESL'. *Language, Culture and Curriculum*, 16(1), 18-38.

Wenden, A. (1986). 'Helping language learners think about learning'. *ELT Journal, 40*(1), 3-12.

Wenden, A. (1998). 'Metacognitive knowledge and language learning'. *Applied Linguistics*, 19, 515–537.

Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge, UK: Cambridge University Press.

Wertsch, J. V., del Río, P. and Alvarez, A. (Eds.). (1995). *Sociocultural Studies of Mind*. Cambridge, UK: Cambridge University Press.

White, C. (2008). 'Language learning strategies in independent language learning: An overview'. In S. Hurd and T. Lewis (Eds.), *Language Learning Strategies in Independent Settings*. Bristol: Multilingual matters.

Wikipedia (2012a). Nanjing. [Online]. Available at: http://en.wikipedia.org/wiki/Nanjing [Last accessed 10th January 2013].

Wikipedia (2012b). Chongqing. [Online]. Available at: http://en.wikipedia.org/wiki/Chongqing [Last accessed 10th January 2013].

Wikipedia (2013a). Languages used on the Internet. [Online]. Available at: http://en.wikipedia.org/wiki/Languages_used_on_the_Internet [Last accessed 20th September 2013].

Wikipedia (2014a). College English Test. [Online]. Available at: http://en.wikipedia.org/wiki/College_English_Test [Last accessed 20th September 2014].

Wikipedia (2014b). 211 Project. [Online]. Available at: http://en.wikipedia.org/wiki/Project_211 [Last accessed 20th September 2014].

Wild, F., Modritscher, F. and Sigurdarson, S. (2008). 'Designing for change: Mash-up personal learning environments'. [Online]. *ELearning Papers*, 9. Available at: http://oro.open.ac.uk/25253/1/media15972.pdf [Last accessed 7th June 2012].

Wilson, P. (1973). 'Situational relevance'. [Online]. *Information Storage and Retrieval*, *9*(8), 457-471. Available at: http://www.sciencedirect.com/science/article/pii/002002717390096X

Winke, P. and Goertler, S. (2008). 'Did we forget someone? Students' computer access and literacy for CALL'. [Online]. *Calico Journal*, *25*(3), 482-509. Available at: http://journals.sfu.ca/CALICO/index.php/calico/article/download/792/653

Wu, S., Franken, M. and Witten, I. H. (2009). 'Refining the use of the web (and web search) as a language teaching and learning resource'. *Computer Assisted Language Learning*, *22*(3), 249-268.

Yahoo! (2005).*Yahoo 2005 annual report*. [Online]. Available at: http://www.annualreportowl.com/Yahoo/2005/Annual%20Report [Last accessed 10th August 2014].

Yang, G. (2013). *The Power of the Internet in China: Citizen Activism Online*. New York: Columbia University Press.

Zhang, Z. M. (2007). 'What hinders the way of Chinese to be an English master—Concerning differences between English and Chinese'. *Sino-US English Teaching*, 4(2), 18-24.

Zhao, Y. (2003). 'Recent developments in technology and language learning: A literature review and meta-analysis'. [Online]. *CALICO Journal*, *21*(1), 7-27. Available at: http://journals.sfu.ca/CALICO/index.php/calico/article/view/663

Zhu, L.Z. and Yang, A. X. (2004). *走火入魔的英语 (The Madness of English Learning)*. Changsha: People's Press.

Zhu, H.M. (2003). 'Globalization and new ELT challenges in China'. *English Today*, 19(4), 36-41.

Appendices

Appendix 1: A list of abbreviations and glossaries

BBC: British Broadcasting Corporations

CMC: Computer Mediated Communications

CALL: Computer Assisted Language Learning. CALL is an established field of academic work that deals with the use of technology in language learning and teaching.

CET 4: College English Test Band 4. CET 4 is a national English test that is mandatory to all the non-English majored undergraduates in the mainland China. The goal is that the undergraduates will be able to meet the English level specified in the National College English Teaching Syllabuses by the time of graduation. It tests reading, writing and listening. It has a separate section for speaking but is optional for the test takers. The vocabulary requirement for this test is around 4000 words (Wikipedia, 2014a).

CET 6: College English Test Band 6. CET 6 is optional for the non-English majored undergraduates in mainland China, but many strive to take it in order to be competitive in the job market. CET 6 is also a national test and its format is similar to CET 4. The vocabulary requirement for this test is around 6000 words (Wikipedia, 2014a).

GRE: Graduate Record Examination

EFL: English as a foreign language. In the EFL context, English language is learnt in the situation or society where English is not a language for social communications.

IELTS: International English Language Testing System. IELTS is a standardized English test for non-native English speakers around the world.

ICT: Information and Communication Technology

L2: Second/Foreign language

MP3: Moving pictures experts group audio layer 3

MoE: Ministry of Education

QQ: Short for Tencent QQ, is an instant messaging service developed by Tencent Holdings Limited in China. Besides instant messaging services, QQ service also features applications including group chatting, social networking, blogging, music, shopping and online games. By 2013, there were 798.2 million active QQ accounts (Wikipedia, 2014b).

Qzone: a social networking site created by Tencent. It allows users to write blogs and dairies, share pictures, music and videos. The use of Qzone is phenomenal in China.

By the end of 2013, it had 623.3 million users, among which 150 million updated their Qzone at least once per month (Wikipedia, 2014c).

Renren: Renren Network. Renren is a popular social networking site in China.

SLA: Second Language Acquisition

TEM 4: Test for English Majors Band 4. TEM 4 is an annual test dedicated to second-year English-majored undergraduates. It tests reading, writing and listening. It does not have a section for speaking. English majors have to pass this exam in order to secure the Bachelor degree. The vocabulary requirement for this test is around 8000 words (Wikipedia, 2014a).

TEM 8: Test for English Majors Band 8. TEM 8 is the ultimate test for year-four English majored students. It tests reading, writing, listening and translation. It has a separate section for speaking but is optional for the test takers. Only about half of the English majors can pass this exam. The vocabulary requirement for this test is around 13,000 words (Wikipedia, 2014a).

TOEFL: Test of English as a Foreign Language. It is also a standardized test of English proficiencies for non-native speakers around the world.

TV: Television

UK: United Kingdom

US: United States

VLE: Visual Learning Environment

VOA: Voice of America

WELL: web enhanced language learning. WELL is a key term in this thesis. It indicates the use of the current web for language learning related purposes. In the literature, this term is generally used to indicate the latest stage of CALL research – the use of the emerging online technologies for language learning and teaching purposes.

References:

Wikipedia (2014a). College English Test. [Online]. Available at: http://en.wikipedia.org/wiki/College_English_Test [Last accessed 20th September 2014].

Wikipedia (2014b). Tencent QQ. [Online]. Available at: http://en.wikipedia.org/wiki/Tencent_QQ [Last accessed 20th September 2014].

Wikipedia (2014c). Qzone. [Online]. Available at: http://en.wikipedia.org/wiki/Qzone [Last accessed 20th September 2014].

Appendix 2: A typology of Web 2.0 tools

While providing a comprehensive introduction of Web 2.0 applications is beyond the scope of this thesis, this Appendix will introduce the iconic Web 2.0 applications and services. The Web 2.0 taxonomies and themes used in this appendix are taken from the work of Conole (2010).

Blogging

Blogs, short for 'Weblogs', are seen to be personalized webpages with a series of archived posts, typically maintained through individual or collaborative efforts in reverse chronological diary forms (Du & Wagner, 2006; Nardi et al., 2004). Originally used as an online tool to stack the records of users' online activities, blog is rapidly becoming mainstream public communication media. Through blogs any individual or group could publish materials of any topic and sort for discussion and sharing.

Blogs are freely and easily created and updated by prospective and existing bloggers. Users could start posting once they finish registering to the chosen blogging site, commonly termed as 'blog host'. Posts herein vary extensively in format and content as they may contain textual information on a wide range of topics in target languages, links to Internet sites, images, video and other rich media. Indeed, Posts are mostly textual, yet some direct towards photographs (photoblog), audios (audioblog), videos (videoblog), or are mainly written via mobile devices (mblogs) such as PDAs, smart phones and pocket PCs (Murugesan, 2007). Most blogs allow audience comments and support the subsequent interaction. Indeed, alongside posting, commenting is seen as essential to the conversational nature of blogosphere (Du & Wagner, 2006).

Wikis and collaborative editing tools

A wiki is, in Wiki's description, "is usually a web application which allows people to add, modify, or delete content in collaboration with others" (Wikipedia, 2014). A wiki functions in the way that a user creates a site where all the wiki page(s) are deposited. There is usually a button or link displayed on the screen. A click of it will directly take a user to the editing page, which allows the user to amend and even delete the questionable contents with an easy-to-use online editing tool. By clicking 'history' or 'rollback' button respectively, moreover, a wiki user could review or restore previous track changes made in the editing and information construction processes.

Albeit several problems for systems are identified, wikis are heavily applied and have indeed become a key part of Web 2.0 culture. A leading example of wikis is perhaps the online Wikipedia (http://www.wikipedia.com). Another similar venture is Google docs, where the shared documents can be edited by a group of users. Other applications are more focused on individual interests – e.g. www.wikitravel.org and www.tviv.org.

RSS and syndication

RSS in its incarnations is understood to variously stand for 'Really Simple Syndication', 'Real-time Simple Syndications' and others (Glotzbach, et al., 2007; Duffy & Bruns, 2006). While it is branded with different names, RSS, essentially, tolerates user convenience in the extent to which the consumer will be kept informed of newly added contents on the websites, blogs, podcasts etc. without actually visiting the corresponding pages.

To put RSS to work, a user needs to download a software tool known as the 'aggregator', 'newsreader' or 'feeds collector'. Once the installation has been done, the user is able to select and subscribe to the feeds they intend to receive. A feed indicates the RSS information available from regularly updated sites (Glotzbach, et al., 2007). In this vein, the efforts of visiting individual sites for up-to-date information could be saved as the concerning contents are gleaned and organized by the aggregator, and the user will be promptly notified of the changes. As the technology matures, moreover, RSS consumptions are not bounded to desktops; instead, they can be manipulated through portable devices such as smart phones, PDAs (Duffy & Bruns, 2006).

The consumers of RSS feeds could alternatively be their producers. Usually an information publisher could post or distribute the content fragments as an XML file on the Web through syndication; technologies of such are warmly embraced and adopted heavily in blogging, audio and video casting. Most RSS files consist of a headline, abstract and a link that could lead to the 'full content'.

Social networking

It is believed that online social networks existed since the inception of Web in 1990's, as networks of such could be forged through as simple as exchanging emails (Mislove, et al., 2007). As of the 2.0 era, there are hundreds of sites, unsurprisingly with various technological affordances and interest orientations, supporting the formation of online social networks.

Several core characteristics are identified among these 'pure' social networking sites (SNSs). They are seen as web-based services that allow individuals to (1) construct a profile that is visible either to the public or within restricted communities, (2) connect other users and accordingly create and display their connection lists, and (3) manipulate their lists and those generated by others within the system (Boyd & Ellison, 2007). One typical example is www.facebook.com.

To fully experience a SNS, individuals are often required to register with the corresponding site and voluntarily answer a series of online questions that are used for profile construction. A SNS 'profile' typically contains a photo and the descriptors of age, gender, location, status, contacts, self-introductions such as interests, mottos etc. All the personal information and images displayed could be added, amended, or deleted by their owner at will. After the creation of profile, the user is entitled to search and identify other users with whom they share a connection with, and to make

a request for 'friendship'. Most SNSs require 'bi-directional' consents before a link is built connecting target users. The communications of connected users are enhanced through the 'commenting' and 'private messaging' facilities embedded in most of the SNSs. Beyond the aforementioned, the features of SNSs vary from site to sites, thus differentiating themselves from each other. Some SNSs enable multimedia sharing; some support blogging and instant messaging; some facilitate limited mobile interactions, others accommodate various combinations of these identified features (Boyd & Ellison, 2007). In many cases, additionally, SNSs encourage users to create and join special interest groups.

Coupled with profile-centric forms and intensified individualization, SNSs regularly serve to bridge individuals in addition to providing new ways to organize and maintain social relationships. As users are allowed to articulate their social connections and track the networks of others, they often use SNSs to locate and connect specific individuals with whom they directly or indirectly associate offline (Boyd & Ellison, 2007).

Multimedia sharing

Recent growth in broadband access and speed, and proliferation of portable devices that capture vocal messages, images and videos has lent support to the surging popularity of websites that enable the storage, self-generation and sharing of multimedia content. Frequently cited instances of current trend include YouTube (www.youtube.com), Flickr (www.flickr.com) and Odeo (www.odeo.com), the leading websites for video, photo and audio sharing respectively.

As oppose to earlier version of multimedia sharing exemplified by TV and radio where programs are subject to the physical constraints of time and locations, multimedia-sharing websites today have untied previous attachments, leading their users to a more personalized listening and viewing experience (Cha, et al., 2007). Equally important, these services are considered as a huge multimedia library that accommodates data and facilitates subsequent exchanges; thereby encouraging user generated content and enabling it to a massive scale (Anderson, 2007). The convenience and dynamics of these web services are further enhanced by technologies such as syndication, tagging and social networking.

Media manipulation and mash-ups

In the era of Web 2.0, the manipulation of the vast amounts of user data can be rendered by online individuals. As observed by Conole (2010, p. 47), "media enabled web-based tools to produce and refine the files to be shared". For example, lashing together data from multiple Web 2.0 sources to create a new service is seen as the process of 'mashing-up' (Anderson, 2007). One of the earliest practices of 'mash-ups' is to overlay geo-tagged photos over Google maps (Crook, 2008). Compared to other Web 2.0 practices, 'mash-ups' are relatively new and unfamiliar to public users; yet they has, to some extent, presented existing information in a completely new and novel way (Beer & Burrows, 2007).

Instant messaging and chat

Instant messaging is a type of online chatting service. In the Web 2.0 era, instant messaging services are also featured in many social networking sites. Some services (www.qq.com) also allow group chat, which forms communities and focuses on specific topics. Instant messaging services are also used on mobile devices, and the exchanges of information are not limited to text, but include sound and image.

Online games and virtual worlds

In the era of Web 2.0, online games have gone from the interaction between player and computer, to between players. Many games are fun-orientated, such as the games of the traditional warring format. Some small games are also popular on social networking sites (e.g. Happy Farm). However, others could involve educational formats, such as the virtual world of the Second Life.

Tagging and social bookmarking

A tag is seen to be a descriptive term attached to a digital file (e.g. a bookmark, picture, video clip, website), so as to organize the content for further navigation, filtering, search and retrieval (Anderson 2007). In contrast to a traditional classification system where the responsibility of material categorization is largely shouldered by relative authorities, online tagging systems advocates the informality that anyone could add keywords to the content. This kind of practice soon launched the massive phenomenon of 'collaborative tagging', which the online public, especially the information consumers, assign keywords to the shared content (Golder & Huberman, 2006). The index of aggregated tags is debatably termed as 'folksonomy' (in contrast to taxonomy). A display of the most popular tags in alphabetical order is known as the 'tag cloud'. Usually, the font size of each tag in the 'cloud' is weighted visually based on its popularity (Montero & Herrero-Solana, 2006).

One of the prominent examples and earliest practices of collaborative tagging is the 'social bookmarking' exercised on Del.icio.us. To engage with this website, like numerous blog hosts, one has to make a registration by creating a user account. There is a personal homepage under this account on which the bookmarks are exhibited in reverse chronological order, alongside all the tags the user has allocated to the bookmarks. By clicking a tag of a bookmark, one could filter the existing bookmarks and immediately view the list of bookmarks gathered under the particular tag. A bookmark usually consists of the link to the site that has been marked, a title and the time at which the bookmark is constructed. The bookmarks displayed on personal homepages could be referenced either by their creators or other users in the system. In addition, the user created tags on bookmarks are collected and aggregated by del.icio.us, thereby enabling organised research based on the so-called 'folksonomy' (Crook, 2008). To some extent, these practices have scaled up user involvement by allowing not just information categorization by users themselves, but sensible browses of information classified by others. The consequence of increased

participation is thus often associated with the 'social' aspect inherited in Del.icio.us (Golder & Huberman, 2006).

Although tagging systems are beset by a number of problems, its intuitiveness, innovation and simplicity have made it an overwhelming mechanism in a wide array of Web 2.0 services (Klamma, et al., 2007). YouTube, Flickr, blogging communities, Facebook and others often incorporate online tagging system within their own services, allowing the selected artefacts to be socially tagged (Anderson, 2007).

References:

Anderson, P. (2007). 'What is Web 2.0? Ideas, technologies, and implications for education'. [Online]. *JISC Tech Watch,* Available at: http://21stcenturywalton.pbworks.com/f/What%20is%20Web%202.0.pdf [Last accessed 11th July 2011].

Beer, D. and Burrows, R. (2007). 'Sociology and, of and in Web 2.0: some initial considerations'. [Online]. *Sociological Research Online,* 12, Available at: http://www.socresonline.org.uk/12/5117.html.

Boyd, D. and Ellison, N. B. (2007). 'Social network sites: Definition, history, and scholarship'. *Journal of Computer-Mediated Communication,* 13 (1), 210-230.

Cha, M., Kwak, H., Rodriguez, P., Ahn, Y. Y. and Moon, S. (2007). *I tube, you tube, everybody tubes: analyzing the world's largest user generated content video system*. In Proceedings of the 7th ACM SIGCOMM conference on Internet measurement, pp. 1-14. [Online]. Available at: http://www.land.ufrj.br/~classes/coppe-redes-2012/trabalho/youtube_imc07.pdf [Last accessed 11th August 2014].

Conole, G. and Alevizou, P. (2010). *A literature review of the use of Web 2.0 tools in Higher Education* (*A report commissioned by the Higher Education Academy)*. [Online]. Milton Keynes: The Open University. Available at: http://www.jisctechdis.ac.uk/assets/EvidenceNet/Conole_Alevizou_2010.pdf [Last accessed 6th May 2014].

Crook, C. (2008). 'What are web 2.0 technologies, and why do they matter?'. [Onling]. In N. Selwyn (Ed.), *Education 2.0? Designing the Web for Teaching and Learning.* ESRC Teaching and Learning Research Programme commentary. Available at: http://www.tlrp.org/pub/documents/TELcOlmn.pQf [Last accessed 11th July 2011].

Du, H. S. and Wagner, C. (2006). 'Weblog success: Exploring the role of technology'. *International Journal of Human-Computer Studies, 64*(9), 789-798.

Duffy, P. D. and Bruns, A. (2006). *The use of blogs, wikis and RSS in education: A conversation of possibilities*. In Proceedings Online Learning and Teaching Conference 2006**,** pp. 31-38, Brisbane. [Online]. Available at: http://eprints.qut.edu.au/ [Last accessed 20th August 2014].

Glotzbach, R. J., Mohler, J. L. and Radwan, J. E. (2007, August). *RSS as a course information delivery method*. In *ACM SIGGRAPH 2007 educators program*, pp. 16. [Online]. Available at: https://www.cct.lsu.edu/~fharhad/ganbatte/siggraph2007/CD1/content/educators/glotzbach.pdf [Last accessed 20th August 2014].

Golder, S. A. and Huberman, B. A. (2006). 'Usage patterns of collaborative tagging systems'. *Journal of Information Science*, *32*(2), 198-208.

Klamma, R., Spaniol, M. and Renzel, D. (2007). *Community-Aware Semantic Multimedia Tagging–From Folksonomies to Commsonomies*. In Proceedings of I-Media, 7, 163-171. [Online]. Available at: http://i-know.tugraz.at/wp-content/uploads/2008/11/18_community-aware-semantic-multimedia-tagging.pdf [Last accessed 5th August 2014].

Mislove, A., Marcon, M., Gummadi, K. P., Druschel, P. and Bhattacharjee, B. (2007). *Measurement and analysis of online social networks*. In Proceedings of the 7th ACM SIGCOMM conference on Internet measurement, pp. 29-42. [Online]. Available at: http://dl.acm.org/citation.cfm?id=1298311 [Last accessed 10th August 2014].

Hassan-Montero, Y. and Herrero-Solana, V. (2006). *Improving tag-clouds as visual information retrieval interfaces*. In International Conference on Multidisciplinary Information Sciences and Technologies, pp. 25-28. [Online]. Available at: http://www.claymountain.com/svn/gradu/L%C3%A4hdeartikkelit/Folksonomy_ehk%C3%A4/HMHS06.pdf [Last accessed 11th January 2011].

Murugesan, S. (2007). 'Understanding Web 2.0'. *IT Professional*, *9*(4), 34-41.

Nardi, B. A., Schiano, D. J. and Gumbrecht, M. (2004). *Blogging as social activity, or, would you let 900 million people read your diary?*. In Proceedings of the 2004 ACM conference on Computer supported cooperative work, pp. 222-231. [Online]. Available at https://wiki.cc.gatech.edu/scqualifier/images/9/9b/Nardi-Blogging_as_social_activity.pdf [Last accessed 11th August 2014].

Appendix 3: A map of China

Note: 1) The areas of Nanjing and Chongqing are highlighted 2) map downloaded from the website of Consulate-General of the People's Republic of China in Juba, available at http://ss.chineseembassy.org/eng/zgjk/t696128.htm [Last accessed 2nd July 2014].

Appendix 4: Information Sheet

Title of Study: English Learning with Web 2.0—An Investigation into University Students' Perspectives and Experiences in China

Researcher: Shuang Zeng

Aims of study: As very little is known about the reality of how the emerging web technologies have been directed by language learners to assist their second language acquisition, this study aims to investigate Chinese university students' perceptions and experiences associated with using the current web to enhance their English language learning.

The questions are: what learners actually do with web 2.0 tools to improve their English language skills and how do they perceive their learning experiences and outcomes?

This study can help to leverage the impact of web 2.0 in the future provision of SLA, whilst expanding the view of the academic field of WELL 2.0 with respect to its potentials as well as limitations and boundaries.

Participant: Chinese university students aged about 18-23.

Study: Field work will last until July 2011 and will involve questionnaire surveys, interviews and collection of online contributions of Chinese university students.

How you will be involved:

If you agree to take part in this research, please complete the questionnaire attached below. If necessary, I would also like to arrange a face-to-face interview with some of you. This can be in a classroom or a quite public place on the campus. The interview will last about 30 minutes, depends on the information you provide. I will audio-record our interview.

Benefits and Risks: Your participation in the study will provide you a chance to review your use of web technologies for English language learning. As you will be informed the research results, you may improve your strategies with web assisted language learning. There is minimal risk in this research under the Ethical Guidelines for British Educational Research.

Confidentiality: All information you supply during the research will be held in confidence and unless you specifically indicate your consent, your name will not appear in my report or publication of the research. Names and any other personal information will be changed in the report so that it is not possible to identify you or the other participants. Any personal information will be removed and not included in the report or passed on to third parties. Your data will be safely stored in a locked facility and only I will have access to this information. Confidentiality will be provided to the fullest extent possible by law.

Withdrawal of data: Once you have decided to participate, you may still withdraw your data from the project at any time up until it is transcribed for use in the final report which is 3 months after the data collection (before October 2011). The date for the final submission of the thesis is in September 2012 but before the final submission you will be given the chance to read a draft report in Chinese to ensure that you are happy with the way confidentiality has been maintained.

Contact: If you have questions or problems related to this study, please don't hesitate to contact the Researcher Shuang Zeng either on +8615251850584 or by email ilikerap70@hotmail.com

Appendix 5: The Questionnaire of Online Technology Use for Learning English (Chinese version)

大学生用网络学习英语的调查问卷

亲爱的同学：
你好！我们正在进行一项有关中国大学生是如何通过上网来提高英语技能的学术研究，希望你能抽出大约 10 分钟的宝贵时间仔细回答以下问题。你所提供的信息将作为此次研究的重要组成部分。本次调查采用不记名方式，问卷中的所有信息仅仅作为研究参考，我们承诺将严格为你保密，非常感谢你的配合。

- **若同意参加此次问卷调查， 请在空格内打勾。** 口

I. 你对互联网的使用 （请在适当的选项后打勾）

1.1 你平均每周上网的时间大概是多长？

不上网		少于 1 小时		1－2 小时		3－5 小时	
6－10 小时		11－15 小时		16－20 小时		多于 20 小时	

若不上网， 请在下列空白处详细阐述你不使用互联网的理由，之后请跳至此次问卷‘个人信息’部分（第 5 页）继续作答。

1.2 你平时上网的途径有哪些？（可多选）

台式电脑		手提电脑		手机		其他移动设备	

1.3 你平时上网的地点有哪些？（可多选）

宿舍		网吧		家		教室		自习室		图书馆	
其它地点：											

1.4 你平常使用以下哪些网络工具和网站？（可多选）

博客 / 空间 （比如新浪博客，QQ 空间等）		搜索引擎 （比如百度， 谷歌等）	
网络百科全书（比如百度百科，维基百科）		视频分享网站（比如土豆，优酷）	
社交网站（比如校内网，开心网）		网络社区和论坛（比如寄托，天涯论坛等等）	
照片或图片分享网站（比如 Poco, Flickr）		网络合作编辑 （比如共同编辑文件，音频或者视频）	
视频和 mp3 下载和在线播放		网络交易平台 （比如淘宝，意趣）	

网络文件分享工具 （比如谷歌文件）		即时聊天工具 （比如 QQ, Skype)	
语音或视频聊天		收发电子邮件	
网络游戏		网络翻译工具 （比如谷歌翻译等）	
信息订阅工具 （比如 RSS 阅读器，它在网页中的标志为 XML 或 RSS 或)		学习网站 （比如普特网，BBC 等等）	
网络书签 （比如百度收藏，美味书签）		其它：	

II 你在课后学习英语的过程中对互联网的使用（请在适当的选项后打勾）

2.1 你平均**每周**课后学习英语的时间是多长？

不学习		少于 1 小时		1－2 小时		3－5 小时	
6－10 小时		11－15 小时		16－20 小时		多于 20 小时	

2.2 你平均**每周**课后使用**互联网来学习提高英语**的时间是多长？

不使用		少于 1 小时		1－2 小时		3－5 小时	
6－10 小时		11－15 小时		16－20 小时		多于 20 小时	

若不使用互联网学习英语， 请在下列空白处详细阐述你不使用的理由，之后请跳至此次问卷的‘个人信息’部分 （第 5 页）继续作答。

2. 3 你平时为学英语上网的途径有哪些？（可多选）

台式电脑		手提电脑		手机		其他移动设备	

2.4 你平时为学英语上网的地点有哪些？（可多选）

寝室		网吧		家		教室		自习室		图书馆	
其它地点：											

2.5 你平常使用以下哪些网络工具和网站来学习和提高英语技能？（可多选）

博客 / 空间 （比如新浪博客，QQ 空间等）		搜索引擎 （比如百度， 谷歌等）	
网络百科全书（比如百度百科，维基百科）		视频分享网站（比如土豆，优酷）	
社交网站（比如校内网，开心网）		网络社区和论坛（比如寄托，天涯论坛等等）	
照片或图片分享网站（比如 Poco, Flickr）		网络合作编辑 （比如共同编辑文件，音频或者视频）	
视频和 mp3 下载和在线播放		网络交易平台 （比如淘宝，意趣）	
网络文件分享工具 （比如谷歌文件）		即时聊天工具 （比如 QQ, Skype)	
语音或视频聊天		收发电子邮件	
网络游戏		网络翻译工具 （比如谷歌翻译等）	
信息订阅工具 （比如 RSS 阅读器，它在网		学习网站 （比如普特网，BBC，等	

页中的标志为 XML 或 RSS 或)		等）
网络书签（比如百度收藏，美味书签）		其它：

请例举你经常用于提高英语技能的<u>三个网站</u>（比如寄托网，BBC 官方网站等）。

请例举你经常用于提高英语技能的<u>三个网络工具</u> （比如博客，谷歌，网络标签等）。

2.6 你使用互联网来学习英语的目的是___?

运用练习已学的英语		兴趣爱好和娱乐	
获取信息		分享信息	
获取英语学习资源		分享英语学习资源	
寻找学习伙伴		储存整理信息	
了解西方文化		与同学或网友协作学习	
以考试为目的			
其它目的：			

III 你对使用互联网学习英语的看法和评价

3.1 总的来说，你怎样评价你通过上网来学习英语的经历？

非常消极的___ 消极的___ 一般 ____ 好____ 非常好 ___

3.2 上网提高了你哪些英语技能? (请按照你同意的程度在相应的空格内打勾)

	强烈反对	反对	中立	赞成	十分赞成
阅读					
写作					
口语					
听力					
语法					
词汇					
用英语交流的技能					
学习英语的兴趣和动力					
整体的英语水平					

IV 个人信息

4.1 您的性别： A. 男 B. 女

4.2 您的年龄是：_____

4.3 您攻读的专业类别： A 文学语言类 B 经济类 C 理工类 D 艺术类 E 法律 F 其他_____

4.4 您所在年级： A. 大一 B. 大二 C.大三 D.大四

4.5 家庭所在地： A 农村 B 城镇（县城） C 城市

4.6 您的家庭**月平均总收入**为多少？

1,000 元以下		1,000 至 3, 000 元	
3,001 至 5, 000 元		5,001 至 7, 000 元	
7, 001 至 10, 000 元		10,001 至 16, 000 元	
16, 000 元以上		N/A	

4.7 相对你的同学，你怎样评价自己的英语水平?

	初级	中级	高级
阅读			
写作			
口语			
听力			
语法			
词汇			
用英语交流的技能			
整体英语水平			

4.8 请给以下句子按其真实性打分，从 1－5（1＝完全不同意；2=不同意；3=中立； 4=同意； 5＝完全同意)。

我很擅长学英语。	
平时上英语课发言时我总是很自信。	
我常常在英语课堂上或小组讨论中发言和阐述自己的观点	
我有很强烈的学习英语的兴趣和动力。	

4.9 如果你愿意就你上网学习英语的经历接受采访，
请留下你的电子邮件地址和手机号。

你的手机号码	
你的电子邮箱地址	

感谢您的参与！

Appendix 6: The Questionnaire of Online Technology Use for Learning English (English version)

Dear student,

This survey focuses on your experiences and opinions about the current web technologies and the use of them in learning English outside the classroom. The aim of the study is to better understand Chinese university students' use and perspectives with the current web for English learning related purposes. The following questionnaire takes only about 10 minutes to complete, but your responses are crucial to the finding of the research, and they will be kept strictly confidential and anonymous.

- **I have read the introduction and agree to participate in this survey study.** □

Section I. Your GENERAL USE of Web technology

1.1 How many hours per week do you normally spend on the Internet?

Do not use		Less than an hour		1-2 hours		3-5 hours	
6 – 10 hours		11- 15 hours		16-20 hours		More than 20 hours	

If do not use, please specify the reason(s) below, and go to the last section of the questionnaire.

1.2 Which of the following electronic devices do you use for surfing the Internet? Tick all that apply.

Desktop computer		Mobile phones	
Laptop computer		Other palm devices	

1.3 You are surfing the Internet at/in__? Tick all that apply.

The dormitory		Home		The Internet cafe	
The classroom		The self-study room		Library	
Others, please specify:					

1.4 Which of the following are you using? Tick all that apply.

Blog/Online space (e.g. Sina blog, Qzone)		Search engines (e.g. Google, Baidu)	
Online Wiki (e.g. Wikipedia, baidu wiki)		Video sharing websites (e.g. Tudou, Youku)	
Social networking sites (e.g. Renren, Facebook)		Forum (e.g. Gter, Tianya)	
Photo sharing websites (e.g. poco, Flickr)		Collaborative editing (e.g. working together online to edit a file)	
Video/audio downloading and broadcasting services		Online shopping (e.g. Taobao)	

File sharing services (e.g. Google documents)		Instant message services (e.g. Skype, QQ)	
Voice or video chatting		Emails	
Gaming		Online translation (e.g. Google translator)	
RSS & syndication (automatically collec updated information; it looks like  or  or  in a webpage)		English learning websites (e.g. Putclub, BBC website)	
Social bookmark (e.g. Baidu Collection, Del.icio.us)		Others, please specify:	

Section II Your use of web technology for LEARNING ENGLISH AFTER CLASS

2.1 How many hours per week do you normally spend on English learning **in general after class**?

Do not learn		Less than an hour		1-2 hours		3-5 hours	
6 – 10 hours		11- 15 hours		16-20 hours		More than 20 hours	

2.2 How many hours per week do you normally spend **on the web** for **English learning after class**?

Do not use		Less than an hour		1-2 hours		3-5 hours	
6 – 10 hours		11- 15 hours		16-20 hours		More than 20 hours	

If do not use, please specify the reason(s) below, and go to the last section of the questionnaire.

2.3 Which of the following electronic devices do you use for learning English with the web? Tick all that apply.

Desktop computer		Mobile phones	
Laptop computer		Other palm devices	

2.4You are learning English with the web at/in__? Tick all that apply.

The dormitory		Home		Internet café	
The classroom		Self-study room		Library	
Others, please specify:					

2.5 Which of the following are you using for learning English after class?

Blog/Online space (e.g. Sina blog, Qzone)		Search engines (e.g. Google, Baidu)	
Online Wiki (e.g. Wikipedia, baidu wiki)		Video sharing websites (e.g. Tudou, Youku)	
Social networking sites (e.g. Renren, Facebook)		Forum (e.g. Gter, Tianya)	
Photo sharing websites (e.g. poco, Flickr)		Collaborative editing (e.g. working together online to edit a file)	
Video/audio downloading and broadcasting services		Online shopping (e.g. Taobao)	

File sharing services (e.g. Google documents)		Instant message services (e.g. Skype, QQ)	
Voice or video chatting		Emails	
Gaming		Online translation (e.g. Google translator)	
RSS & syndication (automatically collect updated information; it looks like XML or RSS or in a webpage)		English learning websites (e.g. Putclub, BBC website)	
Social bookmark (e.g. Baidu Collection, Del.icio.us)		Others, please specify:	

*Please list **three websites** you frequently visit for learning English (e.g. www.gter.com).*

*Please list **three** web **applications/services** you frequently use for learning English (e.g. Blog, RSS, Google).*

2.6 When learning English, you are using the Internet to/for ____. Tick all that apply.

Practice what has been learned		Interest and entertainment	
Obtain information		Share information	
Obtain learning materials		Share learning materials	
Find learning partners		Store learning information and resources	
Explore western culture		Co-work/collaborate with others	
Prepare for tests and exams			
Others, please specify			

Section III Your perceptions and achievements of using the current web for learning English.

3.1 How would you describe your overall experience using web technologies for English language learning?

Very negative __ Negative__ Neutral__ Positive__ Very positive__

3.2 The use of the web has improved my ability in___.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Reading					
Writing					
Speaking					
Listening					
Grammar					
Vocabulary					

Communicative skills					
Interest & Motivation					
Overall English skills					

Section IV Background Information

4.1 Your gender: A. Male B. Female

4.2 Your age: _____

4.3 Your major _____

4.4 You are in: A year 1 B year2 C year D year 4

4.5 Your family is living in the: A. Rural area B:Town/County C: City

4.6 Approximately how much is your MONTHLY HOUSEHOOD income?

Below 1,000 yuan		1,000 to 3, 000 yuan	
3,001 to 5, 000 yuan		5,001 to 7, 000 yuan	
7, 001 to 10, 000 yuan		10,001 to 16, 000 yuan	
Above 16, 000 yuan		N/A	

4.7 How would you rate your level English?

	Basic	Intermediate	Advanced
Reading			
Writing			
Speaking			
Listening			
Grammar			
Vocabulary			
Communicative skills			
Overall English skills			

4.8 To what extent are the following statements true for you? (Strongly disagree-1; Disagree -2; Neutral-3; Agree -4; Strongly agree - 5)

I am good at learning English.	
I feel confident when speaking in class (answering questions etc.)	
I often speak and demonstrate my thoughts in group discussions.	
I have a strong interest and motivation to learn English.	

4.9 If you would like to participate in the interviews,
please leave your e-mail address and mobile number below.

Your e-mail address	
Your mobile number	

Thank you very much for your participation!

Appendix 7: Example of semi-structured Interview guide

Part 1 Warming up (background information)

1. Can you tell me about yourself? Such as where you are from, what you are studying and which year you are in.
2. Can you describe a typical day of your college life?
3. Do you think the Internet is a part of it? How? Or Why not? (or what do you usually do on the Internet)

Part 2 English learning at university

1. Are you motivated to learn English? Why?
2. Do you like English classes at university? Why?
3. Do you find your teachers and peers supportive? How so?
4. How do you usually learn English in a typical day of college life?
5. Do you think self-study after class is important to your English study? Why?
6. Do you have any concerns about your English study at university? Why so?

Part 3 Reasons for technology use and lack of use after class

1. Do you think the Internet is playing a role in your English study after class? How or why not?
2. Has the Internet helped you with your concerns about English study? How or why not?
3. Then, what do you usually do with the Internet for English learning related purposes after class?
4. Do you have any exciting or depressing learning experiences with the Internet? If so, please tell me why it is exciting or depressing.
5. Why are you using the Internet, not other tools for the activities you mentioned?
6. Where necessary, ask the student why not commenting, posting, communicating, discussing problems or being more active online?
7. What stopped you from doing these activities?
8. Do you have any concerns about using the Internet for learning English?
9. If you can't use the Internet for a month, will it influence your English study? Why (not)?

Part 4 Concluding remarks

1. Compared to English classes, is the use of the Internet a different learning experience? How so?
2. Generally, what have you gained from your learning experiences with the Internet? Why?
3. What haven't you gained from your learning experiences with the Internet? Why?
4. Do you have any other things you want to say about English learning at university?
5. Do you have any other things that you want to say about using the Internet for learning English?

Appendix 8: Background information of interview participants

Partici-pant	Sex	Age	Year of study	Origin	Major	Weekly hours spent on English study after class	Weekly hours spent on the Internet	Weekly hours spent on WELL/type of WELL user
University A								
4	**M**	**21**	**2**	**rural**	**chemistry**	**<1h**	**>20hrs**	**<1h /light user**
20	**F**	**21**	**2**	**urban**	**chemistry**	**6-10hrs**	**3-5hrs**	**<1h/ light user**
51	**F**	**20**	**2**	**urban**	**engineering**	**6-10hrs**	**6-10hrs**	**<1h/light user**
57	**F**	**20**	**3**	**urban**	**biology**	**16-20hrs**	**11-15hrs**	**3-5hrs/ frequent user**
92	**M**	**22**	**3**	**rural**	**biology**	**1-2hrs**	**16-20hrs**	**<1h/light user**
128	F	19	1	rural	engineering	16-20hrs	11-15hrs	6-10hrs/ Heavy user
132	**F**	**20**	**1**	**urban**	**engineering**	**6-10hrs**	**6-10hrs**	**<1h/light user**
140	**M**	**21**	**1**	**rural**	**physics**	**6-10hrs**	**3-5hrs**	**<1h/light user**
257	F	21	3	urban	maths	*6-10hrs*	6-10hrs	Non-participant
315	**F**	**20**	**2**	**urban**	**English**	**16-20hrs**	**>20hrs**	**6-10hrs/ heavy user**
366	**M**	**19**	**1**	**urban**	**English**	**16-20hrs**	**3-5hrs**	**1-2hrs/ light user**
379	**F**	**19**	**1**	**urban**	**English**	**>20hrs**	**6-10hrs**	**6-10hrs/ heavy user**
399	**F**	**19**	**1**	**rural**	**English**	**16-20hrs**	**6-10hrs**	**3-5hrs/ Frequent user**
444	**F**	**19**	**2**	**urban**	**classics**	**3-5hrs**	**11-15hrs**	**1-2hrs/light user**
582	**F**	**19**	**1**	**urban**	**cultural heritage & museum**	**1-2hrs**	**>20hrs**	**<1h/light user**
585	**F**	**22**	**2**	**urban**	**cultural heritage & museum**	**3-5hrs**	***11-15hrs***	**1-2hrs/ Light user**
602	**F**	**20**	**2**	**urban**	**sociology**	**6-10hrs**	**>20hrs**	**6-10hrs/ heavy user**
603	F	21	2	rural	history	6-10hrs	6-10hrs	3-5hrs/ Frequent user
605	**F**	**22**	**3**	**rural**	**engineering**	**6-10hrs**	**>20hrs**	**1-2hrs/ Light user**
616	**F**	**22**	**3**	**urban**	**engineering**	**>20hrs**	**>20hrs**	**11-15hrs/ Heavy user**
623	**M**	**20**	**2**	**rural**	**engineering**	**6-10hrs**	**>20hrs**	**1-2hrs/ Light user**
629	**F**	**21**	**2**	**rural**	**engineering**	**6-10hrs**	**6-10hrs**	**3-5hrs/**

								Frequent user
641	**M**	**21**	**2**	**urban**	**engineering**	**>20hrs**	**>20hrs**	**3-5hrs/ Frequent user**
646	M	20	2	urban	engineering	3-5hrs	>20hrs	3-5hrs/ Frequent user
653	**M**	**21**	**2**	**rural**	**engineering**	**3-5hrs**	**>20hrs**	**Non-participant**
University B								
1007	**F**	**19**	**1**	**rural**	**Chinese literature**	**6-10hrs**	**6-10hrs**	**<1h/light user**
1086	**F**	**20**	**1**	**urban**	**TCFL**	**6-10hrs**	**3-5hrs**	**<1h/light user**
1088	**F**	**19**	**1**	**urban**	**TCFL**	**<1hr**	**>20hrs**	**<1hr/ light user**
1101	M	18	1	urban	TCFL	16-20hrs	11-15hrs	6-10hrs/ Heavy user
1129	**F**	**20**	**1**	**rural**	**education**	**3-5hrs**	**3-5hrs**	**1-2hrs/ light user**
1135	**F**	**20**	**1**	**urban**	**education**	**6-10hrs**	**>20hrs**	**6-10hrs/ Heavy user**
1164	**F**	**19**	**1**	**urban**	**chemistry**	**6-10hrs**	**16-20hrs**	**3-5hrs/ Frequent user**
1199	**F**	**20**	**1**	**rural**	**chemistry**	**6-10hrs**	**6-10hrs**	**3-5hrs/ Frequent user**
1245	**F**	**19**	**1**	**urban**	**physics**	**3-5hrs**	**16-20hrs**	**<1/light user**
1299	**M**	**21**	**1**	**rural**	**engineering**	**3-5hrs**	**11-15hrs**	**1-2hrs/ Light user**
1313	**M**	**20**	**1**	**rural**	**chemistry**	**3-5hrs**	**6-10hrs**	**<1hr/light user**
1348	M	20	1	rural	chemistry	11-15hrs	16-20hrs	6-10hrs/ Heavy user
1383	**M**	**19**	**1**	**rural**	**education**	**6-10hrs**	**>20hrs**	**3-5hrs/ frequent user**
1409	**F**	**20**	**2**	**rural**	**English**	**>20hrs**	**>20hrs**	**>20hrs/heavy user**
1500	**F**	**21**	**3**	**urban**	**English**	***3-5hrs***	***16-20hrs***	**6-10hrs/ Heavy user**
1651	**M**	**18**	**1**	**urban**	**Food science**	**1-2hrs**	**>20hrs**	**<1hr/light user**
1686	**F**	**20**	**2**	**urban**	**English**	**>20hrs**	**16-20hrs**	**16-20hrs/ heavy user**
1717	**F**	**21**	**2**	**urban**	**English**	**>20hrs**	**6-10hrs**	**6-10hrs/ heavy user**
1727	**M**	**19**	**2**	**rural**	**English**	**>20hrs**	**11-15hrs**	**6-10hrs/ heavy user**
1735	**F**	**22**	**2**	**urban**	**English**	**11-15hrs**	**>20hrs**	**11-15hrs/ heavy user**
1793	**M**	**20**	**2**	**rural**	**English**	**11-15hrs**	**16-20hrs**	***<1hr/light***

								user
1807	F	20	2	urban	English	6-10hrs	11-15hrs	6-10hrs/heavy user
1827	M	20	2	urban	English	>20hrs	11-15hrs	6-10hrs/heavy user
1828	**F**	**20**	**2**	**urban**	**English**	**>20hrs**	**6-10hrs**	**6-10hrs/heavy user**

Note: 1. TCFL is short for Teaching Chinese as a Foreign Language
2. Information provided in this Table is collected from questionnaire, and where necessary, confirmed or corrected in the subsequent interviews.
3. Information in italic letter is not accurately provided in questionnaire and corrected by the corresponding interview participant during the interview.
4. Interview participants 4-653 are selected from survey participant 1-654 (students of university A); participant 1001-1828 are selected from survey participant 1001-1832 (students of university B). Students of university B are numbered from 1001, rather than 655, in case more questionnaires from university A would be added to the SPSS data sheet.
5. The interview participants in bold letter are quoted in the finding chapters of the thesis.

Appendix 9: Screenshots of SPSS data sheet

	Uni	ques_number	hours_internet	internet_desktop	internet_laptop	internet_mobile	internet_palm	internet_do...	internet_cafe	internet_ho...	internet_classroom
1	1.00	1.00	7.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
2	1.00	2.00	8.00	1.00	1.00	1.00	.00	1.00	1.00	1.00	1.00
3	1.00	3.00	6.00	1.00	1.00	1.00	.00	1.00	.00	1.00	1.00
4	1.00	4.00	8.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
5	1.00	5.00	5.00	.00	1.00	1.00	.00	1.00	.00	1.00	1.00
6	1.00	6.00	3.00	1.00	1.00	1.00	.00	1.00	.00	.00	.00
7	1.00	7.00	2.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
8	1.00	8.00	6.00	.00	1.00	1.00	.00	1.00	.00	1.00	.00
9	1.00	9.00	4.00	.00	1.00	.00	.00	1.00	.00	.00	.00
10	1.00	10.00	3.00	.00	1.00	.00	.00	1.00	.00	.00	.00
11	1.00	11.00	3.00	.00	.00	1.00	.00	.00	.00	1.00	.00
12	1.00	12.00	6.00	.00	.00	1.00	.00	1.00	.00	.00	.00
13	1.00	13.00	6.00	.00	1.00	.00	.00	1.00	.00	.00	.00
14	1.00	14.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00
15	1.00	15.00	4.00	.00	1.00	.00	.00	1.00	.00	.00	.00
16	1.00	16.00	5.00	1.00	.00	1.00	.00	.00	.00	.00	.00
17	1.00	17.00	1.00	.	.	.	.	.	.	.	.
18	1.00	18.00	5.00	1.00	.00	1.00	.00	1.00	.00	.00	1.00
19	1.00	19.00	4.00	1.00	.00	1.00	.00	1.00	.00	.00	.00
20	1.00	20.00	4.00	1.00	.00	1.00	.00	.00	.00	.00	.00
21	1.00	21.00	5.00	1.00	.00	1.00	1.00	.00	.00	.00	.00
22	1.00	22.00	4.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
23	1.00	23.00	4.00	1.00	.00	1.00	.00	1.00	.00	.00	1.00
24	1.00	24.00	6.00	.00	1.00	1.00	.00	1.00	.00	1.00	.00

	Uni	ques_number	hours_internet	internet_desktop	internet_laptop	internet_mobile	internet_palm	internet_do...	internet_cafe	internet_ho...	internet_classroom
1452	2.00	1799.00	6.00	.00	1.00	1.00	.00	1.00	.00	1.00	.00
1453	2.00	1800.00	7.00	.00	1.00	1.00	.00	1.00	.00	1.00	.00
1454	2.00	1801.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00
1455	2.00	1802.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00
1456	2.00	1803.00	6.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1457	2.00	1804.00	4.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00
1458	2.00	1805.00	4.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00
1459	2.00	1806.00	5.00	.00	1.00	1.00	.00	1.00	.00	1.00	.00
1460	2.00	1807.00	6.00	1.00	1.00	1.00	.00	1.00	1.00	1.00	1.00
1461	2.00	1808.00	6.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1462	2.00	1809.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1463	2.00	1810.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1464	2.00	1811.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1465	2.00	1812.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1466	2.00	1813.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1467	2.00	1814.00	4.00	1.00	.00	1.00	1.00	1.00	.00	1.00	.00
1468	2.00	1815.00	7.00	1.00	.00	1.00	.00	1.00	.00	.00	1.00
1469	2.00	1816.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1470	2.00	1817.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1471	2.00	1818.00	8.00	.00	1.00	1.00	.00	1.00	.00	1.00	1.00
1472	2.00	1819.00	6.00	.00	1.00	.00	.00	1.00	.00	.00	.00
1473	2.00	1820.00	7.00	.00	1.00	1.00	.00	1.00	1.00	.00	.00
1474	2.00	1821.00	4.00	1.00	.00	1.00	.00	1.00	1.00	.00	.00
1475	2.00	1822.00	5.00	.00	1.00	.00	.00	1.00	.00	.00	.00
1476	2.00	1823.00	4.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1477	2.00	1824.00	5.00	.00	1.00	.00	.00	1.00	.00	.00	.00
1478	2.00	1825.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1479	2.00	1826.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1480	2.00	1827.00	6.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	.00
1481	2.00	1828.00	5.00	.00	1.00	1.00	1.00	1.00	.00	1.00	1.00
1482	2.00	1829.00	4.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00
1483	2.00	1830.00	5.00	1.00	.00	1.00	.00	1.00	.00	.00	.00
1484	2.00	1831.00	5.00	.00	1.00	1.00	.00	1.00	.00	.00	.00
1485	2.00	1832.00	4.00	.00	1.00	1.00	.00	1.00	.00	.00	1.00