

リスニングと発音練習のための英語教育 オンライン・アプリケーションソフト

Online Applications for English Listening and Pronunciation Practice

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Abstract: This paper introduces web-based audio-visual applications developed by the author for students studying a foreign language. What each application is, why it was developed, its specific features and how teachers create the activities is explained.

1. Introduction

This paper introduces a series of audio-visual applications to help students study a foreign language. These applications were developed using Flash. Flash is a multimedia platform that was created by Macromedia and is now distributed by Adobe Systems. All the applications described in this paper allow the user to control the number of times each item is repeated. An “item” can be a full sentence or an individual word depending on how the author creates the data. The applications discussed in this paper are “Listen and Read Along” players and “Listen and Repeat” players. These Flash audio applications were developed from 2003 to 2009 by the author.

2. Listen and Read Along Players

What They Are

The “Listen and Read Along” players do just what the name implies. Students can listen while following the text on the computer screen. Words that cannot be understood by the student through listening can be read on the screen. Or students who can read well but are unsure of pronunciation, rhythm or intonation, can hear the text spoken.

Why They Were Developed

These Flash audio-visual applications were developed with specific criteria in mind. The first was to allow the listener to have control over the listening

and reading process. The second was to create an application that would allow teachers to quickly produce materials. The third was to create a web-based application that used minimal bandwidth to allow serving many users at the same time and to reduce the amount of time user needed to wait while the audio files were downloading.

Features of These Applications

Listeners can do any of the following.

- click to the next sentence
- click to the previous sentence
- set the number of times each sentence is repeated in the “hands off” mode
- set the number of times each sentence is repeated to “infinite,” and then move manually to the next sentence by clicking the forward button
- see the previous sentence, the current sentence and the upcoming sentence on the screen at the same time

How Teachers Create the Activity

To develop an activity, a teacher follows these steps.

- The teacher starts with a complete audio file.
- The teacher then splits the file into multiple MP3 files, each with one sentence or on phrase.

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- The teacher numbers the files consecutively. (1.mp3, 2.mp3, etc.)

The application uses these files and plays them in order.

The teacher has the option to input the text to be displayed on the screen in two different ways by choosing either the “Type 1” player or the “Type 2” player.

Listen and Read Along Player – Type 1

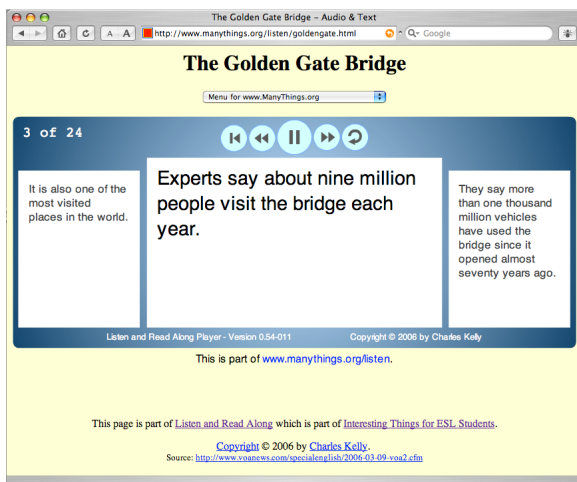


Figure 1: Listen and Read Along Player – Type 1
www.manythings.org/listen/goldengate.html

Features Specific to This Player

This application loads in the first MP3 file and as the student is listening to it the next file is being loaded. This means that the student can start listening as soon as the first sentence is loaded into the player. By only pre-loading one MP3 file at a time, the load on the web server is reduced. This is true because only the MP3 files that a visitor listens to are actually downloaded. It is often the case on the Web that visitors visit a page only to discover it is not what they are looking for, so they quickly move on to another page.

This application works well even with very long listening exercises.

How Teachers Create the Activity

- In addition to the steps outlined above, the teacher creates a text file with the sentences to be shown on the screen and this text file is included in the same folder as the MP3 files.

3. Listen and Read Along Player – Type 2

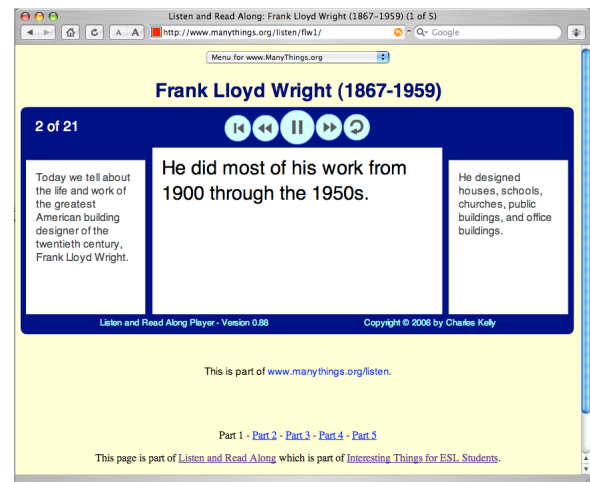


Figure 2: Listen and Read Along Player – Type 2
www.manythings.org/listen/flw1

Features Specific to This Player

This player preloads all the MP3 files. This results in smoother playing when the web server is serving many visitors or for visitors who have slower Internet connections. Preloading the MP3 files is ideal for listening exercises where excessive pauses may cause a problem, such as songs that need to be in tempo.

This player was developed to allow us to easily create online listening exercises using the MP3 files that we created for our students to use on iPods. These files have the text of what is being said in the “song title” tag of the MP3 file, which means students can read along while looking at their iPod screens.

How Teachers Create the Activity

- In addition to the steps outlined above, the teacher inputs the text of each sentence into the “song title” tag of the MP3 file.

4. Audio for ESL/EFL

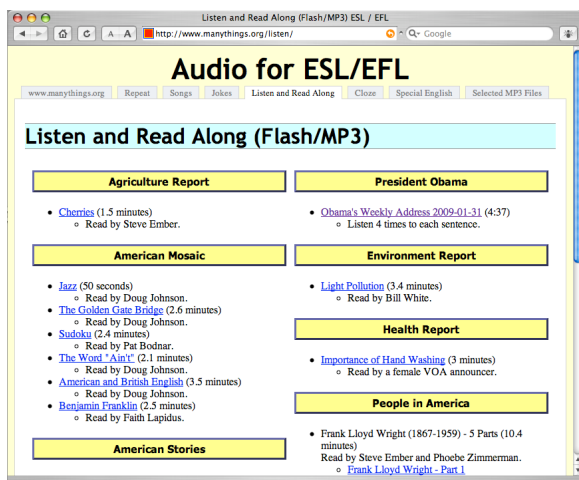


Figure 3: Menu Page: www.manythings.org/listen

This is the entry page for the “Listen and Read Along” section of the *Interesting Things for ESL Students* web site. On this page you can find links to many activities using the above two applications.

5. Listen and Repeat Players

What They Are

I have created various audio-visual applications to allow students to study vocabulary online. These “Listen and Repeat” players allow students to both see and hear each word. Some of these applications allow students to control the number of repetitions and the amount of pause between repetitions, thus are much more useful than straight audio files, audio CDs or recorded tapes.

Why They Were Developed

Students have been using recordings for years to study vocabulary words and their pronunciations. However, traditional recordings designed to be listened to on tapes or CDs do not take advantage of the many possibilities offered by computers.

Features

Since each English word and its Japanese definition are individual MP3 files, the program allows the following.

- Students can listen to the words in a different order each time. This makes listening more interesting and makes learning more efficient.
- Students can see the spelling as they listen.

- Students can set the number of times each word is repeated in the “hands off” mode
- Students can set the number of times each word is repeated to “infinite,” and move to the next word manually by clicking the forward button
- Students can click buttons to replay the previous word or to continue to the next word

6. Listen and Repeat Vocabulary – Type 1



Figure 4: Listen and Repeat Vocabulary – Type 1 (Password-protected within www.manythings.org)

Why This Was Developed

This player was designed to use the individual word MP3 files that were created for Aichi Institute of Technology students who were preparing to compete in an international robot contest. Similar to the MP3 described in the section about the “Listen and Read Along” player – Type 2, these MP3 files have the text for the English word in the “song title” tag and the text for the Japanese word in the “artist” tag.

Features Specific to This Player

The teacher can take any of the files that were created for students to listen to on iPods and use them. The teacher only needs to put the files into a folder on the web server. The player will play the audio and display the text on the screen for students to study from.

7. Listen and Repeat Vocabulary – Type 2

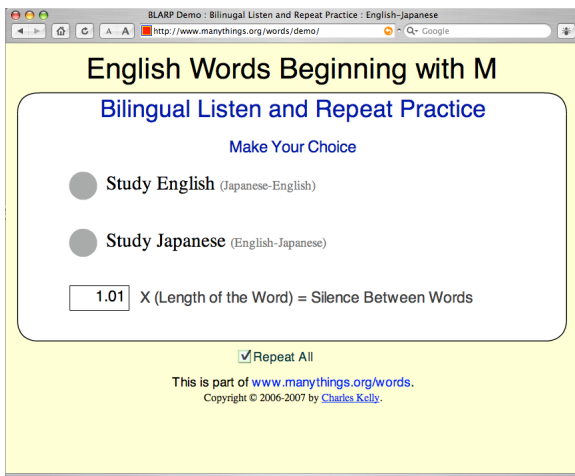


Figure 5: Listen and Repeat Vocabulary – Type 2 Opening Menu



Figure 6: Listen and Repeat Vocabulary – Type 2
www.manythings.org/words

Why This Was Developed

This was developed to allow closely-cropped MP3 files of words to be used. All pauses are generated by the application and are not part of the downloaded MP3 files. This greatly reduces bandwidth use.

In developing this player it was important to allow the same MP3 files to be used to study either language and to allow the user to decide in which order to hear the languages.

Features Specific to This Player

Students have considerable control over how they can listen to the audio. Students can choose which language comes first and how many repetitions of the target language to hear. In addition to this, students

are able to control the amount of silence that is inserted between the spoken words.

For the web server this application is very efficient. The word files are closely cropped to very small file sizes. The application inserts any needed silence between words, so files are served very quickly using little bandwidth. Repetition of the words reuses the MP3 files in the visitor's cache so puts no strain on the web server.

8. Listen and Repeat Vocabulary – Type 3

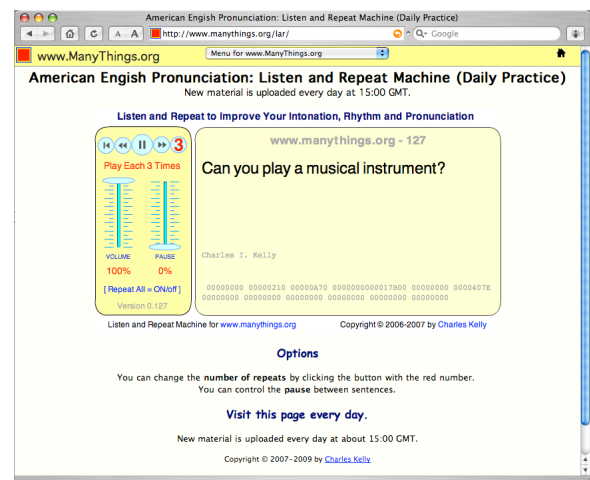


Figure 7: Listen and Repeat Vocabulary – Type 3
www.manythings.org/lar

Why This Was Developed

I wanted to offer daily audio practice to many web site visitors without causing excessive bandwidth use. This was accomplished by using closely-cropped MP3 word files, with pauses inserted by the application and by recycling the same MP3 files from the user's cache for repetitions. Not only is each word repeated, the whole group of words is looped so students can easily benefit from listening multiple times.

Features Specific to This Player

In addition to Flash, this uses PHP to deliver new content every day at midnight. Unlike podcasts in which each repetition and each bit of silence is part of what is downloaded, this application requires no download for the silence and each repetition recycles the same small MP3 file from the visitor's cache.

9. Adapted to Work Inside Moodle

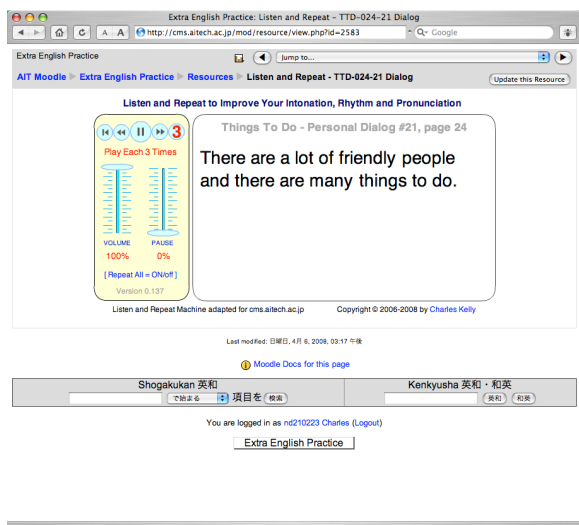


Figure 8: Listen and Repeat Vocabulary – In Moodle (Password-protected within cms.aitech.ac.jp)

Why This Was Developed

This was adapted for our university's Moodle site to allow teachers to easily deliver customized audio practice to our students. Since all material is only accessed by students who have logged in, there is no necessity to be concerned about excessive bandwidth use. This also allows teachers to offer files to their students that they may not wish to offer to the whole world.

Features Specific to This Player

Teachers can upload the necessary files to the Moodle server using the regular Moodle interface so they do not need to be on campus, which our firewall requires, to upload via FTP.

10. Listen and Repeat Vocabulary – Type 4



Figure 9: Listen and Repeat Vocabulary – Type 4 (Password-protected within cms.aitech.ac.jp)

Why This Was Developed

This was developed to allow the students to do the following.

- Listen to the English word without seeing it.
- Then have some silence in which to guess the meaning of the word or repeat the word.
- Then listen to the Japanese while reading the English and the Japanese equivalent.
- Then have some more silence to repeat the Japanese or say the English again.
- Then listen to the English three more times followed by enough silence to repeat the word again and again and again.
- (Continue to the next word.)

Features Specific to This Player

This is not an application, but is a template for a Flash movie. This Flash movie template requires considerably more work by the teacher to develop materials. However, it is a very effective way to study vocabulary.

11. Listen and Repeat Pronunciation



Figure 10: Listen and Repeat Pronunciation
www.manythings.org/pp/lnr/11-l.html

Why This Was Developed

This was developed to help students focus on one particular pronunciation feature at a time.

Features Specific to This Player

A student may click the play button to hear the whole list with each word repeated three times. Or a student may click any word to hear it individually. On the screen, the student sees the word in three different fonts. These fonts are not part of the download, but are the three default system fonts (serif, non-serif and fixed-width) on the student's computer. By using these default system fonts, the application file size is kept to a minimum while still allowing the student to see the word written in multiple ways.

When a word file is used that is already in a student's cache, it does not need to be re-downloaded. For example, a student may listen to "laugh" when studying the "L" sound, and on another page when studying the "F" sound.

How Teachers Create the Activity

The teacher can make multiple pronunciation practice pages, recycling the same MP3 files by editing a simple XML file for each page.

12. Listen and Repeat to Learn Songs

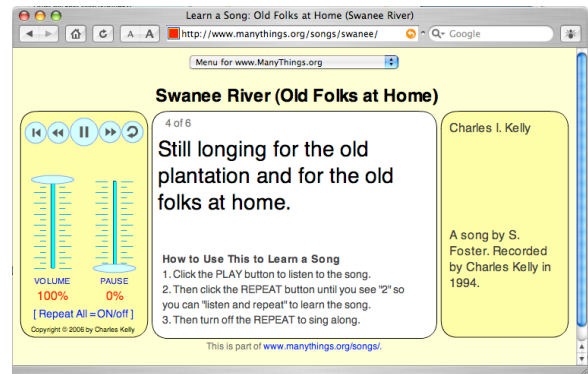


Figure 11: Listen and Repeat to Learn Songs
www.manythings.org/songs/swanee

Why This Was Developed

Singing songs is an enjoyable and an efficient way to improve one's pronunciation. This application helps students work on pronunciation and also helps students to memorize songs. By memorizing songs, the students can sing the songs from time to time to further practice pronunciation.

Features Specific to This Player

This player preloads all of the MP3 files so there is a smooth transition from one phrase to another. As with many of the other applications described in this paper, students have control over how many times a phrase is repeated and how much silence is inserted between repetitions.

References

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- www.manythings.org/words
- www.php.net

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