

DC4LT

Technologies, Resources, and Practices for Language Teachers

A Toolkit

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Report

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Summary

Technologies, Resources, and Practices for Language Teachers: a Toolkit is an overview of 20 technologies commonly used in computer-assisted language learning. For each of these technologies, the toolkit contains examples of tools and their application for teaching four basic language skills of speaking, writing, listening and reading. The toolkit also contains examples of open educational resources where applicable and Open Educational Practices. Finally, most of the technologies are supplied with teacher education materials. The following technologies are included:

1. Educational games and gamification
2. Online video and audio
3. Social networking
4. Instant messaging
5. Electronic dictionary, glossaries or annotation
6. Course management systems
7. Collaborative writing
8. Automated feedback
9. Intelligent tutoring systems / chat bots
10. In-class tools / clickers
11. Virtual Reality
12. Voice recording and Speech recognition
13. Websites and digital resources
14. Digital libraries
15. e-Books
16. White boards
17. Online courses / MOOCs
18. Wearable Technology
19. Augmented Reality
20. Robots

This document can be used as a handbook, as the information provided for each of the technologies is concise. At the same time, the toolkit refers to multiple external resources and can serve as a gateway for further learning.

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Introduction

This toolkit provides an overview of tools, open resources, practices and teacher training materials on 20 technologies commonly used in computer-assisted language learning. The selection of the 20 technologies was inspired by a recent review of research studies in the area¹.

The practice of using each technology in this toolkit is presented separately for the basic language skills of speaking, writing, listening and reading. This key element of the toolkit was inspired by The Handbook of Technology and Second Language Teaching and Learning².

An early version of this toolkit has been designed in a form of a webinar:

More about the webinar: <https://www.dc4lt.eu/technology-overview-for-language-teachers/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrolment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/MjY4NzY2MzI2MTUx>

Video: <https://youtu.be/D1sR2Ek8ovU>

How to use the Toolkit

For most of the 20 technologies, the information in the toolkit is structured in a similar way and includes six parts. This aims to simplify the use of the document and make it clear what materials can be found under which title. The nature of some of the technologies and other factors made it impossible to include all six sections for all presented technologies.

For the technologies in this toolkit, we provide:

1. A brief and simple definition of the technology
2. A table with a brief description of the use of the technology for training the basic language skills of speaking, writing, listening and reading
3. Tools: A list of tools that implement the technology in language learning. The tools in this list are examples that include both those dedicated to language learning and general-purpose tools that can be adapted and used for language.

¹ Review of Studies on Technology-Enhanced Language Learning and Teaching <https://www.mdpi.com/2071-1050/12/2/524/htm>

² <https://www.wiley.com/en-us/The+Handbook+of+Technology+and+Second+Language+Teaching+and+Learning-p-9781118914038>

4. Open Educational Content: Examples of OERs that utilize the technology - material for language teachers that can be directly used for teaching
5. Open Educational Practices: Examples of practices how this technology can be used to teach languages - material for language teachers
6. Teacher training: examples of how to teach the teachers about this technology - material for teacher trainers

References to the inventory of ICT tools

In the process of designing this toolkit, we have explored a number of resources to identify useful and easily accessible tools, resources, and practices that could efficiently support language teachers in their daily teaching challenges. One of the most valuable platforms that could help language teachers in discovering digital tools and integrate them in their teaching practice is the ‘Inventory of ICT tools’ platform³ which was created in the context of the ICT-REV project and continues to be supported by the European Center of Modern Languages (ECML). The tools in this inventory are carefully selected and evaluated based on specific criteria (*Added value, Usability, Interactivity, Technical requirements*). The inventory is frequently updated.

What makes this inventory stand out is the fact that all these tools have been evaluated by language teachers and language experts. For that reason, we decided to refer to the tools in this inventory in the current toolkit. Other tools that are not yet included in the ‘Inventory of ICT tools’ platform were recommended by our team and might appear there soon.

Examples of open content

Sharing knowledge and good practices was and continues to be highly important for all language teachers especially now with the advent of so many technological tools. Technology can really support and facilitate the culture of sharing open content between language experts and teachers across Europe and worldwide. During the last decade, various movements have been initiated in order to support and promote Openness in Education and new terminologies have emerged such as *Open Educational Resources (OERs)*, *Open Educational Practices (OEPs)* and more.

UNESCO (2017) defines OERs as “any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them”⁴. *Open Educational Practices (OEPs)* refer to educational and teaching practices

³ <https://www.ecml.at/ECML-Programme/Programme2012-2015/ICT-REVandmoreDOTS/ICT/tabid/1906/Default.aspx>

⁴ UNESCO Ministerial Statement 2nd World OER Congress, Ljubljana, Slovenia, 2017: https://en.unesco.org/sites/default/files/oe_congress_2017_ministerial_statement.pdf

based on creating, using, re-using and sharing OERs⁵. It is highly important for language teachers to know where to search, how to discover and how to use, create as well as share language OERs. It is also necessary to be able to understand the meaning of licenses because in this way they will know what rights they have to use each OER. Some of the examples of OEPs are described following the template designed to describe Open Educational Practices in language teaching and to publish them with an open Creative Commons license⁶.

⁵ Economides, A. A., & Perifanou, M. (2018). Dimensions of openness in MOOCs & OERs. DOI: [10.21125/edulearn.2018.0942](https://doi.org/10.21125/edulearn.2018.0942)

⁶ Open Educational Practice Template for Computer-Assisted Language Learning <https://www.dc4lt.eu/wp-content/uploads/2021/10/Open-Educational-Practice-Template-for-Computer-Assisted-Language-Learning-by-DC4LT.docx>

Educational games and gamification

Educational games (also referred to as Instructional or Serious games) are games explicitly designed with educational purposes. They are made to help people learn about certain subjects or assist them in learning a skill as they play.

Gamification of learning is an educational approach to motivate students to learn by using video game design and game elements in learning environments. The goal is to maximize enjoyment and engagement through capturing the interest of learners and inspiring them to continue learning. The concept of gamification emphasizes the added pedagogical value of fun and competition.

Speaking	Writing	Listening	Reading
	<p>In the context of online games, writing mostly implies input of single words or short phrases. Alternatively, a teacher may enhance students' critical thinking and argumentation skills by launching an online debate platform.</p> <p>Games with strong digital storytelling components motivate students to use diverse vocabulary.</p> <p>Examples: Duolingo, Kialo, Scrabble Online, Bubblr</p>	<p>In digital educational games, students may interact with each other via avatars or with the programmed AI that recognizes a student's speech or comment on their actions. These kinds of games are usually tailor-made for a specific institution or educational programs (Serious games).</p> <p>Examples: Ren'py</p>	<p>Memorizing terms and grammatical structures while participating in quizzes.</p> <p>Examples: Quizlet, Kahoot, Mentimeter, Quizizz, Wooclap, Ren'py</p> <p>Best practices: on LearningApps you may find many apps created by teachers from all over the world, and create your own</p>

Tools

If you are planning to gamify your language teaching or use educational games, the following tools can be a good start.

Duolingo

Duolingo is one of the most popular language learning apps. The learning process is gamified <https://www.duolingo.com/>.

Duolingo at ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/168/language/en-GB/Default.aspx>

Kialo

This tool enables the students to participate in digital debates and visualizes collaborative decision-making <https://www.kialo.com/>.

Scrabble

The Internet Scrabble Club (ISC) is a website that allows players around the world to play Scrabble through a web interface. Players start games either by sending or accepting a "seek," or sending or accepting a match request <https://www.isc.ro/>.

Bubblr

Bubblr is a community where people can create comic-strips (photonovels) using photos from flickr, just taking a sequence of pictures where you can add bubbles and create a story <https://www.pimpampum.net/en/project/bubblr-2/>.

Ren'Py

Ren'Py - a visual novel engine, that helps you use words, images, and sounds to tell interactive stories that run on computers and mobile devices. These can be both visual novels and life simulation games. The easy to learn script language allows anyone to efficiently write large visual novels, while its Python scripting is enough for complex simulation games <https://www.renpy.org/>.

Open Educational Practices

Digital Interactive Games

Abstract: Ren'Py based digital interactive games are a flexible way of integrating educational principles and game design. It can easily be used in face-to-face or online settings. Ren'Py relies on virtual reality to produce an immersive experience that greatly contributes to learners' motivation for learning. As a tool it can help teachers design assignments to focus on a deep exploration of content through design thinking and play.

Besides enhancing the practice of the four main competencies - listening, speaking, reading and writing - storytelling teaches vocabulary, functions (making requests, asking questions, etc), and grammar.

Activities:

- Reading: being a storytelling engine, Ren’Py is ideal to practice reading: decoding information in the text, fluency, vocabulary, sentence construction and cohesion, reasoning and background knowledge.
- Listening: Ren’Py can use audio and video. You can also add images to the audio to enhance the mnemonic functions of the exercise.
- Speaking: renpy can be used in discussions and dialogue practice. It is especially useful if your goal is to make a student use a specific phrase/tense/tone correctly.
- Writing: can be used as a reflection exercise after the game is finished.

Using Ren’Py effectively engages the “whole learner” and contributes to the development of cognitive skills.

Teacher training

Developing Digital Narrative for Quest-Based Learning

Quest-based Learning is a strategy of using digital interactive games, like Ren’Py, in educational practice. This workshop focuses on building up practical skills so that the participants can work towards creating their own educational games.

The workshop is based on a year-long research and development project of creating and cultivating a Quest-Based Learning Environment at ITMO University. The findings of this research indicated that learners actively participated in the game, utilized different types of strategy to manage their interaction, undertook collaborative dialogues exclusively in the L2 in order to solve puzzles, and had positive attitudes, claiming that interaction in a Quest-Based Learning Environment was engaging, motivating, and enjoyable and improved their fluency and discourse management practice.

The workshop is in 3 parts: first, an overview of theoretical background and the exploration of a case study; second, a detailed explanation of Python statements (menu, label, jump) used for creating dialogues and choices within the narrative; and third, a walk-through of interpreting and writing these statements.

Read more: <https://www.dc4lt.eu/developing-digital-narrative-for-quest-based-learning/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/Mjc1OTg3MDg1OTM3>

Video: <https://youtu.be/BBdvXeg2Ov8>

Online video and audio

Online video (or Internet video) is the digital video content delivered over the internet. Online video as an educational tool enhances learning by motivating students, and helping them focus on the subject.

Speaking	Writing	Listening	Reading
	Interactive videos with embedded open-end questions motivate students to improve their writing skills.	Enhances listening skills and ability to understand people speaking with different accents at the natural or slower pace, as well as get cultural insight Online Courses based on video lectures such as on Coursera or edX , and podcasts develop comprehension of the language in the familiar/ new disciplinary context Examples: TED Talks , Easy Languages , Wikitongues , The English we speak	Reading subtitles improves pace of reading and skimming skills Examples: YouTube

Tools

If you plan to make your students' experience more enjoyable and interactive, you may try using these tools for creating your own interactive videos:

EdPuzzle

Free for teachers, this web-based tool for creating interactive videos has several basic features: Multiple choice, Note, Open-ended answers. Easy to navigate and import content. The created videos may be embedded into LMS and Google Classroom <https://edpuzzle.com/>.

EdPuzzle on ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/172/language/en-GB/Default.aspx>

PlayPosit

A web-based tool with various interactive features: Quiz, Poll, Text response, Discussion, Place in order. For language teaching, such interactive options as Vocabulary matching and Fill in the blank would be especially useful <https://go.playposit.com/>.

PlayPosit on ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/140/language/en-GB/Default.aspx>

YouTube

The most popular tool for authentic video material for language learning <https://www.youtube.com/>

YouTube on ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/60/language/en-GB/Default.aspx>

Open Educational Content

Most video and audio sharing platforms allow content creators to publish with licenses that allow free permission to use their content, but not modification. For example, YouTube allows creators to mark their videos with a Creative Commons CC BY license (<https://creativecommons.org/licenses/by/3.0/legalcode>). More information about the YouTube licenses at <https://support.google.com/youtube/answer/2797468?hl=en>

Teacher training

Learn Easy Steps: Using YouTube: <https://www.oercommons.org/authoring/41359-learn-easy-steps-using-youtube>

Learning Video Canvas: Collection of Ideas for the Learning Video: <https://www.oercommons.org/courses/learning-video-canvas-collection-of-ideas-for-the-learning-video>

Social networking

Social networking systems are services that help learners create profiles and connect with others.

Speaking	Writing	Listening	Reading
Many networking systems allow voice communication Examples: Clubhouse , Twitch , Discord	Shaping online language identity Exchange of knowledge and learning practices among learners Examples: Facebook , Twitter , Instagram	Many networking systems allow voice communication Examples: Clubhouse , Twitch , Discord	Expanding vocabulary thanks to many posts available on different topics Enhances comprehension of both formal and informal texts Examples: Facebook , Twitter , Instagram

Tools

If you are planning to use social networking systems in your language classes, the following tools can be a good start.

Clubhouse

Clubhouse is a social audio app for iOS and Android where users can communicate in audio chat rooms that accommodate groups of thousands of people <https://www.clubhouse.com/>.

Twitch

Twitch is an interactive livestreaming service for content spanning gaming, entertainment, sports, music, and more <https://www.twitch.tv/>.

Discord

Discord is a VoIP, instant messaging and digital distribution platform. Users communicate with voice calls, video calls, text messaging, media and files in private chats or as part of communities called "servers" <https://discord.com/>.

Discord at ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/216/language/en-GB/Default.aspx>

Facebook

Meta Platforms, Inc., trading as Meta and formerly Facebook, Inc is a website which allows users, who sign-up for free profiles, to connect with friends, work colleagues or people they don't know, online. It allows users to share pictures, music, videos, and articles, as well as their own thoughts and opinions with however many people they like <https://www.facebook.com/>.

Facebook at ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/18/language/en-GB/Default.aspx>

Twitter

Twitter is a social media site, and its primary purpose is to connect people and allow people to share their thoughts with a big audience. It is a microblogging and social networking service on which users post and interact with messages known as "tweets". Registered users can post, like, and retweet tweets, but unregistered users can only read those that are publicly available <https://twitter.com/>.

Twitter at ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/53/language/en-GB/Default.aspx>

Instagram

Instagram is a photo and video sharing social networking service <https://www.instagram.com/>.

Open Educational Practices

With the use of Facebook learners can exchange knowledge and interact with each other.

- First activity: The instructor (administrator) creates a private group that will be used for educational purposes. He/She ensures to check the settings in order to use this tool according to safeguarding policies.
- Second activity: The instructor invites the learners (members) to join the group.
- Third activity: In groups, learners share their previously created work (examples: a collaborative created story with Google Docs, a collaborative created Mind Map with Coggle, a hypertext collaboratively created with Thinglink) by posting in the private group.
- Fourth activity: Each group comments on the post of other groups by adding questions related to the content of the posts. Interaction among groups is developed by the exchange of questions and answers.
- Fifth activity: Storytelling. The instructor posts an image with a question and asks the learners to create a story based on the image and the question. Each learner writes a post following the plot that is being created by all learners.

Other Open Educational Practices can be found in:

Yeh, E. & Mitric, S. (2019). Voices to Be Heard: Using Social Media for Digital Storytelling to Foster Language Learners' Engagement. *TESL-EJ*, 23 (2). Retrieved from: <https://www.tesl-ej.org/wordpress/issues/volume23/ej90/ej90int/>

Social Networking can also be implemented through Virtual Exchange programs which are aimed at developing different learners' skills, such as cultural awareness, critical thinking, creativity, problem solving, collaboration, technology skills and digital literacy.

Teacher training

In the DC4LT workshop *Virtual Exchange: Developing Critical Digital Literacies* an introduction to Virtual Exchange as a pedagogical approach for developing learners' (critical) digital literacies is explored. In this workshop reference is made to different modes and configuration of virtual exchange or telecollaboration projects in language learning contexts. Typologies for designing and implementing a task sequence for a VE project are mentioned along with useful tools that can mediate the online collaboration. The learning objectives of this training comprise: learn about virtual exchange embedded in language learning contexts, navigate the UNICollaboration platform, design a virtual exchange project, and learn how to add a class in the UNICollaboration platform.

More about the workshop: <https://www.dc4lt.eu/virtual-exchange-developing-critical-digital-literacies/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/Mjc5MTYwNjE3ODM4>

Video: https://youtu.be/rmjbA9bUh_g

Instant messaging

Instant messaging is a type of online chat that offers real-time text transmission over the Internet, which involves one-to-one, one-to-many, or many-to-many exchanges of text, audio, and/or video messages. In language learning this technology may address the problem of limited practicing opportunities, such as language writing and speaking in interaction.

Speaking	Writing	Listening	Reading
Voice and video communication enables students to practice speaking and listening skills with the peers, the teacher or a native speaker of a language they learn	Encourage students to interact with each other through written discourse Promotes a peer-tutoring environment Improves editing and quick responses skills Provides a sense of instant learning support from the teacher	Voice and video communication enables students to practice speaking and listening skills with the peers, the teacher or a native speaker of a language they learn	Helps to organize daily learning routine Motivates faster reading

Tools

Most of the instant messaging tools have similar functionality. They support exchange of text, voice and video messages, files and audio and video calls. The differences are in their integration with other services, such as social networks, sign-up procedures, and popularity among different communities of users.

WhatsApp

WhatsApp is a free, cross-platform instant messaging and voice-over-IP app owned by Meta Platforms. The app requires a cellular mobile telephone number to sign up and allows users to send text messages and voice messages, make voice and video calls, and share content <https://www.whatsapp.com/>.

WeChat

WeChat is a multi-purpose instant messaging, social media and mobile payment app developed by Tencent. The app became the world's largest standalone mobile app in 2018 with over 1 billion monthly active users⁷. <https://www.wechat.com/en/>.

Viber

Viber is a free cross-platform voice over IP and instant messaging app owned by Japanese company Rakuten. The app requires a cellular telephone number to sign up on a mobile phone <http://www.viber.com>.

Facebook Messenger

Messenger is an instant messaging app owned by Meta Platforms. Messenger is available as an iOS and Android app, web service, and a desktop app for Windows and macOS. The users can send text messages, exchange files, and voice and video calling <https://www.messenger.com/>.

Telegram

Telegram is a free, cross-platform, instant messaging app. In addition to exchanging messages and content, Telegram users can create channels, a form of one-way messaging where admins are able to post messages while any other users can subscribe <https://telegram.org/>.

⁷ <https://en.wikipedia.org/wiki/WeChat>

Electronic dictionary, glossaries and annotations

Electronic dictionary is a digital learning tool, which converts the traditional printed tools into digital ones and allows for quick inquiry.

Electronic Gloss or Annotation are notes a learner makes to record thoughts or comments within a document. In the online environment digital reading annotation system (DRAS) enables easy and effective notes making. The integrated software allows both individual and group work.

Speaking	Writing	Listening	Reading
<p>Allows pronunciation improvement</p> <p>Examples: Translate.Google</p>	<p>Enhances increase in vocabulary acquisition</p> <p>Enhances effective vocabulary learning and delayed word recollection</p> <p>Examples: Translate.Google, TheFreeDictionary.com, Collins English Dictionary, Corpora, OneLook, Ozdic</p>		<p>Provides students with the opportunity to interact and learn from each other within the same text context</p> <p>Improves the reading comprehension in the online environment</p> <p>Fosters in-depth conversations and ideas exchange</p> <p>Builds critical reading skills</p> <p>Examples: Adobe Reader, Hypothes.is, NowComment</p>

Tools

Google Translate

Google Translate is one of the most popular multilingual translation services and apps <https://translate.google.com/>. The users can use it to translate text, documents and websites from one language into another. In addition to the stand-alone apps and services, Google Translate provides an application programming interface that allows software developers to integrate Google Translate services into their applications. Google Translate supports 109 languages⁸.

Hypothes.is

hypothes.is is an annotation tool that enables sentence-level note taking or critique on top of classroom reading, news, blogs, scientific articles, books, terms of service, ballot initiatives, legislation and more. It is free, open, neutral, and lasting <https://web.hypothes.is>.

NowComment

NowComment is a set of collaboration tools available for group discussion, annotation, and curation of texts, images, and videos. It displays threaded commenting alongside the sentences and paragraphs of texts, the areas of images, and timestamps of videos to create engaging online conversations literally in context <https://nowcomment.com/>.

Open Educational Practices

Hypothesis is a great tool to engage learners with the material which can help them to contribute to class discussions meaningfully. Whether you're teaching with digital texts, or you're focused on web literacy or digital citizenship, you and your students can use Hypothesis to annotate course readings collaboratively.

Introduction to [Hypothes.is for instructors](#). You can add an extension to your browser and create an account, or [integrate annotation into your learning management system \(LMS\)](#).

Activities:

- Pre-populate a text with questions for students to reply to in annotations or notes elucidating important points as they read.
- Annotation as Gloss. Have students look up difficult words or unknown allusions in a text and share their research as annotations.

⁸ March 2022, https://en.wikipedia.org/wiki/Google_Translate

- Annotation as Question. Have students highlight, tag, and annotate words or passages that are confusing to them in their readings.
- Annotation as Close Reading. Have students identify formal textual elements and broader social and historical contexts at work in specific passages.
- Annotation as Rhetorical Analysis. Have students mark and explain the use of rhetorical strategies in online articles or essays.
- Annotation as Opinion. Have students share their personal opinions on a controversial topic as discussed by an article.
- Annotation as Multimedia Writing. Have students annotate with images and video or integrate images and video into other types of annotations.
- Annotation as Independent Study. Have students explore the Internet on their own with some limited direction (find an article from a respectable source on a topic important to you personally), exercising traditional literacy skills (define difficult words, identify persuasive strategies, etc.).
- Annotation as Annotated Bibliography. Have students research a topic or theme and tag and annotate relevant texts across the Internet.
- Annotation as Creative Act. Have students respond creatively to their reading with their own poetry or prose or visual art as annotations.

Teacher training

Many classes annotate online texts collaboratively in public. Here are [some examples](#) of such course work where you can see social annotation in action.

Additional materials: <https://web.hypothes.is/teacher-resource-guide/>

Video: Using Hypothesis With Small Groups Workshop: <https://youtu.be/vZ6WUM8Trio>

Course management systems

A course management system is a platform of educational software in postsecondary education allowing instructors and institutions to manage a variety of courses with a large number of students and multiple instructional materials.

Speaking	Writing	Listening	Reading
Mainly the management systems will allow you to upload and download files and materials, meaning that there are not too many ways of including speech practice. Still, more and more systems allow for interaction through integrated streaming tools, like BB Collaborate	Most course management systems will allow for uploading files and documents from different third party tools. Some also allow for integrating collaborative writing tools directly in the CMS, like Moodle and Teams	Same as the other categories; uploading video/podcast and other files is allowed in most systems. Some systems allow for more intricate listening practices, like Spexx	There are several ways of integrating reading practices in course management systems, but few tools are as structured as Perusall when it comes to structure, collaboration and automated feedback.

Tools

If you are planning to use a course management system platform in your language classes, the following tools can be a good start.

BB Collaborate

The BB Collaborate virtual classroom solution enables faster online classroom access through browser-based use. Blackboard Collaborate eliminates app installation barriers, allowing learners to join from anywhere on any internet-connected device <https://www.blackboard.com/teaching-learning/collaboration-web-conferencing/blackboard-collaborate>.

Moodle

Moodle is a platform for online learning that enables you to create online courses, add assignments, and keep an eye on your students' progress. It also allows you to communicate with the students and encourage communication between them in forums and discussions <https://moodle.com/>.

Moodle at ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/93/language/en-GB/Default.aspx>

Google workspace for Education

Google Workspace is a collection of cloud computing, productivity and collaboration tools, software and products developed and marketed by Google. It includes Google Drive, Docs, Sheets, Slides, and more. Classroom works with Google Workspace for Education so that instructors and students can communicate easily, create classes, distribute work, and stay organized <https://edu.google.com/products/workspace-for-education/>.

Google Classroom at ECML: <https://www.ecml.at/Resources/InventoryofICTtools/tabid/1906/InventoryID/167/language/en-GB/Default.aspx>

Teams

Microsoft Teams is a persistent chat-based collaboration platform complete with document sharing, online meetings, and many more extremely useful features for communications <https://www.microsoft.com/nb-no/microsoft-teams/group-chat-software>.

Spexx

Speexx is one of the most widely used corporate online language learning and testing solutions for Business English, Spanish, German, Italian and French with ongoing support in 13 languages <https://www.speexx.com/>.

Perusall

Perusall - is a type of collaborative e-book reader Based on extensive (patent-pending) data analytics, behavioral science, and educational research, developed at Harvard. It will work with many types of documents, typically text but also Web pages, images, videos, podcasts <https://perusall.com/>.

Open Educational Practices

Canvas

"Teaching with Canvas" 2019 by Jennifer Englund is intended for all instructors and course designers who use the Canvas learning management system. It will help them identify which Canvas tool is suited for a particular teaching goal. <https://www.oercommons.org/authoring/51121-teaching-with-canvas/view>

Perusall

Introduction to Perusall for instructors

Perusall is a tool to foster students' engagement with course materials, especially reading assignments by taking notes, asking questions, and discussing the text with their peers. It is a great way to build an online community and focus instruction on what students find intriguing about the readings. Students annotate readings and asynchronously respond to each other's comments and questions in context. Perusall proactively engages students with automated personalized guidance, ensuring continual motivation.

Activities:

- You can annotate images, insert hyperlinks. Since it facilitates comment, you can use it as a great discussion tool during the class and create debates directly associated with the text under discussion.
- Use it as a peer-to-peer tool to enhance students participation and engagement with the reading materials.
- It has backend data analytics that are useful to understand how long students actually spend within a given text as well as how much time they spend engaged in “deep reading.”
- It generates a ‘confusion Report’ that can be used to pinpoint problem areas of study which can then be addressed during the class.
- Could be used as a guided reading tool for students and to enable authentic group discussion in an online environment.
- You can download a spreadsheet with all comments if you'd like to see your class dynamics in depth.
- An automatic grading feature, based on the number of comments, and the number of questions will provide instant feedback to your students.

Google Classroom

Educational technology could prove invaluable in the implementation of learning theories such as social constructivism (Vygotsky, 1978) and connectivism (Siemens, 2005). Students may be introduced to different ways of employing several technology tools, in order to collaborate, construct new knowledge and improve their language performance through being engaged in collaborative authentic or authentic-like tasks which relate to their everyday reality. The learning process can be further enforced through reflection that can take place through the use of technology, either individually or collaboratively. Eventually, through online interaction and collaboration, learners can build networks which may facilitate the learning process and enhance their language learning experience.

Activities:

- First activity: Presentation of cloud technologies and more specifically the G Workspace for Education and how such technologies can cater for social constructivist and connectivist approaches to learning and task-based learning methodologies.
- Second activity: The facilitator shows the core tools of the G Workspace for Education (Google Classroom, GDrive, Google Docs, Google Slides and Google Forms) and he/she demonstrates how these tools can be used in language teaching showing examples of real language classes.

- Third activity: The participants are organized in groups by the facilitator and they work collaboratively sharing ideas on how each of these tools can be utilized in their own language teaching contexts.
- Fourth activity: The participants create their own Google class and create a task for their students.
- Fifth activity: Reflective discussion.

Teacher training

Perusal

Additional materials: An introduction to Perusal: <https://gking.harvard.edu/files/gking/files/ph.pdf>

Video” PERUSALL Tutorial: Introduction to the platform <https://youtu.be/ODE6v4YOo0E>

Google Classroom

The DC4LT workshop *Cloud Technologies in Language Learning and Google Workspace for Education* explores cloud technologies, in particular, the different tools offered by the Google Workspace for Education, and ways in which they can be integrated in the language teaching and learning processes. The workshop focuses on the use of tools such as Google Classroom, GDrive, Google Docs, Google Slides and Google Forms in the language teaching and learning practices. The learning objectives of this training comprise: learn how to get familiar with social constructivism, connectivism, and task-based learning, learn how to utilize Google Workspace for Education tools for language teaching and learning, learn how to create and manage a Google class, learn how to share material on Google Class, learn how to assign collaborative tasks, and learn how to provide feedback.

More about the workshop: <https://www.dc4lt.eu/cloud-technologies-in-language-learning-and-google-workspace-for-education/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/MjY4NDQ3NjgwMTAz>

Video: <https://youtu.be/Jiqhxpfg9Q>

Collaborative writing

Collaborative writing involves two or more persons working together to produce a written document. It may also be called group writing, and is a significant component of new online environments in language training, as well as a tool for both in-class work and professional development in all areas of the educational sector. The quality of the document will always be dependent on the collaboration of the writing team.

Speaking	Writing	Listening	Reading
	It is obvious that collaborative writing enhances writing skills for the learner. There are a magnitude of these programs, the most known is of course Google docs , but also other tools, like EtherPad can be useful for language training.		A collaborative writing tool will most probably also influence the learners critical reading skills.

Tools

If you are planning to use collaborative writing in your language classes, the following tools can be a good start.

Google Docs

Google Docs is an online word processor included as part of the free, web-based Google Docs Editors suite offered by Google, which also includes Google Sheets, Google Slides, Google Drawings, Google Forms, Google Sites, and Google Keep. Google Docs is user-friendly, and students can work collaboratively on writing tasks without being restricted by time and space. Students can work collaboratively on their texts synchronously or asynchronously <https://docs.google.com/document/u/0/>.

EtherPad

Etherpad is an open-source, web-based collaborative real-time editor, allowing authors to simultaneously edit a text document, and see all of the participants' edits in real-time, with the ability to display each author's text in their own color. There is also a chat box in the sidebar to allow meta communication <https://etherpad.org/>.

Open Educational Practices

Learners are divided in groups in order to write synchronously or asynchronously collaborative texts.

- First activity. The task consists of writing a text synchronously with the use of Google Docs. The instructor discusses with learners the three steps proposed by the Distributed Constructionist approach: Discussing constructions, Sharing constructions, Collaborating on constructions, as well as writing roles such as Writer, Editor, Reviewer, Team Leader and Facilitator.
- Second activity. The task consists of writing a text asynchronously with the use of Google Docs. This task can be implemented in the context of publishing a project. At a later stage, students convert their documents into an interactive publication using the digital magazine “calameo.com”.
- Third activity: Assessing collaborative writing. Collaborative writing can be assessed with [DocuViz](#), a tool that displays the entire revision history of Google Docs and investigates the patterns of collaborative creation of documents. The tool helps instructors to see who has contributed what and which changes were made to comments from them.

Teacher training

The DC4LT workshop *Collaborative Learning Tools for Enhancing Language Learning* explores collaborative learning tools that can be used in the process of collaborative writing for the creation of digital artifacts within the social constructionist approach. The learning objectives of this training comprise: learn how to work collaboratively online, learn how to use social technologies, learn how to use collaborative writing tools, and learn how to assess collaborative writing.

More about the workshop: <https://www.dc4lt.eu/collaborative-learning-tools-for-enhancing-language-learning/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/MjMzNDY0NTYxMTIy>

Video: <https://youtu.be/qo5NAFBd6zg>

Automated feedback

Automated feedback is intelligent artificial intelligence systems based on statistical models designed for predicting human-assigned scoring on different parameters and indicators. The statistics needs to be based on samples from a variety of previous examples, and will provide immediate feedback for the student. For now it is not widely used in CALL, but the potential for efficiency and objectivity is enormous.

Speaking	Writing	Listening	Reading
There are some tools and programs designed for assessing speaking skills out there, but as literature claims ⁹ it is not developed enough to provide essential improvements yet.	An automated feedback can be designed to assess pre-determined parameters, like structure, grammar and content, thus allowing for automated feedback even on <i>essays</i> .	Several ways of providing listening practice and assessing this, like for example providing multiple choice alternatives to choose from, like Duolingo does.	One can find systems for peers to automatically assess essays and short texts, like for example Calibrated Peer Review systems, where the automation helps the assessment to be more common for all.

Tools

If you as a teacher would like to investigate the possibility of automated feedback in your class, you would probably find these tools useful.

Turnitin

Turnitin is a service that provides a variety of automated feedback. It was originally designed as a plagiarism checker, but Turnitin has developed into becoming a software that allows the teacher to address originality, grade all types of assessments from anywhere, provide feedback within the system and the results can identify similarities with existing sources, thus provides the opportunity of formative assessment, especially to learn students how to avoid plagiarism <https://www.turnitin.com/>.

⁹ Klaus Zechner and Keelan Evanini (2019) Automated Speaking Assessment: Using Language Technologies to Score Spontaneous Speech. DOI: 10.4324/9781315165103

Open Educational Practices

There are two best practices for using automated feedback; one is for the teacher to in an easy way provide feedback to the students. In Turnitin this can be done by adding different colors directly in the text produced by the students, indicating what type of feedback/mistake has been done. Thus, the students easily can correct and self-regulate his/her own learning process.

Automated feedback makes the process of peer learning effective. Allowing students access to each other's texts has proven to be successful. By introducing for example Turnitin to the students, they can easily mark each other's text, thus heightening their own skills as well as providing feedback to peers.

Teacher training

How to use Turnitin

In the following video you are introduced to the Turnitin system. Several functionalities are displayed and explained. Collaborative learning and the changing landscape of learning and teaching:

Video part 1: <https://youtu.be/KOVJU6fLkhA>

Video part 2: https://youtu.be/DxJ15WHZ_Rk

Intelligent tutoring systems / chat bots

An intelligent tutoring system is a computer system that aims to provide immediate and customized instruction or feedback to learners, usually without requiring intervention from a human teacher. ITSs have the common goal of enabling learning in a meaningful and effective manner by using a variety of computing technologies.

Speaking	Writing	Listening	Reading
An ITS should principally be able to provide feedback on all types of skills to be assessed/practiced. Still, for now it might be most useful when practicing speaking, since the ITS can provide immediate feedback on pronunciation to some degree.	Even early intelligent systems, like the ones developed by Alan Turing, had some sort of text recognition, replying to easy input. Today this is commonly found in chatbots, reacting to predetermined indicators. A fun example (although not the best) might be Eliza, the therapist		Off course ITSs can also increase the reading skills of students, especially considering variation, alternatives and fluency/dynamics in your text. A good example would be the paraphrasing tool Quillbot .

Tools

If you are planning to use collaborative writing in your language classes, the following tools can be a good start.

Quillbot

Quillbot is an artificial intelligence that aids your writing. It is mainly focused on automating the tasks that may be standardized, allowing the users access to automatically adjust their text. Quillbot includes categories like paraphrase, fluency, formal and more. Some functionality is free, and you are able to upgrade the tool if you find it useful <https://quillbot.com/>.

Open Educational Content

The following OER is an example of how to introduce and work with Quillbot for basic users of English as L2-language: <https://www.oercommons.org/courseware/lesson/90701>

Open Educational Practices

There are more or less endless tasks that might be refined by using Quillbot, but the most obvious one in the free version will be to create more dynamics in students' texts. Let the students write a full text on a subject. Then ask them to paste the text into Quillbot and adjust the number of synonyms they want access to (from less to more accurate). Asks the students to choose the synonyms they want. After the task it is a good idea to let the students reflect on the differences between their own text and the suggested text form Quillbot.

In-class tools / clickers

Response technology can shortly be described as a type of wireless technology aimed at promoting better communication, response and interactivity in large classrooms. It is a technology that allows teachers to present a question or problem to a class and let students respond by using response devices. Responses are quickly summarized and aggregated for the teacher and students to see. Based on the response data, both students and the teacher can get an idea whether key concepts are understood or misunderstood.

Speaking	Writing	Listening	Reading
	It is difficult to claim that response tools aid writing skills to a high degree, but you have several systems including some sort of text response, like Padlet and iLike .	Seeing response tools can be used to vote for whatever kind of tasks, it is easy to introduce listening exercises in order to practice language skills, like for example identifying dialects. Including gamified experiences might make the students even more engaged, like Kahoot , where you can easily add music or other sound files.	

Tools

If you are planning to use collaborative writing in your language classes, the following tools can be a good start.

Kahoot

Kahoot is a commercial tool that might be accessed for free, limited to a certain amount. With more users than 10, you need a professional account that costs money. Kahoot is game-based, and the teacher needs to create the quiz and alternatives before the session begins <https://kahoot.com/>.

iLike

iLike is a free tool developed in the one2act-platform. It can be downloaded either to your computer or as a portable version on a USB-stick, and is compatible with all operating systems. iLike has a lot of functionality directed towards language learning, including MP-alternatives and free text answers. iLike lays on top of whatever application you are running, making it easy to use in class when needed <http://one2act.no>.

Padlet

Padlet is a commercial app that can be used for free with limitations of five padlets. Padlet allows the teacher to ask a question whereas the students can reply on the padlet-wall in short texts. This allows students to argue their case in an anonymous way, and ask questions to the teacher during the session <http://padlet.com>.

Open Educational Content

This OER is an example of how to use Padlet when engaging students in a discussion about thematic areas in a novel they have been reading/working with <https://www.oercommons.org/courseware/lesson/90699>

Open Educational Practices

The beauty of response tools is that they are easy to implement into already existing lectures, as well as the possibility of designing a whole lecture around responses received from the participants. We will mention two possible examples where response tools enhance both the learning experience and learning.

1. Repetition. The group has been focusing on grammar, and especially subject-verb agreement for a period of time. For the teacher it is important to monitor to what extent the students have understood, for the students it is vital to repeat key-elements. In order to make this process both time-efficient and to include all, one can use Kahoot at the end of the period. The teacher defines questions, and the students compete with each other and the rest of the group in the Kahoot.
2. Introducing a new topic or a discussion. When reading a book or a novel, it might be interesting to do a thematic analysis with the whole student group. The teacher can use iLike and suggest for example four alternatives for possible thematic areas in the novel, and ask the students to vote for their preferred alternative. The students will immediately engage in their answers, making it easier to create a discussion in the student group afterwards.

Teacher training

Teacher training session: “Response tools for the Language Classroom”

In this session you are introduced to the background and reasons for using response tools in the classroom. The tool iLike is being used in the session, and the focus is on different methodological approaches to the usage. Discussions revolve around how this technology can be useful, at what levels it can be implemented and if there are ways to enhance collaboration through the use of response technology.

More about the workshop: <https://www.dc4lt.eu/response-tools-for-the-language-classroom/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/MjM4NTk0NTY0Mzg0>

Video: <https://youtu.be/s4KYG6qb2kk>

Virtual Reality

Virtual Reality is a computer-generated simulation of a three-dimensional environment that can be interacted with in a seemingly real or physical way by a person using special electronic equipment, such as a helmet with a screen inside or gloves fitted with sensors. In other words, Virtual Reality is *replacing* the real world with a digital reality.

Speaking	Writing	Listening	Reading
<p>Virtual Reality allows human-to-human interaction with voice. Such multi-user environments combine the advantage of natural communication and immersion.</p> <p>Examples of multi-user virtual reality environments: Second Life, AltspaceVR, Witly</p>		<p>Virtual Reality allows to simulate environments and situations that are required for a specific learning scenario. The virtual environment can include characters that can talk controlled by <i>artificial intelligence</i> or have pre-recorded dialogs.</p> <p>Examples of single-user virtual reality systems: Mondly, PlaytoSpeak, ImmerseMe</p>	

Tools

Mozilla Hubs

Mozilla Hubs is a free virtual reality collaboration service. The users can use it in browsers and headsets. The Hubs allow users to navigate in 3D virtual environments with up to 25 participants, interact with each other by voice and text, and interact with the 3D environment <https://hubs.mozilla.com/>.

AltspaceVR

AltspaceVR is a social virtual reality platform owned by Microsoft. The platform supports multiple headsets but is also available as a 2D application on Windows and macOS. AltspaceVR is organized in spaces called "worlds", which can be found and accessed via a floating menu or via in-world "teleporters"¹⁰. AltspaceVR hosts many virtual events including those for language learning and practice <https://altvr.com/>.

ImmerseMe

immerseme is a virtual reality platform that uses 360-degree video content to help practice and learn multiple languages. The platform is available in the browser, on mobile devices, and in virtual reality headsets <https://immerseme.co/>.

Immerse

Immerse is a virtual reality platform designed for social language learning. The platform is available for desktop computers and headsets <https://www.immerse.online/>

Teacher training

Teacher training session “Immersive Technologies for Language Teaching”

Immersive Technologies is an umbrella term for Virtual Reality and Augmented Reality. This workshop is designed for language teachers who wish to learn about these technologies and how to use them in their practice. In the first part of the workshop, we summarize the principles of two technologies Virtual Reality and Augmented Reality, showcasing typical scenarios for using these technologies in language learning. In the second part of the workshop, we demonstrate two Virtual Reality applications: LanguageVR and Mozilla Hubs. In the next part, we invite the participants to our space in Mozilla Hubs and continue with a discussion about the use cases of Virtual Reality for language learning and about the implementation of language learning scenarios in Virtual Reality. The participants explore the application and perform simple language learning tasks. We use an educational role-playing method for these activities. In the fourth part of the workshop, we invite the participants to explore the LanguageVR prototype.

More about the workshop: <https://www.dc4lt.eu/immersive-technologies-for-language-learning/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

¹⁰ <https://en.wikipedia.org/wiki/AltspaceVR>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/MTczMTA3NDMxNDE0>

Video: <https://youtu.be/-dzIYB26FqA>

Voice recording and Speech recognition

Voice recording usually refers to digital recording of human voice. Speech recognition is a technology that allows to identify human words spoken aloud and convert them into readable text. Voice recognition is also called speech-to-text.

Speaking	Writing	Listening	Reading
<p>Voice recording and speech recognition can help to practice and fine-tune pronunciation. Speech recognition is not intimidating for the learner, who can practice with an app.</p> <p>Examples of general language learning apps with speech recognition: Mondly, Busuu, Babbel</p> <p>Examples of apps dedicated to speech recognition: Saundz, AudioNote</p>		<p>Voice recognition can be combined with artificial intelligence and speech synthesis technologies. This allows you to practice both speaking and listening in a dialog format.</p> <p>These technologies are not yet common in language learning practice.</p>	

Tools

BUSUU

Busuu is a language learning platform available in browsers and iOS and Android mobile devices. Busuu allows its users to interact with native speakers. The platform encourages collaborative learning by allowing members to practice their writing and speaking skills with help from native speakers of the language they are learning.

All learners correct one another's work. They can converse via asynchronous voice recording or text chat. In this way, every Busuu user is both a student of a foreign language and tutor of the languages they can already speak¹¹. <https://www.busuu.com/>.

AudioNote

AudioNote is an app to work with audio notes available on desktop computers with Windows and macOS and on iOS and Android mobile devices. The users can take written, graphical, and audio notes, annotate documents, and edit their annotations later <https://luminantsoftware.com/apps/audionote-notepad-and-voice-recorder/>

¹¹ <https://en.wikipedia.org/wiki/Busuu>

Websites and digital resources

Databases, books, journals, newspapers, magazines, archives, theses, conference papers, government papers, research reports, scripts, and monographs in a digital form.

Speaking	Writing	Listening	Reading
Giving academic presentations on web-conference software	Use blogs to facilitate sociocultural learning	Listening to online lectures for specific disciplines on YouTube	Critically read academic texts and articles
Recording presentations and self-evaluating	Use breakout rooms to facilitate peer-reviewing	Using TED talks as academic comprehension texts	Compare the language of academic journal articles and blogs
Examples: Italki / The Polyglot Club / HiNative	Examples: Itchy Feet / Talk Foreign to Me / Travelengua	Examples: FluentU / Innovative Language / Easy Languages / TED Talks	Examples: Journal of Language Evolution / ELT Journal

Tools

If you are planning to use websites and digital resources in your language classes, the following tools can be a good start.

Italki

Italki is an online language learning platform which connects language learners and teachers through video chat. The site allows students to find online teachers for 1-on-1 tutoring, and teachers to earn money as freelance tutors. One can choose online language lessons taught by a professional teacher, who provides structured learning plans, or a community tutor. Students may also use it as a platform for mutual language exchange <https://www.italki.com/>.

Polyglot Club

The Polyglot Club is a place where one gets to practice those languages with native speakers from all over the world. Vincent Scheidecker started this multilingual club in 2003. It all began with a simple ad he posted in a small Parisian magazine, seeking a French-Chinese language exchange. The response to the ad was

overwhelming and soon after Scheidecker developed the Polyglot Club where others could also benefit from the online source which facilitates the development of language exchanges <https://polyglotclub.com/>.

HiNative

HiNative is a global Q&A community for language learners and people that are curious about the world. HiNative allows students to ask questions, get answers, and connect with native speakers from over 170 different countries. When users post in their target language, native speakers show them the natural ways to say what they want to say <https://hinative.com/>.

Itchy Feet

Itchy Feet is the weekly webcomic about travel, life in foreign countries, and learning new languages. Readers can expect an astonishing array of exaggerated facial expressions, humorous situations involving foreigners and foreign lands, and ordinary silliness <http://www.itchyfeetcomic.com/>.

FluentU

FluentU is a language-learning platform that uses real-world videos and interactive subtitles to create an immersive learning experience. Accompanying quizzes give users the chance to practice language used in videos. FluentU offers videos in nine different languages and is available for iOS, Android, and on the web <https://www.fluentu.com/>.

EasyLanguages

Easy Languages is a video and podcast series that showcases language as spoken in the streets and among friends. It is produced by a network of content creators who are passionate about language learning and intercultural exchange <https://www.easy-languages.org/>.

TED Talks

A TEDx Talk is a showcase for speakers presenting great, well-formed ideas in under 18 minutes. This short talk model works, since it only demands the audience's attention for a short period of time, decreasing the chance of minds wandering. <https://www.ted.com/>. A specific session of TED Talks is addressed to language practicing (https://www.ted.com/playlists/655/great_ted_talks_for_language_practice).

The Journal Language Evolution

The Journal of Language Evolution aims to be the venue of choice for language evolution research. Language evolution is concerned with the question of how language came to be and how it came to be the way it is today. We are therefore interested in both biological evolution and cultural evolution as well as their interaction, and in all the functional constraints that determine how these processes take place. The journal is highly interdisciplinary and covers theoretical, computational, database-driven, and experimental work emerging from linguistics, (neuro-)cognitive sciences, psychology, anthropology, biology, evolutionary theory, computer sciences, philosophy, and other relevant disciplines <https://academic.oup.com/jole>.

ELT Journal

ELT Journal is a quarterly publication for all those involved in English Language Teaching (ELT), whether as a second, additional, or foreign language, or as an international Lingua Franca. The Journal links the everyday concerns of practitioners with insights gained from relevant academic disciplines such as applied linguistics, education, psychology, and sociology. ELT Journal aims to provide a medium for informed discussion of the principles and practice which determine the ways in which English is taught and learnt around the world. It also provides a forum for the exchange of information and ideas among members of the profession worldwide <https://academic.oup.com/eltj>.

Open Educational Resources

Videos:

- Review: 1 year on Italki as teacher <https://youtu.be/P4iTmAwkNV4>
- HiNative Review: how to ask questions about foreign cultures <https://youtu.be/wksUH57ga2w>
- A talk by Malachi Rempen, creator of Itchy Feet https://youtu.be/e7W4KP51o_A

Collections of video resources:

- FluentU YouTube channel <https://www.youtube.com/channel/UCV6f8jw9JoJBvGRs7Ksj0XA>
- Easy Languages YouTube channel <https://www.youtube.com/channel/UCqcBu0YyEJH4vfkR--97cng>
- Great TED Talks for language practice https://www.ted.com/playlists/655/great_ted_talks_for_language_practice

Open Educational Practices

Learners are divided in groups and each group is asked to produce a video essay. Video essays allow users to transmediate between written text to a multimodal form of communication which combines written, audio and visual modes to communicate an idea or a thesis. As an assignment, for instance, the video essay is an excellent way to develop an argument using the language of cinema, video and visual culture. It is also a way to reflect and critically explore how we think about what we see. Video essays offer new tools for criticism at a time when culture is produced in a huge variety of new media. Digital videos can replace or integrate written and oral communicative and argumentative activities and assignments for language and content modules in Modern Languages.

Teacher training

Teacher training session “Webquests 2.0 Activities for language learning”

This workshop aims at promoting the creation and sharing of language OERs via Webquest 2.0 activities which are based on a collaborative and inquiry-based methodology and are facilitated by web 2.0 tools.

More about the workshop: <https://www.dc4lt.eu/webquests-2-0-activities-for-language-learning/>

Part of the DC4LT Google Classroom: <https://classroom.google.com/c/MjM2MjI5OTY0MTU0?cjc=p4fgvci>

Direct link (free enrollment required): <https://classroom.google.com/u/0/w/MjM2MjI5OTY0MTU0/tc/NDAxNDM4MTQwMDg1>

Video: <https://youtu.be/tj3Jzb9FBQ>

Digital libraries

A digital library is an online database of digital objects that can include text, still images, audio, video, digital documents, or other digital media formats. Objects can consist of digitized content like print or photographs, as well as originally produced digital content like word processor files or social media posts. In addition to storing content, digital libraries provide means for organizing, searching, and retrieving the content contained in the collection¹².

Speaking	Writing	Listening	Reading
<p>Building collections that introduce the people, history, environment, art, literature, music</p> <p>Bringing teachers and learners together: forums, discussion boards, electronic journals and chat programs can be incorporated to create a community</p> <p>Example: Rosetta Stone</p>		<p>Providing linguistic resources: audios and videos provided by the digital libraries are commonly used as material for teaching and improving listening skills.</p> <p>Example: Living Language</p>	<p>Building collections of language resources</p> <p>Interpreting the target language and master skills in communication and behavior</p> <p>Experiencing the culture without leaving the classroom</p> <p>Example: Transparent Language Online</p>

Tools

If you are planning to use digital libraries in your language classes, the following tools can be a good start.

Rosetta Stone

Rosetta Stone is a language-learning company. Its flagship product is a software platform and suite of mobile apps that help people learn languages faster than traditional methods. The company offers various language courses, including English, Spanish, French, German, Italian, Japanese, Chinese, Arabic, and Korean. Courses are available for adults and children, and it's a great way to improve your skills and learn a new language quickly. The program takes an innovative approach

¹² https://en.wikipedia.org/wiki/Digital_library

to language learning, drawing on cognitive science and multimedia learning research. Students typically start by greeting someone in their new language, then move on to more complex phrases and words, and eventually to full sentences. The software uses an adaptive approach to learning that grows easier or more difficult based on whether you're a beginner or advanced student, engaging you in an immersive experience that allows you to learn through repetition and association. Dynamic immersion is a natural method of language learning that teaches the language as it is used naturally <https://www.rosettastone.com/languages/learn-language>.

Living Language

Living Language, an imprint of Random House, LLC, is a foreign language self-study publisher. Living Language publishes a number of courses in languages such as French, German, Italian, Persian, Arabic, etc. Living Language was originally developed in 1946 by foreign language education experts to teach overseas-bound service personnel and diplomats. In recent years, the imprint has expanded its publishing program to include audio-only CD courses, online-based courses and comprehensive language learning kits for adults and children. The combination of audio and visual input, along with written, recorded, and interactive digital practice, creates a true multimedia learning experience that actively engages you in your new language right from the start. In addition, special recall exercises move your new language from short-term to long-term memory <https://www.livinglanguage.com/>.

Transparent Language Online

Transparent Language Online develops innovative technology and methods to enable faster and more reliable language learning outcomes for professionals in organizations with critical language requirements, for students and teachers in academic environments, and for anyone else intent on becoming more proficient in another language. Transparent Language Online uses a whole host of activities to help users learn. These activities touch all four aspects of language learning: listening, reading, writing and speaking <https://www.transparent.com/>.

Open Educational Resources

Videos:

- Living Language e-Tutoring Orientation Video: <https://youtu.be/mOKy2mtl9hA>
- Review of Transparent Language Online: <https://youtu.be/RD14iizXpju>

Open Educational Practices

Digital libraries can serve many roles in language education. First, they provide linguistic resources. In the classroom, text, pictures, models, audio, and video are used as material for teaching. Second, digital libraries can bring teachers and learners together. Third, digital libraries can provide students with activities, references and

tools. Language activities include courses, practice exercises, and instructional programs. In traditional libraries students find reference works: dictionaries, thesauri, grammar tutorials, books of synonyms, antonyms and collocations, and so on. Equivalent resources in digital libraries can be used as the basis of stimulating educational games.

“Digital libraries have untapped potential for supporting language learning and teaching. They include an unprecedented supply of authentic linguistic material in the form of top-quality prose. They make language material easily accessible through purposeful searching and browsing. They include rich metadata that can support interesting linguistic exercises. They provide a safe and controlled learning environment. Socially-oriented library software can support collaborative activities that strengthen and enrich the students’ learning experience. Exercise content can be focused on a particular subject. Last but not least, digital libraries can be distributed to people who lack the opportunity to attend traditional classroom lessons”¹³.

The most important changes that digital libraries bring may be in advancing informal learning. The same advantages that accrue to classroom learning also accrue to individuals pursuing their own learning. Digital libraries are digital schools that offer formal packaging for specific skills and topics as well as general browsing for creative discovery and self-guided, informal learning. Just as teachers must learn new strategies for using electronic tools in teaching, students must learn how to learn with multimedia (both actively and passively) and how to take increased responsibility for directing their own learning. For this reason, a possible practice of using digital libraries in teaching / learning a foreign language could be that of identifying a topic belonging to the target language’ culture and asking students to autonomously find information about that through the use of digital libraries. The research activities – carried out autonomously by students – are then objects of shared discussion guided by the trainer.

¹³ Shaoqun Wu and Ian H. Witten (2007) Content-based language learning in a digital library. DOI: [10.1007/978-3-540-77094-7_54](https://doi.org/10.1007/978-3-540-77094-7_54)

e-Books

E-book is a digital file containing a body of text and images suitable for distributing electronically and displaying on-screen in a manner similar to a printed book. E-books can be created by converting a printer's source files to formats optimized for easy downloading and on-screen reading, or they can be drawn from a database or a set of text files that were not created solely for print. An audiobook (or a talking book) is a recording of a book or other work being read out loud¹⁴.

Speaking	Writing	Listening	Reading
		Providing exposure to native speakers with varying accents Matching students' language skills Stretching language skills' development Example: Audible	Fitting in reading practice anytime, anywhere Easy access to language tools on personal devices: looking up unfamiliar words / switching to translator apps without losing the train of the story Example: DigitalBook.IO

Tools

If you are planning to use e-books in your language classes, the following tools can be a good start.

Audible

Audible is an audiobook service from Amazon, offering the world's biggest selection of titles ranging from much-loved classics to new releases and original podcasts. Listeners can download or stream their chosen titles with a membership to Audible. Books may be read aloud by a narrator, the authors themselves, well-known stars or even performed by an audio cast. In addition to books, Audible produces original content, called Originals <https://www.audible.com/>.

¹⁴ <https://en.wikipedia.org/wiki/Ebook>

DigitalBook.IO

Digital Book.IO is an online library that offers digital audiobooks and ebooks. Through DigitalBook.IO it is possible to explore over 100,000 Kindle, ePUB, and audio books using its free bookshelves <https://www.digitalbook.io/>.

LibreTexts

LibreTexts is one of the most popular textbook platforms where the users can access or publish textbooks as OERs <https://libretexts.org/>.

Open Educational Content

LibreTexts has many resources licensed under CC BY-NC-SA. An example for learning Spanish: https://human.libretexts.org/Bookshelves/Languages/Spanish/Naveguemos_juntos

Open Educational Practices

DigitalBook.IO is a tool that helps language learners achieve reading and listening simultaneously, as well as their pronunciation, intonation, fluency and understanding.

Activities:

- Choose a physical e-reader or an e-book reader app via a tablet or smartphone to be used with your students.
- Select an audio book according to the language level of your students.
- With Digitalbook.io learners can control the playback speed using the inbuilt audio player. This will also allow you to implement differentiated teaching if needed, in your class (the objective of differentiation is to lift the performance of all students, including those who are falling behind and those ahead of language level expectations).
- Continue with:
 - Listen and then read
 - Read and then listen: Ask the students to reflect on their pronunciation and correct where necessary.
 - Read and listen simultaneously
- Further activities: Reading comprehension activities

- Ask your students to create a mind-map (you can use [Coggle](#)). They can form connections across their readings and ideas and represent these ideas with the mind map. They can add the information that text provided about a specific topic in the form of images, links to more texts, and also videos.
- Alternatively, you can check your students' reading comprehension using open-ended questions and/or closed questions with [Google Forms](#)

Inspired by: <https://www.digitalbook.io/blog/read-and-listen-at-the-same-time/>

White boards

An interactive whiteboard (IWB) is a large interactive display board in the form factor of a whiteboard. It can either be a standalone touchscreen computer used independently to perform tasks and operations, or a connectable apparatus used as a touchpad to control computers from a projector. They are used in a variety of settings, including classrooms at all levels of education, in corporate boardrooms and work groups, in training rooms for professional sports coaching, in broadcasting studios, and others¹⁵.

Speaking	Writing	Listening	Reading
Supporting the development of speaking skills when used in combination with a wireless keyboard: teachers can sit with the students, reading a text or having a conversation; when new vocabulary is needed or appears, teachers can enter the new word into the keyboard, and it will then appear on the board	Overwriting any projected object: this allows students to focus and to know what the teacher wants them to select. Because teachers can emphasize any particular structure by highlighting, underlining, or circling with different colors, it is easier for the students to develop writing skills		

Tools (whiteboards for classroom)

Microsoft Surface Hub

Microsoft Surface Hub is a wall-mounted or roller-stand-mounted device with a touchscreen with multi-touch and multi-pen capabilities, running the Windows 10 operating system. The devices are targeted for businesses to use while collaborating and videoconferencing <https://www.microsoft.com/en-us/surface/business/surface-hub-2>.

¹⁵ https://en.wikipedia.org/wiki/Interactive_whiteboard

Google jamboard

Google jamboard whiteboard device is a 55” cloud-based digital whiteboard designed for businesses and education programs. Launched by Google in 2017, the Jamboard was designed as a direct competitor to the Microsoft Surface Hub <https://workspace.google.com/products/jamboard/>.

Samsung Flip digital flipchart is an interactive, touchscreen digital display that allows teams or students to hold and recap meetings or classes. It drives greater collaboration, expands presentation capabilities and can be used for all types of meetings, training or brainstorming. The second edition of the device exists in 55” and 65” size <https://www.samsung.com/us/business/solutions/flip-interactive-signage/>.

Tools (interactive whiteboards for online collaboration)

Miro

Miro is a tool for online collaboration, where students and teachers can work together on a whiteboard. You can place various types of files (word documents, powerpoint slides, PDFs, spreadsheets, video, audio files, web links, etc.) and interactive objects (text, mindmaps, storyboards, timelines). There’s a possibility to zoom in and out of different parts of the whiteboard too <https://miro.com/>.

Whiteboard.fi

Whiteboard.fi is an online whiteboard. Free to use. Whiteboard.fi works on any device and does not require installation or downloads. No personal information is shared with third parties. Everything is deleted after the room is closed. You can insert images, backgrounds, arrows, shapes and texts <https://whiteboard.fi/>

Google Jamboard online app

Google Jamboard online app is a digital interactive whiteboard developed by Google to work with Google Workspace. It was announced on 25 October 2016. It has a 55" 4K touchscreen display and can be used for online collaboration using Google Workspace <https://jamboard.google.com/>.

Open Educational Practices

Research indicates that using interactive whiteboards in the language classroom can have several benefits, including:

- supporting interaction and conversation in the classroom
- helping with the presentation of new cultural and linguistic elements
- being a delivery tool for literacy instruction

- engaging note taking

Miro has a myriad of different functionalities: from templates that help structure the workflow of different types of activities in a seminar, to presentation mode and share screen, to setting a timer for specific activities, commenting, chatting, voting, highlighting all activity on a board, exporting, downloading or embedding the board onto other platforms.

Miro can be used to support:

- asynchronous activities, before or after a session, to help students prepare and make the most of synchronous sessions
- project work, and presenting results by student teams
- student participation in synchronous sessions.

Activities:

1. Create as many infinite boards as you need. Organize them by course, research project. These projects act like folders to help you stay organized. Separate and manage access to your classes, lesson planning, and administrative work.
2. Set up a flipped classroom. Add video instructions, PDFs, presentations or documents to make it more engaging for students.
3. Leave instructions for the board. Create agendas, tables of contents, and checklists using the visual notes panel.
4. Share your board so that students can view, comment, and edit. This is a great option to develop students' reading skills.
5. You can use it for presenting by creating slides in Miro using presentation mode.
6. It can also be used as an engagement tool, a built-in timer is available. With the 'Bring Everyone to Me' feature your students will be alert, focused, and on the same page.
7. You can save any part of the board as a template so students can quickly reuse it later for personal or group assignments.

It is worth noting that Miro is unfortunately inaccessible to anybody using a screen reader. It also has quite limited keyboard navigation options.

Whiteboard.fi is a simple tool that can be used instantly by creating a virtual class and letting the students join through a link, room code or QR code. This is an interactive tool that can be used to draw, write text and make notations on images. The student's progress can be viewed in real-time thus making it a great formative assessment tool to provide feedback to the students.

It is generally free but has some features that will require payment.

Teacher training

Reading material:

- Miro: the Visual Collaboration Platform You Need In Your Online Classroom <https://fltmag.com/miro-the-visual-collaboration-platform-you-need-in-your-online-classroom/>
- How to use Jamboard in the classroom: <https://ditchthattextbook.com/jamboard/>

Videos

- Interactive online classes using Miro @ Online Learning and Teaching Short Video Series: <https://youtu.be/ia9eg1Su0zI>
- Introducing: Miro for Education: <https://youtu.be/BYU7TK8huyw>
- A Sample Whiteboard and Games in Miro: <https://youtu.be/tLBR02LEhSA>
- 10 Tips For Using a Virtual Whiteboard (Using Miro) Also Phil's Game - Videos For Teachers: <https://youtu.be/nHqNF-aEChs>

Online courses / MOOCs

MOOC stands for “massive open online courses”: they’re a form of distance learning delivered online. Unlike conventional courses, MOOCs can often have an unlimited number of students. They often provide plenty of course material like texts, activities and videos. Some even offer forums to allow teachers to interact with students and students to interact with their peers. Since 2012, MOOCs have taken off, with millions of students enjoying these courses.

Speaking	Writing	Listening	Reading
Short speaking and pronunciation tasks, evaluated through self-, peer-, and experts’ assessments	Writing takes many forms in MOOCs: courses rely primarily on peer response for feedback on students’ writing.	Availability of a wide range of materials in terms of subject matter, accent of the speaker, and length	Availability of and easy access to (personal devices) a wide range of materials

Tools

edX

edX is a mission-driven, massive open online course (MOOC) provider. edX partners with the world’s leading universities and organizations to offer high-quality online courses to learners across the world. Courses consist of video and text content, discussion forums, and a number of problem and assessment types. The majority of edX courses are entirely free to access and most offer an optional paid verified certificate track with graded assignments and the opportunity to work towards a certificate for a fee that varies per course <https://www.edx.org/>.

Coursera

Coursera is an online learning platform with thousands of free courses as well as professional certificate and degree programs. Founded in 2012 by Stanford University computer science professors Daphne Koller and Andrew Ng, Coursera is one of dozens of different platforms that offer massive open online courses (MOOC) along with degrees, professional courses, Coursera specializations, and Master Track courses. Course topics range from computer science and IT support to art history and positive psychology, and are offered by top universities and companies <https://www.coursera.org/>.

FutureLearn

FutureLearn is one of Britain's first online education providers. This company offers a variety of British online courses as well as many classes from American universities. Based out of London, FutureLearn was founded in 2012. It has over 175 university partners around the globe along with a learning community that consists of more than 10 million learners. The company is owned by the Seek Group And Open University. Most FutureLearn courses are fully accredited and recognized, with certificates issued by the partnering universities themselves rather than by FutureLearn <https://www.futurelearn.com/>.

Udemy

Udemy is a massively-open online course (M.O.O.C.) website where anyone is free to create and promote courses in the style of traditional post-secondary education. Users can also take courses to earn credit towards technical certification, or just to pick up or improve various job-related skills <https://www.udemy.com/>.

Open Educational Content

The LangMOOC courses (<http://study.langmooc.com/>) are free pilot massive open and online language courses for learners at A2 Basic user's language level and they are offered under the Creative Commons license [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/). The aim of the courses is to improve your understanding of another language and culture at A2 level of the European framework.

The courses' overall learning goal is to improve your speaking, writing, listening and reading skills through a big variety of interactive and authentic multimedia material such as OERs created specifically for these courses.

Teacher training

Creating Blended Learning Courses (MOOC): <https://www.oercommons.org/courses/creating-blended-learning-courses-mooc>

Designing Online Courses with the 7Cs Framework: https://platform.europeanmoocs.eu/course_designing_online_courses_with_

Wearable Technology

Wearable technology (or wearables) refers to smart electronic devices that are worn close to or on the surface of the skin, where they detect, analyze, and transmit information concerning body signals such as vital signs, or ambient data and which allow in some cases immediate biofeedback to the wearer.

Speaking	Writing	Listening	Reading
		Similar use to smart phones	Practicing vocabulary on smart watches Complementing practice while on the go. Most examples of language learning with wearables are smart watch apps developed by provides of other technologies: Langoapp , Topica , Duolingo

Tools

Duolingo

Duolingo is a popular language learning app and website <https://www.duolingo.com/>. Many Duolingo functions are also available in its smartwatch app.

Augmented Reality

Augmented Reality refers to enhancing human perception with additional, computer-generated sensorial input to create a new user experience including, but not restricted to, enhancing human vision by combining natural with digital offers. In other words, Augmented Reality is *combining* a digital layer and the real world.

Speaking	Writing	Listening	Reading
Augmented Reality can be used to simulate virtual characters who become a part of the real world. Such characters can enrich learning experience when using <i>artificial intelligence</i> (speech recognition and dialog understanding).		Augmented Reality can augment not only human vision, but also hearing. Combined with <i>voice interaction interfaces</i> , AR can allow listening to the sound augmentations of the real world.	Translation of texts on the real-world objects can supplement learning vocabulary. Combined with <i>object recognition</i> , AR digital aids in the real world context and situations can display useful information about the surrounding objects (e.g., recognizing objects and calling them in a language of interest). Examples: Google Translate , MondlyAR

Tools (Wearable Augmented Reality)

Wearable Augmented Reality is still a new technology, and there are not many tools freely or commercially available. However, there several prototypes that provide a vision of language learning activities possible with this technology, such as WordSense platform for language learning <https://medium.com/mit-media-lab/mixing-realities-language-learning-in-the-wild-dc835ed89c40>

Tools (Smartphone Augmented Reality)

Mondly AR

Mondly AR is an Augmented Reality language learning app for iOS and Android smartphones. The app allows its users to visualize characters and other virtual objects on the physical space around the learner. The app uses speech recognition and allows to have conversations with virtual characters <https://www.mondly.com/ar>

Google Translate

Google Translate is one of the most popular multilingual translation services and apps <https://translate.google.com/>. The users can use it to translate text, documents and websites from one language into another. The Google Translate app uses Augmented Reality in its “Camera” feature, allowing the users to translate text written on a physical object (e.g., a label or a sign with a text in a foreign language) by directing the phone camera to the text, while the translation appears on the screen of the phone.

Robots

Robots are machines that resemble a living creature. Their capability of moving and performing various actions may help to improve teaching efficiency and learning motivation. Human-like or cartoon-like external appearances of robots plays an important role in their acceptance when used for young learners. A familiar, interesting appearance is effective to learners who are afraid to speak in English in front of their peers. Robots equipped with front cameras may be used as physical avatars by the students with disabilities, who are unable to visit school.

Speaking	Writing	Listening	Reading
Robots are usually controlled by software that uses artificial intelligence. They can therefore naturally be equipped with such technologies as speech recognition, dialog understanding, and speech synthesis. This creates possibilities for practicing speaking.	Some Robots have a tablet-like interface, but practicing writing with a robot is not the most suitable scenario.	Many robots have speech synthesis software built in and can interact by artificial or pre-recorded voice, acting as impersonation of a virtual agent.	Some Robots have a tablet-like interface, but practicing reading with a robot is not the most suitable scenario. Such scenarios are used in pre-school education.

Tools

NAO

NAO is the first robot created by SoftBank Robotics. Famous around the world, NAO is a tremendous programming tool, and he has especially become a standard in education and research. Among other features, NAO is equipped with speech recognition and dialogue available in 20 languages <https://www.softbankrobotics.com/emea/en/nao>. More on NAO use in education: <https://www.softbankrobotics.com/emea/en/pepper-and-nao-robots-education>

Pepper

Pepper is the world's first social humanoid robot able to recognize faces and basic human emotions. Pepper was optimized for human interaction and is able to engage with people through conversation and his touch screen <https://www.softbankrobotics.com/emea/en/pepper>

EMYS

EMYS is a friendly robot head designed to teach kids foreign languages in a fun, interactive way. It can move, speak, and uses its expressive face to display different emotions and connect with users <https://www.emys.co/>.

Elias

Elias Robot is a language learning app that can be used with three humanoid robots, Nao V5, Nao6 and Pepper. The users can practice multiple languages by listening and speaking with Elias in real-time. Elias Robot provides thematic lesson modules to learn about topics like colors, seasons, and emotions. Teachers can freely modify the lessons to fit their needs <https://www.eliasrobot.com/>

Teacher training

How to use robots in education: <https://www.lasserouhiainen.com/how-to-use-robots-in-education/>

Technologies, Resources, and Practices for Language Teachers: a Toolkit

By DC4LT Consortium

<https://www.dc4lt.eu/>