

TLIC PAPER

AI Conversational Agents for Corporate Language Learning: Enhancing Engagement and Retention

Fernando Salvetti()
Barbara Bertagni,
Ianna Contardo

e-REAL Labs at Logosnet,
Turin, Italy – Lugano,
Switzerland – Houston,
TX, USA – New York, NY, USA

salvetti@logosnet.org

ABSTRACT

e-REAL Labs are at the forefront of language education innovation, integrating AI-driven conversational agents (avatars) to transform the learning experience. These avatars serve as interactive partners in a cooperative learning framework, engaging students in dynamic, real-life dialogues tailored to their proficiency levels. By fostering an inclusive and adaptive environment, they encourage active participation and facilitate group-based language activities, enhancing collaboration and communication. The AI avatars are pivotal in guiding learners through interactive problem-solving tasks, compelling them to negotiate meaning, resolve misunderstandings, and build linguistic competence through adaptive feedback. This immersive approach accelerates language acquisition and cultivates essential social skills such as cultural awareness, critical thinking, and teamwork. Through scenario-based interactions that demand cooperation, e-REAL Labs' AI-powered methodology ensures that every learner contributes to group success, creating a rich and engaging language-learning experience.

KEYWORDS

AI-driven conversational agents, cooperative learning, interactive language practice, corporations

1 INTRODUCTION: LEARNING LANGUAGES WITH AVATARS

To revolutionize language education, we present an innovative methodology developed at the e-REAL Labs that integrates AI conversational agents – or avatars and digital humans – into the traditional classroom setting [1]. Conversational agents lie at the core of a new educational approach focused on cooperative learning, where they act as both mentors and facilitators in group language activities. Our method goes beyond traditional rote memorization, embracing the interactive and dynamic nature of language learning through dialogue-driven exercises and collaborative frameworks. These AI agents communicate exclusively in the target language, providing learners with a unique opportunity to practice and enhance their skills through real-time conversations. They are designed to understand and generate

Salvetti, F., Bertagni, B., Contardo, I. (2025). AI Conversational Agents for Corporate Language Learning: Enhancing Engagement and Retention. *International Journal of Advanced Corporate Learning (iJAC)*, 18(3), pp. 60–69. <https://doi.org/10.3991/ijac.v18i3.52593>

Article submitted 2024-10-01. Revision uploaded 2025-02-10. Final acceptance 2025-02-17.

© 2025 by the authors of this article. Published under CC-BY.

natural language, adapting their responses to suit different proficiency levels and learning preferences. By engaging with these agents, students are immersed in a rich linguistic environment that pushes them to actively use the foreign language across various contexts and social scenarios [2].

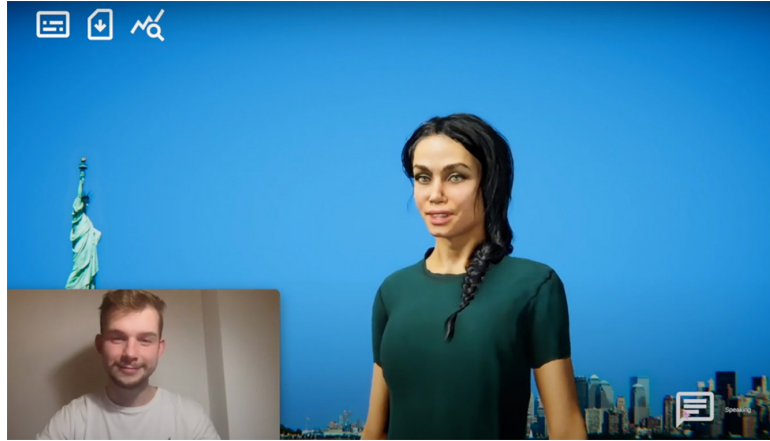


Fig. 1. Testing a conversational avatar performing as a tourist in New York, during the development phase at e-REAL Labs



Fig. 2. Testing the non-verbal and para-verbal performance of the conversational avatar during the development phase at e-REAL Labs



Fig. 3. Comparative testing of the verbal, non-verbal and paraverbal performances of multiple conversational avatars during the development phase at e-REAL Labs

The cooperative aspect of this methodology is twofold: the avatars encourage peer-to-peer collaboration as learners work together to communicate effectively, and they also promote an interactive partnership between humans and artificial intelligence [3–7]. This cooperative learning model cultivates a supportive environment where learners are encouraged to take risks, make mistakes, and learn collaboratively under the guidance of their AI companions. Our educational philosophy is grounded in the belief that language acquisition is inherently a social process. The AI conversational agents play a pivotal role within a learning ecosystem that emphasizes communication, cultural exchange, and the social aspects of language learning. By combining advanced technology with cooperative learning principles, e-REAL Labs establishes a new benchmark in foreign language education, equipping learners not only to master speaking skills but also to adapt to diverse contexts and engage confidently with the world [8].

2 COLLABORATIVE LANGUAGE LEARNING WITH EDUCATORS AND ARTIFICIAL INTELLIGENCE

The e-REAL Labs methodology represents a groundbreaking approach to foreign language education by integrating cooperative learning among students, instructors, and AI-driven conversational agents. This framework enhances the learning process by fostering an interactive environment where human collaboration and artificial intelligence work in synergy to optimize educational outcomes [9].

AI avatars are carefully designed to be not only functional but also engaging and interactive, ensuring that the learning experience is both effective and enjoyable. More than just digital tools, these agents act as approachable, relatable companions that students look forward to interacting with. By replicating natural conversational dynamics, the avatars encourage learners to step outside their linguistic comfort zones, actively using new language skills in a supportive setting. This approach helps reduce the affective filter—emotional barriers that can hinder language acquisition—creating a more conducive atmosphere for meaningful learning.

The cooperative learning model is a cornerstone of this methodology, emphasizing the collective efforts of learners working alongside both their instructors and AI agents. Trainers can facilitate group activities where AI-driven conversations play a central role, offering a rich and immersive context for language practice. These interactions not only enhance individual proficiency but also foster a sense of community, as students learn from both the avatars and their peers by engaging in discussions, providing feedback, and collaboratively solving linguistic challenges.

This triadic learning structure—bringing together learners, educators, and AI avatars—creates a well-rounded and inclusive educational environment. It accommodates diverse learning styles and offers extensive opportunities for practical language application, ensuring that students not only study the target language but actively experience it. By integrating advanced AI-driven conversational agents, e-REAL Labs is redefining the foreign language learning experience, equipping students with the confidence and skills to communicate effectively in an increasingly interconnected world.

3 DIFFERENT LEVELS OF LANGUAGE MASTERY, UNIVERSAL AND INCLUSIVE LEARNING APPROACH

The e-REAL Labs' initiative brings a real-time, immersive language learning experience into the classroom, artfully leveraging AI to facilitate a truly dynamic interaction. The e-REAL avatars are programmed to recognize and adapt to multiple language proficiency frameworks, including the Common European Framework of Reference for Languages (CEFR), as well as IELTS, TOEFL, ACTFL, ILR, and CLB/NCLC systems. This ensures that conversations are tailored to the user's language proficiency level, whether it be beginner (A), intermediate (B), or advanced (C), or its equivalent in any recognized system.

Here's a detailed breakdown of how the Common European Framework of Reference for Languages (CEFR) maps to other prominent language proficiency frameworks, including IELTS, TOEFL, ACTFL, ILR, and CLB/NCLC:

1. CEFR (Common European Framework of Reference for Languages): The CEFR has six main levels of language proficiency, divided into three broad categories:
A1-A2: Basic User
B1-B2: Independent User
C1-C2: Proficient User.
2. IELTS (International English Language Testing System): The IELTS is a widely recognized test for English proficiency, particularly for academic and immigration purposes. It scores on a scale from 0 to 9, and its bands map to CEFR levels as follows:
IELTS 4.0–5.0 ≈ B1 (CEFR)
IELTS 5.5–6.5 ≈ B2 (CEFR)
IELTS 7.0–8.0 ≈ C1 (CEFR)
IELTS 8.5–9.0 ≈ C2 (CEFR).
3. TOEFL (Test of English as a Foreign Language): The TOEFL iBT is another highly recognized English proficiency test, particularly in North America. Scores range from 0 to 120 and map to CEFR levels as follows:
TOEFL 42–71 ≈ B1 (CEFR)
TOEFL 72–94 ≈ B2 (CEFR)
TOEFL 95–120 ≈ C1-C2 (CEFR).
4. ACTFL (American Council on the Teaching of Foreign Languages): The ACTFL Proficiency Guidelines are used in the U.S. to assess foreign language skills. ACTFL has five proficiency levels: Novice, Intermediate, Advanced, Superior, and Distinguished. These are further broken down into Low, Mid, and High sub-levels for finer distinctions. The equivalence with CEFR is as follows:
Novice ≈ A1-A2 (CEFR)
Intermediate ≈ A2-B1 (CEFR)
Advanced ≈ B2 (CEFR)
Superior ≈ C1 (CEFR)
Distinguished ≈ C2 (CEFR).
5. ILR (Interagency Language Roundtable): The ILR scale is commonly used by the U.S. government to assess language proficiency, especially for foreign languages. It ranges from 0 (No Proficiency) to 5 (Native Proficiency). The ILR scale can be mapped to CEFR as follows:
ILR 1 ≈ A2 (CEFR)
ILR 2 ≈ B1/B2 (CEFR)

- ILR 3 ≈ C1 (CEFR)
- ILR 4 ≈ C2 (CEFR)
- ILR 5 ≈ C2 + (CEFR – Near-native proficiency).
- 6. CLB (Canadian Language Benchmarks) and NCLC (Niveaux de compétence linguistique canadiens): The CLB and NCLC are language proficiency frameworks used in Canada for English and French respectively. Both have 12 levels, which can be mapped to CEFR as follows:
 - CLB 1–4/NCLC 1–4 ≈ A1/A2 (CEFR)
 - CLB 5–8/NCLC 5–8 ≈ B1/B2 (CEFR)
 - CLB 9–12/NCLC 9–12 ≈ C1/C2 (CEFR).

CEFR Level	IELTS Band	TOEFL Score	ACTFL Level	ILR Level	CLB/NCLC Level
A1	N/A	N/A	Novice	0+	1-3
A2	N/A	N/A	Novice High/Intermediate Low	1	4-5
B1	4.0-5.0	42-71	Intermediate Mid/High	1+/2	6-7
B2	5.5-6.5	72-94	Advanced Low/Mid	2+/3	8-10
C1	7.0-8.0	95-110	Advanced High/Superior	3+/4	10-11
C2	8.5-9.0	111-120	Distinguished	4+/5	12

Fig. 4. Main language proficiency frameworks for English: Summary of equivalences

The e-REAL avatars can be designed to recognize and adapt to these language proficiency frameworks, ensuring that users’ language levels are accurately assessed and conversations are tailored to match their abilities. Whether the user’s proficiency is measured by CEFR, IELTS, TOEFL, ACTFL, ILR, or CLB/NCLC, the avatars will adjust accordingly to provide an appropriate and personalized conversational experience. This nuanced tailoring provides an inclusivity that allows students of varying linguistic capabilities to engage fully and progress according to their proficiency [10].

Our conversational agents are not just aligned with the European Framework of Reference for Languages but are also crafted to cater to the varied learning needs and preferences of a diverse student body, incorporating the principles of Universal Design for Learning (UDL). UDL advocates for the creation of instructional materials and activities that offer multiple means of representation, expression, and engagement, to remove barriers to learning. This is especially pertinent in language education, where students’ abilities can range across the spectrum of language mastery levels, from beginners (A) to intermediates (B), and advanced (C) learners [11–15].

By embedding UDL principles, the AI agents are designed to present language concepts in multiple ways, thereby ensuring that learning is accessible and effective for all students, regardless of their starting level. For example, beginners at level A may benefit from more visual aids and concrete examples, repetitive practice, and simplified language input. In contrast, advanced students at level C can be challenged with abstract concepts, nuanced dialogues, and opportunities to explore the cultural underpinnings of the language.

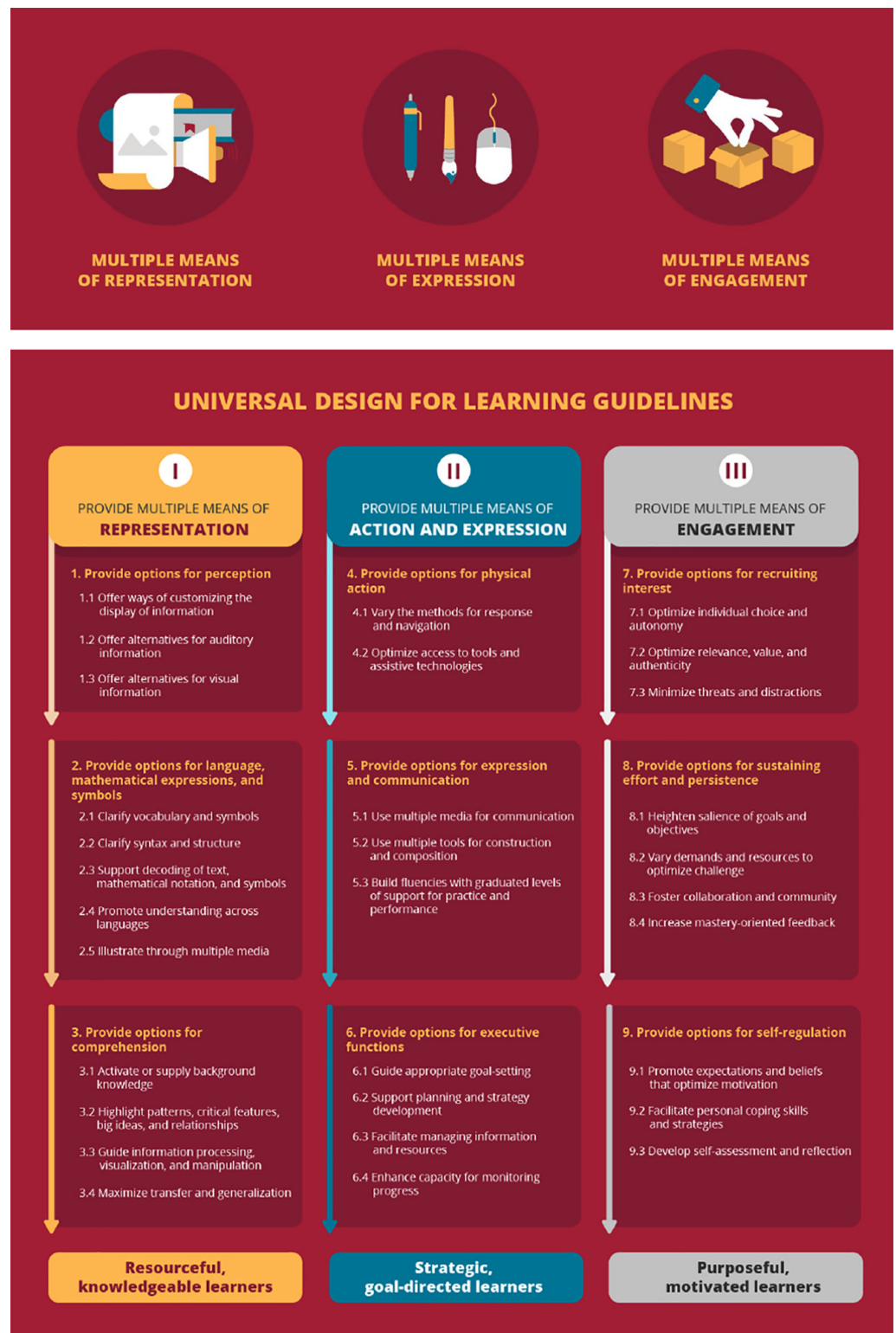


Fig. 5. Universal Learning Design (ULD) principles and guidelines

Adaptability is a cornerstone of effective language learning, and AI-driven conversational agents dynamically adjust the complexity of language in real-time to align with each learner’s proficiency level. This adaptive scaffolding approach is rooted in the concept of the zone of proximal development, which suggests that learning is most effective when it is just beyond the learner’s current ability. By striking

the right balance between challenge and attainability, these AI agents create a structured yet flexible learning path that fosters both confidence and progress.

Furthermore, Universal Design for Learning (UDL) principles highlight the importance of providing multiple means of engagement to sustain learners' motivation. To accommodate diverse learning preferences, AI avatars incorporate various interactive strategies, from gamified exercises that appeal to competitive learners to real-world problem-solving tasks that engage those who thrive in practical applications. This personalized approach not only enhances language acquisition but also respects the cognitive, cultural, and emotional dimensions of learning a new language.

The e-REAL Labs' commitment to UDL through AI-driven conversational agents ensures an inclusive educational environment where all learners can thrive. The interactive group experiences orchestrated by e-REAL prioritize collaboration and adaptability. AI agents facilitate discussions and activities that encourage peer interaction, self-reflection, and cultural exchange, reinforcing cooperative learning as a core pillar of the language acquisition process.

In this setting, AI avatars are not mere instructional tools but active participants in the learning journey, guiding groups through immersive scenarios that require communication, problem-solving, and negotiation in the target language. These scenarios foster complex behavioral and social dynamics, providing learners with authentic opportunities to practice linguistic skills. The result is a rich and engaging group learning experience that not only aligns with established language proficiency frameworks such as CEFR, IELTS, and TOEFL but also upholds UDL's goal of full and equitable participation for all learners.

By bridging the gap between static classroom instruction and the dynamic nature of real-world communication, e-REAL's conversational agents serve as catalysts for both linguistic proficiency and inclusive education. They make language mastery an engaging and attainable goal for all students, regardless of their starting proficiency or learning style [16].

STAGE 1 - DESIRED RESULTS		
ESTABLISHED GOALS	TRANSFER Students will be able to independently use their learning to...	
	MEANING	
	UNDERSTANDING Student will understand that..	ESSENTIAL QUESTIONS
	ACQUISITION	
	Student will know...	Student will be skilled at...
STAGE 2 - EVIDENCE AND ASSESSMENT		
EVALUATIVE CRITERIA	ASSESSMENT EVIDENCE	
	PERFORMANCE TASK(S):	
	OTHER EVIDENCE:	
STAGE 3 - LEARNING PLAN		
Summary of key learning events and instructions		

Fig. 6. Representative form for instructional design

4 AUTOMATED FEEDBACK AND TRACKING OF LEARNERS' PROGRESS

The e-REAL AI conversational agents represent a significant advancement in language education. They can also provide automated, instantaneous feedback on language competency and proficiency. This instant feedback is not simply corrective; it is a formative tool that supports the development of language skills in real time.

As a student interacts with the avatar, each response is evaluated not just for correctness, but for linguistic nuance, grammatical structure, vocabulary usage, and idiomatic expression.

These intelligent agents, by analyzing and understanding the nuances of human language, provide tailored feedback that aligns with the learner's current level of proficiency as described by the CEFR or similar standards. If a learner makes an error, the system not only identifies the mistake but also explains it in the context of the target language's rules and provides practical suggestions for improvement. This process mimics the nuanced feedback that would traditionally be offered by a human instructor, thus ensuring a supportive learning journey.

Furthermore, the e-REAL conversational agents are designed to track a learner's progress over time, offering insights into patterns in language development, which can be highly valuable for both learners and educators. By aggregating data across various interactions, conversational agents can identify areas of strength and weakness, enabling personalized learning pathways. This adaptive learning strategy ensures that the learning experience is not static but evolves with the learner, consistently challenging them and supporting their journey towards language mastery.

In the broader scope of language acquisition, this means that e-REAL's AI agents act as more than just tools for practice; they are intelligent systems that understand the learner's developmental trajectory, responding with contextually relevant, supportive feedback geared toward long-term language success. This capability positions the e-REAL AI conversational agents as more than mere technological assets; they become integral to the learning process, akin to a mentor guiding the learner towards greater language proficiency.

5 BRIDGING THE GAP BETWEEN TRAINING AND REAL-WORLD COMMUNICATION

A key innovation brought by AI conversational agents is their ability to simulate complex, real-world communication scenarios within the safety of the classroom. These AI avatars can seamlessly adopt roles such as tourists seeking directions, business professionals negotiating deals, or cultural ambassadors introducing local customs. By doing so, they create authentic conversational contexts that mirror the unpredictability and richness of everyday language use. This immersive experience challenges learners to think independently, adapt their language in real time, and engage with diverse social and professional settings.

Moreover, these agents enable learners to practice not just linguistic elements like vocabulary and grammar, but also more subtle aspects of communication, such as tone, body language, and conversational norms across cultures. For example, learners must decide when to use formal versus informal speech, adjust their language depending on the role they are engaging with, or navigate complex social cues. These pragmatic language skills, often difficult to teach in a traditional

classroom, are critical for real-life interactions and are crucial components of effective cross-cultural communication.

By fostering these realistic interactions, the AI agents serve as a bridge between theoretical language knowledge and its practical application in the outside world. They allow learners to rehearse and refine their skills in a supportive, adaptive environment where mistakes are viewed as learning opportunities rather than failures. This approach helps reduce the “affective filter,” or the emotional barriers that inhibit language performance, by encouraging students to step outside their comfort zones without the fear of judgment from peers or instructors.

Ultimately, this experiential learning approach equips students with the confidence and competence to communicate effectively in various multilingual environments. Whether in a casual social setting or a high-stakes professional context, learners gain invaluable practice that prepares them to navigate the linguistic and cultural challenges they are likely to encounter in real-world scenarios. Through the e-REAL system, language education becomes a dynamic process where lessons seamlessly transition into real-life applications, thus empowering learners to become global communicators.

Beyond traditional educational settings, e-REAL avatars hold immense potential in corporate training environments. The adaptability and real-time feedback of these AI-driven conversational agents are particularly suited to the fast-paced demands of professional learning. In corporate settings, where communication, negotiation, and cultural sensitivity are critical skills, these avatars can simulate high-stakes scenarios such as business meetings, cross-cultural negotiations, and team collaborations. Employees can practice and refine their language skills in an immersive, risk-free environment that mirrors the complexities of real-world professional interactions. The scalability of the e-REAL platform also ensures that training can be tailored to the specific needs of global organizations, accommodating different proficiency levels and cultural contexts. By integrating e-REAL avatars into corporate training programs, companies can foster a more effective, globally connected workforce equipped to navigate the challenges of a multicultural business landscape.

A representative conversational digital human to interact with is available by scanning the QR code below and then scheduling a meeting online:



Fig. 7. By scanning the QR code, an avatar will appear and after a short self-introduction will provide an online calendar allowing you to book a meeting to directly talk and test a conversational agent

6 REFERENCES

- [1] <https://www.e-real.net>
- [2] C. Herrero and M. Suarez, *Teaching Languages with Screen Media: Pedagogical Reflections*. Bloomsbury Publishing, 2023.

- [3] S. Thorne and S. May, *Language, Education, and Technology*. New York, NY: Springer, 2017. <https://doi.org/10.1007/978-3-319-02237-6>
- [4] C. O'Malley and P. Scott, "The role of artificial intelligence in educational contexts," *British Journal of Educational Technology*, vol. 26, no. 3, pp. 139–160, 1995. <https://doi.org/10.1111/j.1467-8535.1995.tb00136.x>
- [5] M. M. Mariani, N. Hashemi, and J. Wirtz, "Artificial intelligence empowered conversational agents: A systematic literature review and research agenda," *Journal of Business*, vol. 161, p. 113838, 2023. <https://doi.org/10.1016/j.jbusres.2023.113838>
- [6] J. M. Lodge, S. Yang, L. Furze, and P. Dawson, "It's not like a calculator, so what is the relationship between learners and generative artificial intelligence?" *Learning: Research and Practice*, vol. 9, no. 2, pp. 117–124, 2023. <https://doi.org/10.1080/23735082.2023.2261106>
- [7] E. Koh and S. Doroudi, "Learning, teaching, and assessment with generative artificial intelligence: Towards a plateau of productivity," *Learning: Research and Practice*, vol. 9, no. 2, pp. 109–116, 2023. <https://doi.org/10.1080/23735082.2023.2264086>
- [8] H. Jarvis, "Digital residents: Practices and perceptions of non-native speakers," in *Advances in Digital Language Learning and Teaching*, Bloomsbury Academic, 2018.
- [9] F. Salvetti and B. Bertagni, "Enhancing inclusivity in interviewing: Harnessing intelligent digital avatars for bias mitigation," in *Advances in Digital Transformation – Rise of Ultra-Smart Fully Automated Cyberspace*, E. Babulak, Ed., London: IntechOpen, 2024. <https://doi.org/10.5772/intechopen.1004393>
- [10] Council of Europe, "Common European framework of reference for languages: Learning, teaching," Assessment, Cambridge University Press, 2001.
- [11] Cambridge English Language Assessment, "The Official Cambridge Guide to IELTS," Cambridge University Press, 2013.
- [12] ETS, "The Official Guide to the TOEFL Test," McGraw Hill Education, 2012.
- [13] ACTFL, "ACTFL Proficiency Guidelines 2012," 2012.
- [14] ILR, "Interagency Language Roundtable Skill Level Descriptions," U.S. Government, 2006.
- [15] Centre for Canadian Language Benchmarks, *Canadian Language Benchmarks: English as a Second Language for Adults*, 2012.
- [16] D. Rose and A. Meyer, "Teaching every student in the digital age: Universal design for learning," Association for Supervision and Curriculum Development, 2002.

7 AUTHORS

Fernando Salvetti is with the e-REAL Labs at Logosnet, 10014 Turin, Italy; 6900 Lugano, Switzerland; Houston, TX 77008, USA; New York, NY 10013, USA (E-mail: salvetti@logosnet.org).

Barbara Bertagni is with the e-REAL Labs at Logosnet, 10014 Turin, Italy; 6900 Lugano, Switzerland; Houston, TX 77008, USA; New York, NY 10013, USA.

Ianna Contardo is with the e-REAL Labs at Logosnet, 10014 Turin, Italy; 6900 Lugano, Switzerland; Houston, TX 77008, USA; New York, NY 10013, USA.