Past, Present and Future: From Traditional Language Laboratories to Digital Language Laboratories and Multimedia ICT Suites

Dararat Khampusaen
Language Department Faculty of Humanities and Social Sciences
Khon Kaen University, Thailand
dararat@gmail.com

Abstract - This paper discusses key trends in language lab development from approximately the 1950's to the present day. Besides offering a brief history of language-lab advancement, the digital revolution, and modern language-lab services, the author discusses roles, characteristics, features and functions of modern language laboratories that are needed by EFL teachers and students.

Keywords - Language Laboratory, Digital Revolution, Modern Foreign Language, ICT

1. INTRODUCTION

This article starts with defining terms necessary to be known by the readers. “Language laboratories” refer to audio or audio-visual devices used to aid teaching and learning in foreign languages [1]. These labs can be found in schools, universities, and academies. “Digital technology” is mostly used in USA while “Information and Communication Technology” is a more familiar term in the UK. This innovation has been recognized as an enjoyable learning tool that closes to students’ real life [2].

A book chapter, “Technology in the service of language learning: The case of the language laboratory”, written by Warren B. Roby [3] provides a clear picture of the movement of language laboratories from the past up to the present. The author reviews this work in order to understand the trends of language laboratory in these three periods.

Dating back to the late 1940s and early 1950s, language-learning services and facilities were considered a chief innovation and an important part of modern foreign language programs in secondary schools and universities. With the earlier views of language learning focusing primarily on the mastery of grammatical competence, language laboratories were aimed for students to gain auditory exposure to the target foreign language. After several decades, technological advancement offers such thing as the Internet. Students are provided with the opportunity to hear the language they are studying from native speakers via various learning resources (e.g., foreign television programming). Foreign language learning has moved away from memorizing dialogs and performing drills under the control of the teacher to processes such as interaction and negotiation from the use of pair work activities, role plays, group work activities and project work. Unquestionably, a large number of language laboratories around the globe are still in rows of booths with limited use in real life while it is clear that many technological aids can improve the teaching and learning. This paper discusses key trends in language lab development from approximately the 1950’s to the present day. Besides offering a brief history of language-lab advancement, the digital revolution, and modern language-lab services, the author discusses roles, characteristics, features and functions of modern language laboratories that are needed by teachers and students.
2. LANGUAGE LABORATORIES: PAST

According to Kitao [4], language laboratory has their root in United States of America since 1950s. He divided the history of the American language laboratory to five periods; namely, the beginning period, the establishing period, the developing period, the diminishing period, and the revival period.

A. Media

In 1950s, language laboratories were established to provide language training with advanced technology for language learners. Marketing was clearly a chief motivation driving this initiation. In early history, phonographs, a kind of record player was used to record sound and became a tool for teaching foreign languages in the nineteenth century. The first of them was established at the University of Grenoble in 1908 [5]. There were many innovations developed in this period. This includes the transistor portable radio in 1954, the stereo LP in 1958, the compact audiostream, the first home Sony video tape recorder in 1963, and Dolby Noise Reduction in 1968. However, until 1990s, labs’ main equipment was tape-based systems using reel to reel or (latterly) cassette. These early days’ innovations were recognized as a potent listening and speaking practice tool, for it could be played again and again. Thus student could practice their foreign languages as many times as they wished.

Later in 1920s, more advanced equipment such as tape recorders, movies, and television were developed for foreign language instruction in language laboratories. Freudenstein [6] viewed the strengths in using these innovative tools that learners were able to play the same model for multiple times. Thus they could be benefited from an unlimited number of practicing with native speaker voice. These devices never got tired while the teachers did. However, it was admitted that machines could not replaced teachers. In EFL classes, teachers played the model dialogues to students. Students mimicked and were evaluated by their teachers. Or students recorded their voices and gave it to teachers for evaluations and corrections by teachers. Textbooks were opened along with the recordings. Laboratories were recognized by a number of language institutions including Association for Language Learning Technology (CALLT), a professional organization.

B. Criticism

However, these original language laboratories (1970s-1980s) were heavily criticized on their reliability and effectiveness in teaching foreign languages. They were recognized unreliable because the systems were easy to break down. Moreover, the old days’ labs were designed to have no electronic systems in place for the teacher to remotely control the tape decks. Students had to learn how to operate the decks correctly. Another problem is there was no way to stop the tape running off the reel in fast rewind or forward wind. As a result, it unnecessarily took time in listening.

The traditional CALL (Computer Assisted Language Learning), used in the early 1980s was computer-based materials for language teaching requiring interaction between learners and the computer screen. Tasks are; for example, filling in gapped texts, matching sentence halves and doing multiple-choice activities. The CALL approach is still found on many published CD-ROMs for language teaching.

In sum, the core part of traditional laboratories was on correcting pronunciations, pattern practice, and repeating exercises. These laboratories had bad reputation due to effectiveness and greater chances of failure through misuse.

3. LANGUAGE LABORATORY: PRESENT

Since 1950s, language laboratories have well been developed. The old-style language labs that a teacher arranged the listening practice allowed with a hard-wired analogue tape deck based systems with 'sound booths' in
fixed locations are outdated [2]. During 2001-2007, portable music players became a great achievement of language laboratories. In fact, several of lab equipments have been replaced by more powerful devices. For example, videotapes were changed to be videodisks which can interface with a computer. Later, it seems that computers are also used for administration and evaluation the entire laboratories. In addition, Japanese language labs were recognized as one of the world best technology-integrated laboratories.

Due to advanced technology, today’s language labs can both work with these software only language lab solutions and deliver media synchronously. New language labs use the content that is much more affluent. These contents are self authored or free. These include audio, video, flash based games, internet etc. Student and teachers are more engaged with a high speed and variety of materials and activities. A fixed network has gone and teachers and students can now access and work from these new “cloud” labs. These labs refer to use of “network-based services, which appear to be provided by real server hardware, and are in fact served up by virtual hardware, simulated by software running on one or more real machines. Such virtual servers do not physically exist and can therefore be moved around and scaled up (or down) on the fly without affecting the end user -arguably, rather like a cloud” [7]. Cloud allows students and teachers work on their own devices at anytime and anywhere.

The rapid growth of technology in language education may due to the reason that our learners are growing up with technology. Thus they have naturally integrated it as part of their Jives. As these learners use technology to learn about the outside world. As a result, they partially boost up the growth of innovation. In language learning, there are currently a numbers of devices and methods that are “in” and used. The following section discusses some top leaning technology at present.

### A. Podcasts

Using a podcast is similar to listening to radio or watching a TV show. However, a podcast allows you to listen to or watch on a topic that interests you whenever you want to. To listen or watch, a user can download the content automatically to the computer using RSS, podcatching software.

![ESL Podcast](image)

Teachers can use podcasts to present extracts of authentic audiovisual material. Learners can download these materials from the internet. The content can be used both inside and outside the classroom.

Podcasts can also be easily produced by teachers, providing learners with supplementary pedagogical material that supports independent learning, revision, extension or “catch-up” material. The production of podcasts by learners has also been found to be a motivating and creative medium in the languages classroom.

Nowadays, technology helps teachers become podcasts content producers, providing learners with supplementary pedagogical material that supports independent learning, revision, extension or “catch-up” material. Similarly, learners can produce podcasts. Taking part in the production motivates them in the languages classroom. In addition, students’ production helps them to be creative and collaborative.
In a language classroom, students can be both learners (from others work) and also producers (for teacher and classmates). A teacher can simply record his/her teaching and upload. Those who miss that class or want to review the lecture can download the lecture podcasts for later listening on their computers or mobile devices. MP3s players are now available at low prices while PCS, laptops, tablets or smart mobile phones are common devices usually owned by most students. When podcasts are made available on the Internet, the teacher can direct their learners to them for self-study purposes or even use them for listening in class via a computer.

B. Blogs

Blogs have existed on the Internet since 1998. Later in August, 1999, Blogger, a free blog hosting service was launched. This fostered the rapid growth of blog sites [10]. Blog is an online personal journal that can be updated as frequent as the author wishes. Blogs are popular in several areas and that makes it no wonder education can’t afford to ignore. As blogs provide space and tools for writing, EFL writing can employ it as a powerful teaching tool.

Blogging, similarly to online chain discussion groups, is an easy way to engage in students’ writing to the classroom. It is an effective way to manage the lodgment, marking and return of student assessment with no fuss [11,12]. Blogging with Google’s blogger.com, LiveJournal.com, and WordPress.com is free and easy to set up, manage, and update without additional support. As many students are active users of Facebook, Twitter, hi5, they become familiar with blogging [11].

The rationale behind blogging is that it is very convenient for users to check changes once has done to his/her blog. While with other tools, a user needs to “check in” occasionally to see if there is any new content posted, blogs make use of a “publish-subscribe” model, in which the subscribers receive notifies when new content has been posted. In the writing classroom; therefore, blogs are qualified as a pedagogical tool [13].

In fact, use of blog in writing class can replace the cycle of steps in developing essay: brainstorming, writing, submitting, receiving feedback, revising writing, and resubmitting. Blogs clearly benefit the writing classroom. Blogs enable the instructors and students communicate through and about writing. Both sides easily update an online writing.

Even though the most common type of blog is kept by one person, who will regularly post comments, thoughts, analyses, experiences of daily life, interesting links, jokes or any other form of content, to a web page, most blogs will allow readers to comment on blog entries. Therefore, blogs can create an online community around a common topic, interest or person. In language teaching, blogs are considered as social software because they set up informal grassroots links between blogs and writers/readers of blogs.

Blogs benefit academic in several ways. In some universities, blogs were used to be a mean for exchanging of information with students in other countries. Edublogs are well-known blogs used in education. They offer a wide range of topics related to education (from musings on educational policy and developments to learner compositions). There are three types of blogs, according to their purposes. The tutor blogs are created by
the teacher to communicate with students regarding class activities. The student blogs are owned by the students as a personal blog or as a gateway to communicate with others. The last type of blog is class blogs. Students enrolling the same course may be assigned to use these blogs as a class project.

Blogs are particularly an effective tool in a writing class. Below are some sample activities can be done by using them.

**TABLE I**

ACTIVITIES THAT PROMOTE COLLABORATIVE WRITING [14]

<table>
<thead>
<tr>
<th>Activity</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration</td>
<td>Create writing tasks that take advantage of the collaborative potential of social networking tools such as Facebook’s status update or Twitter’s microblogging. Students could be asked to do quick shares by writing a status update in the target language at the beginning of each class or to tweet about cultural information they have gathered through searching the internet.</td>
</tr>
<tr>
<td>Create writing tasks that simulate real-world collaborative writing tasks, including the kinds of tasks that groups of professionals in workplace contexts might use to work on projects. Students can create, edit, and update entries in a wiki about an aspect of the target culture or another topic of interest.</td>
<td></td>
</tr>
<tr>
<td>Create writing tasks for low-level writers to collaboratively construct knowledge in managed spaces, including wikis, Google Docs, and blogs. Students can collaboratively construct knowledge through the collective definition of terms in a managed space, including aspects of the target culture or biographies of famous people.</td>
<td></td>
</tr>
<tr>
<td>Create writing tasks for higher level writers to actively contribute to real-world wikis and blogs. Students whose skills are advanced can contribute to real-world knowledge bases such as commenting on culturally themed blogs or correcting errors in entries in Wikipedia.</td>
<td></td>
</tr>
</tbody>
</table>

**C. Wikis**

Wikis and blogs are quite similar in some senses. They both require the EFL learners to write and share on the web pages. However, a wiki is different from a blog. A blog needs the blogger to work on them like an online journal or diary, allowing readers to add comments, which are then visible to the blogger and also to subscribers. Further comments can be made. A wiki differs from a blog in that it is started by one person as a public website, or public web page. Later, the subsequent visitors can work on the wiki by adding, deleting or changing as they wish. Thus a wiki is dynamic while a blog is static. With a wiki, many authors can share space. A wiki allows many authors to work together on the same piece of writing. A blog, on the other hand, show all posts chronologically.

*A blog and a Wiki*

Fig 2. shows how writing on a wiki is different from posting on a blog. Perhaps the most well-known wiki is Wikipedia (www.wikipedia.org) which is an online encyclopedia which allows several authors to edit, delete or add on the page. Thus Wikipedia is regarded a collaborative social software that displaying multiple authorship. In fact, it is not owned by anyone. As such, a wiki as an academic tool has always been argued on its accuracy. In foreign language teaching, however, a wiki has lent itself as a tool for collaborative writing. When changes are made to a web page in a wiki, old accounts of the page are automatically saved. This allows changes that are made, the person who have made them and time when changes are made to be recorded and seen.

A wiki can be used in the context of doing project work ranging from a simple low-level project (e.g., making a poster presentation about a famous person) to high-level (e.g., investigative work where learners research a subject and present polemical views and opinions in a report or debate).

**4. FUTURE OF LANGUAGE LABORATORIES**

While eLearning will undoubtedly be with EFL management, it is very difficult to say what the labs in the future EFL classes will be
like. In fact the question is whether language laboratories will exist. Observing the trend, media in EFL learning can be supported and delivered with digital technology rather than from physical language labs. EFL teachers need to reconsider if there is the need for a lab that provides physical space for equipment and materials, teachers and students. Or what we need is simply technology that allows, enables and manages the learning. If so, why don’t we start thinking about redesigning, reformatting and redefining the physical language laboratories, instrument, materials and lab managers to survive the future? Roles of teachers, students and technology need to be redefined and readjusted. Most importantly, the teachers must be at least able to match technology with their teaching philosophy, methodology, pedagogical objectives and learners. iTunes U is an example of EFL classes of the future. It can put an entire course in one app.

iTunes U
Your courses. Like you’ve never been able to teach them before.
How it’s going to work: just select the launchpad icon on your device and you’ll see your list of classes. Tap on a course to start watching lectures, note-taking, or in other ways to maximize your learning experience using the iTunes U app. (Close to available on platform. Note: requires a Wi-Fi connection when you’re not in class.)

Fig 3. iTune U [15]

iTunes U app allows learners to watch video or listen to audio lectures. Note-taking is synchronized with the lecture. Books and presentation are made available on the app. Class management can be entirely done on the app, e.g., both students and teachers can see a list of all the assignments for the course and check them off as they’re completed. In addition, when the teacher send a message or create a new assignment, students receive a push notification with the new information.

5. CONCLUSIONS

The nature of EFL courses have changed. Students mostly required to do project work, collaborative assignment and to interact with the outside world beyond the classrooms. The traditional language laboratories may thus be no longer needed. A teacher who can use digital pedagogical technology effectively, students who have a sense of empowerment for having learned the new technology, and recognize the importance of acquiring these skills in the digital age and excellent technology are key factors for the future EFL classes.

REFERENCES