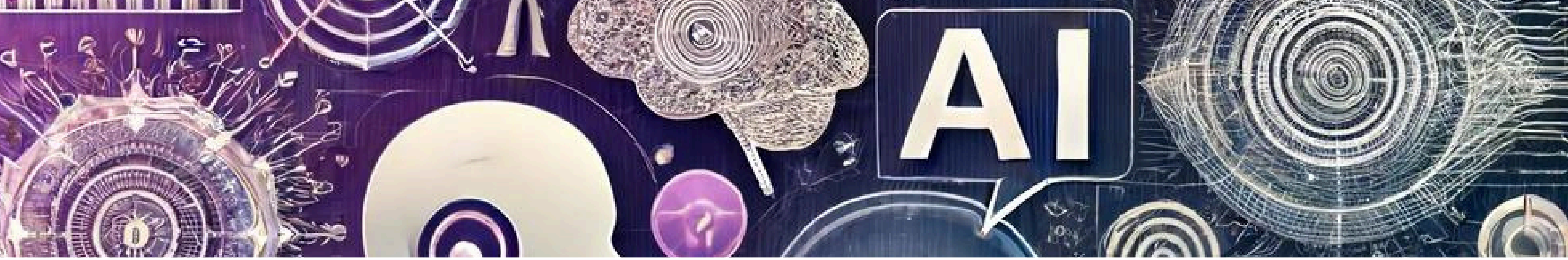# PRONSIG CONFERENCE 2024

Pronunciation and AI:

Will the AI revolution remove

the need for pronunciation teachers?

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12 OCTOBER 2024

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Welcome to the IATEFL PronSIG online Conference!

Discussions about AI's role in English language teaching are inescapable at present, as are concerns that it could ultimately replace teachers, or, at the very least, change our learning environments beyond all recognition. This is particularly visible in the field of pronunciation instruction, where voice recognition technology, automated learner feedback, and voice assistants are becoming increasingly common. While this may cause worry initially, we cannot ignore the potential benefits these developments could offer both learners and teachers.

Join PronSIG for this whole day conference as we discuss what the AI revolution could mean for pronunciation instruction.

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Beata Walesiak

What would it take for AI to Replace Pronunciation Teachers?

Thanks to its accessibility, personalisation and scalability, AI is currently flexible enough to support learners in self-studying, or help teachers design classroom materials requiring only minor corrections.

For AI to effectively replace pronunciation teachers, however, it would need to achieve, much more. Tailored pronunciation resources fitted to any CEFR level and age, personalized feedback on real-time speech matching the Communicative Framework for Teaching English Pronunciation, or detailed analyses of suprasegmentals leading to the "So what?" are just a few aspects AI would still need to get better at handling.

The talk aims to offer a perspective on the current role of AI in pronunciation pedagogy and comment on its future directions.
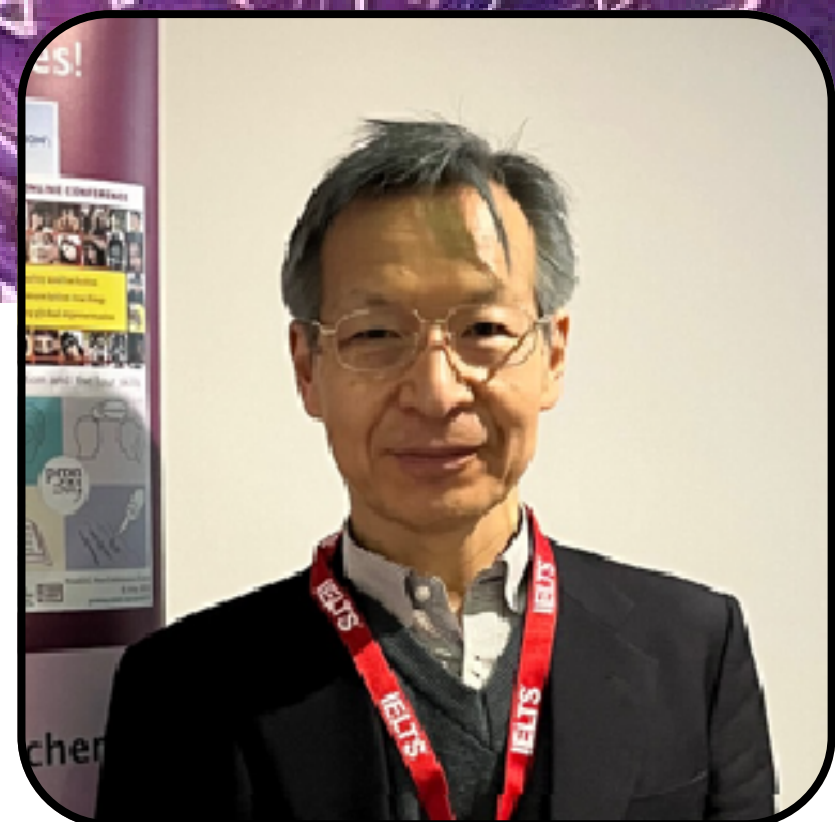
Beata Walesiak is a lecturer at Open University, University of Warsaw (UOUW), product launch lead at Lingcosms and teacher, teacher trainer & researcher linguist via unpolish.pl. She has cooperated with schools, academic institutions, and start-ups within the domain of educational technologies, (mobile-assisted) pronunciation training and AI-based speech pedagogy & assessment.

Nobuo Yuzawa

AI Technology as an Efficient Colleague, Not a Foe

Some learners are shy and worried about making mistakes in class. To overcome this, practising at home with AI technology can be beneficial. It provides detailed feedback by identifying pronunciation weaknesses and offers advice based on their goals, whether for limited or high international intelligibility, or any chosen accent. In this session, I will discuss the promising possibilities that AI technology offers for pronunciation learning as an efficient colleague for teachers.

Nobuo Yuzawa is a professor of English phonetics at Utsunomiya University, Japan. His research focuses on English intonation, teaching pronunciation, pronunciation models, and varieties of English accents.

Cemalcan Uslu

Behind the Code: Neural and Cognitive Effects of Voice Cloning

Voice cloning technology has become popular with the advancement of AI systems. Besides ethical considerations and public concern, recent research has addressed the neural aspects too. Researchers demonstrated that real human voices generate more cognitive effects, while cloned voices engage in error detection and attention regulation. This presentation will help teachers understand the ethical concerns and considerations behind using voice cloning technology in their pronunciation classrooms.

Cemalcan Uslu is a former research intern at TÜBİTAK, who has presented at many national and international events like the METU ELT CONVENTION and Falling Walls Lab. He is passionate about neurocognitive research.

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Stella Palavecino

Empowering Self-Directed Pronunciation Learning through AI

With the rise of AI, self-directed learning has become more accessible than ever. AI has revolutionized pronunciation lessons, allowing learners to independently practice and refine their oral skills without constant teacher intervention. In this presentation, the speaker will demonstrate how students can master pronunciation features through a "learning to learn" approach, supported by AI. The session will also outline the creation of a lesson plan that leverages AI tools to enhance learning outcomes.

Stella Palavecino is a teacher, a teacher trainer, ELT material writer, author, editor and consultant specialised in English Phonetics. She lectures in Phonetics and Phonology at teacher training colleges and translation programmes.

Maria de la Caridad Smith Batson

How Can AI and IPA Improve English Pronunciation Outcomes?

Poster presentation

The presentation explores advantages of using AI to renew English pronunciation instruction through IPA use. With such integration, English teachers can enhance pronunciation practice, provide feedback, and create engaging learning tasks. Bridging AI uses and traditional techniques aim at improving pronunciation outcomes in learners, the basis for that improvement lays on training teachers-to-be to plan it through English Didactics lessons.

Maria de la Caridad Smith Batson (University of Las Tunas, Cuba) is experienced in training English teachers, with an expertise in several areas of the curriculum. She has published extensively on teacher training, language education, and professional development.

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William Gottardi

In and Out of Class AI-based Pronunciation Activities

Teacher's Tip

This session demonstrates the use of AI-based Pronunciation Activities intended for use in second language (L2) English classes. The activities incorporate an AI-powered assistant, the free standard version of Google Gemini, to use its automatic speech recognition feature and instant feedback during the pronunciation practice. The prompts used for the activities will be presented and shared with the audience.

William Gottardi is a doctoral candidate at the Federal University of Santa Catarina (Brazil). His current research interests include digital technologies for pronunciation teaching and learning, CALL, and autonomous learning.
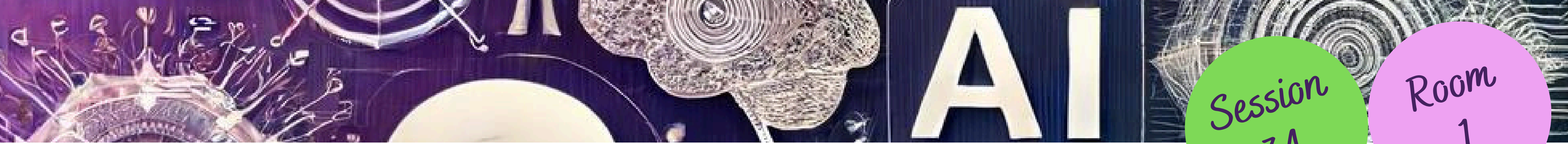
Anton de la Fuente

Streamlined Pronunciation Practice Using Automatic Speech Recognition, Text-to-Speech and Large Language Models

Tools session

I developed an app to make it easy to practice pronunciation. It uses large language models (LLM) to generate personalized phrases, which users repeat to match a text-to-speech (TTS) voice. The app provides intelligibility-based feedback using automatic speech recognition (ASR). Teachers can also assign phrases as homework, allowing students to practice independently and focus on specific challenges in class.

Anton de la Fuente is a software engineer with a PhD in theoretical physics. He currently lives in Japan and has developed an AI app to help his Japanese friends practice English pronunciation.

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Dr Syndhya, J.

Challenges in AI-Driven Pronunciation Instruction: Insights from Multilingual Contexts

This session aims to raise awareness about real-world challenges and practical difficulties when using AI tools for pronunciation instruction. We will discuss accent recognition limitations and their impact on language learning in diverse contexts, as well as data bias, and the need for context-aware adaptation. By sharing challenges, I hope to encourage educators to seek out AI and explore its potential.

Dr Syndhya is an Assistant Professor in Business Communication and Soft Skills. Passionate about EdTech, Flipped Classroom, digital storytelling, AI, and integrating technology in multilingual classrooms.

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Marina Palomo Martín

Exploring the Impact of AI on Spanish-Catalan Teenagers' English Pronunciation

This session explores AI's potential in teaching American English vowels to L2 Spanish-Catalan learners. It presents a study with 15-year-olds comparing two AI tools with traditional methods. Findings suggest that the AI tools used do not significantly improve pronunciation and that stimuli type affects AI comprehension, indicating that AI is not yet generally efficient enough for effective EFL pronunciation teaching.

Marina Palomo holds BA and MA degrees in English Studies from Universitat Rovira i Virgili. She wrote theses on neurolinguistics and pronunciation/AI and will soon begin a PhD in Neurophonetics.

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Anne Stoughton

Effects of AI-Assisted Self-Monitoring Training of Suprasegmentals on Speech Production

This presentation will discuss the results of a study exploring the use of an AI-assisted, self-monitored approach for prominence-based instruction in an EFL context. Two groups of learners received either AI-assisted (n = 32) or communicative-based instruction (n = 30) over a 5-week period. Results indicate improvements in intelligibility and stress appropriacy, along with higher motivation, for the AI-assisted training.

Anne Stoughton is a PhD student in Applied Linguistics at Northen Arizona University. She is interested in exploring how AI can be used to improve the speech of language learners.
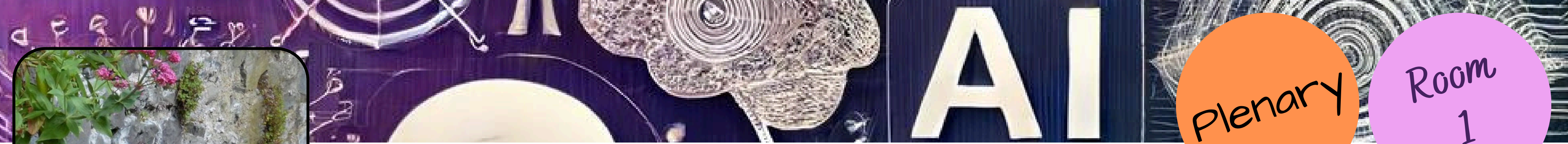
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Daniela L. Martino & Ana Maria Cendoya

AI as a Catalyst for Oral Skill Improvement

Integrating generative artificial intelligence into English as a foreign language instruction promises to be potentially useful in enhancing oral proficiency. AI technologies provide targeted support for improving segmental, suprasegmetal features and speech fluency. By using AI as a facilitator, collaborator and/or autonomous digital entity, teachers can design various tasks to provide students with individualized feedback and expanded practice opportunities.

Daniela L. Martino is a teacher of English, Sworn Translator (Universidad Nacional La Plata) and holds a Diploma in Higher Education and Technology. She is working on her Master's degree thesis in educational processes mediated by technology (UNC).

Ana M. Cendoya is a teacher of English (Universidad Nacional La Plata) and holds a Diploma in Higher Education and Technology. She is working on her Master's degree thesis in information technology applied to education (UNLP)

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Shannon McCrocklin

Surveying the gap between CAPT and STT programs: Can AI chatbots fill the void?

Although speech recognition has been established as a technology that can support pronunciation learning, there has been a problematic gap in programs' affordances. Computer-Assisted Pronunciation Training (CAPT) programs often must control learner speech to identify errors but are able to provide scoring and individualized feedback. Speech-to-Text (STT), or dictation services, can provide more flexibility in student-directed and meaningful production but only provide a transcript of speech from which learners must glean feedback. This talk will explore the potential of AI chatbots to close this divide, but also highlight challenges based on a recent analysis of the AI chatbot, Gliglish.

Shannon McCrocklin is an associate professor in the School of Languages and Linguistics at Southern Illinois University. She earned her Ph.D. in Applied Linguistics and Technology from Iowa State University. Her research focuses on second language acquisition of phonology, pronunciation teaching, and computer-assisted language learning.

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