Looping:
Using Technology to Empower
Autonomous Language Learners

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Prologue: The Vision

A group of students are in a classroom equipped with computers. They all have their microphones and headphones on. In the top half of the computer monitor, there is a window opened to *Audacity*. In the bottom half of the monitor, there is a window opened to a word processing program. All of the students are very focused and busy.

Some are practicing listening. They have selected a few seconds of their audio resource and are using the looping function in *Audacity* to listen to it again and again until they have understood it and typed it into the word document at the bottom of their computer. Others are practicing pronunciation with shadowing. They are repeating a selected audio loop again and again, striving for mastery of the sounds. They are using the text that they have written in the bottom window, but mostly they are concentrating on the physical feeling of the sounds in their mouths. When they stumble over a word,

Figure One: Looping Screen-shot
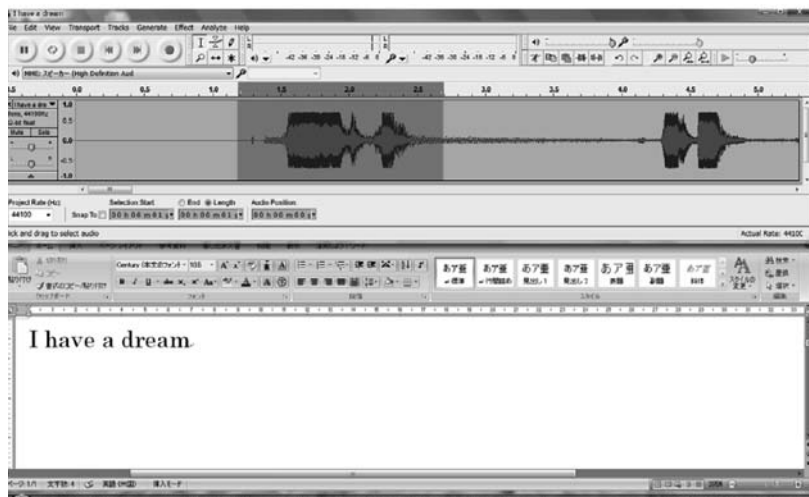
they try again. If the selected loop is too difficult, they split it in half and work with a shorter loop. When they have finally mastered one loop, they move on to another. The room is filled with different voices.

Some students are working with political speeches. Others are listening to interviews with their favorite musicians or athletes. The important point is that each student is working with an audio resource that they chose and recorded by themselves. All of them are working at their own pace with materials that they created.

Through this technique, they have taken control of their own language learning, and learned to interact with technology to most effectively meet their own language learning needs. They have been empowered to learn language on their own with just a computer, an internet connection, and a set of headphones with a microphone. They are learning a language, but far more

importantly, they are learning how to learn a language.

This vision was born in my subconscious mind over a decade ago, and I have been working towards it ever since then.

Introduction and background

Audacity is free audio-editing software available for download at http://audacity.sourceforge.net/ Many educators are aware of the potential uses of *Audacity* for language learning. An overview of *Audacity* as a language learning tool is available from the European Centre of Modern Languages (2011) and their Developing Online Teaching Skills project. Alameen (2007) also provides an informative review of *Audacity* and describes many potential uses for the software in the ESL classroom. For more technical aspects of the program, there are several internet tutorials on Youtube about how to use *Audacity* to manipulate audio resources for language learners (Drolet 2008), (McKay 2009).

This article is not intended as a general overview of *Audacity*, nor is it primarily focused on specific technical aspects of the software. This article is an explanation of the technique of looping, my experience as a student that led me to develop this technique, and my continuing efforts to implement looping as a teacher. This article also addresses my broader objective of using technology to empower autonomous language learners. I share these ideas with the hope that other students and teachers will be able to adapt, modify, and develop them to their specific learning and teaching needs.

What is looping?

Looping is simply working with small 3-5 second selections of audio

materials played in repeating loops. These loops can be used to practice listening and pronunciation. Looping can be performed with a CD player, MD player, or a computer media-player, but by far it is most efficiently and effectively facilitated with *Audacity*'s loop-play function. By using the selection tool, then pressing the play button in *Audacity* while holding down the shift key on the keyboard, learners can easily listen to the same loop of audio as many times as they like. Once the loop is engaged it will continue to play and learners are free to write down what they hear or replicate the sounds in their own voices.

Using a word processor to the write the text is also a potentially important part of the learning process. If learners are working with a very different typology from their native language, (English-speakers studying Japanese for example), it may be more efficient to type than write by hand. Thus more time is available to concentrate on listening and pronunciation. However, for learners unaccustomed to typing, use of the word processor may be less efficient. These learners must determine whether typing skills are a relevant learning objective. If not, they may be better suited by using the computer and *Audacity* for looping, but writing the text by hand.

The concept of listening to language and repeating it is hardly new. In this regard looping is similar to the audio-lingual method of the 1940s (Brown, 2001). However, looping is intended as focused listening and pronunciation practice within a broader spectrum of language learning goals. Another important distinction is that students are actively manipulating the audio resources to suit their own learning needs and proceeding at their own pace with materials of their own choice.

Logical integration of technology

Dr. Stephen Bax, one of the plenary speakers at the JALT CALL 2012 conference spoke about the normalization of technology. In his article *A first step to second nature,* Bax (2006) states

> … in our own thinking we need always to put the learning needs of our learners before the lure of technology, so that working on a computer becomes less special and at the same time less odd, but is more closely tied to actual syllabus needs.

In the case of looping, far from using computers for the sake of using computers, I began to use computers for language learning because they could most effectively facilitate a specific, pre-existing learning need. The computer and *Audacity* allowed me to do exactly what I had been trying to do with CDs, MDs, and standard computer media players for over a decade: looping short audio selections. When I first encountered *Audacity* it was as though I had been given a hammer after years of pounding nails with my bare hands.

Looping as a student

Before being aware of *Audacity*, as a language learner I acutely felt the need for a way to work with audio resources in manageable, 3-5 second repeating loops. Years before I began to use looping as a teacher of English, I began experimenting with the technique on myself as a student of Japanese. I wanted a way to practice listening and pronunciation on my own, at my own pace. I could not imagine a language teacher who could bear to repeat the same

phrases hundreds of times, but that is exactly what I needed. Thus, I began looping with the resources available to me at the time, a CD player and a text-book CD of conversations in Japanese.

Without looking at the text, headphones in my ears and my finger poised over the reverse scan button of the CD player, I listened to each word of the conversations. I had to laboriously scan back the CD to listen again and again. When I understood a word, I would pause the CD and write it down, then I would repeat the process for the next word. I wasted a lot of time listening to the discordant digital chirps of a CD scanning backwards. Also, while I was writing the CD was paused, disengaging me from the audio and shifting my focus back to the textual language. Despite these drawbacks I finally felt my listening skills improving, and I felt empowered by the simple realization that I could manipulate the audio resources to suit my own needs instead of just hitting the play button listening to a series of seemingly incomprehensible sounds.

I used a similar technique to practice pronunciation. I went back to the be-ginning of the conversation, and as the audio played, I attempted to mimic the words with the exact intonation and cadence of the recorded speaker. Each time I stumbled on the pronunciation of a single word, the fluent recorded con-versation continued on without me. I would scan the CD back and start over, first practicing short loops of specific words and phrases again and again then trying to put them together in longer loops. My facial muscles would often be exhausted after one of these sessions.

Now I am aware that various forms of shadowing are widely used in lan-guage learning and teaching. Professor Alexander Arguelles describes shad-owing as "listening to and simultaneously echoing a recording of foreign

language", and advocates shadowing while walking "outdoors as swiftly as possible" (Arguelles, 2010). My body remained stationary at a desk, but I clearly recognized the physicality of the language learning process in my shadowing. I also knew intuitively that this technique was helping me to improve. I was surprised and deeply satisfied when I finally began to hear phrases of fluent Japanese emerge in my own voice.

By focusing on very short pieces of sound and looping them to the point of mastery, I had stumbled upon a powerful language-learning technique. The CD player enabled me to repeatedly listen to short audio loops, but it was a very cumbersome device. While I knew that I needed a better tool to facilitate this technique of looping, I was eager to share it with my students even in its imperfect state.

Looping as a teacher

A few years later, I remember one of my first university English classes failing dramatically because I tried to get all of my students to mimic a conversation about a broken elevator. While the students looked on in obvious discomfort, I fumbled with the CD player, playing one line repeatedly. Often I scanned back too far or not far enough. I asked them to shadow these discordant and imperfect loops. The technology did not allow for seamless repetition of a particular loop and furthermore, the students were not interested in the content. I could be patient with inefficiencies in my own self-study because I had chosen the content and was in control of the sound. I realized however that my looping technique was not ready for the classroom. I changed my lesson plan abruptly and didn't return to looping until several months later.

When I learned about MD recorders I realized I could make 3-5 second

individual tracks by recording specific phrases from a CD. Then, I could create a loop by setting the track to play on repeat. This was a huge step forward from the days of looping with a CD player and I began looping with students again. The loops played seamlessly, but it was still hard to find content that would consistently capture the attention of all of my students especially when used so repetitively. It helped to use loops of hip-hop music and other authentic resources, but ultimately it was still content of my choice. Also, some students were able to understand and master the loops easily while for others it was much too difficult. There was no way for them to proceed at the pace best for them. Furthermore, I was doing all of the work in creating the audio resources. The students just saw me pushing buttons on a console and listened to a repetitive five second loop. They had no idea about how I was manipulating the sound, and very little control over their language learning. I wanted them to be using technology, engaging with audio materials of their choice, and learning about their own unique language learning processes.

In the following semester, I had a class in a computer lab, and I saw my chance to encourage autonomous learning by having students to experiment with looping on their own. I had the students find a podcast that they were interested in. Using the default media-player on the computers, students listened, and tried to write down what they heard. The media-player's scroll bar gave them a physical interface that enabled them to manipulate the sound as they needed, backtracking and listening again and again until they could make some sense of the authentic English materials. With the media player open at the top of the screen and a word processing program open at the bottom, students typed what they could understand. Everyone was working on material that they had chosen, at a pace that was appropriate for them. Advanced

students worked through several minutes and up to a page of text, while other students took several class periods to just get through thirty seconds and a paragraph. Because the contents were of their choosing, students were motivated to listen to them, but I still felt that the technology was not efficient enough. Much effort and time was spent scrolling back repeatedly and pausing the audio while they typed.

When I began to use *Audacity* to make my own teaching materials, I immediately saw its potential as a tool to facilitate looping and autonomous learning if it were placed directly in the hands of students. Audio materials appear visually on the screen, and students can select precisely the portion that they want to work with. Simply by pressing the play button while holding the shift key, they can listen to a perfect loop of the sound that will repeat endlessly until stopped. Even when students shift to the word processor to write down what they hear, the loop will continue playing in their headphones. I began experimenting with excursions to the computer lab, and at the time of this writing, one of my classes meets every week in the computer lab for an autonomous looping session.

The current state of looping

Implementing these ideas in the classroom has proven to be even easier than I expected. On one of my first classes in the computer lab I used a center monitor to display information to the students and also used the old-fashioned technique of preparing a handout. On the center monitor I had *Audacity* open in the top and Microsoft Word in the bottom (see *figure 1*). I created an mp3 file in which I recorded my own voice explaining what we would be doing in the class. "In this class we will be using computers to study English ..." I also

created a word document with the text of my recording.

The handout was sparse and was as follows:

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1. Turn on your computer and log on.

2. Open *Audacity*.

3. In *Audacity* open "Class explanation" (Computer ＞ S Drive ＞ wdecker ＞ Class explanation. mp3)

4. Open Microsoft Word.

5. Arrange your computer desktop so you can see both programs.

6. Listen and write down what you hear. Use the selection and looping function.

7. When you finish, check your work. (Computer ＞ S Drive ＞ wdecker ＞ Class explanation. doc).

8. Next, listen again and try to speak along with the recording. Use the selection and looping function.

<div align="center">Good luck！</div>

I modeled the technique by selecting the audio phrase "In this class ..." and looping it. While the three words looped repeatedly, I typed them into the word document at the bottom of the computer. When I was finished, I made the next selection, "... we will use ..." and repeated the process.

Most of the students quickly understood what to do and began working. Of course they progressed at different paces, some racing through while others were still trying to figure out how to open *Audacity* and configure their computer desktop. With most of the students focused on the task, I was free to help those who needed extra help, and happy to stay out of the way of the

students who were already working independently.

As some students completed the listening exercise, I modeled the pronunciation practice. Just as with the listening practice, I selected "In this class" first. Again, I pressed the play button while holding down the shift key and played the selection on loop. This time, instead of writing it down, I said it out loud, practicing again and again until I had the timing and intonation perfectly. Just to make sure the students understood, I modeled it again with a selection in Japanese so they could see me struggling in a foreign language. After my demonstration, everyone got back to work at their own pace, some going on to the pronunciation, some finishing with the listening exercise.

And that is the idea. I believe it is as simple as it is powerful. In subsequent classes, the students began searching the internet for materials of their own. By looping a cable from the headphone jack to the microphone jack, students were able to use *Audacity* to record materials from the internet. They chose these materials on their own, and they ranged from an Obama speech to an interview with Avril Lavigne. Sometimes *Audacity* froze, the computers crashed and had to be restarted, the cables went missing, or headphones and microphones behaved strangely. This class has almost never gone smoothly or as expected, but it is consistently a productive process of students actively and constructively engaging with technology and language. The freezing programs and crashing computers are an essential part of the learning experience. I want the students to see that this technology is not infallible, nor is it something to be either feared or worshipped. It is a tool to be harnessed to our own individual language learning needs.

With looping on a computer there are no user names, no passwords. There is no commercial language learning software to be installed. There is not a

placement test or a final exam. The learning process is far more important than any product or end result. Most importantly learners use technology for their own language learning needs. While learning language, they also learn about how to learn autonomously.

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   This article describes a teaching technique called "looping" which utilizes technology to empower autonomous language learners by giving them a way to practice listening and pronunciation with materials of their choice at their own pace. Using the free audio-editing software *Audacity,* language learners record an audio resource then work with this recording in short 3‑5 second audio loops by using the selection tool and the loop-play function. Learners listen to a single loop repeatedly until they are able to understand and write down what they hear. They use the same loop to practice pronunciation by shadowing the loop repeatedly until they are able to reproduce the words at the exact pace of the original recording. By understanding this language learning technique and the basic technological tools required to implement it, learners with access to a computer and an internet connection have a limitless supply of free self-study language resources. Furthermore, by actively engaging with technology to best suit their individual learning needs, students develop the skills to learn autonomously, and gain insight into their own learning process.