

Technical Platform Booklet
**Review of available IT solutions
for on-line education**



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Building the digital competences in the academic community of tomorrow.

Digital

Digital learning is a learning method based on the use of new digital tools to enable learners to learn in a different way, whether it be face-to-face, distance learning (asynchronous or synchronous) or blended learning. It is therefore not simply a question of digitising educational content but of a set of educational methods.

Competences

Project activities are focused on two aspects, that is, the digital competence of academic teachers, development of new competences in the creation and implementation of online/hybrid courses and innovative curricula.

Academic community

The project supports building digital competences in using IT tools in online higher education through the knowledge gathered and shared by the academic community and experts.



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Introduction

The InCompEdu project promotes innovative digital skills

that can be implemented
both in online and hybrid
higher education.



The conditions under which the higher education system currently operates because of the COVID-19 pandemic will likely be our new normal in the near future. Thus, the idea behind the InCompEdu project is to promote innovative digital skills that can be implemented both in fully online and hybrid higher education.

During the pandemic in 2020-2021, most second and third-level teachers and students had to adapt rapidly to the use of online interactive tools. Overwhelmed by the range of choices, teachers nevertheless had to choose appropriate tools, learn their features and implement them – all within limited time, which made it even more difficult to find one solution applicable to all needs.

With education thrown into disarray worldwide by the COVID-19 epidemic, more and more higher educators are being forced to teach their students from home offices. This situation shows how academics need to look beyond the traditional way of teaching their students.

The InCompEdu project focuses on the identification of the existing IT solutions in online education that can be easily adapted and modified to work within a given HEI to meet the needs of on-line learning.

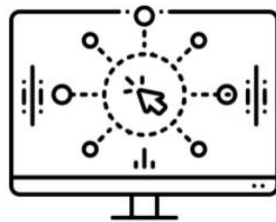
The necessity of organizing remote work during online classes does not automatically have to give rise to difficulties for the teacher. It can become an opportunity to get to know another way of delivering content: the virtual world of education, which can allow everybody to broaden horizons, develop new skills, and use them with students. Therefore, it is worth getting to know the tools that will enable switching to online teaching easily and effectively.

Remote learning encourages or even forces the teacher to use ICT (Information and Communication Technologies) tools. These include all the software programs, applications, and online tools that help to collect, store and exchange information, organize tasks and make the content taught more attractive through an interesting form of communication.

Every lecture can be turned into an inspiring and memorable experience through the use of varied and rich visuals. The choice of tools for this purpose is extremely wide.

This publication aims to present ICT platforms and tools that can be used in online teaching, with a particular focus on higher education.

1. Platforms to interact with students (collaborative software)



Synchronous and asynchronous e-learning tools



1.1. Synchronous e-learning tools.

By synchronous e-learning we mean delivering lessons/webinars online in real-time, which makes the synchronous learning mode very similar to the classic classroom. The teacher and the students participate and communicate at the same time using a web browser or a dedicated application connected to the internet. The standard solution allows for several forms of contact between the participants, e.g:

- chat, i.e. text communication between individuals (private channels) or all participants (chat rooms)
- virtual whiteboard, where textual or graphic content is refreshed in real-time and visible to all participants
- remote shared applications controlled by the teacher
- voice over IP - allowing free conversation
- video conferencing - allowing mutual visual and voice contact


The synchronous approach to teaching allows for the building of relationships that greatly aid learning. This kind of coursework makes it possible to build a learning community and enables discussion and interaction. It also helps students to maintain a regular learning schedule. Synchronous interaction provides opportunities for modelling, explanation, assistance and guidance from the teacher. The teacher can also detect problems that students have while teaching and clarify them.

Efficient implementation of synchronous online learning requires the use of appropriate IT tools, allowing communication with both the trainer and other participants in the course. A variety of platforms and applications now exist on the market to support synchronous learning. This chapter will present seven most popular systems, available on the market worldwide, which offer the functionalities required for synchronous remote learning: Microsoft Teams, Zoom Meeting, Skype, Cisco Webex Classroom, ClickMeeting, Google Workspace for Education, and Discord. Each of the presented solutions has its advantages and disadvantages. The choice of the remote learning platform depends on the functionalities and features that the teacher or HEI's authorities are most interested in. It is worth taking into account the additional functionalities offered by each platform and the level of complexity, both for teachers and students, to minimize any possible technical problems during the lessons. The availability of free ready-made interactive learning materials should also be a key element in helping users to make the right decision.

1.1.1. Microsoft Teams

Developer(s)	Microsoft Corporation
General description:	
Microsoft Teams for Education is a comprehensive online platform for remote learning. MS Teams is a team collaboration hub on the Microsoft 365 platform which integrates people, content and tools to increase engagement and efficiency.	
Principal functionality – features:	
Online meetings, chats, group chat, file sharing, screensharing, assignments, communication in channels, voice and video conference, live events.	
Opportunities for (higher) educational use:	
MS Teams can be used to conduct both virtual lectures and classes with students. Classroom collaboration is facilitated by breakout rooms where students are divided into smaller groups to exchange opinions and learn together. Moreover, students can collaborate either on documents or projects in many ways, such as sharing screens, files and pictures, or meeting up together in-person as a group. The Together mode, on the other hand, makes it possible to see the whole class for discussion and presentation. Collaboration is supported by integration with other MS apps, such as Whiteboard, which helps groups visualize ideas and work creatively with notes, graphics and templates. The results are available to all the participants of the Teams meeting chat, in a tab labeled Whiteboard. Teams can also be used for assigning, tracking, and checking student tasks through integration with other MS Office 365 apps such as Word, PowerPoint, Excel, OneNote, SharePoint, Power BI, Delve, and Planner.	
Requirements – technical issues	
Operating systems: Windows, Linux, macOS, iOS, Android, Web	
Pricing:	
https://www.microsoft.com/en-us/microsoft-teams/compare-microsoft-teams-options?rtc=1&activetab=pivot:primaryr1	
Social media and tutorials:	
Social media: https://twitter.com/MicrosoftEDU https://www.facebook.com/microsoftine... https://www.instagram.com/microsoftedu/ https://www.linkedin.com/showcase/mic...	
Tutorials: https://www.youtube.com/playlist?list=PLiluTszfwwMJLn1YPImEW2pnPD1w1j62L	
References:	
https://www.microsoft.com/en-us/education/products/teams https://www.microsoft.com/en-us/microsoft-teams/group-chat-software https://www.microsoft.com/en-us/microsoft-365/microsoft-whiteboard/digital-whiteboard-app	
	

1.1.2. Zoom meeting

Developer(s)	Zoom Technologies
General description:	
Zoom is a modern platform for videoconferencing, online meetings and collaboration, webinars with real-time communication and content sharing.	
Principal functionality - features:	
Video-conferencing, sharing video, audio conferencing, cross-platform messaging, scheduling (using Google calendar and Outlook), instant messaging in chat available both during and outside meetings, chat groups, file sharing, breakout rooms allowing the participants to work in smaller groups (up to 50 separate rooms), screen sharing, whiteboarding – sharing a whiteboard for brainstorming as a group and collaborating on ideas together; multi-share of screens.	
Opportunities for (higher) educational use:	
Zoom is a distance learning tool which provides direct video contact between the teacher and students (in groups of up to 100 people). It enables teachers to share teaching materials (presentations, text documents, spreadsheets, graphics), make manual corrections to shared documents, use a whiteboard and record lessons. The teacher can track student activity, ask questions, and students can virtually raise their hands to answer. Session recording and automatic transcription allow students to learn at their own pace. The platform can be integrated with other LMS such as Moodle, canvas, Desire2Learn, Sakai and Blackboard.	
Requirements - technical issues	
Works on any device with internet access. Operating systems: Windows, macOS, Linux, Android, iOS, Firefox OS	
Pricing:	
https://zoom.us/pricing	
Social media and tutorials:	
Social media: https://www.facebook.com/zoomvideocommunications/ https://www.instagram.com/zoom/ https://www.linkedin.com/company/zoom-video-communications/ Tutorials: https://support.zoom.us/hc/en-us/articles/206618765-Zoom-Video-tutorials https://www.youtube.com/user/ZoomMeetings	
References:	
https://explore.zoom.us/docs/en-us/education.html http://zoom.us https://zoom.us/pricing/education https://techboomers.com/t/zoom-features-list	
	

1.1.3.Skype

Developer(s)	Microsoft Corporation
General description:	
Skype is an internet communicator based on cloud computing technology. Skype enables videotelephony, videoconferencing and voice calls using VoIP (Voice over IP) technology. In addition, Skype offers features for direct text exchange via manually typed messages and file transfer.	
Principal functionality – features:	
Communication through instant messaging and voice chat; conference calls, video chats, screen sharing (up to 50 people at a time); call recording and live subtitles.	
Opportunities for (higher) educational use:	
Skype can be used to conduct lectures and classes. However, this free application does not allow lectures for groups of more than 100 people. Students can connect with other students, work together, and collaborate through sharing screens, presentations, videos, photos. It creates the opportunity to communicate with authors and researchers, participate in virtual tours and engage in conversations with other students around the world.	
Requirements – technical issues	
Operating systems: Windows, MacOS X, Linux, iOS, Android, iPadOS, HoloLens, Xbox One, Xbox Series X/S. Available in 108 languages.	
Pricing:	
Free (basic); Paid international calls	
Social media and tutorials:	
Social media: https://www.facebook.com/Skype/ https://www.instagram.com/skype/ Tutorials: https://support.zoom.us/hc/en-us/articles/206618765-Zoom-Video-tutorials https://www.youtube.com/user/ZoomMeetings	
References:	
https://skype.com https://www.educatorstechnology.com/2012/06/complete-guide-to-use-of-skype-in.html https://smallbusiness.chron.com/use-skype-conduct-lectures-internet-55914.html	
	

1.1.4. Cisco Webex Classroom

Developer(s)	Cisco Webex
General description:	
Webex Classroom is a videoconferencing platform designed for virtual learning. This product is a part of the Cisco Systems collaboration, embracing, among others, such applications as Webex Meetings, Webex Teams and Webex Training Center.	
Principal functionality – features:	
Audio and video connection, screen sharing (desktop, application, file, and Whiteboard sharing options). Mobile screen sharing. Interactive whiteboarding – possibility to annotate on Whiteboard. Breakout sessions - personal rooms for unscheduled meetings. Recording a meeting; chats, notes, raising hands and polling. Scheduling meetings from Google calendar, Microsoft Outlook Calendar, or Microsoft Office 365. Stream meeting from Facebook Live (only paid versions). Virtual backgrounds. Reduction of interruptions and distractions with noise removal and speech enhancement. Customization of stage view.	
Opportunities for (higher) educational use:	
Webex Teams creates a virtual space where students can collaborate in real-time regardless of the location or devices used. In the free version, however, the class or lecture can last up to 50 min and can be joined by up to 100 participants. In this version only one person can be the host of the meeting. This web-based application allows for joining or hosting class sessions, listening to and searching recordings, and tracking class attendance. Webex Classrooms also features breakout rooms, where students can work in smaller groups to collaborate on projects, edit files and share ideas. This platform can be linked to HEI's Learning Management System such as Canvas, Blackboard Learn, Moodle, Brightspace by D2L, Sakai, Schoology.	
Requirements – technical issues	
Android Smartphones—Oreo 8.0 and later (3GB of RAM required). Web—the last two major releases of one of these browsers: Google Chrome, Mozilla Firefox, Apple Safari, and Microsoft Edge on computers running Windows, Mac, or Linux.	
Pricing:	
https://www.webex.com/pricing/index.html	
Social media and tutorials:	
Social media: https://www.facebook.com/webex/ https://www.instagram.com/webex/ https://www.linkedin.com/company/webex/ Tutoring: https://ebooks.cisco.com/story/webex_for_higher_education_adoption_toolkit/ https://www.webex.com/webexremotedu.html	
References:	
https://www.webex.com	
	


1.1.5. ClickMeeting

Developer(s)	ClickMeeting
General description:	
Web-based platform for webinars and videoconferences. ClickMeeting is available in 7 languages. The chat function is translated into 52 languages.	
Principal functionality - features:	
<p>In addition to standard features such as video and audio streaming, ClickMeeting offers, among others, automated webinars, on-demand webinars, paid webinars, a presentation tool for slides, images and videos, as well as desktop sharing for collaborative document review and collaboration (not available in Linux). The list of features also includes custom branding, livestreaming on YouTube and Facebook, webinar recording, whiteboarding, call-to-action, polling.</p> <p>ClickMeeting enables integration with other applications using the API: WordPress, documents, and files (Office, Dropbox, iWork), social media (FB, LinkedIn, Twitter, YT). Scheduling meetings from Google calendar, iCalendar, Microsoft Outlook Calendar. Collaboration in teams is enabled through integration with Slack.</p>	
Opportunities for (higher) educational use:	
<p>This application can be used for real-time classes and lectures for up to 1000 attendees (in the free version up to 25). It grants access to HEI's account to selected students and teachers while maintaining full control over it. In Edu Mode teachers can see all students, therefore they can maintain eye contact and monitor their work. When this mode is in operation, attendees can only see their tutors, so privacy is protected, and distractions are avoided. The presenter can ask a participant or a group of participants to respond. The rest of the group will be able to listen to them, but the view will only be seen by the presenters. On-demand webinars enable students to watch the lecture/content any time they want. This application can also be integrated with the Moodle learning management system. Teachers can display educational materials. The Whiteboard and polling options for tests and exams are also available.</p>	
Requirements - technical issues	
Web-based, running on all devices regardless of the operating system. In addition to the browser version, a mobile app is available for Android and iOS	
Pricing:	
https://clickmeeting.com/pricing	
Social media and tutorials:	
<p>Social media: https://www.facebook.com/clickmeeting/ https://www.instagram.com/clickmeeting.official/ https://www.linkedin.com/company/clickmeeting/</p> <p>Tutorials: https://knowledge.clickmeeting.com/video/</p>	
References:	
https://clickmeeting.com/tools/education https://clickmeeting.com/tools/video-conferencing#online-courses	
	

1.1.6. Google Workspace for Education

Developer(s)	Google
General description:	
A set of Google tools that provide a foundation for real-time communication and collaboration on a secured platform. Google Workspace for Education offers Education Fundamentals (EF) to all qualifying institutions at no cost (free). For those that want more premium features, Google also offers paid editions including Education Standard (ES), the Teaching and Learning Upgrade (TLU), and Education Plus (EP).	
Principal functionality – features:	
Communication tools such as Google Meet, Gmail and Chat; collaboration tools such as Classroom, Docs, Sheets, Slides, Forms etc.	
Opportunities for (higher) educational use:	
HEIs are entitled to use the free version of Google Workspace for Education. It provides a good set of tools for real-time teaching. Connection with students is provided by Gmail, shared calendars, video and voice conferencing in Google Meet (up to 100 participants in the free version and ES, 250 in TLU and EP), with many features to facilitate teaching such as moderation controls, hand raising, digital whiteboarding, in-domain live streaming, polling and QA, breakout rooms, attendance tracking and noise removal – however, the last 5 are available only in TLU and EP. Collaboration with and between students is possible thanks to co-creating documents and their edition in real time (Docs), collaboration on spreadsheets, working together on presentations, creating surveys and quizzes, using Classroom application to assess progress and Assignments to link with the existing LMS. Teachers and students can also create Originality reports helping in analyzing students work for potential plagiarism. Reports are available in Classroom and Assignments, with the number of available reports varying depending on the product version.	
Requirements – technical issues	
A Google account, broadband connection, a built-in camera, or external USB camera are obligatory. Operating systems: Apple macOS, Microsoft Windows, Chrome OS, Ubuntu and other Debian-based Linux distribution, Android 5.0 and above, iOS 12.0 and above. Supported web browser: Chrome, Mozilla Firefox, Microsoft Edge, Apple Safari	
Pricing:	
https://edu.google.com/products/workspace-for-education/editions/	
Social media and tutorials:	
Social media: https://www.facebook.com/googleworkspaceforeducation/ https://www.instagram.com/explore/tags/googleworkspaceforeducation/ Tutorials: https://edu.google.com/products/workspace-for-education/editions/	
References:	
https://edu.google.com/products/workspace-for-education/	
	

1.1.7.Discord

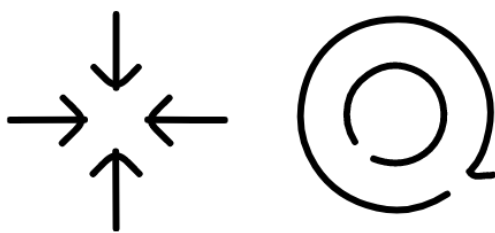
Developer(s)	Discord Inc
General description:	
Discord is a free application for voice chat and communication via text messages, with photos and videos, originally designed for computer gamers. It uses Voice over Internet Protocol technology.	
Principal functionality - features:	
Video-conferencing (available only on the desktop client) and screen sharing supported through direct messages. Multistream - option to watch multiple streams at the same time.	
Opportunities for (higher) educational use:	
Discord offers educators a dedicated invite-only class spaces known as servers, free to use. Servers are organized into individual channels where teachers can interact with other teachers and students. Lectures can be shared in real-time with up to 50 students at a time. Organization of lessons, homework or study groups is supported by text and voice channels so students can go over assignments together. Voice channels enable one-to-one and group discussions. Students do not see the teacher but only what the teacher is sharing on his/her computer.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web Browser App	
Pricing:	
https://discord.com/nitro	
Social media and tutorials:	
Social media: https://www.facebook.com/discord https://www.instagram.com/discord/ https://www.linkedin.com/company/discord/ Tutorials: Beginner's Guide to Discord - Discord Discord Tutorials - YouTube	
References:	
https://discord.com Discord for free on desktop, iOS, Android, or via your web browser. How to use Discord for your classroom by Nelly Discord Blog	
 Discord	

1.2. Tools for asynchronous e-learning


We speak of asynchronous training (or courses) when there is no predetermined time within which such training should take place. Each participant can learn at his/her own pace, assimilating information when he/she can spend time on it.

Augmenting the traditional teaching model with classes supported by an e-learning system offers a new added value to students. Specifically, it helps to organize the teaching process also outside the school and beyond the class schedule. Using the e-learning system, the tutor can structure the elements of work done at home, give more assignments to be completed and assessed, as well as organize and boost communication between students doing assignments in groups.


Asynchronous e-learning platforms can be used to support traditional classes, increasing their attractiveness and effectiveness at a relatively low effort by the creation of interactive tasks. This chapter presents both the best-known and commonly used platforms designed for creating e-learning courses, such as Moodle or Genially, as well as other, less popular tools. It is worthwhile to get familiar with the availability of these solutions. Many of them are widely promoted e. g. on social media, which may be very useful for e-learning course tutors, who may use many ready-made or ready-to-modify templates or even whole courses concerning a particular topic.




1.2.1.Moodle

Developer(s)	Martin Dougiamas, Moodle HQ, Moodle Community
General description:	
Moodle is a complimentary, open-source learning management system providing a platform for e-learning, used in schools, universities, workplaces, etc. for e-learning projects (e.g. distance education, blended learning).	
Principal functionality - features:	
It provides educators, administrators and learners with a single robust, secure and integrated system to create personalised learning environments.	
Opportunities for (higher) educational use:	
Moodle delivers a powerful set of learner-centric tools and collaborative learning environments that can empower both teaching and learning. A pedagogical toolbox designed from a social constructionist point of view empowers instructors to build a personalised education platform.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://moodle.com/pricing/	
Social media and tutorials:	
Social media: https://www.facebook.com/moodle/ https://www.instagram.com/https.moodle/ https://www.linkedin.com/company/moodle Tutorials: https://moodle.com/community/ https://docs.moodle.org/dev/Tutorial https://www.youtube.com/user/moodlehq	
References:	
https://moodle.org/?lang=pl https://www.youtube.com/c/moodle	
	


1.2.2. Genially

Developer(s)	Genially Web, S.L.
General description:	
Genially is an online tool for creating interactive and animated content designed for business and education.	
Principal functionality - features:	
It is used to create presentations, infographics, gamification, interactive images, and video presentations.	
Opportunities for (higher) educational use:	
Using Genially, teachers can digitize the course, develop digital competences, record the explanations, stand out at conferences, and provide course guidance. The tool allows creating intuitive interactive and animated digital content individually or as a team.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, web browser	
Pricing:	
https://genial.ly/plans/	
Social media and tutorials:	
Social media: https://www.facebook.com/Geniallyofficial/ https://www.linkedin.com/company/geniallyofficial/ https://www.linkedin.com/company/geniallyofficial/ Tutorials: https://genial.ly/create/learning-materials/ https://www.youtube.com/channel/Uctq6w3zpUc5tQYEC6Q8pImg	
References:	
https://genial.ly/	
	


1.2.3. Articulate 360

Developer(s)	Articulate Global, LLC
General description:	
Articulate 360 is a holistic suite of interconnected apps for all the e-learning needs from authoring to sourcing assets, collaborating and training.	
Principal functionality - features:	
Articulate 360 includes Storyline 360, Rise 360 and other authoring apps. Storyline 360 may be used to develop custom, interactive courses while Choose Rise 360 is designed to build fully responsive courses.	
Opportunities for (higher) educational use:	
Teachers can create courses to support traditional learning and develop interactive e-learning courses from existing Power Point-based courses.	
Requirements - technical issues	
Windows, MacOS, AICC, SCORM, xAPI (TinCan)	
Pricing:	
https://articulate.com/360/pricing	
Social media and tutorials:	
Social media: https://www.facebook.com/Articulate https://www.linkedin.com/company/articulate Tutorials: https://www.youtube.com/user/ArticulateElearning	
References:	
https://articulate.com/360	
	


1.2.4.iSpring

Developer(s)	iSpring Nordics headquartered in the US, Virginia
General description:	
iSpring is a robust PowerPoint-based toolkit for creating e-learning content.	
Principal functionality - features:	
Add-in to PowerPoint with the functionality for enhancing online courses with interactive elements and converting them into LMS-compliant formats, for example, SCORM 2004 and SCORM 1.2	
Opportunities for (higher) educational use:	
Compatible with Windows-based devices; user-friendly interface, no need for tech background to start creating courses with the tool; implemented in different sectors, including the educational one (case studies, universities/education).	
Requirements - technical issues	
The main requirement is that the tool can be used on Windows-based computers only. The detailed system requirements are provided here.	
Pricing:	
https://www.ispringsolutions.com/pricing	
Social media and tutorials:	
Social media: https://www.facebook.com/iSpringPro https://www.linkedin.com/company/ispring-solutions Tutorials: https://www.youtube.com/user/iSpringPro	
References:	
https://www.ispringsolutions.com/	
	


1.2.5. Adobe Captivate

Developer(s)	Adobe Inc.
General description:	
Adobe Captivate is a tool used for creating e-learning content such as software simulations and demonstrations, branched scenarios, and randomized quizzes in Shockwave Flash and HTML5 formats.	
Principal functionality – features:	
It is used to: make interactive demos and training videos, add informational slides and questions to check learners’ knowledge, make virtual reality walkthroughs, create software simulations, multi-module branched courses and quizzes, convert PowerPoint slides to interactive videos and create screencasts by recording on-screen actions and webcam simultaneously.	
Opportunities for (higher) educational use:	
Using Adobe Captivate, teachers can organize collections of videos, texts, images and self-check activities into a series of course webpages that can integrate with Blackboard, record computer screens, and create simulations. It can be also used to add additional flare to a Blackboard course.	
Requirements – technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://www.adobe.com/products/captivate/buying-guide.html	
Social media and tutorials:	
Social media: https://www.facebook.com/AdobeUK https://www.instagram.com/adobe/ https://www.linkedin.com/company/adobe Tutorials: https://elearning.adobe.com/ https://elearning.adobe.com/adobe-captivate-tutorials-2/ https://www.youtube.com/user/AdobeELearning	
References:	
https://www.adobe.com/uk/products/captivate.html	
	


1.2.6. Adapt Learning

Developer(s)	Adapt Learning Steering Group – Opensource software
General description:	
Adapt is a complimentary and easy to use e-learning authoring tool that creates fully responsive, multi-device e-learning content.	
Principal functionality – features:	
The tool makes it possible to create responsive e-learning courses without programming knowledge. Adapt creates HTML5 e-learning courses which work on any device.	
Opportunities for (higher) educational use:	
Adapt can be used by teachers to create well-structured content in e-learning, which will work on all device types.	
Requirements – technical issues	
Windows, MacOS, HTML5, SCORM	
Pricing:	
Complimentary	
Social media and tutorials:	
Social media: Adapt Learning: Omówienie LinkedIn Tutorials: https://www.youtube.com/channel/UCW8SISFuCc--B66Gf9fAEcQ/feed	
References:	
https://www.adaptlearning.org/	
	

1.2.7. Adobe Presenter

Developer(s)	Adobe Systems
General description:	
Adobe Presenter is e-learning software available on the Microsoft Windows platform as a Microsoft PowerPoint plug-in and on Windows and OS X as a screencasting and video editing tool Adobe Presenter Video.	
Principal functionality – features:	
Hardware-independent HD video creation, importing external videos to the presentation, preparation of interactive videos by inserting questions on the video timeline, available templates for the creation of scenario-based trainings, possibility of creating quizzes or importing questions from another Adobe Presenter. Import, edit and export slide notes as a script. Available in 8 languages (English, French, German, Japanese, Korean, Portuguese, Spanish, Arabic).	
Opportunities for (higher) educational use:	
Enables users to transform PowerPoint presentations into e-learning content by adding quizzes, scenarios and out-of-the-box assets. Prepared materials are published as HTML5 and can be accessed by students in mobile browsers and desktops. Teachers can also create video lectures for training modules and distance learning by capturing their screen content along with recording webcam audio or video. Allows teachers to track students' engagement by getting reports on who has viewed the presentation (including which slides were viewed and in what order). Presentations prepared in Adobe Presenter can be also published in a PDF file for distribution. Provides a base of e-learning templates to live up a training course.	
Requirements – technical issues:	
Operating systems: Windows, MacOS, Web Browser	
Pricing:	
https://www.adobe.com/products/presenter/buying-guide.html	
Social media and tutorials:	
Social media: https://www.facebook.com/Adobe https://www.instagram.com/adobe/ https://www.linkedin.com/company/adobe/ Tutorials: https://www.youtube.com/user/AdobeELearning https://meetus.adobeevents.com/elearning/ https://www.adobe.com/products/captivate/certificate.html	
References:	
https://www.adobe.com/pl/products/presenter/features.html https://helpx.adobe.com/pl/presenter/system-requirements.html	
	


1.2.8.Lectora

Developer(s)	eLearning Brothers
General description:	
A responsive e-learning program for creating courses and tests. The Lectora package includes a set of 4 e-learning tools including the Lectora e-learning program, the CenarioVR virtual training program, the e-learning library and a course review tool.	
Principal functionality – features:	
Designing, publishing and delivering e-learning courses across multiple platforms and devices. Access to the eLB resource library - more than 120 million interactive course templates, games and interactions, characters, images and icons. Creating training in virtual reality. The upload of courses to make them accessible to viewers who do not need any software to view the course	
Opportunities for (higher) educational use:	
A system for creating e-learning video courses for students. It allows inserting images and animations, and facilitates course creation through access to a library of course template sets with built-in interactions and tests. Responsive Course Creation System allows the teacher to design and publish courses which students can access from all devices, including tablets and phones. Opportunity for increased student engagement by creating VR content and training. Provides greater interactivity by engaging students' attention with branching scenarios, questions, comments, multimedia, and information cards. Access to 12 question types with tests, quizzes, surveys, & assessments.	
Requirements – technical issues:	
Software for Mac, Linux and Windows. Content produced with CenarioVR can be launched using the Firefox desktop application and the Firefox Reality application. VR training can be played on Oculus Go, Rift, HTC Vive Focus, Samsung Gear VR, Google Daydream, and many other goggles.	
Pricing:	
https://www.elearningbrothers.com/create-learning/lectora-pricing	
Social media and tutorials:	
Social media: https://www.facebook.com/LectoraeLearning/ eLearning Brothers (@elearningbros) • Instagram photos and videos eLearning Brothers: Omówienie LinkedIn Tutorials: https://www.elearningbrothers.com/elearning-resources/webinars-events https://knowledgebase.elearningbrothers.com/	
References:	
https://www.elearningbrothers.com/create-learning/lectora-features https://www.elearningbrothers.com/create-learning/lectora	
	


1.2.9. Elucidat

Developer(s)	Elucidat
General description:	
Elucidat is a cloud-based authoring platform for digital learning on a global scale and on any device. Developed for big employers to drive down the costs of business training.	
Principal functionality - features:	
Customized permissions and user roles, development of e-learning projects by many authors; revision of projects collaboratively online, transformative large scale learning programs.	
Opportunities for (higher) educational use:	
Enables the development of attractive, engaging courses available also on mobile devices. Supports interaction with students with a range of tools, such as social polling, gamification and branching. Ensures fast creation of e-learning content. Teachers can refresh content quickly by making changes to the design of existing courses and elements, updating them instantly to multiple outputs. Ability to create and control multiple variations of learning content for different groups of students. Courses can be created for multi-national student groups through the possibility of translating them into multiple languages. Elucidat also be used to organize in-person training, webinars, live online.	
Requirements - technical issues:	
Available on Web Browser	
Pricing:	
https://www.elucidat.com/pricing/	
Social media and tutorials:	
Social media: https://www.facebook.com/elucidat/ Elucidat: Omówienie LinkedIn Tutorials: https://www.youtube.com/channel/UCP0SiLLADbfIz8fZ9pM2Xhw https://www.linkedin.com/company/elucidat/ https://www.elucidat.com/blog/	
References:	
https://www.elucidat.com/ https://elearningindustry.com/directory/elearning-software/elucidat/features#	
	


1.2.10. GOMO Learning Suite

Developer(s)	Learning Technologies Group plc
General description:	
Gomo is a cloud-based platform which enables teams to work collaboratively.	
Principal functionality - features:	
Basic functionality provides opportunities for group work, file sharing, integration with other tools (e.g. Mentimeter, Miro or Wordwall), privacy settings, assessment tools. The tool focuses on creating web content that can be viewed online via a website, Gomo app, or offline.	
Opportunities for (higher) educational use:	
Gomo has a wide range of pre-built question types which can be added to assessments. Besides, different roles and permissions can be assigned to team members, for example some people may edit the courses while other team members can only comment.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://www.gomolearning.com/pricing/	
Social media and tutorials:	
Social media: https://www.linkedin.com/company/gomolearning/ Tutorials: https://www.gomolearning.com/demo/ https://www.gomolearning.com/resources/webinar/ https://www.youtube.com/user/gomolearning/featured	
References:	
https://www.gomolearning.com/	
	

1.2.11. EasyGenerator

Developer(s):	EasyGenerator
General description:	
Easygenerator is a tool for creating e-learning (whole courses or single assignments). The created courses and quizzes can be saved in the cloud and it is possible to view the results of assignments completed by others. Users can manage the course settings depending on their goals and needs.	
Principal functionality – features:	
The e-learning course or task creation process starts by choosing a topic from pre-made templates, which are easy to customize and share. It is possible to change colors, and themes, or add a logo. Once the course is complete, the developer can get extended results to find out when students learned the most, which questions they had to repeat, and many other behavioral metrics. This allows the developer to optimize the courses and make sure they really meet the needs of the learners. EasyGenerator makes it possible to transform PowerPoint files into e-learning courses.	
Opportunities for (higher) educational use:	
Once the course has been completed, the teacher can set the certificate to be sent automatically to his/her learners. It is also possible to set up a post-course evaluation survey. You can collaborate effectively by giving administrators, authors, co-authors, and reviewers appropriate permissions for each of your courses.	
Requirements – technical issues:	
Linux, Mac, Windows, or mobile app	
Pricing:	
https://www.easygenerator.com/en/pricing/	
Social media and tutorials:	
Social media: https://www.facebook.com/easygenerator/ https://twitter.com/easygenerator https://www.linkedin.com/company/easygenerator Tutorials: https://www.youtube.com/watch?v=t_BBStw1Nc0 https://www.facebook.com/watch/?v=3029187030425252	
References:	
https://www.easygenerator.com	
 The logo for EasyGenerator features the word "easy" in white lowercase letters inside a red-to-orange gradient oval, followed by the word "generator" in a dark blue, sans-serif font.	

1.2.12. Symbaloo

Developer(s):	Symbaloo BV
General description:	
Symbaloo is a cloud-based website that allows users to organize and categorize web links in one place as a collection of icons. Symbaloo runs from a web browser and can be configured as a homepage, allowing users to create a personalized virtual desktop accessible from any device with an internet connection.	
Principal functionality – features:	
Symbaloo allows a single user to create different pages or screens with icons. These screens called webmix are useful to present separate topics and links, they can be shared with other users, making them public and sending the link via email. Webmixes are collections of icons on specific topics. There are two types of webmixes: <ul style="list-style-type: none"> • webmix that contains icons (links, bookmarks, widgets, embedded content) • webmix containing RSS icons (larger 3x3 tiles with RSS feeds inside) 	
Opportunities for (higher) educational use:	
A teacher can create a learning path, which is a kind of digital lesson. The teacher can create his/her own path in the Learning Path Builder or find one that has been developed by another educator. Any online material can be used in the lesson plan: videos, articles, quizzes, educational games, etc. With a Symbaloo PRO account, every teacher gets a custom Symbaloo domain (custom.symbaloo.com). It is possible to personalize the way of sharing the content by dividing webspace users into different groups based on the level, subject, class. You can invite users to collaborate in real-time and communicate through the in-platform chat tool.	
Requirements – technical issues:	
Web or mobile app	
Pricing:	
Sponsored (free version with ads), Teacher, Teams	
Social media and tutorials:	
Social media: https://www.facebook.com/Symbaloo/ https://twitter.com/Symbaloo https://www.instagram.com/symbaloo/ Tutorials: https://www.youtube.com/watch?v=8s1jpADJqaA https://www.youtube.com/watch?v=LBOioqebztA&list=PL6QKGmk5CNltIC-5Ir-nqAi4gIGa6Dxdk	
References:	
https://www.symbaloo.com/	
 symbaloo start simple	

2. Applications supporting the organization of activities

Setting up meetings, Sharing documents.



2.1. Planning schedules/ timetables and setting up meetings

This chapter presents the best-known and commonly used platforms designed for remote teaching and communication with students, facilitated by tools designed to organize and create meetings and schedules such as: Google Calendar, Outlook Calender, Doodle, Google Drive, OneDrive, Padlet, Dropbox, Pinterest, Biteable.


Different solutions provide time-management, online meeting and scheduling calendar services, often integrated with email, contacts, and other features. This can be helpful with setting up appointments and events, organizing meetings, viewing group schedules, and sending calendars to others through email.

In addition to this, platforms may offer cloud storage, file synchronization across devices, personal cloud, and client software. Virtual boards allow users to display information on any topic using a simple drag-and-drop system, which can be used for collaborative learning in the format of a debate to develop new ideas (brainstorming).


What is more, applications can offer an image sharing and social media service designed to enable finding and saving information on the internet using images, animated GIFs and videos, in the form of pinboards. A cloud-based video allows making and editing software designed to create advertisements, animations, infographics, explainer videos and presentations.




2.1.1. Google Calendar

Developer(s)	Google
General description:	
Google Calendar is a time-management and scheduling calendar service. It allows users to create and edit events with reminder options and sharing possibility with others.	
Principal functionality – features:	
Creating and editing events with set notifications options for type (email, mobile push notification) and time, adding a color to an event for recognition or to distinguish the event from others, ability to invite other people to events, options for importing events from a different calendar application, privacy settings to define the levels of public visibility of the entire calendar or individual events.	
Opportunities for (higher) educational use:	
Google Calendar allows users to create an event (lecture, class, conference) and invite other members of the group to the meeting. For Google Calendar users, the event becomes visible in their calendar, and for non-Google Calendar users, an email will have options to accept ("Yes", "No", or "Maybe").	
Requirements – technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
Free of charges for individual users	
Social media and tutorials:	
https://support.google.com/a/users/answer/9247501?hl=en https://google.qwiklabs.com/course_templates/201	
References:	
Official website: https://www.google.com/calendar/about/ Twitter: https://twitter.com/googlecalendar https://google.qwiklabs.com/course_templates/201 https://web.archive.org/web/20190123010212/https://www.osjoy.com/google-calendar-desktop-app.html https://edu.gcfglobal.org/en/google-tips/getting-started-with-google-calendar/1/	
 Google Calendar	

2.1.2. Outlook Calendar


Developer(s)	Microsoft
General description:	
Outlook Calendar is a calendar and scheduling component integrated with email, contacts, and other features.	
Principal functionality - features:	
Creating appointments and events, organizing meetings, viewing group schedules, sending calendars to others through email.	
Opportunities for (higher) educational use:	
Outlook Calendar offers the option of adding the academic calendar or the class schedule.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://www.microsoft.com/en-ww/microsoft-365/buy/compare-all-microsoft-365-products?tab=1&market=af	
Social media and tutorials:	
https://support.microsoft.com/en-gb/office/welcome-to-your-outlook-calendar-6fb9225d-9f9d-456d-8c81-8437bfcd3ebf?wt.mc_id=otc_outlook	
References:	
https://outlook.office.com/calendar/	
	

2.1.3.Doodle


Developer(s)	Doodle AG
General description:	
Doodle is an online calendar tool for time management and coordinating meetings.	
Principal functionality – features:	
Online meeting scheduler and meeting organizer. Users are asked to indicate time and date to meet and the organizer chooses the best time that suits everyone. Doodle interacts with various external calendar systems to track dates (Google Calendar, Yahoo Calendar, Microsoft Outlook and Apple iCal).	
Opportunities for (higher) educational use:	
Quick and easy meeting planner for both teachers and students.	
Requirements – technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://doodle.com/premium	
Social media and tutorials:	
Social media: https://www.facebook.com/DoodleAG https://www.linkedin.com/company/doodle-ag/ https://twitter.com/doodletweet Tutorials: https://go.doodle.com/WF-2020-09-Request-a-Demo_LP-03.html https://doodle.com/meeting-scheduler	
References:	
https://doodle.com/en/	
	

2.2. For sharing documents, photos and videos:


2.2.1. Google Drive

Developer(s)	Google
General description:	
Google Drive is a file storage and synchronization service. It allows users to store files in the cloud (on Google servers), synchronize files across devices, and share files. Google Drive encompasses Google Docs Editors (Google Docs, Google Sheets, and Google Slides), which permit collaborative editing of documents, spreadsheets, presentations, drawings, forms, and more.	
Principal functionality - features:	
Easy and secure access to all of the content store, ability to share and collaborate on files and folders from any mobile device, tablet or computer.	
Opportunities for (higher) educational use:	
Files created and edited through the Google Docs suite are saved in Google Drive. This gives an easy access to own or shared files for both teachers and students.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://one.google.com/about/plans?hl=en-GB	
Social media and tutorials:	
Social media: https://www.instagram.com/googledriveofficial/ https://twitter.com/googledrive?s=20&t=5y_xPbCPCIDJ1qN6UuMFjA Tutorials: https://support.google.com/a/users/answer/9282958?hl=en https://google.qwiklabs.com/course_templates/199	
References:	
https://www.google.com/intl/en-GB/drive/	
 Google Drive	


2.2.2. OneDrive

Developer(s)	Microsoft
General description:	
Microsoft OneDrive (formerly SkyDrive) is a file hosting and synchronization service.	
Principal functionality - features:	
It allows users to store files and personal data like Windows settings or BitLocker recovery keys in the cloud, share files, and synchronize files.	
Opportunities for (higher) educational use:	
OneDrive is one place to store, share, and synchronize your work or school files. As part of your organization's Office 365 subscription, teachers and students can save their files in OneDrive and then work with them from almost any device.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web, the Xbox 360, Xbox One, and Xbox Series X and S consoles	
Pricing:	
https://www.microsoft.com/en-gb/microsoft-365/onedrive/compare-onedrive-plans?activetab=tab%3aprimar1	
Social media and tutorials:	
Social media: https://www.facebook.com/OneDrive/ https://twitter.com/onedrive Tutorials: https://support.microsoft.com/en-GB/onedrive?ui=pl-PL&rs=pl-PL&ad=PL	
References:	
https://www.microsoft.com/en-gb/microsoft-365/onedrive/online-cloud-storage	
	


2.2.3. Padlet

Developer(s)	Founders: Nitesh Goel (CEO), Pranav Piyush
General description:	Padlet (formerly Wallwisher) provides cloud-based software-as-a-service, hosting a real-time collaborative web platform to upload, organize, and share content on virtual bulletin boards called 'padlets'.
Principal functionality - features:	Virtual board to post materials, ideas, notes, files, images, multimedia, etc.
Opportunities for (higher) educational use:	Padlet allows teachers/students to create virtual bulletin boards which they may use to display information for any topic, using a simple drag-and-drop system. It can be used for collaborative learning in the format of a debate to get new ideas (brainstorming).
Requirements - technical issues	Android, iPad, iPhone
Pricing:	https://padlet.com/premium/backpack/pricing
Social media and tutorials:	Social media: https://www.facebook.com/padlet/ https://www.instagram.com/padlet/ https://www.linkedin.com/company/wallwisher Tutorials: https://www.youtube.com/c/padlet/playlists
References:	https://padlet.com/
	


2.2.4. Dropbox

Developer(s)	Dropbox, Inc.
General description:	Dropbox is a file hosting service.
Principal functionality – features:	Cloud storage, file synchronization, personal cloud, and client software.
Opportunities for (higher) educational use:	Dropbox can be used by both teachers and students to exchange files.
Requirements – technical issues	Windows, MacOS, iOS, Android, Linux, Web
Pricing:	https://www.dropbox.com/plans?tab=personal
Social media and tutorials:	Social media: https://www.facebook.com/Dropbox/ https://www.instagram.com/dropbox/ https://www.linkedin.com/company/dropbox Tutorials: https://help.dropbox.com/learn/video-tutorials?fallback=true https://www.youtube.com/c/Dropbox/playlists
References:	https://www.dropbox.com/
	

2.2.5. Pinterest

Developer(s)	Pinterest, Inc., Founders: Ben Silbermann, Paul Sciarra, Evan Sharp
General description:	
Pinterest is an image sharing and social media service designed to enable saving and discovery of information on the internet using images, animated GIFs and videos, in the form of pinboards.	
Principal functionality – features:	
Creating educational videos that engage the audience.	
Opportunities for (higher) educational use:	
Pinterest helps create online open boards in which both student communities and teachers can interact, share and post on a single forum.	
Requirements – technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://pl.pinterest.com/peapon/plan-pricing/	
Social media and tutorials:	
Social media: https://www.facebook.com/pinterest/ https://www.instagram.com/pinterest/ https://www.linkedin.com/company/pinterest Tutorials: https://www.youtube.com/c/pinterest/playlists	
References:	
https://pinterest.com/	
	

2.2.6. Biteable

Developer(s)	Biteable, Ltd.
General description:	
Biteable is a cloud-based video making and editing software designed to create advertisements, animations, infographics, explainer videos and presentations.	
Principal functionality - features:	
It helps users to create video content using customizable templates, a built-in animation library, stock footage, etc.	
Opportunities for (higher) educational use:	
Biteable allows teachers to create educational videos to share with students and make the lessons more interesting and engaging.	
Requirements - technical issues	
Windows, MacOS, iOS, Android, Web	
Pricing:	
https://biteable.com/pricing/	
Social media and tutorials:	
Social media: https://www.facebook.com/biteable/ https://www.instagram.com/biteable/ https://www.linkedin.com/company/biteable/ Tutorials: https://biteable.com/promo/ https://biteable.com/trailer/ https://biteable.com/educational/ https://www.youtube.com/channel/UCU2Xd3P4_4F8Uw9bej2IIog	
References:	
https://biteable.com/	
	



3. Applications for designing graphics

Photos and graphics.
Videos.
Infographics,
diagrams, charts.



The visual side of the lesson is no less important than its content. In online learning, any way of attracting the attention of the audience, involving as many senses as possible, is most welcome.

To make the lesson more attractive and effective, visual communication through photos and graphics can be used. ICT tools presented in this subchapter can help in their preparation. All ICT tools need to be learned and practiced, but this is particularly true of graphics software. The multitude of functions and the practical nature of their use makes it difficult to list and describe the possibilities they offer.

The most frequently applied functionalities of graphic software used in online teaching are the graphic processing of photos, making use of ready-made templates connected with the composition of photos and adding various types of inscriptions to them, as well as the utilizing of the rich resources of photos, the so-called stocks, i.e. photo banks. The most popular applications for enhancing the visual message in a remote lesson described in this chapter, are: Gimp, Pixlr Editor, PiZap, Canva, Google Arts and Culture (Google Art Project). Many more can be found, their functions and application possibilities are very similar to each other. When choosing a tool, it is best to take into account whether it is intuitive to use and, last but not least, whether the producer offers a free version so that the user can try the tool before deciding to buy the paid version.


Slightly more advanced than graphics, but at the same time very interesting to use in an online lesson, are interactive films. Many IT tools offer the possibility of recording one's video, as well as the functionality of adding questions or additional tasks to videos. These applications are often integrated with e-learning platforms (synchronous and asynchronous), which not only facilitates their use in online lessons but also saves time for the author, who does not have to search for a tool that will be compatible with the platform that he/she already uses. IT tools concerning videos, described in the next subchapter, often have databases of ready-made educational videos on a particular topic which have been prepared by other educators, and are ready to be used or to serve as inspiration to others to create their own educational videos. The most popular tools, which are described in this subchapter, include EDpuzzle, Ted Ed, and Flipgrid.

The next group includes infographics or diagrams, which can be an interesting way to discuss a lesson topic. They are often used to emphasize content, make the visual message more attractive and help to make the content more memorable. The IT tools such as: Google Drawings, Piktochart, Cacao, Creately, Desmos, Datawrapper, Google or Popplet can be used to achieve these objectives. These applications often offer the possibility of collaborating and adding comments to jointly developed projects.


3.1. Photos and graphics

3.1.1. Gimp

Developer(s):	GNU Image Manipulation Program (GIMP)
General description:	
GIMP is a cross-platform image editor which provides many tools needed for high-quality image techniques. It can be also used to create icons, animations and graphic elements for different purposes (e.g creating websites) and to work on the color quality of images and graphics.	
Principal functionality - features:	
GIMP offers many useful functions for graphic processing (including brush, fill, wand, zoom, eraser, clone) and is one of the most popular graphics editing tools. GIMP easily combines with other free software e.g. Scribus, Inkscape, and SwatchBooker.	
Opportunities for (higher) educational use:	
It can be useful for creating a multimedia presentation.	
Requirements - technical issues	
Supported Platforms: GNU/Linux, Microsoft Windows (XP SP3, Vista, 7, 8), macOS (10.6 and newer), Sun OpenSolaris, FreeBSD	
Pricing:	
Free software	
Social media and tutorials:	
Social media: https://twitter.com/gimp_official https://www.facebook.com/gimpofficial Tutorials: https://www.gimp.org/tutorials https://www.apress.com/gp/book/9781484204047 (ebook)	
References:	
https://www.gimp.org	




3.1.2. Pixlr Editor

Developer(s):	Autodesk, Inc/123RF
General description:	
Pixlr is an online photo editor with a set of image editing tools and utilities, including a number of photo editors and a photo-sharing service. Pixlr X is designed for non-professionals, Pixlr E- for professional use.	
Principal functionality - features:	
<p>Pixlr X: It can be used for photo editing. It is suitable for most types of images like PSD (Photoshop), PXZ, JPEG, PNG. You can create content using professionally prepared templates and create photo collages with ready-made layouts.</p> <p>Pixlr E: It is perfect for detailed image editing work and offers more tools such as: cut, copy, paste selections, fill and gradient tool, sponge, and color adjustment.</p>	
Opportunities for (higher) educational use:	
It can be useful for creating a multimedia presentation (e.g by using a professionally prepared PowerPoint template), CVs, brochures, business cards, newsletters.	
Requirements - technical issues:	
Desktop and mobile applications for PC and Mac.	
Pricing:	
Free version, Premium version, Creative Pack version	
Social media and tutorials:	
<p>Social media: https://blog.pixlr.com/ https://twitter.com/pixlr/ https://www.facebook.com/pixlr/ https://www.instagram.com/pixlr/</p> <p>Tutorials: https://www.youtube.com/c/PixlrStream https://pixlr.com/learn/</p>	
References:	
https://pixlr.com	
 AUTODESK[®] PIXLR[®]	


3.1.3.PiZap

Developer(s)	Digital Palette LLC
General description:	
PiZap provides an easy-to-use photo editor that allows adding effects, text, and stickers to pictures. PiZap has built-in tools for sending e-cards, downloading images, embedding an image on each page, or sharing a direct link to an image.	
Principal functionality - features:	
PiZap allows using many filters to change the photo, and decorate it with colorful stickers or add text to it. Every user can cut any element from the background, put a photo in an interesting frame, or even paint some elements themselves. In PiZap it is possible to create collages from several photos. The backgrounds function allows users to place photos in colored backgrounds and frames.	
Opportunities for (higher) educational use:	
It can be useful for creating a multimedia presentation and for creating materials for social media purposes.	
Requirements - technical issues:	
Web application	
Pricing:	
Free version, Premium version, Creative Pack version	
Social media and tutorials:	
Social media: www.facebook.com/pizapeditor http://pizap.tumblr.com/ http://pinterest.com/pizap/ https://twitter.com/pizap https://www.instagram.com/pizap Tutorials: http://bit.ly/2m7Gs00	
References:	
https://www.pizap.com/	
	

3.1.4.Canva.


Developer(s)	Canva Pty Ltd
General description:	
Canva is a web application for creating graphics, presentations, and logos. It can be used for photo editing: aligning photos, adding filters, adding graphic characters to photos such as speech bubbles, adding frames, textures, and stickers. It offers more than 75 million photos, videos, audio recordings, and graphics for any use, without identifying the author or source, as well as over 420,000 templates and fonts.	
Principal functionality – features:	
Creating graphics is easy with the drag-and-drop feature. A presentation created in Canva can be downloaded to an editable PowerPoint file and the user can continue creating the presentation in this program. It also gives the opportunity to create a modern CV or flyer. It has a free cloud editor. It also offers the data chart wizard (area chart, a bar graph, a comparison table, a donut chart, pie chart, and others).	
Opportunities for (higher) educational use:	
With Canva it is possible to create a team and collaborate with students on any device. Canva for Education is free for teachers and students. A teacher can set up a classroom space, invite students and manage lessons, activities, or projects in one place. As part of the special classroom space, the teacher can share and assess works, including with Google Classroom or Microsoft Teams, as well as assign tasks to be performed by students. Canva provides worksheets, lesson plans, presentations, posters, reports, and more - all ready to customize. For online learning, it is possible to create a presentation or lesson, add a teacher's comment to it, and send it or share it directly as a video link. Students can also create their own videos or record their assigned tasks and projects, so they have constant access to feedback and can express their opinions.	
Requirements – technical issues:	
Windows, Mac, iOS, Android	
Pricing:	
Canva Free, Canva Pro, Canva Enterprise	
Social media and tutorials:	
Social media: https://www.facebook.com/canva https://twitter.com/canva https://pl.pinterest.com/canva/ https://www.instagram.com/canva/ Tutorials: https://designschool.canva.com/tutorials/	
References:	
https://canva.com	
	

3.1.5. Google Arts and Culture (Google Art Project)


Developer(s)	Google LLC
General description:	
<p>Google Arts and Culture is a based web application or standalone application where pictures of works of art from more than 2,000 cultural institutions from 80 countries can be found in one place, where they can be viewed using a variety of filters and functions.</p>	
Principal functionality – features:	
<p>The most interesting features:</p> <ul style="list-style-type: none"> - Art Transfer – turning every photo into a classic artwork style. - Art Selfie - discover art portraits similar to a selfie. - Color Palette - finding a work of art based on the colors in the photo. - Art projector – showing what given artwork looks like in real size. - Virtual Exhibition - exploring galleries that look like real ones and seeing art up close. - Art Camera - exploring works of art in high definition. - Spherical Videos - exploring culture in a spherical view. - Virtual Tours – virtual visits to the world's best museums. - Street View – virtual visits to famous places and landmarks. - Date and Color Browsing - searching for works of art based on the time of the creation of the work or its color - Art recognition tool - discovering works of art by pointing a device's camera at them, even without an internet connection (available at selected museums). - Exhibitions - taking part in tours prepared by experts. 	
Opportunities for (higher) educational use:	
<p>The tools can be especially useful for art lessons. Various tools, such as crosswords, can be used to activate students, and virtual tours around museums make the message more engaging. A teacher can also save and group his/her favorite works of art in galleries, then share them with friends or students.</p>	
Requirements – technical issues:	
Android 5.0 and newer for mobile application	
Pricing:	
free	
Social media and tutorials:	
<p>Social media: https://www.youtube.com/c/googleartsculture/videos https://twitter.com/googlearts?lang=en https://www.instagram.com/googleartsculture/?hl=en https://www.facebook.com/googleartsculture/</p>	
References:	
<p>https://goo.gl/arts_culture</p> <div style="text-align: center;">  <p>Google Arts & Culture</p> </div>	

3.2. Videos.

3.2.1. EDpuzzle

Developer(s)	EDpuzzle Inc.
General description:	
It is an easy-to-use platform that allows everyone to make their own movie or find one in the movie database. It is possible to add soundtracks, notes, or open-ended and multiple-choice questions to a movie.	
Principal functionality – features:	
Everyone can adapt a video by embedding their own questions or audio. It is possible to trim the video to contain only information relevant to the lesson, add narration or notes, or ask questions for students to answer during the movie. By assigning students to the class in Edpuzzle, the teacher can see who watched the video or who understood the materials. Students can re-watch the video and their progress is easily checked from the teacher's account.	
Opportunities for (higher) educational use:	
The teacher can make any video for his/her lessons or use lessons created by other teachers, including formative assessment. EDpuzzle has Google Classroom integration. An interactive video can draw students' attention to important passages and help them better understand the content.	
Requirements – technical issues:	
Web application	
Pricing:	
Free version, Premium version	
Social media and tutorials:	
Social media: https://blog.edpuzzle.com/ https://twitter.com/edpuzzle https://www.facebook.com/edpuzzle https://www.instagram.com/edpuzzle/ Tutorials: https://go.edpuzzle.com/level1.html	
References:	
https://edpuzzle.com/	
	

3.2.2. Ted Ed

Developer(s)	TED Conferences, LLC
General description:	
TED-Ed is an educational initiative of the educational movie platform. Designed to support learning, it contains a huge library of videos and provides an international platform for teachers and students.	
Principal functionality – features:	
The platform allows the teacher to add tips, notes, questions, discussion prompts, as well as additional materials and links. The tool also includes the option to track students' responses to questions.	
Opportunities for (higher) educational use:	
Video-based lessons are organized by age/subject/themes. Teachers can also create their own video-based lesson, students can create talks as a part of a class, club, or another program.	
Requirements – technical issues:	
Web application	
Pricing:	
Free (nonprofit initiative thanks to the initiative of patronage).	
Social media and tutorials:	
Social media: https://www.youtube.com/tededucation https://www.facebook.com/TEDEducation https://twitter.com/TED_ED https://teded.tumblr.com/ https://www.instagram.com/tededucation/ Tutorials: https://blog.ed.ted.com/	
References:	
https://ed.ted.com 	


3.2.3.Flipgrid

Developer(s)	Microsoft
General description:	
Flipgrid is a platform for conducting discussions in the form of short videos.	
Principal functionality – features:	
The teacher can record a topic for conversation and share the link, while the students can also reply with a short video so that everyone is actively involved in the discussion. Students do not need to create any accounts. They just click on the link provided by the teacher or enter the access code.	
Opportunities for (higher) educational use:	
After logging in to the teacher's panel, the teacher creates a new class ("New Grid") by providing the name of the subject. Then the teacher can create a topic for discussion and define how long the topic will be active or choose the way of presenting it to students: record him/herself, add a video from YouTube or add an interesting photo encouraging the exchange of views. It is possible to select the "response moderation" option, which allows the teacher to check the student's recordings before appearing in the discussion.	
Requirements – technical issues:	
iOS, Android	
Pricing:	
Free	
Social media and tutorials:	
Social media: https://www.facebook.com/flipgrid https://twitter.com/flipgrid https://www.linkedin.com/company/flipgrid https://www.youtube.com/c/Flipgrid https://www.instagram.com/flipgrid/ Tutorials: https://info.flipgrid.com/	
References:	
https://info.flipgrid.com/  Flipgrid	

3.3. Infographics or diagrams/charts.


3.3.1. Google Drawings

Developer(s)	Google
General description:	A simple-to-use Google application. It is designed for creating drawings and diagrams. Drawing in this application allows you to share the document with other participants and work on the drawing together.
Principal functionality – features:	The application enables drawing charts, graphs, and diagrams and then adding them to other documents or placing them on websites. All drawings are automatically saved and stored in Google Drive. Everybody can access them from anywhere and on any device.
Opportunities for (higher) educational use:	The teacher can add variety to documents, presentations, and websites with easy-to-create charts and graphs. It is also possible to add a comment to any shape or text box to give the discussion more context and to send an email notification by adding someone to a comment. Users can create flow charts, diagrams, concept maps, visual storyboards, original art, and more. Users can collaboratively work on the same drawing at the same time.
Requirements – technical issues:	Web application
Pricing:	free
Social media and tutorials:	Tutorials: https://youtu.be/MWHVchoTlik https://www.youtube.com/watch?v=KN_TNPDUEI8 https://www.youtube.com/watch?v=7QiiB8E8GsA https://www.youtube.com/watch?v=0LjVHorFaQ4
References:	www.google.com




Google Drawings


3.3.2. Piktochart

Developer(s)	Piktochart
General description:	
Piktochart is an intuitive and easy-to-use tool for a quick creation of graphics in the form of infographics, reports, banners, presentations. There is a choice of templates sorted by categories and keywords for each of the formats. The finished work can be embedded on the page using a generated code or saved as an image (in .png/.jpg format) or downloaded as a pdf file.	
Principal functionality – features:	
It helps in creating infographics based on ready-made templates, allowing users to move ready-made elements, modify them, and insert new ones. Everybody can add photos and images and choose among available templates that suit the user's requirements only by changing the data.	
Opportunities for (higher) educational use:	
The app can be used in many ways: <ul style="list-style-type: none"> - as a tool to summarise the most important content - participants can be asked to create an infographic illustrating the most important content that emerged during the class or to design a banner on a particular topic, - as a way to consolidate the message or the most important data. The teacher creates the graphic him/herself and gives it to the participants after the class as a form of summary, - as a way to analyze data - a competition or homework for participants, - as a creative representation of data using visual metaphors and drawn diagrams. 	
Requirements – technical issues:	
Web (works best on Chrome and Firefox), mobile applications for iOS and Android	
Pricing:	
https://piktochart.com/pricing/	
Social media and tutorials:	
Tutorials: https://youtu.be/SzI9RzvnwZA	
References:	
http://piktochart.com/	
 <p>PIKTOCHART Picture the Difference</p>	


3.3.3. Cacoo

Developer(s)	Nulab, Inc
General description:	
Cacoo is a diagram tool for creating flowcharts, mind maps, org charts, mockups.	
Principal functionality – features:	
The tool enables real-time collaboration. It contains a vast amount of templates & shapes of diagrams and charts and easy sharing options including embedding, links, and exports. It is also possible to import images and screenshots with somebody's own assets to refine designs.	
Opportunities for (higher) educational use:	
The teacher can share and edit the same diagram, at the same time with students. It is possible to track changes and go back to a review version. Everybody can discuss diagrams with comments using chat and video chat. The teacher and students can keep their assets organized with shared folders. Everything is saved and stored directly in Cacoo. It is possible to add new members to folders and groups, giving them instant access to the diagrams they need.	
Requirements – technical issues:	
Runs on major Window browsers and Mac operating system	
Pricing:	
https://cacoo.com/pricing	
Social media and tutorials:	
Social media: https://www.facebook.com/Cacoo.com https://twitter.com/cacoo.com https://www.linkedin.com/showcase/cacoo/ Tutorials: https://www.youtube.com/channel/UCWP6MM1Fdr5DWoUsl9EQmtw	
References:	
https://cacoo.com/	
	


3.3.4. Creately

Developer(s)	Cinergix
General description:	
A tool with which you can create any diagram or infographic in the form of a mind map, wireframe, or flowchart. Creately also allows more users to work together online.	
Principal functionality - features:	
Creately provides predefined templates and diagram elements (over 70 diagram types and an extensible library) for incorporating in projects such as: flowcharts, org charts, IT networks, wireframes, SWOT Charts, mind maps, fishbone diagrams, storyboards, concept maps, block diagrams, etc.	
Opportunities for (higher) educational use:	
Creately is ready to use in real-time or asynchronous collaboration and provides access from anywhere. The teacher or students can add comments.	
Requirements - technical issues:	
Creately has two versions: an online cloud edition and a downloadable offline edition for a desktop which is compatible with Windows, Mac, and Linux.	
Pricing:	
https://creately.com/plans/	
Social media and tutorials:	
Social media: https://www.facebook.com/creately https://twitter.com/creately https://pl.pinterest.com/creately/ Tutorials: https://www.youtube.com/c/CreatelyApp	
References:	
https://creately.com	
	


3.3.5.Desmos

Developer(s)	Desmos, Inc.
General description:	
Desmos is an advanced graphing calculator.	
Principal functionality – features:	
In addition to graphing both equations and inequalities, it also features lists, plots, regressions, interactive variables, graph restriction, simultaneous graphing, piecewise function graphing, polar function graphing, two types of graphing grids – among other computational features commonly found in a programmable calculator.	
Opportunities for (higher) educational use:	
Users can create accounts and save the graphs and plots; activity modules for classrooms can be created through a teacher account, which allows instructors to view students' work and their responses in real-time.	
Requirements – technical issues:	
A web application and a mobile application written in JavaScript	
Pricing:	
Free	
Social media and tutorials:	
Social media: https://twitter.com/Desmos Tutorials: https://help.desmos.com/hc/en-us/articles/4410614482061	
References:	
https://teacher.desmos.com	
	


3.3.6.Datawrapper

Developer(s)	Datawrapper GmbH
General description:	
Datawrapper enables users to show data as charts, maps, or tables.	
Principal functionality – features:	
It provides: <ul style="list-style-type: none"> - chart types ranging from simple bars and lines to arrow, range, and scatter plots, - map types which help to create anything from locator maps to thematic choropleth & symbol maps, - data tables which allow for lots of styling options and let a user include bar, column & line charts, heatmaps, images, a search bar, and pagination. 	
Opportunities for (higher) educational use:	
Datawrapper is a very good tool for a visual representation of various types of data; ready-made templates of tables, maps and charts make the teacher's work easier and facilitate the transfer of content. The teacher can organize students' charts in teams & shared folders according to topics, classes, etc.	
Requirements – technical issues:	
Web application	
Pricing:	
https://www.datawrapper.de/pricing	
Social media and tutorials:	
Social media: https://www.facebook.com/Datawrapper-1974708932618275 https://twitter.com/datawrapper https://github.com/datawrapper https://www.youtube.com/channel/UCGRdsZb9YD3GW35G27g0o0g https://www.linkedin.com/company/datawrapper/ Tutorials: https://www.datawrapper.de/training-materials	
References:	
https://www.datawrapper.de/	
	

3.3.7. Coogle

Developer(s)	Coogle
General description:	
Coogle is a tool for creating mind maps. You can use a variety of available icons and upload your own images or photos. Coogle produces hierarchically structured documents, like a branching tree.	
Principal functionality - features:	
Some of the most important Coogle features are: <ul style="list-style-type: none">- real-time collaboration- sharing with organizations, individuals, or by a private link- view and copy previous versions- images bank- possibility of adding links- multiple root items and joining branches- adding comments on items- text formatting	
Opportunities for (higher) educational use:	
Coogle is intuitive to use. When creating successive branches, we can zoom in and out, emphasizing their importance. It is a good tool for visualizing thoughts. The teacher and students can work on it in groups.	
Requirements - technical issues:	
iOS or Android support/ web application	
Pricing:	
https://coogle.it/#pricing	
Social media and tutorials:	
Social media: https://twitter.com/CoogleIt https://www.facebook.com/cogleit Tutorials: https://coogle.it/what-is-mindmapping	
References:	
https://coogle.it/	
	

3.3.8. Popplet

Developer(s)	Notion
General description:	
Popplet is a tool for creating simple, dynamic presentations and mind maps in which we can use images and videos from the internet, as well as our own photos and notes.	
Principal functionality - features:	
Popplet is a simple tool to capture and organize ideas. With Popplet users can quickly jot down ideas and sort them visually.	
Opportunities for (higher) educational use:	
Real-time collaboration features help students work on projects together. This also makes sharing their work with the teacher easy. Students can use text, drawings, images, or video. Background color, box color, and other details are also customizable. Once created, Popplets can be connected to others, forming an interactive outline of related ideas – a mind map. Popplets can help students organize their thoughts and make sense of the information they are learning. Teachers can use Popplet to build organizational skills for reviewing and note-taking; to teach paragraph structure, supporting an argument, creating an outline, and more.	
Requirements - technical issues:	
Web application or mobile app	
Pricing:	
https://www.popplet.com/pricing/	
Social media and tutorials:	
Social media: https://www.facebook.com/poppletny/ https://www.instagram.com/poppletapp/ https://twitter.com/poppletapp Tutorials: https://www.youtube.com/watch?v=CxLDsWHsQ1g	
References:	
http://popplet.com	
	

4. Applications designed to test and consolidate students' knowledge and to activate students.

For the creation of quizzes, developing games aimed at student interaction, for the preparation of tests.



It is useful to consolidate and test the knowledge acquired in class, which is why tools to create quizzes, tests, and games have been developed and are among the most popular and frequently used ones by teachers in online education. Helpful IT tools for these purposes are grouped in this chapter into categories: applications for creating quizzes, applications for creating games involving interaction between participants, and applications for creating tests.

Games and quizzes designed for group cooperation or competition are excellent tools for motivating students to learn new material or consolidate the knowledge and skills already acquired. They can also serve as a 'warm-up' at the beginning of a lesson or when introducing a new topic - to get students' attention. Learning through participation in a game is associated with fun rather than obligation, and the possibility of obtaining and comparing the results of individual learners is an additional advantage. Many tools allow the teacher and students to do brainstorming, conduct online surveys or SWOT analysis, work on a virtual board in real time, or plan tasks in the long term. These are just some of the many applications of such tools described in this subchapter, such as: Quizizz, Kahoot, Quizlet, LearningApps, Wordwall, Mentimeter, Jamboard, Padlet, etc.


Testing students' knowledge and learning progress is very easy using IT tools such as: MS Forms, Google Forms or Testportal. Tools and applications for assessing knowledge and collecting feedback, whether live or via smartphones, tablets, or computers, open up enormous possibilities for those who conduct training, lectures, etc. They facilitate a more frequent, more attractive, and partly automated collection of information about progress, problems, or questions arising during classes. Interactive tests can also be a good way for students to prepare for a lesson on their own.

A very important issue in this type of application is the convenience of creating new quizzes and surveys and the simplicity of use on the part of teachers and participants. It is also worth paying attention to additional features such as special types of questions, convenient summaries, elements that make answering more attractive - here much depends on the group with which you are working. Finally, it remains to check whether a given application will not surprise the user with additional costs, advertisements, or a poor level of security. When choosing an application, you should also check the producer's pricing policy.


4.1. For the creation of quizzes (for making quizzes/ for quizzes)

4.1.1. Quizizz


Developer(s)	QUIZIZZ Inc
General description:	
Quizizz is a web platform that provides the opportunity to create quizzes and to use already existing ones.	
Principal functionality – features:	
Quizizz tests the knowledge gained by students and gives the possibility of asking a random order of questions for each participant. Each question can be adjusted to take into account the knowledge and skills of the participants. Students can see on their screen the results (the number of correct and incorrect answers). The quiz can be solved simultaneously by all participants, or as a homework assignment (asynchronous e-learning).	
Opportunities for (higher) educational use:	
It is possible to create a virtual classroom. A teacher has an opportunity to verify participants answers. Quizzes can be a tool for introducing new topics, or a way to test students' existing knowledge.	
Requirements – technical issues:	
Web application or mobile app	
Pricing:	
free	
Social media and tutorials:	
Social media: https://twitter.com/quizizz https://www.facebook.com/quizizz https://www.instagram.com/quizizz/ Tutorials: https://blog.quizizz.com/	
References:	
https://quizizz.com/	




4.1.2. Kahoot!

Developer(s)	Kahoot!
General description:	
Kahoot! is a game-based learning platform to create, play and share learning games, in the classroom and beyond.	
Principal functionality - features:	
Kahoot! has two modes: challenge and live game. The challenge mode can only be used via the Kahoot! App. It is based on unlocking challenges with questions. Each challenge has three questions. The live game mode, on the other hand, is a game with one main device on which the questions and results are displayed, as well as other users participating in the game. To be able to connect to the game, a participant needs to enter a PIN, which is automatically created when creating a live game. In the live game, points are scored for the correctness and the timing of answers. There can be a maximum of four answers. After each question, answer statistics appear, followed by the host's nickname in terms of scoring	
Opportunities for (higher) educational use:	
Kahoot!'s distance learning tools allow the teacher to connect with students when they're studying from home and to increase participation and cooperation. The teacher can use a range of ready-made kahoots on any topic, create and edit his/her own kahoots in minutes, and combine different question types to increase engagement. The teacher can assign challenges to students to complete at their own pace to refresh the material, and check learning outcomes with reports.	
Requirements - technical issues:	
Mobile app available for Android and iOS mobile devices or web application	
Pricing:	
https://kahoot.com/accesspass/	
Social media and tutorials:	
Social media: https://twitter.com/getkahoot https://www.facebook.com/getkahoot https://www.linkedin.com/company/kahoot https://www.instagram.com/getkahoot/ https://www.tiktok.com/@getkahoot? Tutorials: https://kahoot.com/academy/	
References:	
https://kahoot.com/ for a live game: https://kahoot.it/	
	

4.1.3. Quizlet

Developer(s)	Quizlet Inc.
General description:	
In Quizlet, everybody can create learning tools such as flashcards and picture cards, with which students can repeat concepts or definitions.	
Principal functionality - features:	
The educational content takes the form of flashcards, which are double-sided virtual cards. Flashcards can consist of a definition (a text in the chosen language) and an image. Quizlet can be used both in and out of class. Participants can repeat the material prepared by the teacher on their own. Teachers can create their own sets of flashcards or use previously prepared resources available on the website.	
Opportunities for (higher) educational use:	
Quizlet contains seven tools to support learning and teaching: <ul style="list-style-type: none"> - creating flashcards, - written answers, - taking tests, - a time-based game (drag-and-drop), - a game where participants write in the answers, - Quizlet Live (competition between teams). 	
Requirements - technical issues:	
Xbox, Windows 10, or newer web application or mobile app	
Pricing:	
Free, Quizlet+ - https://quizlet.com/upgrade	
Social media and tutorials:	
Social media: https://twitter.com/quizlet https://www.facebook.com/quizlet https://www.instagram.com/quizlet/ https://www.youtube.com/channel/UCVNli1WMMljwc83Lqn-L9yg Tutorials: https://quizlet.com/help/2444083/what-is-quizlet	
References:	
https://quizlet.com	
	

4.1.4. LearningApps

Developer(s)	LearningApps - interactive learning modules
General description:	
LearningApps is an application to support learning and teaching processes with small interactive modules. These modules can be used directly in learning materials, but also for self-study.	
Principal functionality - features:	
LearningApps helps to create (and use, share and publish) educational games in such categories as: <ul style="list-style-type: none"> - selection: multiple-choice quizzes, "Millionaires", meaning in a text, crossing out words; - matching: jigsaw puzzles, tables, maps, pictures, "Memory" in different versions; - ordering: timeline and sequencing; - writing: "Hangman", crossword, text with gaps, table completion, quiz; - tools: voting, matrix, chat, collaborative writing, calendar, mind map, notepad, online corkboard; - games and tasks for more players. <p>In the menu there are two subpages: VIEW APPLICATIONS and CREATE APPLICATIONS. If somebody makes an app public, it becomes available to other users - they can use it as it is or save it to their account and adapt to their needs.</p>	
Opportunities for (higher) educational use:	
The LearningApps.org portal offers, in addition to the search, edit and run functions, a very simple learning platform. It allows the teacher to manage his/her students and applications.	
Requirements - technical issues:	
Web application	
Pricing:	
free	
Social media and tutorials:	
Social media: https://www.facebook.com/LearningApps Tutorials: https://www.youtube.com/watch?v=q9NXid8ru_8	
References:	
https://learningapps.org/	
	

4.2. For developing games aimed at student interaction (competition and cooperation).

4.2.1. Wordwall

Developer(s)	Visual Education Ltd
General description:	
Wordwall creates engaging and interactive activities that connect to boards and mobile devices to aid students' progress.	
Principal functionality - features:	
Main functions: <ul style="list-style-type: none">- Interactive and printable materials - interactive materials can be played by students on their own or with teacher supervision, taking turns during class time. Printable materials can be printed directly or downloaded as PDF files. They can complement the interactive exercises or be used as stand-alone exercises.- Creating with templates - the exercises are created using a system of templates. The templates include well-known classic exercises such as test and crossword. Skill games such as maze and aeroplane are also offered, as well as activity management tools such as student placement.- Themes and options - interactive materials can use a variety of themes. Each theme changes the look and feel of different graphics, fonts, and sounds. Materials for printing also have different options, eg. printing multiple copies on a page.- Tasks for students - in a class or as homework. Each student's results are recorded and made available to the teacher.- Sharing with other teachers (standard version) - any exercise created can be made public. This also allows other teachers to find the exercise and create new exercises based on it.- Changing the template (standard version) - once you have created an exercise, you can change its template, e.g. from pairing to crossword.- Editing of exercises (pro version) - there is no need to use ready-made exercises. It is possible to adapt easily the material to a class or teaching style.- Embedding on the website (pro version) - Wordwall exercises can be placed on other websites using a snippet of the HTML code.	

Opportunities for (higher) educational use:

Wordwall exercises can enhance any class and serve to activate students and consolidate their knowledge through competition or cooperation.

Requirements - technical issues:

Windows XP/Vista/7/8

Pricing:

<https://wordwall.net/price-plans>

Social media and tutorials:

Social media:

<https://www.facebook.com/Wordwall/>

<https://twitter.com/getwordwall>

Tutorials:

<https://www.youtube.com/watch?v=trZy6TIXebM>

References:


<https://wordwall.net/>




Wordwall

Create better lessons quicker.


4.2.2. Mentimeter

Developer(s)	Mentimeter
General description:	
Mentimeter focuses on online collaboration for the education sector allowing students or public members to answer questions anonymously. The app enables users to share knowledge and real-time feedback on mobile devices with presentations, polls, or brainstorming sessions in classes, meetings, gatherings, conferences, and other group activities.	
Principal functionality – features:	
<p>There are three options for creating a presentation in Mentimeter:</p> <ul style="list-style-type: none"> - Question type - different ways to ask questions: Multiple choice - multiple-choice test, Image choice - choice using an image, Image choice - choice using an image, Word cloud- use of word cloud, Scales - use of scale, Open/ended- use of an open question, 100 points- use of graphs, 2 by 2 Matrix- putting answers on a graph; - Quiz - multiple-choice test: select answer - a quiz with closed questions, type answer - open question quiz. - Quick slide- creation of presentation slides according to templates: heading - allows you to create a title slide, paragraph - allows you to save the agenda of the meeting. 	
Opportunities for (higher) educational use:	
It is very useful when you want to conduct a survey, get a quick answer to a question, or find out what students think about a particular topic (also useful for evaluation of classes). There is no need to provide personal information when using Mentimeter. Participants enter using the session number in a web browser.	
Requirements – technical issues:	
Web application	
Pricing:	
https://www.mentimeter.com/plans	
Social media and tutorials:	
<p>Social media:</p> <p>https://www.facebook.com/Mentimeter</p> <p>https://www.linkedin.com/company/mentimeter</p> <p>https://twitter.com/Mentimeter</p> <p>Tutorials:</p> <p>https://academy.mentimeter.com/</p> <p>https://www.mentimeter.com/webinars</p>	
References:	
<p>www.menti.com</p> <p>https://www.mentimeter.com</p>	
	


4.2.3. Jamboard

Developer(s)	Google
General description:	
Jamboard is Google Suite's digital whiteboard that offers a wealth of collaborative uses for teams and classrooms; every user can create a Jam (a board), edit it from a device eg. phone or tablet, and share it with others.	
Principal functionality - features:	
Key features:	
<ul style="list-style-type: none"> - Drawing tools and colored post-it notes to put text on the board. - It is possible to set the background of the board - color, dots, grid, or lines. - We can zoom the board in if necessary; the movement can be undone with an arrow. - When adding a note, we can choose the color, and the finished note can be adjusted in size. - Everybody can add a picture from a computer or directly from the browser, or Google drive - It is possible to collaborate with many people in real-time. - The result of the collaborative work on the whiteboard can be saved on disk as a whiteboard, converted into a PDF file, or saved as a photo. 	
Opportunities for (higher) educational use:	
Jamboard is suitable for virtual work with students, for various exercises such as brainstorming, online surveys, SWOT analysis, individual or class calendar, timeline - planning tasks in the long term, kanban - the Japanese version of the board, inserting screenshots, mind-mapping, cause and effect analysis (decision tree), working with a map, creating infographics, crossword puzzle.	
Requirements - technical issues:	
Mobile application for Android, iOS, or web application (the best with Chrome)	
Pricing:	
free	
Social media and tutorials:	
Social media: https://www.facebook.com/GoogleforEducation/ https://blog.google/outreach-initiatives/education/ https://twitter.com/googleforedu/ Tutorials: https://www.youtube.com/watch?v=eRG8MiLPUxk https://www.youtube.com/user/eduatgoogle	
References:	
https://edu.google.com/products/jamboard/	
	


4.2.4. Padlet

Developer(s)	Padlet
General description:	
Padlet is a virtual whiteboard, an application for sharing resources with other users. Whether you want to work together and collect resources together or just organize them for yourself, this is the place to do it.	
Principal functionality – features:	
The advantage of Padlet is not only that it is easy to use, but that several people can collaborate on it and it is easy to share it on social media or embed on websites.	
Opportunities for (higher) educational use:	
<p>Padlet can be used in schools as:</p> <ul style="list-style-type: none"> - a space to collect materials for group or project work, - a bank of interesting quotes/films/photos/pages for activities, - a thematic board with collected materials around one topic for students - e.g. wanting to broaden their knowledge or as part of a flipped classroom, - space for feedback at the end of the activity; summary of reflections and impressions after the action/ debate/ lesson - a poster with links to student work, e.g. for a project, - an unusual presentation (each added element is displayed like a presentation when clicked on, navigated by arrows), - a place where you can share resources with other teachers (e.g. recommended books, films to use online), - space for international projects - a shared set of ideas, developed activities, a vocabulary set. 	
Requirements – technical issues:	
App for iOS or Android, web application	
Pricing:	
A free or a paid version - https://padlet.com/premium	
Social media and tutorials:	
<p>Social media:</p> <p>https://www.facebook.com/padlet</p> <p>https://twitter.com/padlet</p> <p>https://pl.pinterest.com/padlet/</p> <p>https://www.instagram.com/padlet/</p> <p>Tutorials:</p> <p>https://www.youtube.com/watch?v=UuzciL8qCYM</p>	
References:	
<p>www.padlet.com</p> <div style="text-align: center;">  </div>	


4.2.5. Wakelet

Developer(s)	Wakelet Limited
General description:	
Wakelet - Everything in one place is a program that allows you to collect and share collected materials in digital form. It is a virtual board to which you can pin everything that has a digital form, i.e. files or links to any website.	
Principal functionality - features:	
<p>The main functionalities of the virtual board:</p> <ul style="list-style-type: none"> - Paste URL - add a link to any web page - Text - add any text - YouTube - add content from the website - Bookmarks - add a bookmark to the link you added earlier - Image - add images - similar to the previous step from your own resources or from the library - Upload PDF - add PDF files previously saved on your drive - Google Drive, One Note - add resources from the cloud ... etc. <p>Each pinned (attached) material can be edited, deleted, or moved up or down. When you have finished creating your collection you can decide whether the material should be public, private or whether it can be accessed by those who have the link.</p>	
Opportunities for (higher) educational use:	
The finished collection can be treated as one's own collection of helpful files, links, or materials or shared with others with editing rights. The ability to exchange and attach resources means that Wakelet can become an ideal tool for project work in the classroom.	
Requirements - technical issues:	
Web or mobile application	
Pricing:	
free	
Social media and tutorials:	
<p>Social media:</p> <p>https://twitter.com/wakelet https://www.facebook.com/Wakelet/ https://www.instagram.com/wakelet/ https://www.youtube.com/user/wakelet</p> <p>Tutorials:</p> <p>https://www.youtube.com/watch?v=Yqs8BhavZDw</p>	
References:	
<p>https://wakelet.com/</p> <div style="text-align: center;">  </div>	


4.2.6.Miro

Developer(s)	Miro
General description:	
Miro is an online virtual whiteboard application used for team collaboration, information sharing, training, design and planning, and generally more effective remote working.	
Principal functionality – features:	
<ul style="list-style-type: none"> - Multiple users can work simultaneously - the application allows multiple participants to work simultaneously – everybody can follow the movement of the mouse of each of them. This way, everyone can actively participate in the creation of the architecture diagram, add their own ideas or make comments. - Ready-made templates. Miro has a set of ready-made templates allowing users, among other things: to map their stories or organize a brainstorming session using a mind map. - Time control during the meeting - a stopwatch (displayed on the screen) can be activated to inform each participant that time is running out and decisions need to be made about the next steps. - The logical division of the project within a given Miro board allows for grouping the issues into specially dedicated frames, which can be easily navigated on the side panel. The clear structure of the collected information allows easy navigation between individual notes. 	
Opportunities for (higher) educational use:	
Using a virtual whiteboard enables easy and engaging remote working for many people simultaneously. It is a very good tool for creative teamwork. By sharing and manipulating whiteboard content live, the teacher can engage students, demand their attention, and answer questions in real-time.	
Requirements – technical issues:	
Web application	
Pricing:	
https://miro.com/pricing/	
Social media and tutorials:	
Social media: https://twitter.com/mirohq https://www.facebook.com/TryMiro https://www.linkedin.com/company/mirohq Tutorials: https://www.youtube.com/user/RealtimeBoardEng	
References:	
https://miro.com/	
	

4.2.7.Mural

Developer(s)	Tactivos, Inc. dba MURAL
General description:	
MURAL's digital workspace is optimized for working together synchronously, with an intuitive visual thinking features, or asynchronously, with a resizable canvas, commenting, outline, and workflow integrations with update notifications.	
Principal functionality - features:	
Flexible features to help your team work together and visualize ideas: <ul style="list-style-type: none"> - Sticky notes & text - effortlessly add thoughts, ideas, and feedback for further action. - Shapes & connectors - easily build diagrams to map out complex workflows. - Icons - you can quickly search an extensive icon library to build a visual story. - Frameworks - impactful ways to organize content and ideas to uncover insights. - Images & GIFs - Drawings - maximize creativity with freehand sketching and writing. - Timer - staying focused and on schedule by timing activities for a group. - Outline - guide participants with instructions and hiding/revealing of next steps. - Private mode - prevent groupthink by hiding contributions of individual collaborators. - Ways to connect and communicate with your team: sharing - connect and distribute murals with a simple hyperlink. Commenting-add feedback and ideas to help drive toward better outcomes. 	
Opportunities for (higher) educational use:	
The teacher can create workspaces, private rooms, and boards, and can invite students to join permanently - if they set up free accounts on Mural and use the invitation, they can collaborate on the teacher's boards and set up their own.	
Requirements - technical issues:	
Web application	
Pricing:	
https://www.mural.co/pricing	
Social media and tutorials:	
Social media: https://www.instagram.com/mural_app/ https://twitter.com/mural/ https://www.facebook.com/mural.co Tutorials: https://www.youtube.com/channel/UCUcf9nFefdwgOoKMQ6qiHeA	
References:	
https://www.mural.co/	
	

4.2.8. OneNote

Developer(s)	Microsoft
General description:	
A graphical computer notebook for creating and organizing notes. OneNote is a program where you can take notes with a pen and then transcribe your handwriting into regular text.	
Principal functionality – features:	
The number of notebooks is unlimited (the actual limits are due to the resource and performance limitations of the device or file system). Writing can be started at any time. One Note uses the OneDrive cloud, allowing you to edit and synchronize data between devices or users. Changes made by other users will automatically update the notepad for the others. The program has a version control system, which allows going back to previous editions. It is possible to create tables, as well as edit notepad metadata such as date and time. OneNote provides two-way conversion of content to the formats of other Office programs. For example, a table created in OneNote can be converted to Excel, and a worksheet created in Microsoft Excel can be attached to OneNote. Notebook content can be converted to PDF and added as an attachment in an email. The application also allows tasks to be scheduled using Microsoft Outlook. Presentations created in Microsoft PowerPoint can be transferred to the selected notebook. OneNote lets you record and play audio back, or convert it to text using speech recognition algorithms.	
Opportunities for (higher) educational use:	
OneNote is a tool for systematizing work in class. Organize lesson plans and materials in a personalized digital notebook. It provides each pupil and student with a personal workspace, a content library for reference materials, and collaborative space. It makes it easier for teachers to organize lesson plans, collect homework and provide individual help to pupils and students.	
Requirements – technical issues:	
PC, Macintosh, Windows, macOS, iOS, Android	
Pricing:	
free	
Social media and tutorials:	
Social media: https://www.facebook.com/microsoftineducation https://twitter.com/MicrosoftEDU/ https://www.instagram.com/microsoftedu/ https://www.linkedin.com/showcase/microsoft-education https://pl.pinterest.com/microsoftedu/ Tutorials: https://educationblog.microsoft.com/en-us/2017/03/10-best-uses-for-onenote-in-your-teaching-and-learning/ http://onenoteforteachers.com/en-US	
References:	
https://www.microsoft.com	
	


4.3. For the preparation of tests

4.3.1. MS Forms


Developer(s)	Microsoft
General description:	
Microsoft Forms is generally available to Office 365 Education and Microsoft 365 Apps for Business users, as well as users with a Microsoft account.	
Principal functionality – features:	
With Microsoft Forms, users can create surveys, tests, and polls, invite others to respond using almost any web browser or mobile device, check submitted results in real-time, evaluate responses using built-in analytics, and export results to Excel for additional analysis or scoring. In addition to the basic functions, users can enhance forms by adding a logo to the form or displaying images or video clips next to questions in the test, adding an image or logo to a form header, adding an image to a question, adding a video clip to a question, etc. You can also collaborate with others to create tests and forms. You can add branching logic to a survey or test form, so it changes according to the answers you get to certain questions.	
Opportunities for (higher) educational use:	
A teacher can use Microsoft Forms to quickly assess student progress and get real-time feedback with tests he or she designs and shares with students.	
Requirements – technical issues:	
PC, Macintosh, Windows, macOS, iOS, Android	
Pricing:	
free	
Social media and tutorials:	
Social media: https://twitter.com/microsoft365 https://www.linkedin.com/showcase/microsoft-365 https://www.microsoft.com/pl-pl/microsoft-365/blog/ Tutorials: https://www.youtube.com/watch?v=ouFKWHQMxtQ	
References:	
https://forms.office.com	



4.3.2. Google Forms

Developer(s)	Google
General description:	
Using Google Forms, you can create online surveys and then send them to other people, you can manage the registration of people for training, conduct a quick poll, collect email addresses for a newsletter, prepare a test, etc.	
Principal functionality - features:	
The form, questionnaire, or test can be personalized and there are ready-made templates to choose from. The user can choose from a variety of question types, such as multiple-choice questions, drop-down lists, or a linear scale. The survey can be configured so that users only see specific sections depending on the answers given. In addition to answering closed, single-choice, or multiple-choice questions, you can set the requirement to answer open questions. As part of the answer, users can also upload files.	
Opportunities for (higher) educational use:	
The teacher can display automatic summaries of all answers given, including: questions with the highest number of incorrect answers; graphs showing the correct answers; average, median, and range of results.	
Requirements - technical issues:	
Web application	
Pricing:	
free	
Social media and tutorials:	
Social media: https://www.facebook.com/GoogleforEducation/ https://blog.google/outreach-initiatives/education/ https://twitter.com/googleforedu/ Tutorials: https://www.youtube.com/user/eduatgoogle	
References:	
https://www.google.pl/intl/pl/forms/about/ <div style="text-align: center;">  <p>Google Forms</p> </div>	

4.3.3. Testportal

Developer(s)	Testportal
General description:	
The application was created for businesses to quickly evaluate and analyze the results of a survey. In education, Testportal gives the user the ability to take tests in large numbers - without the additional time investment required to check test sheets in the traditional paper form. The application can be used wherever there is a need for remote verification of knowledge and skills.	
Principal functionality - features:	
There are some possibilities of using online tests eg. in the employee recruitment process: (competence tests, psychological tests, intelligence tests, numerical tests, personality tests, language tests), during training: (preliminary knowledge tests, certification tests, tests of acquired knowledge, measurement of training effectiveness), in education: (knowledge tests, mock tests, and preparatory tests, self-study tests).	
Opportunities for (higher) educational use:	
The teacher can access a comprehensive and detailed analysis of the performance of each assessed team and individual solver. They can automatically compare a variety of data and draw immediate conclusions based on reliable data. All data collected by the teacher is stored digitally and can be accessed at any time, from anywhere in the world, on a computer, tablet, or phone. It is possible to integrate Testportal with the MsTeams platform.	
Requirements - technical issues:	
Web application	
Pricing:	
https://www.testportal.net/en/pricing/education/	
Social media and tutorials:	
Social media: https://www.facebook.com/testportal.net/ Tutorials: https://www.youtube.com/watch?v=Di7WCvyl00c https://www.youtube.com/watch?v=ECNFxfjwkmQ	
References:	
https://www.testportal.net/	
	

5. Applications for creating multimedia presentations.

**Create,
Present,
Engage,
Deliver.**



Multimedia presentations are a frequently used and popular form of delivering content during lessons or lectures. They can be used as an introduction to a discussion, a stand-alone presentation, or illustrative material. Multimedia presentations are always based on a certain, even if quite simple, multimedia scenario. The elements prepared by the assumption are put together to a complete form. These elements may be drawings, photos, sounds, and images, e.g. animations or films. All of them are crucial in the learning process, enhancing interest, motivation and long-term memory effect.

As T. D. Zimmerman suggests, interaction with the course content plays a critical role in the learning process and it can contribute to successful learning outcomes and course completion (T. D. Zimmerman, Exploring Learner to Content Interaction as a Success Factor in Online Courses, "International Review of Research in Open and Distributed Learning" 2012, Volume 13, Issue 4, p. 152–165). The findings indicate statistically significant relationships between the amount of time the learner spent interacting with the course content and his/her grades. M. Treve, in his research on attitudes of students of English for academic purposes (EAP), using surveys and in-depth interviews, confirmed that EAP students perceived PowerPoint as a beneficial and useful learning tool (M. Treve, Higher Education Students' Acceptance and Attitudes toward PowerPoint Presentations as Learning Tools of English for Academic Purposes (EAP) Context of North- East-Thailand, "The Journal of Language Teaching and Learning" 2020, Vol. 10, nr 2).

Linear presentations (those in which the covered material is displayed "slide by slide") are commonly used in online teaching. On the market, there are many free or paid IT tools for making presentations. Most often, the application offers several slide templates. This allows the author to conveniently lay out objects intended by the author, e.g. lists / bullet points, organization chart, etc. There is also a possibility of choosing an empty slide, which can be composed later, according to the chosen scenario. Animated transitions between slides can be added to make a presentation more engaging. There may be more ways to make the visual message of the presentation more attractive. N. Strasser suggests that the choice of the tool depends on the user's goal. For example, PowerPoint can be viewed as useful for elucidating a problem due to its linear structure, while Prezi as a more dynamic and flexible presentation editor may capture students' attention more easily. What is important, the ability to access a presentation from the internet, or a cloud, creates a flexible working environment. Content can be edited at any place and time by many users and be visible by them at the same time (N. Strasser, Using Prezi in higher education, "Journal of College Teaching & Learning" 2014, Vol. 11, No. 2, p. 95-98).

This chapter presents the most popular IT tools used to prepare multimedia presentations, specifying their numerous functionalities. Many of these tools are widely used by numerous users; certainly among the most popular are PowerPoint, Google Slides, or Canva. However, it is also worth trying less popular applications, as perhaps they will surprise the user with new, original solutions, different from the popular slide-based presentation formats.

5.1. PowerPoint

Developer(s)	Microsoft
General description:	
Microsoft PowerPoint is a presentation program created by Robert Gaskins and Dennis Austin at a software company named Forethought, Inc. It was released on April 20, 1987, initially for Macintosh System Operating system-based computers only.	
Principal functionality – features:	
<p>PowerPoint is a comprehensive program for creating and sharing multimedia presentations. It is a part of the commercial office suite Microsoft Office. It has many modern tools for designing slides and presenting content in an interesting way. The application has been equipped with intelligent solutions and a large number of useful functions to improve work in the program. It is possible to create slides in it, on which we will place, among others various types of digital images, audio and video files, animations, and geometric shapes and figures.</p> <p>The Designer feature in PowerPoint allows users to design attractive slides</p>	
Opportunities for (higher) educational use:	
<p>Office 365 enables collaboration using comments and real-time co-authoring, so we can get feedback on the presentation from the rest of the team, for example in OneDrive. It is very useful when creating lecture presentations, homework, common media solutions. It is available in 102 languages, which enhances the international use of this tool worldwide.</p> <p>It is also very easy to upload PowerPoint to MS Teams windows and screens as well as Zoom.</p> <p>An important aspect in Microsoft PowerPoint is the possibility of group work when creating a given project. It will be useful for employees who base their business activities on creating multimedia presentations, for primary and secondary school students, as well as students attending universities. Effective learning often relies on absorbing the material by creating presentations on various topics. It is also possible to export Word documents to PowerPoint presentations.</p>	
Requirements – technical issues:	
Microsoft PowerPoint is available for desktops and laptops based on the Windows and macOS platform. Processor: Windows 11 or Windows 10 with a 1.6 GHz dual-core processor or the latest macOS. Operating system: Windows 11 or Windows 10 for PC; Mac OS for Mac computers.	

Pricing:

Price plans (price and functionality)

Microsoft 365 for individuals includes PowerPoint, Word, Excel, Outlook, and 1 TB of cloud storage.
Free for students and educators: Technology & Learning Tools for Students | Microsoft Education
For Education: How To Buy - Education Solutions - Microsoft Education

Social media and tutorials:

Social media:

PowerPoint School | Facebook

[PowerPoint \(@powerpoint\) / Twitter](#)

[Powerpoint | LinkedIn](#)

Tutorials:

Microsoft 365 Training

How to add YouTube videos into PowerPoint - Embed YouTube Video (youtubevideoembed.com)

PowerPoint for Windows training (microsoft.com)


Virtual Workshops and Online Training from Microsoft Store

References:


<https://www.microsoft.com/en-gb/microsoft-365/p/powerpoint/>



5.2. Google Slides

Developer(s)	Google
General description:	
Google Slides enable drawing charts and diagrams in presentations, inserting objects and shapes, formatting text and images, and using animations.	
Principal functionality - features:	
<p>Google Slides helps presenting ideas in an attractive way. They make use of a variety of themes and hundreds of fonts, and offer the option of adding videos, animations and more. Professional presentations can be created and edited directly in the browser, without the need to install specialized software.</p> <p>Slides may be created from scratch, or you can speed up the process by choosing a template. Presentations might be enriched with videos, graphics, drawings and smooth transition effects. Co-editing means multiple people can work on the same presentation at the same time. Share settings let you control who can view and edit your presentation, and change history lets you revert to an earlier version. This feature is also available in Google Docs and Sheets.</p>	
Opportunities for (higher) educational use:	
<p>More people can work on one file at the same time, ensuring everyone always has the latest version. It is possible to prepare an online presentation together with another person, the entire team, or people outside the company. It's easy to decide who will be able to edit, view or comment on the content of a presentation.</p> <p>Presentations are automatically saved on the internet, and their subsequent versions are stored indefinitely. They don't count towards a Google Drive storage quota, so can always be reviewed and rolled back through the changes.</p>	
Requirements - technical issues:	
Compatible with PC, Mac, mobile and tablet computers. The view of slides may be seen and reviewed on a phone or a tablet, and even a presentation may be conducted from these devices.	
Pricing:	
<p>Free for eligible institutions (schools and universities after application), while during the application process it is possible to have access within a 30 day trial of Google Workspace for Education Fundamentals:</p> <p>Classroom Google for Education</p> <p>Paid edition available with the Teaching and Learning Upgrade and Education Plus (e.g. tools for scanning student submissions for potential plagiarism against your domain's repository of past student work).</p>	
Social media and tutorials:	
<p>Google Slides - Full Tutorial - YouTube</p> <p>Google Workspace for Education Fundamentals:</p> <p>Education Fundamentals Google for Education</p> <p>Solutions built for teachers and students Google for Education</p> <p>Training & Professional Development Google for Education</p> <p>Teaching resources Google for Education</p> <p>Prezentacje Google – twórz i edytuj bezpłatnie prezentacje online.</p>	
References:	
<p>https://www.google.com/slides/about/</p>	
	

5.3. Prezi

Developer(s)	Prezi is a video and visual communications software company founded in 2009
General description:	
The platform is useful for visual storytelling software alternative to traditional slide-based presentation formats. Prezi presentations feature a map-like overview that lets users pan between topics, zoom in on details, and pull back to reveal context. The word "Prezi" is the short form of "presentation" in Hungarian.	
Principal functionality – features:	
Prezi gives the possibility of zooming, moving elements of presentations. Prezi has a huge image library and allows users to input many easily customized charts, graphics, and layouts. One of Prezi Video’s key use-cases is for presentations on live or recorded video, allowing the presenter to maintain a face-to-face connection with the audience. The presentations might be used in Zoom, MS Teams, GoogleMeet, Go to Meeting, Go to Webinar or Cisco Webex.	
Opportunities for (higher) educational use:	
Prezi can give a presentation a cinematic feature that increases audience engagement and keeps the attention. The main benefit of Prezi is that it makes audience engaged and interested, thanks to how the parts of presentations are uniquely designed and delivered in a “flying” manner. Photos, gifs, and video (e.g. mp4 files) may be added from shared drives or the web, like OneDrive, Google Drive or Dropbox.	
Requirements – technical issues:	
Minimum 2GB RAM and a dedicated or integrated graphics card. Prezi Desktop is not officially supported on Linux. Easy use for Windows and Mac. The installation of Prezi for Windows is typically around 650MB but can vary by 1-2MB from one release to the next.	
Pricing:	
https://prezi.com/pricing/	
Social media and tutorials:	
Social media: Prezi - YouTube Prezi Facebook Prezi (@prezi) / Twitter Prezi LinkedIn INSTAGRAM by - Prezi Tutorials: Video examples curated by Prezi’s editors Prezi Presentation examples curated by Prezi's editors Prezi Data visualization and graphic design examples curated by Prezi's editors Prezi Prezi Webinar Series: Hybrid Work	
References:	
https://prezi.com	
	

5.4. Emaze

Developer(s)	Emaze (formerly Visual Software Systems, Ltd.) was founded in 2009 by Motti Nisani, Arie Livshin and Shai Schwartz.
General description:	
Emaze is cloud-based HTML5 software where users can create presentations, websites, blogs, e-cards and photo albums. Content can be worked on individually, or users can choose to collaborate with others. Emaze offers hundreds of 2D and 3D templates.	
Principal functionality – features:	
Emaze makes it easy for teachers to create fun, interactive lessons that keep the students “zoomed in”. With Emaze’s out-of-the-box templates, even technology-challenged teachers can build lessons that combine video, sound, and text to make the most of distance learning - including for students with special needs and learning disabilities. To the presentation may be added in YouTube and Video, MP4 files or Live Feeds. Live Facebook, Twitter, Instagram, YouTube feeds Add in voiceover, background music, or sound effects WordPress, live Wikipedia pages, live Google maps, any URL's In-app image search, Parallax and create image carousels. Possibility of monitoring performance, tracking results and improving conversion rates.	
Opportunities for (higher) educational use:	
The platform is easy to use and lets anyone create sophisticated presentations in a short time. The definition of branding, colors, fonts and importing PowerPoint and PDF files are the options which make teaching easier. By simply sending a link, the presentation reaches every audience on every device. With the Emaze remote presenting tool, a presentation is controlled from a keyboard and mouse without downloading anything or paying for any additional software. Team collaboration is possible on all projects through an advanced Team platform. The user may captivate and engage the audience with attractive 3D and video layouts and templates. Homework can be also interesting when students can express their creative ideas with animation and sound.	

Requirements - technical issues:

Emaze is available for Windows, Mac, Cloud, Android, iPhone and iPad. The free Emaze extension for Google Chrome is a convenient tool to install to a Google Chrome browser. Emaze is optimizing its software to be compatible with iPhones and smart phones and largely runs on these devices.

Pricing:

<https://www.emaze.com/pricing/>

Social media and tutorials:

Social media:

[emaze.com](#) | [Facebook](#)

[Emaze \(@emaze_tweets\) / Twitter](#)

[Emaze S.p.A. | LinkedIn](#)

[Instagram on emaze](#)

Tutorials:

[Emaze Tutorial - Getting Started - YouTube](#)

[Emaze Tutorial - Creating Presentations with Emaze - YouTube](#)


[Explore - emaze](#)

References:


<https://emaze.com>




5.5. Visme

Developer(s)	Visme is an intuitive online platform with a mission to allow anyone to visualize easily their ideas into engaging presentations, infographics, animations, product demonstrations and more. It is entirely based on HTML5.
General description:	Visme offers templates and tools for making professional slide decks, social media posts, online ads and storyboards. Visme is more than a simple graphics tool and extends its uses across a broad range of design types.
Principal functionality – features:	Visme extends the functionality to graphics in comparison with PowerPoint. In comparison with other tools such as Canva and Piktochart, there is a difference in user experience and ease of use. Based on Visme’s templates, it is easy to prepare presentations, social media posts, brochures or charts without any design experience. The Presentation Tool that is included in Visme offers the detailed presentation functionalities like animations, slide linking, and roll-overs, timed slide transitions, animation effects, presentation notes, linking between slides and a slide library. Data Visualization tool allows users to convert raw data into beautiful visuals and infographics, effective in audience engagement. Making Timelines is possible through the collection of timeline templates just by double clicking the text box.
Opportunities for (higher) educational use:	It is possible to make presentations and create a platform that allows everyone to work together, review the materials and add notes. It includes the option of adding movement to presentations with videos and animation. Whether for social media, a website or YouTube channel, videos are a great way to create content with clarity. Visme offers also boardroom ready presentations, but the Basic Option does not support collaborating. Drag and drop visual builders are accessible and easy to use.
Requirements – technical issues:	Visme is available on the web and as a desktop app for macOS and Windows.
Pricing:	https://www.visme.co/pricing/
Social media and tutorials:	<p>Social media:</p> <p>VISME Facebook</p> <p>Visme (@VismeApp) / Twitter</p> <p>Visme LinkedIn</p> <p>Online Instagram Post Maker Design Instagram Posts for Free Visme</p> <p>https://www.instagram.com/vismeapp</p> <p>Tutorials:</p> <p>Design Video Tutorials and Tips Visme</p> <p>Visme Webinars Visme</p> <p>Presentation Skills Certification: Creating Memorable Visual Presentations Visme</p> <p>Free Graphic Design Books and Guides to create Visuals Visme</p> <p>Create Digital Products with Visme (coursera.org)</p>
References:	https://www.visme.co
	


5.6. Sway

Developer(s)	Sway Group
General description:	
Sway Group was launched in June 2011 and since then has helped to introduce new brands to a geo-targeted and retailer-specific online audience. Its specialization is digital advertising, influencer marketing, and creating a content studio.	
Principal functionality – features:	
Sway is an easy-to-use digital storytelling app for creating interactive reports, presentations, personal stories and more. Its built-in design engine helps to create professional designs in a short time. With Sway, the images, text, videos, and other multimedia all flow together in a way that enhances the story. Sway makes the created materials look good on any screen.	
Opportunities for (higher) educational use:	
Sway is a tool available in Microsoft Office that makes it possible to create and share interactive reports, presentations, personal articles, newsletters, vacation memories, web-based school and work projects, from a phone or a browser. For educational purposes, it is a good tool if the teacher wants to implement additional influencer campaign engagement via paid social, or a standalone digital advertising program running programmatically across multiple websites and apps, and teach students how to optimize brand engagement across all relevant digital channels.	
Requirements – technical issues:	
Sway on the Web is best experienced when using Microsoft Edge, Internet Explorer 11, Firefox 17 or later, Chrome 23 or later, and Safari 6 or later. Viewing a Sway on the Web works at any screen resolution, but creating and editing a Sway requires a minimum screen width of 600 pixels or larger.	
Pricing:	
Free	
Social media and tutorials:	
Social media: SWAY Facebook Office Sway (@sway) / Twitter Sway LinkedIn SWAY (@sway) • Instagram photos and videos Tutorials: Influencer and Content Marketing Tips - 3:20 am (swaygroup.com) Sway Essential Training Online Class LinkedIn Learning, formerly Lynda.com How to Make a Tutorial in Sway - Microsoft Sway Tutorials - YouTube How to use Microsoft Sway - Beginner's Guide - YouTube	
References:	
https://sway.office.com/ 	

5.7. Adobe Spark

Developer(s)	Adobe
General description:	
Adobe Spark for web and mobile makes it easy to create social graphics, web pages and short videos as well as collages, flyers, videos and animations that look professional.	
Principal functionality - features:	
Adobe Spark makes it easy to resize or remove backgrounds, transform text, and add elements with intuitive tools that guide the user through the process. It is possible to resize content for social media and add Photoshop-worthy effects, filters, and textures in a snap.	
Opportunities for (higher) educational use:	
Adobe Spark makes it possible to create science fair posters, banners, flyers, social studies infographics, math flashcards, and so much more with Spark Post. Easily build creative storytelling skills are possible to build in any class. Spark Video gives the opportunity to turn book reports, physics explainers, poetry analyses, and more into video presentations. It is also possible to merge, crop, resize and trim videos, reverse or change video speed, slow down videos and to convert video to .gif or MP4, MP4 to gif and gif to MP4.	
Requirements - technical issues:	
Adobe Spark is ready to use for web and mobile (for IOS and Android). The mobile Apps are Spark Post IOS, Spark Page IOS, Spark Video IOS and Spark Post Android.	
Pricing:	
https://www.adobe.com/express/pricing	
Social media and tutorials:	
<p>Social media:</p> <p>Adobe Creative Cloud Express Facebook</p> <p>Adobe Spark - now Adobe Creative Cloud Express (@AdobeSpark) / Twitter</p> <p>Adobe Spark - Teaching Technical Skills Through Video Video Tutorial LinkedIn Learning, formerly Lynda.com</p> <p>@adobespark • Instagram photos and videos</p> <p>Tutorials:</p> <p>Free YouTube Thumbnail Maker with Online Templates Adobe Spark</p> <p>Welcome to the Spark Blog (adobe.com)</p> <p>Tutorials (adobe.com)</p> <p>How to make Instagram story templates Adobe</p>	
References:	
https://www.adobe.com/education/express/	
 <p>Adobe Spark</p>	

5.8. PowToon

Developer(s)	Powtoon Ltd. is a British company which sells cloud-based animation software (SaaS)
General description:	
Powtoon is a a visual communication platform and web-based animation software that allows users to create animated video presentations by manipulating pre-created objects, imported images, provided music and user-created voice-overs. The name "Powtoon" is a portmanteau of the words "PowerPoint" and "Cartoon". Powtoon was founded in January 2012, following a \$180k seed round investment in December 2011.	
Principal functionality - features:	
It is possible to make any type of video in any style with Powtoon, including whiteboard videos, animated presentations, explainer videos, screen recordings, infographic reports, and more. The effects might be first created and then distributed on the social and marketing platforms. It is also possible to make recordings and share them in social media.	
Opportunities for (higher) educational use:	
For academic purposes, PowToon might be used to prepare presentations or videos as a lecture material, lecture summary, class syllabus, to set goals and timelines, visualize facts and numbers, and motivate students to do the homework with activating examples. The content might be shared and made visible to the general audience as a screen or through a link. PowToon is integrated with Microsoft Teams, Adobe Photoshop and Canvas, Hubspot, Kaltura and PowerPoint. At the moment, Powtoon presentations are unable to play on devices that don't support Flash.	
Requirements - technical issues:	
Powtoon is available for desktop app for Mac, IOS, Windows and Linux.	
Pricing:	
https://www.powtoon.com/premium/?plan=edu	
Social media and tutorials:	
Social media: Powtoon Facebook https://twitter.com/PowToon Powtoon LinkedIn Powtoon - Instagram Tutorials: Webinars - Powtoon Labs Tutorials - Powtoon Labs Powtoon Blog - Make Awesome Videos and Presentations Guides and infographics: Guides - Powtoon Labs	
References:	
https://www.powtoon.com	
	

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