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# IO1 – Module 2 Sub-module 1 (HT- IT)

Management and Administration tools

Communication and Collaboration tools

E- learning Process Tools

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## 1. Management and Administration Tools

Management and administration in a virtual learning environment is crucial for the success of the learning process. Recording, organizing, monitoring and managing data are tasks that should be undertaken by all members that provide learning services. The skills for managing and administrating virtual learning process are of equal value as those directly related to the training and are of utmost importance for the quality of learning services. Given the importance of the tasks tools for managing and administrating the learning process are going to be presented in this section with the ultimate aim to facilitate and to contribute to an efficient learning experience. In specific the most important and widely used tools for preventing plagiarism, tracking students' performance, screen recording, sharing documents and setting timetables are going to be presented in order to help you to manage and administrate the learning process effectively.

### 1.1. Preventing Plagiarism Tools

According to Oxford University *"Plagiarism is presenting someone else's work or ideas as your own, with or without their consent, by incorporating it into your work without full acknowledgement"*<sup>1</sup>. Plagiarism is a familiar and frequent phenomenon and therefore it should be addressed effectively contributing likewise to developing original thinking in learning process and to sharing knowledge over how the resources should be cited, when included in an assignment. Plagiarism incidents can be intentional or accidental. Due to its frequency it is expected that you will face plagiarism issues in e-learning process and therefore you should be aware of how to check on the originality of the content of students' assignments.

Plagscan is a Plagiarism Detection software that is used widely with a fee. It helps you to detect whether original writing and thinking is included in an assignment and if third party contents are quoted successfully. PlagScan can be integrated into any Learning Management System (LMS) such as Moodle. By uploading your document you can instantly track the percentage of matched text to original resources, as plagiarism is detected and highlighted and the original source is depicted in the same screen. The report can be also processed by you as you can insert comments. In addition you can collect the assignments in the application by inviting students to submit it directly. The software also provides tools for metrics that help you with the evaluation process.

Turnitin is also a famous and widely used software for detecting plagiarism with a fee. By uploading the document Turnitin scans the context and highlights similarities comparing it with a massive collection of resources and produces a similarity report<sup>2</sup>. It can also be integrated in Learning Management Systems. It provides tools for facilitating student learning as Turnitin Feedback Studio and Turnitin Draft Coach<sup>3</sup>, which enable the student to revise and review their assignments based on the feedback of the software.

<sup>1</sup> <https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism>

<sup>2</sup> See how it works: <https://writingcenter.uagc.edu/understanding-turnitin>

<sup>3</sup> <https://www.turnitin.com/products/features/draft-coach>

[Grammarly](#) is a software that among other functionalities provides free plagiarism checking for your documents. By entering your text or uploading the document Grammarly's plagiarism checker can detect plagiarism by comparing it to webpages and academic databases. In the report produced by the tool sentences with plagiarism are highlighted and information is provided on the original source. Furthermore calculation of the overall originality score is produced. Advanced feedback is provided with the premium version with a fee.

You can also explore more plagiarism detecting tools by following the links below:

- [Unplag](#)
- [Copyscape](#)
- [DupliChecker](#)
- [Viper anti-plagiarism scanner](#)

## 1.2. Student performance tracking tools / student analytics tools

Critical element of managing and administrating effectively a training course in virtual learning environment is collecting, monitoring and archiving student performance data and relevant with the participation and engagement data with the use of respective tools. Student performance tracking tools and student analytics tools can gather the required data effectively and easily. So a facilitator should have knowledge over how he can make the best of it when using these tools.

Both categories of tools, i.e. for tracking student performance and for obtaining student analytics can be found in two forms: a) as individual tools, operating in an independent platform or b) as plug-ins that are integrated in your working platform, i.e. Moodle. In this section we are going to present you indicative examples of both categories.

a) Individual Tools:

[Interactive Student Performance Tracking App XB](#) is an online tool for educational providers that tracks student performance. The tool can be very supportive regarding learner's assessment as it provides data for the overall curriculum progress, individual average grades, grades per module, attendance log etc. The facilitator can access the full list of students, who create their personal profile page in the application. Accordingly teachers also create their profile, that the learners can access. Data of student performance are presented in the form of an interactive dashboard and the tool also provides the generation of reports and set of notifications.

[Top Hat](#) is an application that also provides (among other student engagement tools) tools to track student performance and attendance. It can also create auto- graded assignments tailored to the needs of the training and you can administer remotely test and exams. One of the advantages of Top Hat is that it can be paired with your LMS easily and export to your LMS the reports generated by the application.

b) Plug ins:

[edX Insights](#) is a plug in that provides the administrator and trainer of the course with valuable data related to learner engagement and performance. By using this plug in you will be able to gain information over the total number of active students, how many were engaged in assignments, the geographic location and enrolment data. The data collected enable the facilitator to identify learners behaviour and provide the analogous support.

[Piwik Analytics](#) is a moodle plug in that provides advanced analytics about page views of i.e. Moodle and about actions within your LMS. By using this plug in you can obtain information over the participation and the exact number of activities that your students have performed in the LMS, i.e. responses to questionnaires, engagement in workshops, forums etc.

[Analytic Graphs](#) is a moodle plug in that provides graphs that facilitate the trainer to evaluate the student profiles. In specific the plugin provides 5 graphs regarding:

1. Grades
2. Activity- Content accesss
3. Active Users
4. Assignment Submission Chart.

### 1.3. Screen Recording tools

Screen Recording can be very useful in the educational process in virtual environments and until recently it was a challenge. Fortunately nowadays many tools have been developed that provide high quality recordings that can make your tutorials, session recordings and other types of recording with professional standards. The use of these tools can make learning experience more interesting and at the same time the sessions can be recorded and filed for further use by the end users.

[Camtasia](#) is a screen recording software that can help you record your training videos in a professional but easy way. The tools is widely used but requires payment. Camtasia records your screen, can add effects and the video can be instantly uploaded to the web. It can integrate web camera capture, audio recording, music, PowerPoint, Media, quizzes with interaction and can be connected to iOS devices and Mac.

[Screencast-O-matic](#) is a free screen recording tool that is used widely by the educational community. You can record your screen and integrate your webcam and customize your video by using the tools provided for video editing. You can also include text, images, shapes and animation effects. It can be easily integrated with moodle, canvas, google drive and other tools. The videos produced can be easily shared with your classroom. The tool can also be used by students and provide a creative tool for their assignments.

[Screencastify](#) is a screen recording application that operates via Google Chrome. The tool is free of charge and can capture your screen, your webcam and audio from your microphone. The tool

provides annotation tools like highlighting, drawing pen and mouse spotlight. The video produced are auto saved in Google Drive and can be shared to YouTube and exported as animated GIF, MP3 or MP4.

You can also explore more tools by following the links:

- [Free Cam](#)
- [ShareX](#)
- [TinyTake](#)
- [FlashBack](#)
- [My Screen Recorder Pro](#)

## 1.4. Shared Documents tools

Access to information and team collaboration are undoubtedly of utmost importance for the learning process. Therefore, tools for sharing documents and working on them cooperatively can be critical for the effectiveness of the learning process and their use is highly recommended. You can use them to provide access to educational material and for providing the learners with a common working space, where the changes are made in real time and are visible by all collaborators. Especially in virtual learning environments shared document tools provide the opportunity to work together easily, quickly and from many devices irrespective of our geographical location.

[Google Workplace](#) provides tools for creating and editing files of various types namely docs, sheets, slides:

- [Google Docs](#) are the most popular tool for providing access to multiple users and collaboration opportunities. It is free and the user should have a google account. The users can create and edit text documents without using a specific software. The users can also make comments, chat and edit the document real time. All changes are saved automatically and unlimited revision history is provided, as previous versions are kept. The creator of the document can control by whom the document can be viewed, edited or commented. Google Docs are compatible with all popular file types, like Microsoft® Word and PDF files and can be exported to .docx, .pdf, .odt, .rtf, .txt or .html format.
- [Google Sheets](#) also provide a common workspace for collaboration and information sharing. It is free and the user should have a google account. With the tool you can create, view, comment and edit spreadsheets. Different file types, as Excel, CSV and plain text can be imported to Google Sheets and accordingly different file types can be exported. Learners can gain access to valuable resources and collaborate on the sheet in real time. Like Google Docs the creator of the spreadsheet can control who can view, edit and comment on the spreadsheet.
- [Google slides](#) provide a common workplace for developing presentations and working collaboratively. It is free and the user should have a google account. You can work online on a presentation either individually or with learners, always maintaining control of who has permission to edit, view or comment. A main advantage of Google Slides as of Google Docs and Google Sheets is that everyone has access to the latest version as the changes are saved in real time.

[Dropbox paper](#) is also a useful tool provided by Dropbox, with which you can create, edit and coordinate on line. With this tool you can easily create and share a document to individuals or groups and manage access to the paper. You can also assign tasks to your group of learners with mentioning, i.e. @Mary.

[OneDrive](#) also provides the opportunity to share and collaborate in real time using the Microsoft Office applications (Word, Excell, Powerpoint etc). The user therefore should have a Microsoft account and can have access to from any device. OneDrive is provided with Windows 10 and is also provided with a fee. The tools gives you the opportunity to utilize all functionalities of Microsoft Office individually and share it with your class for viewing and likewise making them easily and permanently accessible at their latest version. In addition you can give your classroom the chance to collaborate on a document, spreadsheet, Powerpoint and jointly develop the files saving automatically the latest version. OneDrive also has the advantage of tracking changes and provide revision history.

You can find similar tools for document sharing and collaborating in many applications, like for instance:

[Confluence](#)

[Box](#)

## 1.5. Calendar – Timetable

Programme, organization and timetables are very important for the success of a training course, especially when they are directly accessed by learners on line. Tools for calendars and timetables are valuable for facilitators, as they do not only provide information and keep track on the scheduled sessions and meetings but they can also provide a valuable tool for organizing meetings and send reminders to the participants. As referred in the beginning of the section managing and administrating in education is critical for the quality of the learning process. Lets see how you can organise the training sessions, meetings and deadlines effectively!

[Google Calendar](#) is one of the most widely used tools by teams. It is free and all you need is a Google Account. The tool provides the opportunity to:

- a) Schedule meetings- sessions- webinars by creating an event, adding guests, location, description, attachments.
- b) Respond to and manage events by replying to invitations and/or updating an existing event.
- c) Share your calendar or create a shared calendar with your class
- d) Customize your calendar and send notifications to the team.

[Calendly](#) is a tool for scheduling and sharing events and works efficiently at individual or group level. The basic edition is free. The event that you schedule can be easily shared with your class through a link. You can control the meetings, set reminders and buffer time between meetings. In addition Calendly can integrate with your Google, Outlook or iCloud calendar and can detect timezone of your quests in order to avoid confusion. Another advantage of the tool is that it works with your apps, like GoToMeeting, Zapier etc.



Explore also the following tools for scheduling, inviting and organize events and critical deadlines:

- [Calendar](#)
- [Hubspot Meetings](#)

## 2.Communication and collaboration tools

In this section of the course, we will deal with those resources which allow students to communicate and collaborate both between them and with their educators.

Lack of effective communication and collaboration might be deemed, in fact, as one of the major flaws of e-Learning; getting to know and meet peers and teachers exclusively online, in fact, might prevent the creation of a strong relationship which ensures effective cooperation and communication flow. Through the categories of tools that we are going to suggest you, however, these shortcomings will be successfully overcome!

### 2.1.Social Learning – Networking tools in Education

Learning can be much more fun and effective when done together with peers. In fact, when studying together with others, working with them to reach together the learning objectives set, along with acquiring new concepts, people also train other important skills which are precious both in daily life and in employment, such as:

- Team-working skills;
- Communication;
- Interpersonal skills

In an online environment these goals can be reached by taking advantage of some of the most used and known applications and websites: social media.

For social Learning can be used both “traditional”, “generalist” social media and “ad hoc” ones; will be provided now examples of both the categories:

- **Facebook**: definitely one of the most widely used social media and also one of the most versatile. Although it is not the reason it was born for, overtime Facebook has acquired many functionalities that can be used in a learning environment. Recently, Facebook has introduced a new kind of group that users can create: social learning groups<sup>4</sup>. Through this new option can be created a version of the renowned Facebook groups which features the “units” functionalities; units, basically, allow for the organisation of posts by topics, so that members of the group can access more easily to the content they are looking for. There are also functionalities like the one that allows users to inform the admins of the group that they have interacted with a specific unit or post (which can be extremely useful, for example. when “homework” are assigned).

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<sup>4</sup> *What is a social learning group on Facebook and how does it work?*  
<https://www.facebook.com/help/184985882229224>

- [Edmodo](#): it is a Learning Management System which, for its functionalities, “took inspiration” from Facebook. It provides many tools for the management and organisation of online lessons, including also tools to create quizzes, tests and group conversations; it makes easier to engage students in lessons by requiring and obtaining their active participation during and in between lessons. Edmodo also fosters the collaboration between teachers and educators which are invited to share with others their ideas for lessons and templates.
- [Elgg](#): if you have an original idea about how a Social Learning application should look like and work, ELGG will provide you with all the tools, resources and guidance you will need to concretise what you envisioned.

## 2.2.Team collaboration tools

Collaboration with others improves efficiency and productivity in all fields and performing every kind of activity, also learning. To do so effectively in the digital environment and, therefore, remotely, suitable and well-functioning tools must be used.

Some of the most famous and commonly used team collaboration tools are: [Google Drive](#), Google Keep, [Slack](#), [Asana](#) and [Trello](#). However, we will present you here some tools that you might not know yet:

- [Chanty](#): it is a simple team-messaging service which has a built-in task manager which allows to assign and manage projects and duties. It is free for groups with less than 10 members.
- [Toggl Plan](#): free up to 5 users, allows for an effective management of workflows and deadlines through easy-to-use and read color-coded timelines. Through its clear layout users always have a clear overview of what needs to be done in a project. It has useful integrations with other widely used tools such as Slack and Google Calendar.
- [Office Online](#): Office is probably the most popular set of productivity software in the world; but, maybe, not everyone knows that there is an online, totally free, version of the same suite which also allows you to co-author and modify in real-time with your team documents, from any devices, provided that all users have an internet connection.

## 2.3.Synchronous Communication Tools

In order to be possible any form of remote collaboration and communication, there must be available effective methods of communications; these methods can be either synchronous or asynchronous. Synchronous communication methods are those which occur in real time without any delay in the reception.

There are several advantages in using these kinds of communication tools, such as: possibility of real-time collaboration, immediate response and feedback, they allow for body language and tone of voice

as communicative means and, overall, provide a better social presence, motivation and engagement. Synchronous communication tools can be:

- **Online Chat tools:** the most widely used, being also available for free, are [Skype](#), [WhatsApp](#), [Messenger](#) (which is linked to a Facebook account) and [Telegram](#). All these tools allow written communication as well as voice and video calls. They are available for desktop and mobile devices and, therefore, adaptable to any need.
- **Videoconferencing tools:** some famous and very good of such tools are [GoToMeeting](#) and [Microsoft Teams](#), but both of them can be quite pricey. More accessible, in fact even with a free tier available, and still absolutely reliable and with many useful functions are:
  - [Zoom](#): free with conferences up to 40 minutes and with up to 100 participants (1 to 1 calls, instead, are without limits).
  - [Google Meets](#): an extremely easy-to-use and intuitive tool which allows, for free, to create meetings with up to 100 participants; the time limit for the free version is set at one hour. It is, of course, perfectly integrated with all Google tools.
  - [BigBlueButton](#): it is an open-source videoconferencing tool which, although not as immediate and easy to configure as the previously mentioned tools, is particularly well suited to be used in learning environment; in fact, it has a built-in whiteboard which can be used during the calls to work cooperatively with students, polling functionalities to live test their understanding and/or get their feedback, and it provides also the possibility to create breakout rooms for team collaboration in smaller groups.

## 2.4. Asynchronous Communication Tools

Asynchronous Communication methods are those that do not foresee an immediate response from the other interlocutor; using these methods each party of the dialogue answers, therefore, at his own pace. This communication method when applied to the learning environment can have several benefits: it is not something which is “restricted” to a specific time or place, it allows to answer after a full and deep reflection which can facilitate the bringing upon of many different interpretations and perspectives on the topics at hand, conversation can easily be managed also between many people and can be avoided all the cons of a crowded, classroom conversation which often tends to be chaotic.

Among the Asynchronous Communication Tools that can be used with a class there are:

- **Emails:** the most “traditional” of the (digital) asynchronous communication methods and probably the most widely used. It requires minimal technical skills and are very accessible, but often do not allow for an engaging discussion and the interlocutors can even answer after days since the receipt of a mail. However, they are very well suited for private and/or formal communications. Among the best mailing services there are [Gmail](#), [Outlook](#) and [Yahoo Mail](#).
- **Forums:** can be an excellent solution for conducting debates; when debating people have to structure and express coherently their opinions, at the same time enhancing their knowledge and awareness of the topic on which the debate is conducted; through online debates

conducted in forums, moreover, there are also very good chances that even introvert or shy students will take part actively to the conversation! The main forum-hosting websites are [Quora](#) and [Reddit](#).

- Streaming/Videos: shooting a video and putting it online to be watched later by others can be considered without any doubt a communication method; moreover, virtually every video web platform features a “comment” section for each video where further conversations can be conducted; among the most widely used tools for sharing videos (both live and pre-recorded/on-demand) there are [YouTube](#), [Facebook](#), [Vimeo](#) and [Instagram](#) (IGTV mainly).
- [Google docs](#): communication can also take place through, for example, the comments left in an online document; in particular Google docs, part of the, above mentioned, Google Drive suite, allows to leave a comment in a specific section of a document addressing both every people who can access the document or only one specific person. It is not rare to see entire conversations on a specific issue conducted effectively directly in a working document! It is also quite handy since you do not have to go back and forth between the document on which you are working and some communication tool.

## 2.5.Virtual Worlds

Virtual Worlds are computer-simulated 3D environments which users can explore and interact with through their personal “avatars”. Virtual worlds can foresee the simultaneous presence of more avatars (and therefore users) or be “single-players” experiences; in the latter interpretation of the concept, videogames could be considered as forms of virtual worlds.

By using virtual worlds, learning can be made a much more engaging experience increasing at the same time students’ interest and supporting also their understanding of the lessons’ topics.

In fact, since students, through virtual worlds, would actually be “learning by doing” their learning rate of those arguments (e.g., science, manufacturing, medicine etc.) which strongly rely on empirical practice would be strongly enhanced, lessening, however, all costs and safety concerns normally associated with these kinds of activities.

Virtual worlds can also promote collaboration and socialisation between their users nullifying any difficulty concerning the physical distance between them.

Among the most useful Virtual Worlds for learning there are:

- [Assassin's Creed: Origins – Discovery Tour](#): Origins is one of the chapters of the fan favourite videogame saga “Assassin’s Creed”; it features a very interesting mode, discovery tour, which allows the player to impersonate one of the many available avatars and visit “personally” many ancient Egyptian cities and sites, meeting historical figures and experiencing the way of life of

those times of people from every social class, including their customs and habits<sup>5</sup>. It would surely represent an unforgettable history lesson for everyone!

- [Second Life](#): it is one of the most famous and widely used online virtual worlds. It is not strictly speaking a videogame, since it has not a clear objective nor competitions. However, it has many [ad hoc features for learning](#) and allows to visit many digital reproductions of Universities' facilities, museums and exhibits.
- [OpenSimulator](#): it is an open-source tool that gives users the opportunity to create their own Virtual Worlds! If you have specific needs when coming to the functionalities of a virtual worlds, provided that you have basic coding/programming skills, OpenSimulator it is what is right for you.
- [Minecraft](#): the famous exploration/building-themed videogame features also an [Education Edition](#) which aims at promoting an immersive methodology of learning, especially STEM subjects, by allowing users to collaborate in its virtual world, joining together fun and education<sup>6</sup>.

## 2.6.Blogs/Wikis

Blogs and Wikis allow for a change of perspective about how people, and in our case students, interact with information sources online. In fact, usually, we go looking for information on the internet, consulting the myriads of potential sources, reliable or not, available online; but, when managing and contributing to a blog or wiki, users can “get to the other side” and become the authors of new materials.

It is somehow a “responsibility” the forces the group of people, a class for example, that has the task to develop a wiki to really master the contents that they are treating; this leads to an improved critical thinking, better capacities to coordinate their work with that of others and learning also from peers, but also to a stimulation of their creativity and writing skills.

In leading your students to the creation of well-made blog or wiki we suggest the following tools:

- [Nuclino](#): through Nuclino a team can create, working cooperatively, a well-structured private Wiki; it features both functionalities for businesses (at a monthly fee) and also a free tier which allows the creation of a wiki with up to 50 voices.
- [DocuWiki](#): is an open-source and easy to use wiki software which allows for the creation of Wikis with many different aims, included education; it is very easy to set up, maintain and update, therefore, in addition to being free, it is particularly suitable for beginners or users who do not have much experience in the creation of a Wiki.
- [Edublogs](#): with this tool, which is built upon WordPress, users can create and manage a blog or even a website, and/or interlink it with other blogs and websites realised with WordPress. Since it is thought to be used in an education environment it features many extremely useful

<sup>5</sup> [https://www.youtube.com/watch?v=3jiq1o1NJXY&feature=emb\\_title](https://www.youtube.com/watch?v=3jiq1o1NJXY&feature=emb_title)

<sup>6</sup> [https://www.youtube.com/watch?v=MGrEnpssy6M&feature=emb\\_title](https://www.youtube.com/watch?v=MGrEnpssy6M&feature=emb_title)

functions, such as: a “moderation” mode, content filtering, class management, network administration, learning diaries and ePortfolios. Students can be organized in groups and classes, and feedbacks can be sent them both publicly and privately. It allows for the creation and management of a true online learning community!

- [Blogger](#): it is a tool run by Google which allows for the creation of a blog totally for free. It is rather basic in its functionalities but exactly for this reason it is much appreciated by inexperienced bloggers and webmasters.

### 3. E-learning process tools

E-learning is using technology and digital tools to enable individuals to learn anywhere and anytime. Virtual learning tools can be any app, web program or in general technology that is accessible via a web-connection and can be used by both the teachers and the students. These tools can enhance the teacher's ability to communicate their knowledge to the students by presenting information and the student's ability to access the information. The importance of the e-learning process tools can be summarized in enhancing the virtual educational experience so that educators and students adapt better to a digital curriculum. The tools help both parties to be more engaging, interact, present, become creative and in general facilitate the e-learning process. The tools presented below are the most import and include shared interactive whiteboards, gamification, digital notebooks, presentation tools, audience engagement and assessment and survey tools.

#### 3.1. Shared Interactive Whiteboards

Virtual whiteboards provide the ability to users to collaborate digitally and enable facilitators to communicate visual information, such as text, graphs or drawings, just like any physical literal whiteboard. This tool helps users to facilitate any team activities when working online, improves the virtual process and enhances creativity. They may resemble to a simple drawing program, but the crucial difference is that a shared interactive whiteboard can be used by different individuals simultaneously. Depending on the tool, you can use a virtual whiteboard to upload any type of file including audio, photos and documents and share them with other users as well as real-time chat options.

[Whiteboard.fi](#) is a digital tool that allows you to create virtual classrooms, allowing students to have their own digital board to write on. Each classroom is only active while the teacher keeps it open and cannot be re-used in the future. The teacher can have access to all the student's whiteboards while the students have access only to their own whiteboards and the teacher's. It can be used free of charge, there is no download needed and can be used in any device. The teacher can see the answers in real time. All student whiteboards can be saved as PDF files. What is more, the teacher can give instant feedback, have immediate overview of the students and share PDF files, images, math coding or even emojis!

[AWW - A Web Whiteboard](#) is a popular communication and collaboration tool that allows the users to create whiteboards and invite others to collaborate by sharing a single URL link. There is a free version with basic tools and sharing and a paid version that includes unlimited participants and unlimited premium boards. It works on any device and browser and does not require any additional hardware. Inside AWW there are writing tools, text, shapes, uploads, and everything else you need to add content to the whiteboard itself. Additionally, there are options for text chat and audioconferences during presentations as well as access to already saved boards. Finally, the user can embed a whiteboard onto any web page by copy/pasting an iframe code.

[Jamboard](#) is an interactive whiteboard free application, part of the Google Workspace that connects to the cloud. It can be used in any device and in any software as long as they are using Google. Google Workspace is integrated into Jamboard so users can drop files from their Google Drive directly to the app. All the files can be instantly saved and stored in the Google Drive too. The user creates a "jam"



that can be shared with others or create a sharable link. Jamboard provides real-time collaboration and the content can be edited by anyone involved. Additionally, there is an option for video conferencing and the users can switch between the video and the actual whiteboard. There are also other options including sticky notes, screen recording, images, graphs and handwriting recognition to convert handwriting to text. Jamboard is also hardware, a device that features a 55" 4K display touchscreen that can provide the tool's options.

**Explore also the following tools:**

[Stormboard](#)

[Doceri Interactive Whiteboard](#)

[Explee](#)

[Explain Everything Whiteboard](#)

[Openboard](#)

[Educreations](#)

[Splashtop Classroom](#)

### 3.2. Gamification- Game based learning

Learning process can be fun, interactive and thus engaging for your learners. Many tools have been developed that can help you to engage your audience and at the same time assess the knowledge that they acquire.

[Kahoot!](#) is an online game-based learning platform that supports the creation of your own quiz. The basic version is free and you can have access to a variety of templates and create your own portfolio. The disadvantage of the free version is that you can engage only 10 people per quiz, so if your class consists of more learners you should divide them in teams. The tool can provide fast and active engagement especially in virtual learning environment and support you with revision, reflection, ice-breaking etc. The application can be accessed through many devices as laptops, tablets, smartphones simultaneously.

[Quizlet](#) is a tool that provides millions of flashcard sets that help you with teaching and also supports many different types of quizzes. The use of the tool makes learning fun and interactive and it is easily accessible. Quizlet Test can assess students individually and automatically do the grading for you. It can also facilitate the learning process for learners in need of more support by providing links for further reading. Quizlet live can help you to play a quiz in realtime in groups to foster collaboration and communication.

[Quizizz](#) is an online tool that provides you access to hundreds of developed quizzes and can support you to create your own. It is free of charge and operational from any device. That is why it is really important for virtual learning environments, as it is accessible from wherever the learners are, playing live or asynchronously. With the use of the tool you can accomplish formative assessment in an amusing and engaging way. You can pick a quiz on nearly any subject and/ or you can customize it in terms of level completion, speed etc.

### 3.3. Digital Notebooks

Digital Notebooks are valuable tools that can provide digitally the utilities of a paper notebook that in addition it can be shared and can be used collaboratively and energize your virtual class. As a facilitator you can use digital notebooks to keep notes, to gather data from multiple resources and synthesize them and to support assignments for thinking and reflection of learners.

[Google Keep](#) is a free tool provided by Google and operates through web and a mobile app for Android and iOS. The tool provides a variety of features for making notes and lists, set reminders and group notes. In the notes you can integrate text, lists, images, audio, drawings and even draw on your pictures. You can also search notes on created topics. To these notes you can add collaborators and support team working in real time, who will be able to access the app from any device.

[Padlet](#) is a free digital tool that functions as an online notice board and can be used by both teachers and students. The users can post notes on a common page that may contain links, videos, images and document files. The facilitators can create a limitless number of online notice board private or public or they can limit the access to registered users, with specified emails. To share a Padlet board with others, choose for a QR code or a link. Padlet can be downloaded in any device including smartphones and there is no specific software or application needed. The content that is created in the tool can be exported in several ways, including PDF or spreadsheet, or embedded into blogs and sites. The tool also provides option for live questions, creation of an online private student portfolio, a wishlist, a virtual library and simple peer assessment.

[OneNote](#) is a digital web based notepad developed by Microsoft and it is free of charge. The tool offers a wide range of functionalities for the user. You can enter the data in notebooks that are split into tabs and then split into pages. In virtual learning environment you will find the tool useful as each notebook is connected to each other and can create a network in which content is easily transferred between them. OneNote can support effectively team work, as individuals or groups can have quick and easy access to the notebook and either find information with one click and/ or collaborate on the content of the notebook in real time. OneNote can also be accessed through web and mobile devices and offers many free add-ons.

[Evernote](#) is also a popular digital notebook provided in free and paid versions. The digital notebook provides in its basic version utilities that help you organise your work and bring together teams to cooperate on common projects. This tool will offer you space to store your resources and get access to them by any device by auto- synchronizing. Especially useful for you, that you are engaged in e-learning is that not only you can store and access your data, but also that you can easily share them.

### 3.4. Presentation tools

Microsoft PowerPoint is the most popular tool for creating presentations. It is widely used and still is dominant in the field of public presentations. However several new tools have been developed recently that can make your presentations more lively and interactive. Let's start with some indicative tools!

[Prezi](#) is a tool for creating presentations through web. The fact that it is web-based gives you a great solution to compatibility, as your presentation will retain its format and features irrespective of the device that you are using. The application offers the functionalities of Microsoft PowerPoint but also integrates some special features that make your presentation more attractive and engaging. The basic advantage of the tool is that it is not based on the regular slide approach but on a canvas approach. Your presentation is an extended canvas and you can move around by zooming in and out and a variety of frames is offered.

[Visme](#) is an effective web-based tool that offers you a variety of presentation templates, infographics and visual communication. It is a free cloud-based content creation tool that supports collaboration with learners. Your presentations will look professional and can embed millions of icons, videos, audio, graphics, animated GIFs, charts, flowcharts etc. Once you create your presentation, you can edit and customize it individually or in collaboration with your learners and easily share it and present it.

[Flickr](#) is a tool that can help you enrich your presentations with a wide database of images. The tool is widely used in the educational process as a variety of resources is available in structured categories that facilitates searching. A presentation that integrates the appropriate images can be more engaging for the learners that learn to develop skills in visual reading. Application of Flickr like geotagging can make your presentation stimulating for further study and provide a good practice for the presentations that will be developed by your learners.

[Mentimeter](#) is a tool that can make your presentations more interactive and engaging. The tool incorporates features from many tools and can support polls and quizzes. These features can be easily incorporated into PowerPoint and thus facilitate you to engage all learners in active learning and you to get feedback on your teaching. The function of anonymity reassures that all learners will be engaged without having to worry about giving a wrong answer.

### 3.5. Student assessment and response tools

Student response and assessment tools allow educators to evaluate student comprehension, learning needs and academic progress. They are very useful as based on the responses, the teachers can assess the progress of the class and spot any gaps or needs collectively or per student. There are web-based tools or handheld devices that connect to a software program. The digital tools provide various question types, short answers and even student reports. Listed below, you can find some popular student response and assessment tools.

[GoFormative](#) is a free web-based tool that is operative in any device and allows educators to create instantly or virtual formative assessments and assignments or upload PDFs embedding questions to

assess student learning. By setting up an account, the teacher can access all the tool's free features including adding images, text, video and multiple question types such as multiple-choice questions, short answer or true/false questions. There is a paid option that offers even more features like student progress reports or questions with audio content. The user can share the digital task with others by creating a virtual class inside the tool, attaching a code for the assignment or via a link. Except from students, GoFormative can be useful among teachers as in many educational environments, an identical question formatting must exist. Thus, one user can create a formative and share it with all the departments. Moreover, all the activities can be stored in the library of the tool for future access by everybody.

[Socrative](#) is a popular digital tool for student assessment that allows teachers to create educational activities such as quizzes and assess the students' responses in real time. The tool has two different applications: one for educators and one for students. The basic app is free of charge, but a PRO paid version exists with more features. The educator and the students can log in to the tool in any device with any software. Educators can create a virtual "classroom" where they place the quiz. Students can access the classroom by using a unique link and then solve the quiz. The tool offers different question types like multiple-choice questions, short answer or true/false questions. Educators can see the answers in real time or later, as the answers can be sent via email. Socrative offers also a student report option (individually or collectively). Additionally, students can instantly see the correct answer but only after they responded.

[iClicker](#) is a paid student response collector software that can be operative with any presentation tool, software, or website. It provides quizzing and polling options that enhance the interaction between educators and students. This digital tool captures a screenshot with every question and associates your questions with the poll results. It is operative in any device and has even its own hardware, iClicker remotes. The software provides Canvas support for grading, data collection and a variety of response types. The use of the cloud-based software iClicker Cloud is recommended as it offers added features such as tracking attendance and can collect the responses during the lecture and is free of charge.

### 3.6. Survey tools

Survey tools can be proved very effective for education, especially for e- learning environments. The tools can support teaching and research processes, therefore their use is highly recommended not only for facilitators, but also for the learners in case of development of their assignments. Let's go through some popular tools with wide application in education.

[Google Forms](#) is a commonly used tool that can help you to create and implement surveys easily and free of charge. They are provided by Google Workspace and all you need is a Google account. Google Forms provide you with a very valuable tool for data collection. You can create surveys by incorporating different kinds of questions, like open questions (short/ long answers), multiple choice, checkboxes, dropdown menu, scale rated question and more. You can use them to collect data, make quick polls, assess learners performance and also as a research tool that can be widely distributed with a link. Apart from being easily accessible, the fact that you can watch responses in real time and analyse them with the automatic summaries with charts provided along with a spreadsheet that gathers all individual responses gives the tool a strong advantage.

[SurveyMonkey](#) is widely used online survey software that supports creating and implementing surveys. The tool is not free, but comes with a four pricing packages. Depending on the fee you can choose from 31 or 51 templates and 15 types of questions. The type of questions are open- ended, close-ended and descriptive. Single answers, multiple choice, textboxes and boxes for date-time-numericals-demographics are provided. The survey can be easily shared via email, link and social media and the responses are analysed in real time. The tool offers a variety of reports that can be produced by the SurveyMonkey.

[Limesurvey](#) is an online survey web application that it is used by many Educational Institutions. It is offered for free for limited responses and with a 3 paid versions depending on the use you intend to make. You can develop and share on-line surveys, collect responses, analyse them in real time and export the results to other applications. As most of the survey tools it offers a variety of features and a variety of question types, namely open ended (huge-long- multiple short-short free text), rate scaling, multiple choice and single choice questions. The results are automatically analysed with the embedded features and provide a rich variety of analytics.