Saihong Li-Rasmussen

Click-on-knowledge conference May 2011, Copenhagen, Denmark

Laziness and lexicography: A Contrastive Study

In spite of all its benefits, laziness is one of the major side effects of digital technology. With just a click of mouse, you can access Wikepedia, Google, Youtube, Wordpress, etc. and get any information desired in a second. 'Efficiency is intelligent laziness'. Today, more and more people rely on online dictionaries to learn a foreign language; the problem is how properly to use the vast amounts of easily accessed information. Computers have been used far more intensively and creatively in the generation of databases than in the actual editing of dictionaries. To look up a word in a paper dictionary you need to engage in some physical labour; while you're doing that you might also be doing some conceptual and intellectual work relevant to the information learnt: if it's a new word, you might simply repeat the word in your head, to help it stick. And the dictionary is itself the result of a great effort by the compilers. It is much easier to compile dictionaries today, and the databases provide a far more accurate and complete picture of a language. It is easier to click on a dictionary entry than to pick up a heavy book. But does it follow that technology has produced dictionaries that are more effective for learning a language? Put it another way: to what extent does the learning process in general – and in particular the learning of a language – depend on inefficient technology?

From the world's first stored program computer built in Manchester to honour the legacy of Alan Turing – the Turing test for machine intelligence: thinking about thinking – to Peter Naur's ALOGO 60 and to artificial intelligence and machine learning today, computer technology has opened up a new era in everyday life all over the world. Most technological improvements lead to some form of laziness. So now I can go to my computer for help with my task: How and what I should write for Click-on-Knowledge. In my laziness, I decide to ask my colleague Dave Watson to consult his 'old friend', Eliza – you may have spoken to her before in Pro-web: a site devised in the 1960 for the Turing Test: to see if you could tell whether the person you were talking to was a person or a machine. This is how our conversation went:

> \> Hello, I am Eliza.
> * Hello Eliza.
> \> How are you today. What would you like to discuss?
> * I have a problem.
> \> Come, come, elucidate your thoughts.
> * I need to decide what to present for Click-on-Knowledge.
> \> What else comes to mind when you ask that?
> * Well, it wasn't a question - I didn't use a question mark.

Click-on-knowledge conference May 2011, Copenhagen, Denmark

> I see.
* You may say that you see but I bet you'll make the same mistake again, eventually.
> We were discussing you, not me.
* Ok then, how and when should we meet?
> Well, if I were you, I'd write Laziness and Lexicography for the Click-on-Knowledge Conference 2011, if you're not fussy about what to say.
* Thanks Eliza.

Right before you close Pro-web, Eliza will end with "Goodbye. My secretary will send you a bill."

Computers make us think of all the things that they have made possible. However in lexicography, as in other fields, the impossible has sometimes been made possible: unbelievable achievements didn't wait for the invention of the computer. Our use of computers and databases makes it very hard for us today to imagine how lexicographers compiled their dictionaries without our technology. The impossible has already happened, in the making of the great dictionaries of the pre-digital past.

A Dictionary of the English Language, first published in 1755, remains one of the most famous dictionaries in history. It took Samuel Johnson seven years to compile; it required six helpers and listed 40,000 words, whose meaning or use is illustrated by 150,000 illustrations: "Seven years, my lord, have now past since I waited in your outward rooms or was repulsed from your door, …" *The Kanxi Dictionary,* a modern Chinese dictionary containing 47,000 characters, in 42 volumes, compiled in 1716, took more than 30 scholars six years to complete. Before computer technology was available for dictionary compiling, as Samuel Johnson says in his preface, it was the work of a drudge: "Among these unhappy mortals is the writer of dictionaries; whom mankind have considered, not as the pupil, but the slave of science, the pioneer of literature, doomed only to remove rubbish and clear obstructions from the paths through which Learning and Genius press forward to conquest and glory, without bestowing a smile on the humble drudge that facilitates their progress. Every other author may aspire to praise; the lexicographer can only hope to escape reproach, and even this negative recompense has been yet granted to very few." (Johnson 1755:x) Yet, laborious as it was in those days to compile a dictionary, we cannot assume that labour makes things easy for the dictionary's users. Dictionaries in the pre-computer age are in printed form: we had either to carry dictionaries with us or go to the library to search, and there was often a queue to use the most popular dictionaries. Students made notes by hand, they made word-lists, and then they studied them and memorized them. This was my own experience of learning English in China. It was hard work for the users of dictionaries.

Saihong Li-Rasmussen

Click-on-knowledge conference May 2011, Copenhagen, Denmark

It is not until 1980s that English was taught as a major second language in major schools and universities in China. I was born in a small city with about 100, 000 residents in North-eastern part of China and started secondary school when English was first introduced there as a major subject in the Chinese curriculum. Our first English teacher - a very nice man - had been teaching Russian for several years and was sent to learn English for three months and then came back to teach us. (Russian was a major foreign language at schools in some parts of China from the 1950s to the 1970s). Our dear teacher, who spoke very good Russian, succeeded in teaching us 'apple' as a-p-p-l-e. Our second English teacher had learned English for almost a year, and was able to read some English. The idea of learning and teaching English was still nothing 'more than memorizing grammar rules and pattern drills.' The textbooks and the teachers were almost the sole authority for 'correct' English. Dictionaries were a luxury tool for studying English. Our greetings for class in English are, according to Chinese custom, 'Good morning, Teacher!' and 'Good morning, Students'.

Our senior high school English teacher, having learned English for almost two years in big cities, had gained so much confidence that she could speak English. She was able to teach us about English grammar, pattern drills and syntax, and she taught us to read English. Most importantly, we could read the text after her. I bought my first English-Chinese dictionary in 1984. In the mid 1980s in China, English became one of the major subjects for the university entrance exam. The year 1986/87 saw the introduction of multiple-choice questions in English exam. A lucky classmate of mine scored more than 60 percent by pure guesswork. For the majority of students, English was totally forgotten after they finished school.

In 1975, a bilingual English-Chinese dictionary - *The New English-Chinese Dictionary* – compiled by professors at Fudan University, was published in mainland China; it was the first English-Chinese to be compiled since the Communist Revolution of 1949. Since then, the study of English has become more and more popular; and English teaching has become more and more sophisticated. However, I had never really listened to or spoken to any (native) English speaker before I went to the university. Speaking English was becoming a dream for many people, including me. Inspired by my uncle, who had failed the English entrance exam for Luxun Academy of Fine Art, I decided to learn English, though I was more interested in Maths and Fine Arts at the time. The four-year extensive study of English at the university still took place in a teacher-centered classroom. For the first time, we had foreign teachers for oral English, though the rest of the English courses were taught by Chinese. In order to pass TOFEL, CET and other exams, we have to try to memorize every entry in the dictionaries. A dictionary, as the sole authority of 'correct' English, was never to be questioned, though many times I didn't know what the words really meant. I had, at that

Click-on-knowledge conference May 2011, Copenhagen, Denmark

time, trained my brain to work as a computer hard-disk to store the data. I actually first managed to speak some English after a whole year's hard work, including learning by heart from my big heavy dictionary from Oxford which I used mostly to look for syntactic and grammatical information. The first electronic dictionary appeared at the end of 1980s. It was expensive, and had functions only for searching for simple words: most of us preferred the printed dictionaries to the electronic ones.

The advent of computer typesetting techniques used in dictionary-making can be dated back to the early 1960s, when Olney and Revard keypunched *Webster's Seventh New Collegiate Dictionary* in 1963. In the late 1970s, the appearance of two machine-readable dictionaries – Oxford Advanced Learner's Dictionary and the Longman Dictionary of Contemporary English – brought a new concept of dictionary usage by providing users with help notes in print (Meijs 1992:143-145). The 1980s saw a radical innovation in computer-assisted and computer-driven lexicography. The COBUILD project led by John Sinclair brought the new concept of corpora into dictionary-making. Dictionaries were greatly improved by computer technology, in the creation of database or corpora, which are used to provide examples, collocations and frequencies, all based on 'authentic' records.

My first experience of using a computer was in 1994, the day when I started my MA in Applied Linguistics at Dalian Maritime University in north-eastern China. My supervisor, a representative of modern technology in the early 1990s, had taken two MAs: one in Linguistics; one is Computer science. With him, we learned how to become computer-literate. Thanks to being asked to type in six million words in order to set up the 'Maritime English Corpus' (a tremendous task about which I was very unhappy at the time), we learned to type blind on the keyboard. This was not laziness! As part of the requirement for our MA thesis, we learned to use SNOBOL4[1] to write a small programme to analyze our data: this was a requirement to complete our MA thesis. The four computers we could access at the English Department were all fourth generation so very slow. We ran the programme before we left the university, and it took 12-15 hours before we could get the results. Thanks to the computer skills that I had begun to learn in Dalian, in 2003, I compiled my first *TOFEL Vocabulary Dictionary* by collecting data from TOFEL exam papers since 1991 and used C++ – one of the most popular programming languages – to generate examples from my collected data to illustrate each entry.

The 1990s witnessed the proliferation of dictionaries published in both printed and electronic forms. The development of computer technology, at the end of the 20th century "was heralded by

---

[1] SNOBOL: (String Oriented Symbolic Language), a computer programming language, developed in 1960s and widely used in the humanities in 1980s in the US universities. Today its use has faded; C++, Perl, AWK and other programming languages have replaced SNOBOL.

Click-on-knowledge conference May 2011, Copenhagen, Denmark

some as ushering in a new era in lexicography. Although a computer can do well in the many tasks of great drudgery that are involved in building a dictionary—mechanical excerpting of texts, alphabetizing, and classifying by designated descriptors—it is limited to what a human being tells it to do" (Britannica). At first these dictionaries were versions of the printed text put in digital form. Then the digital version began to develop in ways suited to the medium, and without reference to the printed version. The third stage is when the digital version has a great influence on the printed dictionaries, until the printed dictionaries are no longer able to represent the features in the digital dictionaries. Meijs predicted in 1990 that 'printed dictionaries will be antiquated before the end of the century' (Meijs 1990: 69–70). This is not entirely accurate, though the full Oxford English Dictionary is no longer available in print. One-volume dictionaries for special purposes, including for language learners, still sell in print, even though they are not much used in the actual teaching process.

From 1991 to 2005, I was teaching English as a second language at universities in China. In 1990s, the teaching of English hadn't been changed that much from my time as a student: English teaching was mainly based on Chomsky's learning theory: stimulate and response. Teaching was still classroom centered; students were listeners, note takers and knowledge receivers. 'Dead and dumb English'; 'high score and low ability (especially in communication)' were phrases suggesting major problems in English study in China. Few students could actually speak to any native speaker. We failed completely in teaching the students to speak and learn English. Printed dictionaries remained as the leading learning resources. English monolingual dictionaries, such as Longman Dictionary, and various Oxford Dictionaries flooded onto Chinese markets. Meanwhile, many Chinese scholars started to compile their own bilingual dictionaries based mainly on the English dictionaries.

At the turn of the 21st century, the Ministry of Education in China launched a new campaign to reform EFL teaching by providing better technology and placing great emphasis on communicative skills. The situation has changed entirely. According to the recent statistics, there are over 120, 000 foreign EFL teachers working in China today. The universities started to hire more foreigners to teach English. We, the English teachers, were sent every year on courses to improve our standard of English and to learn new teaching methods, including those using digital technology. The teacher-centered classroom has been replaced by student-centered teaching. Topic-based, communication-based, content-based and task-based class models became the main goal of English teaching; Web-based teaching platforms, technologically equipped classrooms were used to support English teaching and learning. Teachers were required to learn and integrate Web technology effectively in class. The major problem in this process has been that there are too many students: 30 is called small class; sometimes we have over 70 students in one class. The efficiency of the technology has

Click-on-knowledge conference May 2011, Copenhagen, Denmark

changed the structure of teaching, but it does not mean that one teacher can supervise seventy students in one class, as often happens. Within the last 30 years, electronic dictionaries have developed to integrate PDA, MP3, Games, camera and even mobile functions. There is almost nothing you can not do with an electronic dictionary, though it is not always clear what the extra features and functions have to do with the dictionary. As I've said, computers have been used far more intensively and creatively in the generation of databases than in the actual editing of dictionaries: that is, making huge amounts of lexical information available in ways that are useful for various purposes, including learning a language.

Since 2005, I have been teaching Chinese in Europe, first in Denmark and now in the UK. Well-equipped with the modern technology, learning seems to be much easier nowadays. This is particularly true in the UK: Technology Enhanced Learning (TEL) is "any online facility or system that directly supports learning and teaching. This may include a formal VLE (virtual learning environment), an institutional intranet that has a learning and teaching component, a system that has been developed in-house or a particular suite of specific individual tools". E-learning strategy, inevitably, becomes the key criteria for evaluating language teaching in Higher Education.

Blackboard, used as a web-based virtual learning environment, at my own University, Salford, is an example of institutionally supported technology. With Blackboard, the lecturer is supposed to 'deliver course materials, deliver feedback, communicate and collaborate online though the use of discussion forums, chat and blogs'. Free training courses, both for the students and the academic staff, are offered each semester. For example, my students today could sit at home and download the teaching materials to their smart phones. The use of dictionaries is now almost entirely online, and most students complete their assignments online. You can just click on download, e,g. learn Chinese online for free. The recently released MYLO (MY language online: http://mylo.dcsf.gov.uk/) has provided not only the "learning to learn" materials but also quality assurance on the language learning content. Institutionally and politically the pressure to use computer technology is irresistible. As I said, computer technology has generated corpora and electronic texts, and these have contributed greatly to the contents of dictionaries. Yet radical innovation in the shape and organization of online dictionaries has been quite slow to develop. Students can easily access these online dictionaries through onelook.com, for example, where they can find definitions from 31 matching dictionaries. But that is not very innovative: it simply amalgamates and rearranges the information available in thirty existing dictionaries.

In conclusion, I'd like to ask Eliza whether an online dictionary is an advantage or a disadvantage in the learning of a language. Online dictionaries are very good for instant translation of short texts from any one language to any other, but this saves the user from troubling to learn

Click-on-knowledge conference May 2011, Copenhagen, Denmark

even a word or two of the foreign language. I said that when I learnt English my memory was turned into a hard-disk for the storing of lexicographical data. My English may still not be very good, but after twenty years the data on that hard-disk is still in working order, and it is mostly retrievable. Online learning may be a very efficient way of getting students through courses and programmes, but whether the language 'sticks' and provides a foundation for twenty years or more is a question that needs to be researched. The hard work of compiling word-lists and looking up each word in heavy dictionaries in crowded libraries, and then memorizing those words by repetition: all that drudgery may, in the long run, be more effective than our digital efficiency.