Digitalization and Education in the Context of COVID-19

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TEACHING ENGLISH PRONUNCIATION DURING THE COVID PANDEMIC

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Abstract. It is often pointed out that pronunciation instruction, unlike many other aspects of language learning, is a very physical activity. In teaching the pronunciation of a foreign language, face-to-face tuition with an experienced, phonetically trained instructor remains the best option. But the COVID pandemic and the shift to online teaching which universities in Bulgaria had to make virtually overnight about two years ago, forced course instructors to adapt very quickly both their teaching materials and resources as well as their teaching methods and practices to the new realities of life in / with the epidemic. The present paper addresses the question of teaching English pronunciation at tertiary level during the COVID pandemic. It discusses briefly the advantages and disadvantages of a number of digital resources which university students have found useful both in class and for individual work outside the virtual classroom on various segmental and suprasegmental aspects of the pronunciation of the foreign language.

Keywords: English pronunciation; digital resources; transcription; phonetics; phonology

1. Introduction

For many years, English pronunciation has been taught as part of a stand-alone practical course to fresher students at the Department of English and American studies of Sofia University. It currently lies at the core of the Practical Phonetics 1 and 2 courses which students attend during the first and the second semester of their studies at the department. The main goals and objectives of the Practical Phonetics course are:

(i) to make students aware of the major pronunciation problems encountered by Bulgarian learners of English in general, and of any such problems present in their own production, in particular; a related aim is to help students acquire the skill of transcribing English sounds, words and connected speech with the help of dedicated IPA symbols;

- (ii) to encourage students to choose a standard English pronunciation model and adhere to it in their own speech;
- (iii) to introduce students to some basic terminology, and thus prepare them for their forthcoming linguistics and phonology theoretical core courses.

While the first and, to a very large extent, the third of the above objectives have always constituted the core of the work in the course, the second aim is a more recent addition made in response to our students' interest in adopting an English accent other than the so-called "Received Pronunciation" model traditionally taught to learners in most parts of Europe, including Bulgaria (Dimitrova 2011).

Much of the teaching before the outburst of the COVID pandemic was in the form of the more-or-less traditional reading assignment, followed by an in-class presentation and a discussion, usually featuring some audio and video materials as illustration. Finally, during a class, practical pronunciation work was done by the students in their chosen accent, with the course instructor providing group or individual feedback if and when needed (This tertiary-level pronunciation course is taught by lecturers who, although they are non-native English speakers, are nevertheless well trained in the phonetics of the mother tongue as well as in the phonetics of both British and American English). The replacement of the old language lab with its tape recorders and audio cassettes by computers with pre-installed freely available programs for sound recording and playback and the possibility to digitize the practice materials available up until then only on tape, have provided the necessary technical prerequisites for pronunciation work in class with the help of materials which give students the freedom to choose the accent which they prefer (usually, either Received Pronunciation or General American). Finding suitable materials in the two accents which match the course's aims and objectives as well as the students' level of proficiency in the foreign language has been more of a challenge for the course instructors. Computer assisted language (pronunciation) learning has thus played a part in pronunciation teaching long before the pandemic, matching the increasing role of information and communication technology (henceforth ICT) in the field of phonetic science.

Outside the (university) English language classroom, the trend known as Computer-Assisted Pronunciation Teaching (CAPT) has witnessed the development of many commercial software programs whose aim is to help learners improve their pronunciation in the foreign language. A few examples are the Clear Speech app designed for Cambridge University Press for use on iPad by Prof. J. Gilbert and intended for intermediate-level learners of English, and Cool Speech developed by the phonetician R. Cauldwell (also for iPad) in the 2010's but no longer available. The Voice of America Learning English website lists some of the most popular English pronunciation apps currently available on the market¹). Godwin-Jones (2009) gives a list of the most popular speech tools and technologies at the time of publication of his paper. Unfortunately, apart from the

compatibility issue with devices other than iPad, such programs rarely address the specific pronunciation problems of advanced-level university students, as most of them are designed for beginner or intermediate-level students. In addition, the purchase of such software for classroom use is rarely deemed cost-efficient, given our universities' usually limited budgets. Given the limited use of such software in our own pronunciation teaching practices, we will have relatively little to say about it in the rest of the paper. Also, we are not going to review studies whose aim was to analyze the effect of CALL and CAPT on students' pronunciation improvement, mainly because the results reported in these studies are difficult to compare, and the participants' backgrounds are widely divergent (Calvo Benzies 2017 & Nguyen 2020).

2. Analysis and discussion

The outbreak of COVID had the dire consequence that universities in many parts of the world, including Bulgaria, had to start remote teaching almost overnight (Vazquez 2021). While the course syllabus and timetable of the Practical Phonetics course remained mostly unaffected by the change, the curriculum had to be adapted quickly to the new realities, including the course design, lesson plans and teaching methodology. The digitization of the printed materials which we used previously in class did not pose a problem, but the need arose for more web-based resources for teaching pronunciation. In particular, we searched for ICT tools and resources which could be integrated quickly and easily into the curriculum. Following Calvo Benzies (2017) and Walker (2014), we classify such technologybased materials for teaching and learning the pronunciation of English into several groups (i) pronunciation practice tools – software and other programs for helping students improve their pronunciation of segmental sounds and/or prosodic features, (ii) tools for transcription, and (iii) tools for recording. To these three, given our teaching objectives, we added a fourth group, namely, (iv) resources for teaching terminology and some basic phonetics theory.

2.1. Resources for pronunciation practice

As already mentioned above, the first group of resources includes a number of commercially available programs and apps. To our knowledge, Connected Speech from Protea Textware Pty Ltd. is one of very few resources of this kind which offer students a selection of advanced topics, including both segmental and suprasegmental aspects of speech, as well as three native English model accents to choose from: standard British Received Pronunciation, General American and Australian English (Figure 1). However, the limited options included in the online demos, the high price of the full versions (sold separately in the three accents) and difficulties in contacting the distributor were all factors which prevented us from considering the Connected Speech software for inclusion in our course.



Figure 1. The topic selection screen of Connected Speech

Another, albeit much simpler, commercially available app for practicing the pronunciation of isolated words which also gives the student a choice between standard British and standard American pronunciation, is the "Listen and Repeat" app (Figure 2) included in the Longman Pronunciation Coach on the CD that comes with the paper version of the Longman Pronunciation Dictionary. The pronunciation database has been incorporated into the rest of the Longman

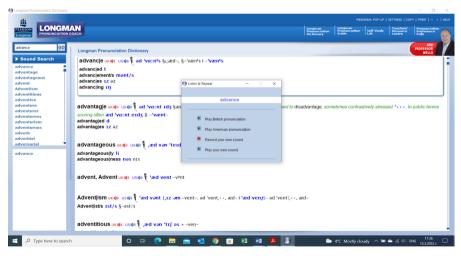


Figure 2. The "Listen & Repeat" option in the Longman Pronunciation Coach

dictionaries, so that for example, when using the online version of the Longman Dictionary of Contemporary English students can also listen to both of the standard pronunciations. However, the "Listen & Repeat" app is not available online²⁾. The Longman Pronunciation Coach also includes a "Self-Study Lab" section which can be used by the instructor as a source of class activities on word stress, syllable identification, sound recognition, reading transcribed words, etc. Thus, even though students cannot use the Coach for self-study work unless they have bought the paper copy of LPD, the course instructor can use it as an additional source of study materials for an online class.

The most easily accessible source of pronunciation practice materials thus turned out to be the pool of pre-digitized recordings which accompanied the coursebooks for the course. A further (for the time being – only potential) source could be the newly published "English Phonetics and Pronunciation Practice" (Carley et al. 2018) and "American English Phonetics and Pronunciation Practice" textbooks (Carley et al. 2020).

2.2. Tools for recording

The main challenge in using any materials for practicing pronunciation online is posed by the choice of an appropriate program for listening to the sound files and recording the students' own speech. In our course, the choice was between Audacity, Praat and the recording apps on the students' smartphones or computers. Audacity is a free cross-platform audio software which allows multi-track recording. Because it is easy to import sound files in Audacity, the program is a good choice for doing "listen and repeat" type exercises: students import the sound file, listen to it and imitate the native speaker while their production is recorded by the program; then they can listen again to both recordings and compare their pronunciation to that of the model. Audacity was the default program which was used in class, but in spite of the fact that students were already fairly familiar with it when the COVID pandemic started, many of them were reluctant to download and use it for individual pronunciation work during distance learning. They complained that they found it far too complex to work with, and most of the time they preferred to record themselves on their smartphones or computers. They also seldom used a dedicated microphone when recording themselves, thus background noise was sometimes abundant, preventing easy listening and evaluation of the recording, especially of the pronunciation of certain segmental sounds (the English "th"-sounds are a case in point). Another drawback of the Audacity software is that its display of pitch can hardly be used when teaching intonation. Our conclusion is that although Audacity is well suited to many of the practical exercise types used in a pronunciation class, it is best used in class under the supervision of the course instructor.

The other recording program which we used was Praat (Boersma & Weenink 2018) – another free computer software package which has been designed for phonetic speech analysis (Wilson 2008; Osatananda & Thinchan 2021). Today,

Praat has become the de facto standard software for the phonetician to use, therefore this was the preferred option by the course lecturers. Figure 2 shows how Praat was used for segmentation and labelling of the phonemes in several words in order to illustrate the phenomenon of "pre-fortis clipping" in English, where an underlying long vowel (in this example, the long /i:/ in "beat") was shortened, or "clipped" by the following fortis consonant /t/).

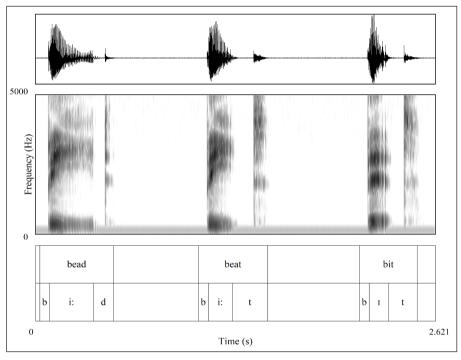
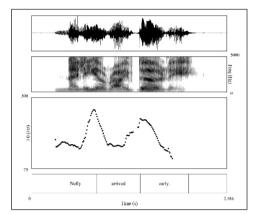


Figure 3. Pre-fortis clipping (shortening of the long vowel) in the English word "beat"

Of course, doing such speech analysis and segmentation is beyond the scope of aims of an introductory pronunciation course. However, it is worth considering using Praat for teaching intonation, as it can produce very neat pitch tracks. For example, in Figure 4 the sentence "Nelly arrived early" is pronounced with declarative (falling) intonation and with accents on the words "Nelly" and "early", as can be seen from the pitch track at the bottom of the figure. In figure 5, the same sentence is pronounced as a question, and the pitch track shows the rising intonation typical of this type of questions in English. Such visualizations can help learners to improve their command of English intonation.



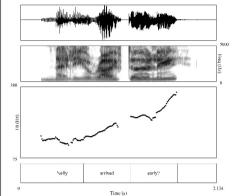


Figure 4. A statement with accents on the first and third words

Figure 5. A question with rising intonation

A major challenge relating to the use of software for practicing pronunciation online, this time faced by the course instructor, is giving appropriate feedback about the students' performance. In a remotely taught pronunciation course with large groups of more than 15 students in each group, this turned out to be a very time-consuming activity which involved downloading the students' recordings, listening to them off-line (with occasional glitches caused by format incompatibility), and going back online to type some comments on each student's recording. The opportunity for face-to-face discussion and explanation/demonstration of a problem as it occurs in the flow of speech is thus missing, which inevitably decreases the value of the tutor's post-hoc comments. Some recommendations for dealing with challenges of this kind can be found, for example, on the Cambridge University Press web site³⁾. However, some of them may be quite difficult to put into practice at a university whose online teaching platform is busy accommodating numerous classes attended by hundreds of students at the same time during the day.

2.3. Resources for transcription

Mastery of the skill of transcription has always been a goal of the Practical Phonetics course for first-year students at Sofia University. In the past few years, a number of free programs which convert an orthographic text into phonetic transcription have been made available online. One such popular tool is Text2Phonetics – a PhoTransEdit app.⁴⁾. It allows users to input up to 500 characters of English text, which is then automatically transcribed using the standard IPA symbols. The program claims to show the weak (reduced) forms of grammatical words which are used in connected standard English pronunciation, but in fact does not do this systematically for all function words in the flow of speech. It is not always

consistent in showing the differences between standard RP and GA, either. The output transcriptions can easily be exported to any kind of document which is a big advantage. Many students would use the program for their transcription exercises in spite of its inconsistencies, but its use is definitely not to be recommended, not only because it does not systematically show reduced forms, assimilations, differences between the standard accents, etc., but first and foremost because the "shortcut" from a written text to its pronunciation that it appears to offer does not encourage the systematic acquisition of the skill of transcribing spoken English.

An online keyboard for the quick input of symbols in a range of languages, including the option to transcribe English with IPA symbols, is provided by TypeIt⁵⁾. This app requires students to type their own transcriptions, making informed choices of the appropriate symbols for the purpose, and is used to enhance students' transcription skills from the very start of the Practical Phonetics course (Figure 6). It is their main transcription tool, as it enables them to quickly edit their transcribed text and to copy it to their document – an online transcription test sheet, a homework assignment, etc.

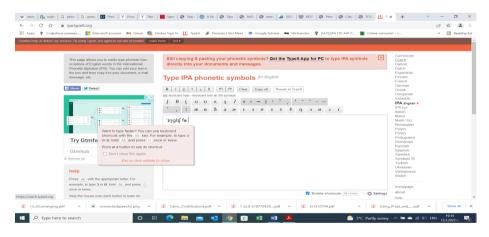


Figure 6. A prompt on how to use TypeIt.org in order to transcribe the phrase "English phonetics" faster appears in the app's main window

2.4. Resources for teaching phonetic terminology and theory

A tool which combines transcription with a description of the sound represented by the respective symbol and a recording of the sound is provided by the interactive chart on the site of the International Phonetic Association⁶.

The chart was one of the sources which was often used by students to check the phonetic descriptive labels for segmental sounds, such as consonantal place and manner of articulation, vowel height or rounding, etc.

Sounds of Speech is a tool available on the web site of The University of Iowa⁷⁾. It offers animations, videos, and audio samples that describe the essential features of each of the consonants and vowels of American English, Spanish, and German. As the home page of the tool itself claims, it is especially useful for students studying English as a second language. Until recently, Sounds of Speech used to be a popular choice for illustration of how each of the speech sounds of English is formed. Currently, however, the English part of Sounds of Speech is only available as a mobile app.

Seeing Speech is the result of the collaboration between researchers at six Scottish Universities⁸⁾. The two main resources available on the Seeing Speech website are (i) an introduction to ultrasound tongue imaging (UTI) and magnetic resonance imaging (MRI) techniques, and (ii) clickable International Phonetic Association charts of vowels and consonants with links to UTI, MRI and animated speech articulator videos. Although students are usually fascinated by these advanced imaging techniques, the tool is aimed primarily at students and researchers in the field of experimental phonetics.

The BBC Learning English – Pronunciation website which is available combines introductory information about the production of the sounds of English and the changes which they undergo in connected speech with pronunciation practice⁹⁾. It is thus especially useful at the beginner stages of the Practical Phonetics course when students are coming to grips with key phonetics terminology. The Sounds of English section of the web site features 45 short video clips which introduce students to all the consonant and vowel sounds in the English language and include listen and repeat activities as well. Tim's Pronunciation Workshop section "shows you how English is really spoken", focusing on the changes which sounds undergo in the flow of speech.

John Maidment's Speech Internet Dictionary (SID)¹⁰⁾ and Peter Roach's Little Encyclopedia of Phonetics ¹¹⁾ both provide concise definitions of technical terms used in phonetics, phonology, speech and hearing science and allied disciplines. Both give examples and illustrations of the terms, and in addition SID includes some links to sound clips. The dictionaries are recommended as quick reference tools for students who have already covered the basics of phonetics and phonology but need to refresh their understanding of basic terminology.

Last but not least, we must mention YouTube as an important source of materials for learning and practicing English pronunciation. It offers an overwhelming number of videos which claim to help students improve their English pronunciation, speak "more naturally", pronounce English "as it is really spoken", etc. The problem with many of these is that they have been made and posted by language enthusiasts without any proper training in phonetics and linguistics. The presenters often use non-specialist terminology which can be confusing and even frustrating for the fresher student. However, there is also

a considerable number of good, reliable materials such as the phonetics and phonology videos from the Virtual Linguistics Campus. ¹²⁾ The Virtual Linguistics Campus is an open e-learning platform for linguistics and educational technology hosted by the Linguistic Engineering Team of Marburg University, Germany. Although better suited to the needs of the theoretical phonetics and phonology student, parts of the videos, and especially the animations which they include, can be useful for the presentation of the sounds of English.

The Sounds American channel has been created by American English pronunciation enthusiasts who care about phonetics, phonic rules and all things related to American accents. ¹³⁾ The videos introduce students to the sounds of North American English and also contain practice exercises, therefore can be used for practicing the sounds of American English.

3. Conclusions

Although the COVID pandemic forced lecturers to make quick changes to the courses which they taught in order to adapt them to the new reality of distance education, these changes were often something which instructors have been planning, or at least contemplating, long before the start of the pandemic. In the case of online pronunciation teaching, the advent of ICT necessitates making constant alterations and additions to our curricula, as does the natural development and change of the accents which we teach. Keeping abreast of such developments was facilitated by the switch to online teaching, and many of the changes which we made to our curricula have ultimately proved to be beneficial to the students, even in the case of such a "physical" activity like pronunciation teaching and learning.

NOTES

- 1. https://learningenglish.voanews.com/a/try-these-apps-to-improve-your-pronunciation/5701888.html
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- 3. https://www.cambridge.org/elt/blog/2020/07/10/tips-for-teaching-pronunciation-online/
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- 12. https://www.youtube.com/channel/UCaMpov1PPVXGcKYgwHjXB3g
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