

# **EVOLUTION OF EDTECH BUSINESS MODELS**

Prospective monitoring 2023

# SUMMARY OF 2023

First quarter

Second quarter

Third quarter

Last quarter



# **Definition of Edtech**



# **Definition of Edtech:**

The acronym EdTech is short for Educational Technology. **EdTech represents the use of new technologies to facilitate and improve knowledge learning and transmission.** 

For example, e-learning provides individual digital teaching instead as an alternative to physically attending classrooms. These "classrooms" and MOOCs (Massive Open Online Courses) are lectures broadcast on the Internet. The LMS (Learning Management System) makes it possible to distribute educational content online, including course. There are also educational robots that capture the attention of young people and support them in their learning.

EdTech provides tailor-made and on-demand services. It revolutionises teaching, making it possible to design a personalised learning path for students.

Teachers and schools in general also benefit from these technologies, which facilitate the sharing of knowledge in collaboration with their students through participatory and pedagogical teaching. In addition, they use these technologies as **online platforms to better organize**, **control and monitor learning and adapt their teachings to students**. This allows them to provide more relevant and effective services.

Overall, Edtech benefits students and teachers as well as schools by **facilitating administration and communication**. They improve dialogue, education, learning and above all pedagogy.

DISCOVER MONITORING METHODOLOGY



# **Prospective monitoring - Definition**



# **Overview**

Prospective monitoring consists of collecting strategic information in order to anticipate changes in the ecosystem and respond as quickly and appropriately as possible. Prospective monitoring provides support for the implementation of a commercial and technological strategy.

# Methodology

An effective method involves regular monitoring and service developments monitoring. The below steps were taken to carry out the monitoring and illustrate the results:

- Research, analysis and comparison of a dozen innovative offers in the field of Edtech.
- · Identification and understanding of the commercial and technological benefits of these results.
- · Identification of Edtech trends and innovations. Trends represent market characteristics and developments.

# **Objectives**

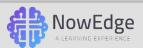
For a company or educational institution to compete sustainably competitive it needs to be constantly aware of changes in its market, in order to either limit potential risks or benefit from these changes. This would involve the following:

- Monitor competitive products and service developments.
- Identify and distinguish innovative trends and strategies over the long term.
- Analyse and compare this information with the organisation's current strategy.
- Evaluate competition and their business strategies through their innovations.
- Carry out a self-evaluation and develop a strategy.
- Find inspiration in business and technological trends.

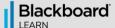


# **Summary of the march 2023 edition**





**NowEdge** is a tool for optimising the learning process. It is based on gamification with the implementation of "serious games".



**Blackboard** is an online platform providing several solutions to increase the digitalisation of a school.



**ARI 9000** is a learning platform that uses machine learning and artificial intelligence to provide individualised teaching.

# **⋄** KNEWTON

**Alta** is a courseware that proposes the setting up of a complete course. The aim is to personalise the level of learning according to the learners' responses.



**Kestya** is a communication tool that answers students' questions using artificial intelligence.



# **Edtech trend analysis**

# **Main technological trends**

Represent **opportunities or threats** for the various players in the sector



Gamification



Artificial intelligence



Big Data







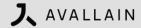
Publication of the rapport "Raising the Bar on Edtech Advertising"

The Advertising Standards Council of India (ASCI) has published a comprehensive report on advertising in the education technology (EdTech) sector and its impact on parents and students, specifically in the Indian market. The study found that advertising plays an important role in the decision-making process of parents when choosing an EdTech platform. The study reveals that 49% of parents base their choice of platform on advertising.

# **Major developments**



Indian EdTech has raised USD 17 million. This comes as B2C online edtech startups in India have suffered after the pandemic with a drop in demand.



Building on 22 years of experience, Swiss edtech company Avallain is entering its second round of funding with **a EUR 8** million raise.



The learning platform raises **USD 22.5 million** to provide online learning programs for middle and low income families.



Oslo-based platform Ludenso raised **USD 1 million** in a seed funding round.



# NowEdge: Gamified with ease



NowEdge is a tool for optimising the learning process. It is based on gamification with the use of what NowEdge calls "serious games" to stimulate learners.

# Type

Educational and fun tool based on gamification.

## **Competitive advantage**

NowEdge gives the possibility to set up a learning path to increase learners involvement.

#### **Price**

The Learning Management System (LMS) is free if the number of users does not exceed 10. The product is created by a Moroccan company which offers a flat fee of MAD 49 (CHF 4.4) per month per user. A preferential rate is available for schools. NowEdge also provides "serious games" which represent an additional MAD 350 (CHF 31) per participant for the "strategic warfare" mode and MAD 1,500 (CHF 133) for the "trading" mode.

#### Number of users

According to the website, NowEdge has over 700 users with a 95% satisfaction rate. ESSEM Business School and Rabat Business School are cited as using the tool. The majority of users are Moroccan.

## Level of development

NowEdge is a start-up founded in 2020 in Casablanca, Morocco. It is supported by Technopark, an acceleration and development company for young companies. In December 2022, NowEdge won the Innovation Award at the Phare Entrepreneurship Awards organised by ACCEDE International.



#### How does it work?

The solution offers two types of service. Firstly, a learning management system which translates into a dashboard to monitor the progress of students. Nowedge also offers "serious games" on specific themes. The start-up can also offer customised games. However, we have not found any information on the price of this type of service.



# **NowEdge: Gamified with ease**



## Features:

- The solution proposes to set up "Serious Games", this type of learning can be
  done in teams or individually. It is also possible to create customised games to
  meet the needs of teachers and institutions.
- The learning management system makes it possible to create an entire course composed of different stages with documents, concepts, quizzes, questions and exams. It is also possible to use different types of media: the course can be consist in videos, articles, internet links...
- A dashboard is available for learners with an experience system. It is possible to compare their progress with the rest of the class.
- The application is easy to deploy, there is no need to install any software, all you
  need is a computer and an internet connection. Moreover, the solution is turnkey
  and does not require any configuration by the teachers.
- It is possible to watch the different progresses and performances of the students. In particular, the results of assessments and quizzes.
- A forum is set up to facilitate communication between teachers and students.



Kindergarten ★★★ High School ★★★

Elementary School ★★★ University & school ★★★



# **NowEdge: Gamified with ease**



Schools are often criticised for being too academic and not practical enough. This is even truer at university, where many students end up dropping out. NowEdge tries to stimulate learners with "serious games", but also to promote a new learning system, which brings many advantages:

- The implementation of serious games is a real asset to **increase student involvement.** It also allows the development of other types of skills such as **soft skills**, which are increasingly in demand in companies. For the moment, NowEdge only offers a few "serious games". However, it is possible to set up fully customised games to meet the expectations of the course, but also those of the teacher.
- The provision of a forum **improves the exchange between the teacher and the learners.** It is sometimes easier to ask a question in writing rather than orally, especially in lecture theatres. It also allows the teacher to put forward links or documents without having to send emails.
- The variation in the type of material is one of the strengths of this solution. The proposal of "classic" course documents, videos, links and quizzes helps to **maintain attention and thus limit the risks of dropping out.** Similarly, the use of experience points and the grading system can **increase student engagement.**
- It is possible to see the level of progress of a class thanks to the Dashboard. It is also possible to see how many students have read the documents, and which points need to be studied in greater depth according to the results of the quiz.
- The **ease of use of the tool** means that it can reach a large number of teachers, even those who are not very comfortable with this type of technology.

However, there is room for improvement:

- It is a shame that Nowedge does not offer more variety in terms of "serious games". Currently, they are **very business school oriented** with only 2-3 games offered. It is possible to customise them, but no information is given in terms of cost and time.
- The use of this tool **represents a significant cost for the teacher.** Indeed, in order for the teacher to be as efficient as possible, it seems appropriate to put in place several supports. This is a process that can be very time consuming.







Blackboard is an online platform that provides several solutions to increase the digitalisation of a school.

# **Type**

A management learning system (LMS) that digitises the learning of learners.

# **Avantage compétitif**

The platform offers several time-saving solutions for teachers as well as for students.

### **Price**

The price varies according to the needs and size of the institution. According to Technologie Evaluation, the licence for a single class costs USD 300 (CHF 278) per year, with a maximum of 100 participants. The licence for an entire department costs USD 9'000 (CHF 8'324) per year, with a maximum of 500 participants.

## Number of users

According to the Fool's website, Blackboard offers its services to more than 100 million users, many of whom reside in the United States.

## **Level of development**

According to LinkedIn, the start-up employs between 1,000 and 5,000 people. The company is a pioneer in the digitalisation of learning models, having been founded in 1997.

#### How does it work?

The platform offers several solutions that can facilitate the management of a school:

- Blackboard Learn centralises information (documents, notes, discussions, etc.).
- Blackboard Collaborate is a tool that allows video conferencing.
- Blackboard Analytics analyses data.
- Blackboard Ally aims to make digital courses more accessible.









## Features:

- The platform is available on several types of media: web page, smartphone and tablet.
- It is possible to set up **discussion forums** around an issue or a document.
- The solution centralises all documents related to school life, but also all
  exercises and documents made available by teachers. This simplifies the storage
  and sharing of information.
- Blackboard Collaborate is a solution that creates videoconferences for a class. It
  has valuable features such as the ability to record and provide a "whiteboard" to
  make the course more interactive. Many other features are available to facilitate
  interaction and understanding of online courses.
- The collection of extensive data allows for learning analytics, which make it
  possible to to identify struggling students, identify barriers to course progress,
  and track the impact of teaching methods on different student audiences over
  time.
- Blackboard Ally builds a more inclusive learning environment and enhances the learning experience for people in precarious situations by providing alternative course formats and enabling feedback...



Kindergarten ★★★ High School ★★★

Elementary School ★★★ University & school ★★★





The Covid19 pandemic has enabled schools, but also teachers and students, to accelerate the digitalisation process. It is becoming more and more complicated for a school not to offer digital tools. Blackboard has many advantages for developing modern solutions:

- One of the main features of this platform is the **ability to aggregate all content on a single interface.** Indeed, in most schools, documents are sometimes online, sent by email, by the administration... Getting all documents centralised on a single platform **saves time for teachers** who can easily share and store class documents, but also for the administration. Also for students, documents are more easily accessible which leads to more engagement.
- The video conferencing system has many features specifically designed for online classes. A good example is the use of a board to make diagrams during presentations. This type of tool is also a **good alternative** to Teams, Zoom and Google Meet which are currently the leaders in this sector.
- The setting up of a **forum dedicated to certain courses or subjects** is a real asset. Indeed, this **allows for a better exchange between teachers and students.** In addition, even the least comfortable students can ask questions without the pressure of expressing themselves out loud.
- The analysis of data to better understand student learning is an advantage that schools can use to their advantage. Furthermore, if students in difficulty are identified early, then the **risk of dropping out is reduced.** It is also possible to measure a teaching method over time to see the impact of the method.
- Blackboard Ally provides various tools to facilitate learning for students, even those in precarious situations. This type of service shows a real desire on the part of an institution to improve the equality of opportunity for each student. This can help to increase the institution's influence.

However, two points should be kept in mind:

- After reading several comments, the platform can be complicated to use for people who have difficulties with the use of digital tools.
- On the same analyses, but also with videos, it would seem that **the tool does not work properly from time to time.** If an institution relies solely on this solution, and it becomes unusable, even if only for a day, the situation would cause many problems.



# **ARI 9000: the Aristotle of modern times**





ARI 9000 is a learning platform created by the company MagmaLearning, which uses machine learning and artificial intelligence to become a personalized tutor and change the way people learn.

# **Type**

Learning platform based on artificial intelligence and machine learning.

## **Competitive advantage**

A solution that stimulates learners by offering different exercises according to their abilities.

## **Price**

No relevant information was found on this subject. According to an interview with the founder, the business model is based on a subscription system.

### Number of users

No information was found. However, ARI 9000 is used at EPFL and EHL.

## Level of development

The startup is founded in 2019 in Lausanne, Switzerland. It was awarded a grant of CHF 20,000 from the Foundation for Technological Innovation (Fit) in 2020. According to their LinkedIn page, the startup has between 11 and 50 employees.

#### How does it work?

ARI 9000 works with the machine learning system. In order to be effective, the school or teacher must send a certain amount of documents in different forms. After that, it takes an average of 2 weeks for the solution to be usable. Students can then start learning with ARI 9000, which adapts to the student's level.



**Link** https://www.magmalearning.com/

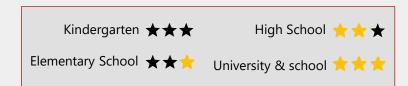




## Features:

- The solution can generate content from very different documents (Word, PDF, PowerPoint...), but also with various themes.
- Each content proposed by ARI is worked by an artificial intelligence that **adapts the content according to the person** using the platform. Many characteristics are taken into account.
- The solution offers an atypical visualization mode with a constellation of 3D points as the main visual. Self-organization emerges spontaneously, in which close points correspond to related key concepts. As the amount of knowledge increases, the number of dots and colors becomes more dense.
- Artificial intelligence **provides continuous feedback** to encourage learning.
- It is possible to lead students to new concepts and follow logical paths to enable better understanding.
- The solution provides different quizzes based on the time available (micro-learning).





# ARI 9000: the Aristotle of modern times





Each learner has different abilities and desires, which is why a very vertical education system cannot suit all students. Based on this observation, ARI 9000 tries to use artificial intelligence to solve this problem:

- One of the strengths of using machine learning is the ability to create exercises on very different topics. It
  is therefore possible to use ARI 9000 for all the courses offered in a school. In addition, the technology can be
  easily accepted if a small group of teachers are already using it, so that they can give advice to the most
  reluctant teachers.
- The implementation of this platform **does not involve any additional cost in terms of time for the teachers.** Indeed, it is enough to collect the courses of the past years or those already prepared. A delay of 2 weeks is required to make the tool operational, which seems more than reasonable, as the programs are prepared months in advance.
- The most important advantage is the **customization of the solution for each user.** ARI 9000 takes into account the level of knowledge on the topics, but also the memory capacity of each individual with a repetition of several words so that it enters the long-term memory. According to the CEO of MagmaLearning, academic results can be improved by 20% to 30% depending on usage (exam experience).
- The solution is available on multiple platforms with a web version where anyone can log in and an app available on Android or iPhone. This allows for better student adoption, but also makes it easier to use in many situations (classroom, transportation, home).
- The artificial intelligence **sends regular motivational messages to stimulate learners** and encourage them to use the tool. In addition, the color constellation allows to show in a very visual way the level of learning achieved.

Despite the undeniable advantages, the solution can be improved:

According to the startup's founder, it takes an average of 20 to 50 quizzes for the platform to start
adapting to the user. This may not seem like much in absolute terms, but it is enough to make learners give
up using it.







Alta is a courseware that proposes the implementation of a complete course. The objective is to be able to personalize the level of learning according to the learners' responses.

# **Type**

Adaptive teaching software based on the level of understanding of the learners.

# **Competitive advantage**

The solution not only saves time for teachers, but also allows for a better adaptation of the course according to the students' level of understanding.

#### **Price**

Knewton offers a USD 9.95 (CHF 9.15) per month per course subscription for each student, a USD 39.95 (CHF 36.70) per term per course subscription, and an AltaPass offer that is good for two years with the ability to attend all courses for USD 79.95 (CHF 73.60).

### **Number of users**

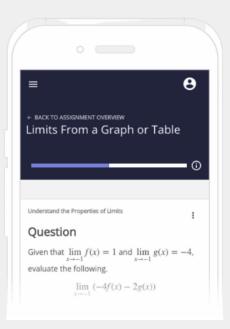
According to the Knewton website, over 40 million students worldwide have used the Alta platform and tool. A large portion of these are in the United States.

## Level of development

Knewton was founded in 2008 by Jose Ferreira, a former Kaplan executive. Its headquarters are located in Manhattan, New York. The company also has an office in Tech City, London. It currently has over 150 employees.

#### How does it work?

The solution provides the entire course divided into several parts. A theoretical part where the learner has to retain the concepts, a quizz/exercise part in order to know the level of understanding and finally an exam part. The particularity of this tool is to be able to correct directly the detected mistakes, but also to adapt the course according to the level of understanding and learning of the learners.

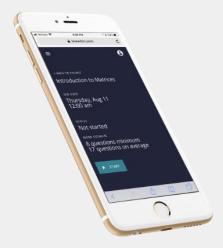






## **Features:**

- The solution offers an entire course with **different types of formats** such as videos, texts, exercises, audio...
- Learners can **progress through the course at their own pace** with the possibility of going back over each exercise and each notion. In addition, Alta takes into account the students' answers in order to **personalize learning.**
- It is possible to know all the answers to the different quizzes, but above all to obtain all the explanations in an exhaustive way.
- The exams that evaluate the students' understanding and give grades are done automatically.
- The solution is multiplatform, it can be used on a smartphone, a tablet or a computer.
- The teacher can monitor the overall progress of the class with the precise number of quizzes and concepts seen by each learner.
- A large number of courses are available, but are still focused on scientific subjects (Chemistry, Biology, Physics...)
- Alta adapts to the "Learning Management System (LMS)" already in place, which
  allows a greater capacity of adoption. The most cited example is its ease of integration into
  the Canva LMS which is widely used in the United States.



Kindergarten ★★★ High School ★★★

Elementary School ★★★ University & school ★★★





Alta, the solution proposed by Knewton is a tool that creates a course for teachers by proposing different formats. Its main objective is to propose an adaptive module according to the level of understanding and knowledge of each student. This tool offers many positive aspects for teachers and schools.

- The solution allows to offer an already operational course for the teachers, **which saves a considerable amount of time** that they can use to make the course much more interactive (setting up of hackathon, group project...). It is always possible to complete Alta with their own documents and presentations.
- The greatest strength of this tool is the **ability to adapt to learners of all levels.** In this way, students with a high level of learning ability do not have to listen to the teacher's explanations several times. On the other hand, students with difficulties can progress at their own pace by understanding their mistakes thanks to the different explanations.
- The availability of various statistics to **observe the progress of each student in the program** is a real advantage. The teacher will no longer have to wonder if the articles or documents have been read during the class sessions. In addition, **it is possible to identify dropouts and try to help them.**
- The implementation of automatic grading **again saves time for the teachers.** It also **removes the subjective part** of grading that some students blame on teachers. In addition, with the various statistics, it **is possible to better understand the types of exam failures.** If a student does not score well, but did not finish reading all of the concepts and take all of the quizzes, it seems logical.
- Although it has the advantages listed, the solution has some limitations :
- The solution is **quite rigid in terms of possible questions.** Indeed, the lessons are already prepared and it seems complicated to make changes. It is **also the same for the answers,** the learner has to give the ones expected by Alta, otherwise they are counted as wrong. With a teacher, the answer could have been right.
- Alta can also limit students creativity and thinking. By taking quizzes with specific answers, students can
  "format their answers" to get the best possible score. It seems wise to set up parallel written exams with the
  objective of evaluating the student's analysis, which ultimately increases the amount of work for teachers and
  learners
- Unfortunately, Alta only offers science subjects. However, it seems much more complicated to evaluate more subjective subjects because of the methodology used (evaluating philosophy is still too complex a task for a robot).





# Kestya: artificial intelligence to facilitate campus life



Kestya is a communication tool that answers learners' questions using artificial intelligence.

# **Type**

Chatbot that answers learners' questions using artificial intelligence.

## **Competitive advantage**

Allows you to be more efficient in answering questions.

### Price

Pricing not available.

## Number of users

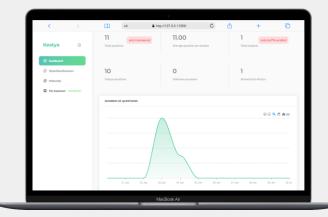
No relevant information was found on this subject. However, the website highlights partners such as Rennes School Of Business, Ipac Bachelor Factory or IHECF.

# **Level of development**

Kestya is a start-up founded in 2021 in Rennes, France that currently has between 2 and 10 employees. The level of development seems quite advanced considering the interface and the possible connectivity with other tools.

#### How does it work?

Kestya is an online platform that allows teachers and administrators to give their students a way to ask questions anonymously and without any constraints, before or after class. And thanks to artificial intelligence algorithms, the teacher can train the system to answer learners automatically.





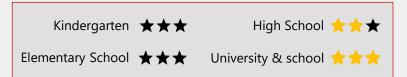




## Features:

- The main function of Kestya is to be able to answer the questions asked by the students for the teacher. The artificial intelligence takes note of the teacher's answers, then with time and by accumulating data, it becomes completely autonomous.
- This tool is not only for teachers, but can also be used by all school departments, especially the administrative part.
- The solution offers an integration with the systems already present in the school.
   A module can be directly integrated into moodle, WhatsApp or Teams.
- The platform is available on several media, which allows diversifying the means of communication.
- All questions and answers are centralized in a smart FAQ to make the questions already asked accessible to all learners.
- Kestya is available continuously without interruption, allowing students to ask a
  question at any time and receive an answer almost instantly.
- Only learners with an account can ask questions, which limits the number of users.







# Kestya: artificial intelligence to facilitate campus life



School administrations and teachers are often overwhelmed by many questions, this phenomenon is even more intense during certain periods of the year: before exams, the start of the school year ... For this reason, Kestya responds perfectly to certain problems:

- Teachers have little time to offer quality teaching, especially when you compare the number of teachers to the number of students, and this trend seems to be getting worse over the years. The implementation of Kestya saves a lot of time in answering redundant questions. This is also true for the administration, which receives a large number of requests at the beginning and end of each quarter. The questions asked are generally similar, which leaves more time to answer more urgent issues.
- Students will be able to get **instant answers to their questions**, which leads to **more engagement and better results.** Also, since the only questions that will be sent to faculty and administration will be the most specific ones, the response should be much faster. The chatbot acts as a first filter that sorts the requests.
- The ability to **use Kestya across multiple channels** (Teams, Moodle, WhatsApp) is a significant advantage. In addition, it is possible to ask a question regardless of the time or date (school vacations). These advantages help to **reassure students** who can feel more in tune if the answers are quick.
- The smartFAQ system allows to **centralize all the questions** asked in order to know directly the answer to the questions. This saves time and potentially reduces stress.

This tool is also a strength for students who are afraid to speak up in class or be judged by sending an email. Indeed, the questions asked are **based on a system of anonymity.** 

Nevertheless, this solution has some limitations:

- While the implementation of this tool is a long-term investment and saves time, it also represents a **short-term cost** (in order to "train the tool") for teachers and members of the administration. This additional cost can be difficult to accept, especially if the person does not see the value of this type of tool.
- The solution uses artificial intelligence to detect the type of questions and then gives the answer that the teacher has already
  written. This means that for every new topic, the teacher has to create new answers, so the artificial intelligence is only slightly
  adaptive.
- Always having an artificial intelligence as the first contact can also be confusing for learners who may feel a greater distance between themselves and the institutions staff.





# **Summary of the june 2023 edition**





**Sylva** is a learning and assessment platform that automates part of the content creation process for teachers.



**GetMoreBrain** is a platform that integrates instant messaging to make exchanges more interactive and facilitate communication and collaboration.



**Pear Deck** is an online presentation software that takes the features of PowerPoint or Google Slides and incorporates new functionalities.



**Screencastify** is a video screen and webcam recording program, packed with features that make video creation easy.



**Citivas Learning** is a platform that centralizes all school data for analysis and decision-making.



# **Edtech trend analysis**



# **Main technological trends**

Represent **opportunities or threats** for the various players in the sector



Gamification



Artificial intelligence



Big Data







Publication of the rapport
"EdTech And Smart Classrooms Global Market Report
2023"

"The Business Research Company" has published a comprehensive report on market developments for companies involved in education technology (EdTech). The global market for educational technologies and smart classrooms has grown from USD 140.24 billion in 2022 to USD 162.89 billion in 2023. The market for educational technologies and smart classrooms is expected to reach USD 304.63 billion in 2027, with a CAGR of 16.9%.

# **Nouvelles marquantes**



Indian EdTech has raised **USD 250 million** in new funding and is on the verge of securing a further USD 700 million. Byju's has maintained its valuation at USD 22 billion throughout the past year.

# **HOUSE** MATH

The Oslo-based EdTech platform has secured **EUR 4.1 million** in a Series A financing round. The platform initially offers homework help and physical education to students.



The startup has secured **USD 8.5 million** in funding. The Tel Avivbased EdTech company will use the funding for staff expansion and product development.



The leading Arabic online video learning platform has raised **USD**10 million in financing to accelerate its growth towards its goal of serving 10 million learners.



# Sylva: Easily create and modify course materials



Sylva is a learning platform that automates part of the content creation process. It also makes it possible to set up an automatic assessment system, to maximize teachers' time.

# **Type**

Platform that optimizes content creation.

## **Competitive advantage**

Sylva not only facilitates the creation of documents, but also makes them more dynamic, using a variety of media (photos, videos, audio, etc.).

### **Price**

No relevant information was found.

#### Number of users

No relevant information was found. The website does not highlight the potential number of organizations that can use the platform.

## **Level of development**

Sylva is a start-up co-founded in 2019 by Maik Meusel and Christina Richard in Zurich. It was awarded a first-round <u>Venture Kick</u> prize in May 2019 and won CHF 10,000 as well as training to develop their business ideas, in the same year it was victorious in the second <u>Venture Kick</u> round and won CHF 40,000. In 2020, she won another <u>Venture Kick</u> prize of CHF 150,000. According to information available on <u>LinkedIn</u>, the start-up currently employs between 2 and 10 people.



## How does it work?

The teacher logs directly onto the platform with his or her credentials, and can then create different content using existing templates. All they have to do is enter the information required for their course. A wide range of media can be easily incorporated, including videos, photos and audio files. All documents are stored online and can be consulted by students once authorized. The same principle applies to exams, which can also be corrected automatically.



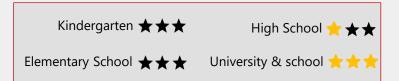
# Sylva: Easily create and modify course materials



## Features:

- The solution makes it as easy as possible to create content, simply by placing titles
  and texts in the various identified categories. Various types of media can be
  incorporated directly into the document.
- In addition to creating course documents, it is also possible to **design exams** with multiple-choice or free-response answers.
- The tool provides a range of statistics to give a clearer picture of the general level of the class, or to highlight students in difficulty. It is also possible to personalize and modify evaluation questions to discourage cheating.
- The platform features a ranking system to stimulate learners' competitive spirit.
- Team assessments can be set up to facilitate collaboration between students.
- Sylva archives content in its cloud, but it's also **possible to work offline** and save changes when the teacher has an internet connection again.
- Students can raise objections directly from their assessment reports.







# Sylva: Easily create and modify course materials



Working with the same type of document can be daunting, but setting up dynamic content is time-consuming and can be relatively complex. For example, it's difficult to incorporate multiple types of media within a course. Sylva addresses this problem by making it easier and less costly for teachers to create documents:

- Obtaining templates that have already been designed makes them **very easy to use**, even for teachers with little computer experience. The solution allows a very **large number of customizations** to make the course much more dynamic. It's even easier to incorporate different types of media within the same chapter. We can imagine a section that starts with text, then a photo or images to illustrate, and finally a YouTube video for those who want to learn more. Even for math, Sylva offers easy formatting solutions to incorporate equations, graphs, geometry, etc. directly.
- The introduction of ungraded continuous assessment tests makes it easier to identify the various issues students might face in understanding the course, particularly with the statistics offered by the solution. What's more, just like exams, correction can be automatic, saving teachers a considerable amount of time. Assessments can also take different forms, such as multiple-choice answers or open-ended questions.
- Bringing all the documents together on a single platform is an undeniable advantage for this type of medium, as it avoids multiplying the number of channels and makes it easier for students to get to grips with them, particularly those who are not used to using different digital tools. What's more, it's also possible for teachers to work without an Internet connection, which is a real advantage for teachers who are often on the move.
- The grading system and the teamwork system enable **different synergies** to be achieved, depending on the teacher's preferences, as well as those of the students.
- Finally, one of Sylva's greatest strengths is its ability to accommodate all types of teaching. In fact, it complements traditional learning by enhancing course materials, and is perfectly suited to blended learning with an online and face-to-face component. Finally, it can also be used for purely distance learning courses, making it a **highly versatile tool**.

However, this solution does have one drawback:

If the school's Internet connection or Sylva's website were to fail, teachers would not have access to their course materials. In the worst case, a
teacher could lose all his or her data.





GetMoreBrain is a platform that integrates instant messaging to make exchanges more interactive, facilitating communication and collaboration between the school, teachers and learners.

# **Type**

Messaging-based learning platform for increased interaction.

## **Competitive advantage**

The solution takes the codes of well-known messaging systems, while adding features to meet the needs of the educational world.

## **Price**

No relevant information was found.

#### **Number of users**

No relevant information was found. The website mentions partners such as AWS EdStart and Swiss Edtech Collider.

## **Level of development**

The start-up will be founded in 2021, the same year GetMoreBrain secured <u>CHF 2.5 million</u> in seed funding. It currently employs <u>11 people</u>, according to the website.

#### How does it work?

The platform takes the form of a WhatsApp-style messaging system, enabling learners to chat directly with their teacher or the school administration. Documents, quizzes, challenges and learning paths can all be uploaded directly from the platform.

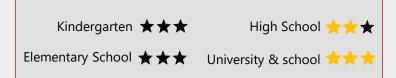




### Features:

- The platform is **available on several media**: web page, smartphone and tablet. An application has been found for the Google Play store, but not for the App Store (Apple products).
- Messages can be sent to various members of the organization: teachers, students
  and, if the school so desires, to the administration.
- Teachers can create quizzes and challenges.
- GetMoreBrain makes it easy to share a wide range of content, from course documents
  to photos, videos and audio files. What's more, it's possible to set up a learning path to
  better grasp the different themes and chapters.
- The solution relies mainly on text messaging, but it is also possible to communicate with voice messages or record a video.
- Several profile types are possible, including learners, creators, coaches, organizations and developers. Each profile gives access to specific functionalities.
- **Learning content is offered** either free of charge or for a fee, to facilitate the transmission of quality documents. The platform features an academy tab for specific documents, and a library tab providing access to books.
- The tool provides artificial intelligence to help perform and automate various tasks.









The lack of communication, but also the very vertical nature of teaching in higher education is one of the main criticisms levelled at it, particularly by students. GetMoreBrain aims to increase the number of interactions between students and professors, as well as the administration:

- Implementing this type of tool **increases interaction** between students and teachers. This means that information can be obtained more quickly, which can increase student engagement and therefore **reduce absenteeism**, but also potentially **improve academic results.** A teacher can send a message directly to a student if he or she is not attending class regularly, thus reducing the likelihood of students dropping out.
- Document sharing **reduces the need for multiple platforms** to transmit content, which is an advantage for learners and teachers alike. What's more, it's possible to create a "learning path" to incorporate different course elements and chapters. With this type of methodology, it becomes much easier for students to understand and retain a chapter, especially for those who need structured content.
- Direct communication with the administrative department **can save a considerable amount of time.** In most cases, to solve a problem, we have to communicate by e-mail, which takes a lot of time depending on the complexity of the problem. If it becomes possible to create voice messages, the administration could use them to clarify a situation in less than 5 minutes, instead of exchanging dozens of e-mails.
- Challenges and quizzes can be more fun than exams in **pinpointing a class's difficulties.** In addition, this type of functionality can also be used by the school to gain a **better understanding of students' knowledge** of a particular subject.
- On a much more general level, the introduction of this type of technology can demonstrate a school's desire to be more modern, **thereby enhancing its reputation and attracting talent** and new students.

However, two points need to be borne in mind:

- This type of tool seems more suited to schools than universities. The sheer number of students taking a course, and therefore requiring a teacher, makes it **difficult for the latter to respond to all the messages.**
- The introduction of this type of platform can meet with a great deal of opposition from both teachers and students. Instant messaging complicates the separation between private and professional life. What's more, the ability to send video and audio can lead to a number of abuses.



# **Pear Deck: The interactive PowerPoint**





Pear Deck is an online presentation software that takes the features of PowerPoint or Google Slides and incorporates new functionalities to increase the number of interactions between learners and teachers

# **Type**

Slideshow presentation software.

## **Competitive advantage**

The solution boosts learner engagement by increasing interaction and making courses more fun.

### **Price**

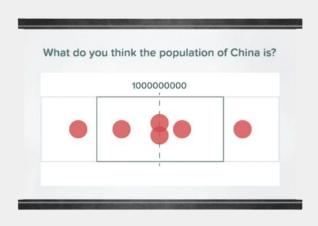
Pear Deck offers a freemium business model, meaning that teachers can use the software free of charge, but to obtain full functionality, they have to pay USD 150 (CHF 134) per year. If the software is purchased for a school, the company can provide a quote.

#### Number of users

According to <u>PR Newswire</u>, the company works with over 100,000 teachers and has more than 2.5 million users.

# **Level of development**

The company was founded in 2014 in Lowa City, USA, and <u>successfully raised USD</u> 500,000 in the same year. It has also won awards and competitions. In November 2020, it merged with GoGuardian, which is one of the largest Edtech companies on the market. According to its <u>LinkedIn</u>, Pear Deck has between 11 and 50 employees. It is therefore at a very advanced stage of development.



#### How does it work?

The teacher produces a presentation or lesson in slide format. Content creation is facilitated by pre-defined templates. Learners can then access the material to complete it or follow it interactively in class.

Link <a href="https://www.peardeck.com/">https://www.peardeck.com/</a>





## Features:

- Numerous tools have been integrated to facilitate use of the solution. Indeed, the Office suite, Teams, Mails, Google drive and other software can be incorporated. It can also be integrated into the LMS (Learning Management System) platform of various organizations.
- Pear Deck is available via a simple web browser and on all types of device.
- The solution stores all elements on its cloud, so they can be accessed from anywhere, and storage is unlimited.
- Numerous templates are available to facilitate the creation of interactive content. What's more, these are subject-specific.
- Students can answer questions directly on the slides during class. If the teacher so wishes, they can also complete homework assignments. The teacher can then provide feedback and corrections.
- Students' live answers are presented anonymously, so only the teacher can see which students have answered.
- It's easy to incorporate audio or video into presentations, and by extension into courses.





# **Pear Deck: The interactive PowerPoint**





It can be difficult to get students involved in a course, which is why it's important to make it more interactive. Pear Deck proposes to make courses much more horizontal, so that they become almost like inverted classrooms, which has many benefits:

- The most interesting aspect of this solution is its ability to make courses much more interactive. Students answer
  the questions on the slides, and then the teacher provides the answers. In this way, learners are much more
  stimulated than with a simple lecture, which leads to greater class involvement.
- The use of pre-existing templates for specific subjects not only **saves time** when creating presentations/courses, but also **enhances teachers' creativity** by offering fully customizable visual aesthetics.
- The **integration of pre-existing tools** is one of Pear Deck's great strengths, whether for teachers, students or the school. This is also the case for integration into the LMSs of different organizations, which **increases the efficiency** of this solution. The integration into Canvas, widely used in the United States, is a perfect example.
- The answers given by the students are visible anonymously on the slides, but not to the teacher, who has all the
  information. Social pressure is much reduced for all students, especially those experiencing shyness. Teachers can
  more easily identify students in difficulty.

However, the solution has certain limitations:

- Unfortunately, Pear Deck doesn't have its own videoconferencing system, especially for a program that is used
  for online classes. To do this, you need to use software that is more or less well integrated. From various videos, it
  seems that Teams and Zoom are the most widely used.
- The early use of this type of tool raises two issues. On the one hand, it assumes that all students have suitable digital equipment, which can **reinforce existing inequalities**. On the other hand, it's bad for young students to use screens too regularly, which can lead to eye problems, but also **increase the likelihood of addiction**.





Screencastify is video screen and webcam recording software, with a range of features that make it easy for teachers and learners to create videos.

# **Type**

Recording software.

# **Competitive advantage**

The tool makes recording and creating videos much simpler. Interactive questions can also be integrated, as well as allowing students to record themselves.

### Price

Screencastify offers a free subscription with a maximum of 10 videos, which cannot exceed 30 minutes. A USD 7 (CHF 6) subscription removes this time constraint, but storage is limited to 25 GB (compared with 10 GB for the free version), while the pro version is USD 10 (CHF 8.5) and increases storage to 100 GB. The version for an establishment is available on request.

#### Number of users

According to screencastify, more than 12.4 million users are registered in over 195 different countries.

## **Level of development**

Screencastify was founded in 2013 in Chicago, USA. According to RocketReach, it now has 89 employees.

#### How does it work?

The solution lets you log in with an account via a Google Chrome extension, after which you can record an application or the entire screen by adding your computer's camera and microphone. Once the video has been saved on a cloud, it can be easily edited.



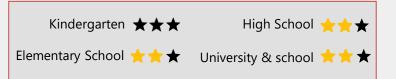




## Features:

- The solution offers simple, **effective recording of an application or computer screen.** It also enables a microphone and camera to be recorded at the same time as the presentation.
- Screencastify stores data and videos on a Cloud, eliminating the need to store them on a computer.
- The solution makes recordings available on YouTube or on a Google Drive, making them
  accessible to all.
- It's possible to find out who has or hasn't viewed the video, as well as how many times
  each individual has watched it.
- All you need is Chrome to access the tool, so it's possible to use the software on a standard computer, a Mac or even certain tablets.
- Teachers can set up interactive questions in real time, and users can leave comments.
- Videos can be requested from students in a relatively simple way, with links where only teachers have access, so that they can complete an exercise or homework assignment. To do this, learners use the same software.
- A "design" mode is available when recording to make videos more visual and aesthetic.







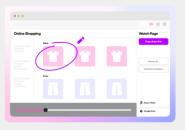


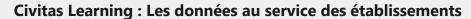
Recording and editing video is a complex task, especially for those with little editing or computer skills. Screencastify attempts to overcome this problem by offering a simple and effective tool for teachers and learners alike to record themselves with ease.

- The solution makes it very easy to record a video of a screen or application, while incorporating a camera and voice sound. Taking the form of a Chrome extension, no special installation is required on the part of users. What's more, the **tool is highly intuitive, making it easy to use.**
- As in the case of recording, the editing part is considerably simplified, making it much faster. Students and, above all, teachers can now record and edit in a very short space of time, all on a single platform. What's more, the tool incorporates interactive questions to help identify students in difficulty. The use of videos within a course or presentation adds dynamism and potentially increases learner engagement.
- The ease with which videos can be published means they can be made available on a google drive or on YouTube. In
  this way, each student can watch them on multiple media. Screencastify provides statistics on who has already
  watched the video, and how many times it has been viewed per student. We can assume that a video that has been
  viewed several times per person is potentially not clear enough, or that the subject is complex. Providing comments
  also facilitates feedback.
- The ability to give students access to this tool is a strong asset. Indeed, this type of exercise is a welcome change
  from traditional homework and exams. It helps develop "soft skills" such as speaking, being synthetic and using
  new software (adaptability). What's more, a change of scene can be an additional source of motivation for
  learners.

Although this solution has the advantages listed above, it does have certain limitations:

- First of all, the **teacher must have high-quality equipment**, i.e. a camera with the right resolution and, if possible, an external microphone. Making recordings with poor-quality equipment greatly reduces the benefits of the tool, but the purchase of the equipment **represents a significant cost** for the teacher or school.
- As for teachers, homework or student assessments require at least one computer with at least one camera. Indeed, it's not possible to record with a smartphone. It would be a pity if the use of this solution were to disadvantage learners who don't have all the necessary hardware.









Civitas Learning is a platform that centralizes all school data for analysis and decision-making.

## **Type**

Data aggregation and statistics production.

# **Competitive advantage**

Retrieves all the data from a facility, enabling you to produce statistics and make more informed decisions.

#### Price

No relevant information was found. The cost of implementing the solution depends not only on functionality, but also on the number of students at the school.

#### Number of users

According to the Franciscopartners website, the company is currently active in over 350 establishments. According to the official website, more than 400 establishments use the platform, mostly in the United States.

## **Level of development**

Civitas Learning was founded in 2011 in Austin, USA, and currently has over 140 employees, according to Zooinfo. In 2015, the company successfully raised USD 60 million (CHF 54 million). Its level of development is one of the most advanced, particularly in the school data analysis market.



#### How does it work?

Initially, the platform collects all the school's information: grades, absences, attendance, subjects, success rates, etc. Then it provides various statistics that can be differentiated into three sections: grades, absences, attendance, subjects, success rates, etc. It then provides various statistics, which can be divided into 3 parts:

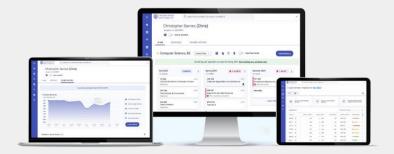
- The first focuses on students, specifically those who are dropping out.
- The second enables course planning.
- The last part analyzes the influence of various elements that can have an impact on students (new courses, projects, etc.).

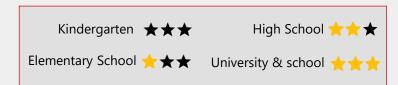






- The platform brings together all student and school data on a single platform. With just one click, you can obtain all the information on a student.
- Students at risk of dropping out can be identified by means of a wide range of statistics. Even more impressive, the solution can estimate the probability of a student not graduating or leaving the school.
- Learners in difficulty are highlighted on the platform so that the right people can send them a message, set up an appointment with a counselor or arrange tutoring.
- Various functionalities enable teachers, administrators and counselors to work together more effectively.
- Civitas Learning analyzes data from courses and events held at the school. Analyses
  can then identify the factors that decrease or increase student success rates.
- The tool monitors enrolment data to anticipate the hiring of future teachers.
- The solution integrates a planning mode for students to facilitate the creation of their agendas, but also to monitor course fill rates and potentially create new timetables more in line with demand.







## Civitas Learning : Les données au service des établissements



In most establishments, all data is not grouped together and is only available to some departments. What's more, this information is not analyzed, even though it represents an effective source for decision-making. Civitas Learning brings these different sources together to produce analyses on a range of issues, with a number of advantages:

- By analyzing large quantities of data, including grades and absences, the platform can identify learners in difficulty with different
  "scales". The software then suggests various actions to be taken, such as an appointment with an advisor, teacher or tutor, or
  simply sending a message of encouragement. With this method, the number of students dropping out should decrease, and
  consequently increase the success rate. This system can also be reassuring for learners' parents, who have an influence on the
  choice of schools.
- By analyzing events and courses over a period of time, we can see which elements have a positive or negative influence on student success. Furthermore, if a course has a large number of dropouts or poor results, **it seems wise to invest heavily in that subject.** The tool makes it possible to invest more strategically, based on data.
- The fact that all information is available on a single platform not only **saves time**, but also **enhances collaboration** between different sectors within a school organization. Teachers can observe not only the notifications submitted by the administrative section, but also the results obtained in the various subjects.
- Depending on the school and the curriculum, the number of options can be considerable. Students may find it difficult to draw up schedules, leaving less time for more qualitative tasks with the guidance counselor. Civitas Learnin helps with all scheduling. In addition, it becomes **easier to arrange new hours** if the number of learners per class is too high, and in the opposite case, it is possible to reduce them.

Nevertheless, this solution has major limitations:

- To make this tool as efficient and effective as possible, it needs a lot of data. Few establishments have such detailed information, particularly for class monitoring, as lectures rarely count attendance. Should a school wish to implement this system and thus increase the amount of data, it may increase the workload for teachers and potentially reduce the time available for teaching.
- It seems clear that this type of tool represents a **danger to data protection.** In the event of a cyber-attack, hackers would possess a huge amount of information.
- Finally, the most critical point is the extensive use of data within a school. **Forecasts are rarely accurate** and are subject to numerous biases. For this reason, it should be used sparingly.





# **Summary of the September 2023 edition**



# Quizlet

**Quizlet** is a platform that lets you set up fun quizzes for students to make lessons and assessments more stimulating.



**Parentsquure** is an instant messaging system that connects learners, teachers and school administrators by incorporating additional features.

## **C>ONSTRUCTOR**

**Constructor** is an all-in-one learning platform that makes it easier for learners to understand, but also easier for teachers to work with, thanks to a range of products.



**Classowl** is a learning management system (LMS) designed to simplify classroom management, but also to stimulate learner engagement with interactive assignments.



**Newsela** is a platform offering a range of reading content on specific themes or subjects, and there are 5 reading levels to suit all students.



# **Edtech trend analysis**



## **Main technological trends**

Represent **opportunities or threats** for the various players in the sector



Gamification



Artificial intelligence



Big Data







Publication of the report
"Global education monitoring report, 2023 : technology
in education: a tool on whose terms?"

UNESCO has published a comprehensive report on the impact of new technologies on education and learning. It examines the educational challenges to which appropriate use of technology can provide solutions (access, equity and inclusion; quality; technological progress; system management), while recognising that many of the solutions proposed can also be detrimental.

## **Nouvelles marquantes**



Ukrainian EdTech has **raised USD 70 million** in new funding to "enhance"
35'000 tutors with AI capabilities. This
latest funding brings its Series C
funding round to USD 120 million.



The Vienna-based EdTech platform is raising **USD 95 million** in equity to extend its blended learning solutions to the DACH region (Germany, Switzerland and Austria).



London-based artificial intelligence start-up Kinnu has raised **USD 6.5 million** in a new funding round.



VUIHOC, an educational technology start-up, has announced an investment of **USD 6 million** in a Series A funding round led by TNB Aura.

## Quizlet: Quizzes as a motivational tool



Quizlet is a platform that lets you set up fun quizzes for students to make lessons and assessments more stimulating.

## Type

Platform that facilitates and optimises the creation of questionnaires.

## **Competitive advantage**

Quizelet simplifies the creation of quizzes to make lessons more fun and interactive.

### **Price**

The solution is free, but offers a freemium package called "QuizletPlus", which includes customisation, advanced creation tools, pre-designed exercises and ad suppression. This offer costs CHF 25.99 for a one-year subscription or CHF 6 for a one-month subscription.

### Number of users

The platform boasts 60 million learners and over 3 billion study sessions.

## **Level of development**

The company was founded in 2003 by Andrew Sutherland. In 2020, Quizlet closes a Series C round of USD 30 million (CHF 26.2 million) and reaches a valuation of USD 1 billion (CHF 872 million). According to its <u>LinkedIn</u> page, the company employs between 201 and 500 people. It is therefore at a very advanced stage of development.



### How does it work?

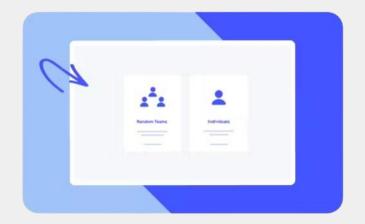
Teachers can choose to create their own questionnaires or use those provided by the platform or by other users. The teacher then gives the link or QR code to the learners so that they can access the questionnaires. The teacher has the choice of creating his or her own questionnaire or using those provided by the platform or by other users. The teacher then gives the link or QR code to the learners so that they can access the questionnaires. The latter can be completed directly in class or as homework.

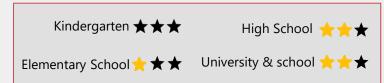


## **Quizlet: Quizzes as a motivational tool**



- The solution is **available on a range of platforms**: computers, tablets and smartphones. An application is also available on the <a href="App Store">App Store</a> and <a href="Google Play">Google</a> Play.
- Content creation is simplified to save teachers' time. What's more, the tool
  appears to be suitable for all subjects, with the possibility of integrating
  complex functions for mathematics or images and shapes for geometry.
- The platform has a live section called "Quizlet Live", so students can see their progress directly in class.
- It is possible to set up a competition mode with different rules. This can be done individually or by team.
- Quizlet provides various statistics at the end of the quizzes, including the number of correct answers per student and per question.
- The 'Live' mode automatically generates a quiz in a few seconds for each subject.
- Content is already available on the platform and selected by experts, for example for TOEIC revision. Teachers can also publish their own quizzes for the benefit of the whole community.







## **Quizlet: Quizzes as a motivational tool**



Not all learners have the same comprehension skills. That's why it makes sense to offer different ways of learning. Quizlet offers learning through quizzes to stimulate students, and according to the platform, "90% of pupils and students who work with Quizlet see their grades go up". Although this figure should be treated with caution, this solution does have a number of advantages:

- The tool seems **relatively easy to use**, even for people who are not comfortable with computers. What's more, **all subjects are covered**, even those requiring special formatting, such as maths and geometry. In this way, if a teacher has mastered the tool, he or she can help other teachers to adopt it.
- It is possible to use questionnaires that have already been produced by other users, and the tool also makes available fun questionnaires that have been pre-checked to be suitable for schools, as well as for various competitions such as the Baccalaureate, IELTS, TOEFL, TOEIC, etc. This has two major advantages. Firstly, it saves the teacher a considerable amount of time, but it also diversifies the sources to make the course more attractive.
- One of Quizlet's greatest strengths is that it **brings a new teaching method to students**, stimulating them and increasing their level of engagement, with **much more interaction**, particularly in 'live' mode. Offering quizzes makes homework or lessons more interactive, leading to greater involvement and potentially better academic results. What's more, setting up competitions, whether in teams or individually, stimulates the whole class. The system of anonymity **avoids stigmatising students with difficulties and limits social pressure or fear of failure.**
- By making the results available after the tests, you can **see the overall level of the class.** The solution offers a range of independent questions, which again saves teachers time.
- Finally, one of the significant advantages of the platform is that **it can be adapted to all types of teaching**: face-to-face, distance or hybrid.

However, there is still room for improvement:

• It's a shame that the **community aspect isn't more developed**, as the platform has great potential for bringing teachers together, particularly those in the same subjects. In this way, there would be exchanges that would raise the quality of teaching for the whole teaching staff.







**Constructor** is an all-in-one learning platform that makes it easier for learners to understand, but also easier for teachers to work with, thanks to a range of products.

## **Type**

All-in-one learning platform.

## **Competitive advantage**

The tool offers features that stimulate learners, such as the "laboratories" mode, making it easier for teachers to create content.

### **Price**

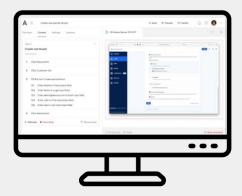
No relevant information was found on this subject. It seems that this tool can only be installed on the basis of a quotation and depending on the various functions.

### Number of users

No relevant information was found on this subject. The website highlights partners such as Acronis, Virtuozzzo and the Technical University of Milan.

### **Level of development**

Constructor is a Swiss company founded in 2019, and was originally called Alemira. Today, it has between 51 and 200 employees according to <u>LinkedIn</u> and seems to be at a fairly advanced stage of development.



#### How does it work?

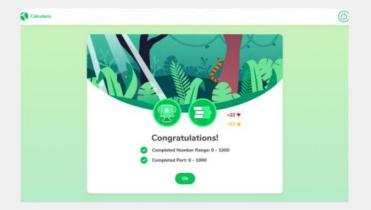
Constructor offers several products:

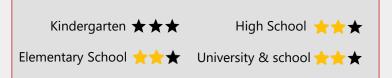
- Proctor makes it possible to take online exams securely.
- An LMS that converts complex subjects into interactive content.
- A laboratory mode for putting knowledge into practice.
- Classroom, which facilitates the creation of online courses.
- Grafari develops learners' spelling and can also improve phonetics.
- Finally, Calcularis helps with mathematical understanding.





- Artificial intelligence makes it possible to create avatars in the image of teachers.
- The platform offers a means of online assessment, with artificial intelligence monitoring to detect any attempts at fraud.
- The solution offers a streamlined environment where all course content is online.
   Various statistics can be obtained to track changes in student engagement.
- A "laboratory" mode is available, particularly for learning programming languages.
   Students complete the exercises directly, and the tool provides corrections if necessary.
   Assessments can be marked automatically.
- It is possible to **create a 'laboratory' mode** quite simply and for all subjects. **Students can also work together** to facilitate group work. Once again, **analyses are omnipresent** to improve the experience and monitor learner performance.
- The 'classroom' mode makes online courses much easier, with the integration of a **number of features** such as the availability of collaborative tables, the ability to simply record the course as well as the discussions, etc.
- Grafari (Phonics) introduces writing skills, while Grafari (Orthograh) focuses specifically on spelling practice. Calcularis aims to master the fundamental principles of mathematics. These 3 tools all aim to develop the skills of the very young through gamification.







In most cases, teachers do not have enough time for all the students, and this phenomenon is even more prevalent in universities, where a teacher has to teach several hundred students. This makes it difficult to involve all the students, particularly when the courses are distance learning. The Constructor learning platform has many advantages, for both face-to-face and online courses:

- One of Constructor's greatest strengths is that it offers a virtual laboratory for organising guided practical workshops. This type of content can be generated automatically and step by step by capturing the process in the software. This saves time for teachers, but also ensures that all teachers are able to use the tool. To further increase the efficiency of the tool, the grading system is automatic, with immediate feedback on learners' actions. This type of learning can really benefit learners, especially those who need to practice to understand. What's more, this exercise can be carried out in collaboration with other students, which can further increase motivation.
- Most of the features offered by the solution include a wide range of statistics to measure learner engagement. This information is invaluable for teachers and schools. Based on the results, it is easy to identify the subjects and exercises that are most stimulating. It becomes possible to modify a programme or assignments to keep only the most effective. Assessments supervised by artificial intelligence can be beneficial and represent a reduction in (financial) costs for schools.
- Even if face-to-face classes are once again the norm, the features offered by the online classroom are interesting and make it **possible to make videoconference lessons more captivating.** The ability to create an avatar is also a good practice that **can enable more interaction.** It is possible to imagine a lecturer who is unable to come to the classroom to meet the students, and take advantage of the various features offered by Constructor's "classroom mode".
- Providing games for the youngest pupils is a good way of fostering an appreciation of spelling, phonetics and mathematics.
- It should also be noted that, in addition to the learning platform, the solution offers two products to **facilitate and digitise administration.** On the one hand, it centralises payment methods, invoice management and so on. And on the other, different analyses of graduation rates, simplified enrolment processing, the ability to update information on former students, and so on.

However, there are two points to bear in mind:

- For this type of tool to work, it is essential that both students and organisations have high-quality IT equipment. This can **represent a high cost for the school, but it can also accentuate the digital divide** that already exists among students.
- It is important not to expose children to screens too early. It seems sensible to offer this solution only as a complement to traditional learning methods.

## ParentSquare: reconnecting schools and parents







**ParentSquare** is an instant messaging solution designed to connect learners, teachers and school administrators, while incorporating a number of interesting features.

## **Type**

Instant messaging.

### **Competitive advantage**

The solution increases interaction between the various stakeholders in a school.

### **Price**

Prices are based on an annual fee per student, plus a one-off integration fee. Packages start at USD 3,600 (CHF 3,200) per year for up to 600 student enrolments. If the features are customised and the number of students is high then the price increases.

### **Number of users**

According to the 2022 retrospective available on the official website, more than 6.5 million students are using the solution.

## **Level of development**

The company was founded in 2011 by Anupama Vaid, a software engineer. ParentSquare officially launched its eponymous product in 2014, with consistent year-on-year revenue growth of around 100%. The tool is present in more than 40% of California districts. ParentSquare has raised a total of more than USD 12 million (CHF 10.7 million) over five funding rounds since its inception. The company employs more than 100 people, demonstrating its advanced level of development.



### How does it work?

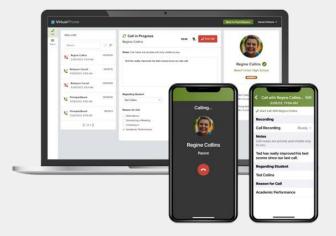
The main aim of the platform is to facilitate communication between teachers, the school and parents. It is possible for each of the parties involved to send messages, as with traditional instant messaging. Additional functions are available, such as mass notifications, parent-teacher conferences, sending authorisation forms, etc.







- The solution enables schools to send alerts that are broadcast to everyone
  or to a targeted group such as a class, sports team, etc.
- It is possible to share content from social networks or a website without having to share a password.
- ParentSquare lets you send content and newsletters to different groups, as well as tracking the number of views, likes and comments linked to the content.
- Alerts are sent automatically by the platform if a pupil is not present, after which parents can 'excuse' their child directly from the application (or by SMS or e-mail).
- A wide range of documents can be sent using the platform, including forms, invoices, notes, etc.
- Making appointments has been simplified with specific functions, particularly for parent-teacher meetings, setting up voluntary work, etc.
- Parents and teachers can be contacted directly by message, and telephone calls can also be made.
- The solution features reports and statistics to measure the level of commitment from all stakeholders.







## ParentSquare: reconnecting schools and parents





Communication between parents and schools is often quite complex, and the larger the number of students, the more complicated it becomes. This can be frustrating for families and teachers alike. In addition, the way in which learners and teachers communicate is very vertical, which limits interaction. ParentSquare tries to make communication simpler and has a number of interesting features:

- The use of instant messaging allows a greater number of interactions between the various stakeholders in a school. A teacher can contact a pupil's parents directly, which saves time. Similarly, parents can contact the administration or teachers to obtain more precise information about documents, which increases their involvement.
- It becomes easier for the school to reach all parents with an alert or a grouped message, as many more people will be able to obtain the information. In many cases, announcements are sent by email, and many people do not check them. The information is therefore transmitted much more directly and is more likely to be read.
- The ability to send ads and newsletters automatically is a strong point of the solution. This type of functionality can really **improve the quality of an establishment** by providing details, suggesting activities, etc. What's more, statistics can be **used to identify the most engaging content**, as well as the best time to send it so that it is read.
- Making appointments and sending documents directly via the platform saves a considerable amount of time for the school administration, teachers and parents. There is no longer any risk of the learner losing the document or forgetting to return it on time.
- Being able to notify if the child is not in class **creates a feeling of security**, and it is also possible to justify the student's absence directly. This feature is a **real asset for schools** wishing to reassure parents looking for security for their children.

However, the solution has several limitations:

- The initial aim is to increase interaction between schools and parents, thereby increasing the latter's involvement in their children's schooling. However, this type of solution can greatly increase social inequalities. First of all, people who are not comfortable with digital tools and who do not have a smartphone are unlikely to use this communication opportunity. On the other hand, parents who were already heavily involved in their children's schooling will be even more so. On the other hand, parents who do not have the time or who are not concerned about their children's school results are unlikely to use this type of tool. It's easy to see that **the social inequalities that already exist can be accentuated.**
- One potential pitfall is the additional burden placed on parents this tool may create if they are able to contact the teacher directly.
  - Finally, it's a shame that the platform **doesn't offer a more advanced diary function**, like Remind. The latter makes it possible to identify the various dates on which pupils have to hand in their homework, which encourages parents to get more involved in homework.





**ClassOwl** is a learning management system (LMS) designed to simplify classroom management, but also to stimulate learner engagement with interactive assignments.

## **Type**

Learning Management System (LMS).

## **Competitive advantage**

The management tool makes it possible to centralise a great deal of information on a single platform, as well as offering some interesting features to make life easier for teachers or to stimulate student involvement.

### **Price**

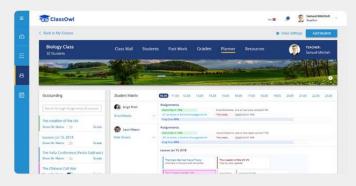
There are a number of pricing options depending on the size of the school, with a sliding scale of marginal costs. For a school with 5 students, the price per month per student is CHF 5.8, a total of CHF 348 per year. For a school with more than 500 students, the price per month is CHF 1.3, a total of CHF 7'816 per year.

### Number of users

No relevant information was found on this subject. However, the <u>Aurum public</u> school in Zurich uses this management system.

## **Level of development**

ClassOwl is an EdTech startup founded in 2013 by Noah and Alex, aged 18 and 17 respectively, in their final year of the IB programme at Zurich International School. The company was subsequently acquired by <a href="Branch Metrics">Branch Metrics</a> (USA), a portfolio company of Cowboy Ventures and New Enterprise Associates. ClassOwl had raised approximately USD 900,000 (CHF 802,180) from investors prior to the acquisition.



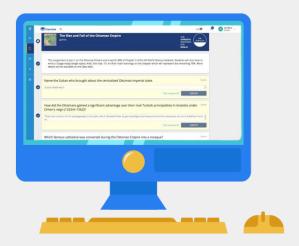
### How does it work?

ClassOwl is a management system that can be integrated into a school, with each individual having a login to connect to the platform. All the profiles have different functions to make life easier for teachers, students, parents and school staff.





- The management system provides a timetable in the form of a calendar for both students and teachers. Assignments and due dates can be incorporated into learners' calendars
- The various documents are available online on the platform, including lessons and assignments. It is also possible for learners to submit their documents online (homework, tests, etc.).
- Parents can use a special 'portal' to get an overview of grades, tests and teachers' comments.
- The tool can be used to **set up interactive assignments** such as group work, class exercises, quizzes and so on.
- Teachers can customise lessons for different classes, groups of students or even individuals.
- The solution is available on two types of medium: tablet or computer.
- It is possible to increase collaboration between teachers by grouping or creating a new subject.
- A questionnaire mode is available for automatic marking of submitted assignments.
- The solution enables teachers to communicate better with their students by sending messages. The reverse is also true, with students able to ask teachers directly for help.







The proliferation of medium types is an obstacle to productivity, both for teachers and, more particularly, for learners. ClassOwl tries to incorporate some interesting features to make life easier for everyone involved:

- One of the greatest strengths of this management system is its **ability to centralise many of the needs** of the various stakeholders in a school. The calendar function replaces the diary for pupils, but also makes it easier for teachers to organise their lessons. This functionality is coupled with a "deadline" system to **remind students when their reports are due.** Still on the subject of centralisation, the ability to post course documents directly online and **for learners to hand in assignments on the platform** is a real advantage.
- More cross-functional means of communication mean greater responsiveness from teachers and greater motivation from learners. Parents also have the opportunity to read comments and take direct note of grades and homework assignments. It seems logical that this type of mechanism should lead to greater parental involvement in students' school life. Last but not least, communication is also facilitated between teachers, who can create common groups for different classes, and in this way, new and interesting collaborations can emerge.
- Interactive assignments, such as group work or quizzes, **stimulate learner engagement.** What's more, assessments carried out in the form of questionnaires can be corrected automatically, **saving the teacher a great deal of time** and enabling him or her to offer more qualitative teaching.
- Setting up this type of platform can send out a **strong signal about a school's image**, particularly when it comes to digitalisation. Indeed, many schools are not very advanced when it comes to digital development. What's more, the ability for parents to keep an eye on their children's educational progress may **encourage them to choose one school over another.**

Although it has the advantages listed above, the management system has certain disadvantages:

- To take advantage of this type of solution, it is essential that the facility and all its stakeholders are equipped with IT tools, and that
  they are all able to use them correctly. If the establishment is not sufficiently equipped, the purchase of numerous computers or
  tablets can be costly and therefore prohibitive. What's more, this can accentuate the digital divide already present among
  students.
- This type of platform encourages learners at a very early stage to make constant use of IT tools, and digital tools in general. With artificial intelligence tools such as ChatGPT, it's becoming increasingly complex to know whether it's the student or a conversational agent using artificial intelligence who has written the assignment. This type of tool limits students' capacity for analysis, not to mention the ever-increasing dependence on digital technology. This is why it seems appropriate to offer mixed content, while retaining handwritten assessments.



## Newsela: Passing on a passion for reading





Newsela is a platform that offers a range of reading content on specific themes or topics, with 5 reading levels to suit all students.

## **Type**

content library.

## **Competitive advantage**

With just a few key words, the platform offers a wide range of content that meets school standards.

#### **Price**

According to the <u>360 quadrants</u> website: "Newsela prices depend on the plans you choose. The professional price of Newsela can be estimated at USD 6,000 per school, USD 2,000 per grade and USD 18 per student per year. However, you should contact the company for the exact price of Newsela depending on the customer's needs and the number of students."

### **Number of users**

According to the official website, over 3.3 million teachers and 40 million students have registered with Newsela, mostly in the USA.

### **Level of development**

Matthew Gross decided to launch Newsela in 2013. In 2021, the platform announced that it had raised <u>USD 100 million</u> (CHF 89 million) in a Series D round. The financing was led by new investor Franklin Templeton and brings Newsela's valuation to USD 1 billion (CHF 890 million). Today, Newsela is one of the leading companies in the dematerialisation of school textbooks.



### How does it work?

The teacher logs on to the platform and enters keywords to define a specific topic or theme. Newsela then provides reading content for students, with different levels of difficulty.

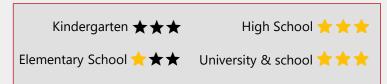
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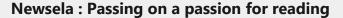




- You can set up a digital environment or print out the various documents.
- The solution offers 5 reading levels with texts of varying degrees of complexity.
   Difficulty seems to be assessed according to lexicon and writing style.
- Newsela offers a very large number of readings and articles for all themes and subjects. What's more, the library is regularly updated with current articles.
- Content is checked beforehand to ensure it is consistent with the curriculum, but above all to be relatively neutral so as not to politicize a class.
- The tool can be used to set up questionnaires on a subject or an article, which
  acts as an assessment. The latter is corrected automatically.
- With Newsela's settings, school administrators can manage the visibility of pedagogical content to ensure that teachers and students have access to texts that comply with pedagogical guidelines and objectives. In addition, annotations can be made to aid comprehension.
- The solution offers engaging resources to stimulate learners. The first
  contents arouse students' curiosity, then as time goes by, the articles become
  more refined in their analysis. The aim is not to discourage the reader with the
  first reading.











In order to present a document to a class, it's essential that it complies not only with institutional standards, but also with those of the educational program. Providing a quality document that is suitable for all students and respects the various constraints is a complicated and time-consuming task. Newsela meets this specific need with a number of strengths:

- The solution offers a very large quantity of text that has already been checked and fits perfectly into the curricula. This eliminates the need for teachers to check that all documents are appropriate, which **not only saves time but also provides additional security.** What's more, by simply entering key words, you can obtain a corpus related to the subject, and recent articles are proposed **to keep you up to date**, which is stimulating for both students and teachers. If learners are more interested, then academic results should improve. This tool is also suitable for all subjects, and therefore all teachers.
- The platform offers five reading levels based not only on lexicon, but also on writing style. So, whatever the learner's reading level, it's possible to read texts with the same theme for the whole class. As a result, **classes become more inclusive**, and each student can read at his or her own pace and progress. **This stimulates learner commitment to reading text**, which is becoming less and less present in some schools.
- The use of questionnaires enables us **to observe whether students have fully understood the subject.** They are automatically graded, which limits the amount of time wasted on correction, so that students can concentrate on more qualitative tasks such as explaining the context or analyzing a subject.
- It is possible to add annotations explaining the passage of text. This completes the reading process, **helping you to better understand what an author or article is saying.**
- Newsela offers a print function for documents, and courses can be offered as conventional face-to-face or distance learning courses.

However, this solution does have its limitations:

- According to opinions left on various websites, it seems that the introduction of graded questionnaires is not the most efficient way
  of assessing students. Indeed, many of them, and even some teachers, explain that the number of questions is sometimes too small
  to be representative of a text's comprehension, resulting in approximate grading. In addition, this forces us to set up a multiplechoice questionnaire, which limits the type of response. It makes sense to use this feature only to observe the general level of
  comprehension of the class, rather than to use it as a real test in a grading system.
- Finally, it may be useful to occasionally present articles or texts that are a little out of the ordinary, in order to **stimulate learners** and cultivate a critical mind.





# Summary of the december 2023 edition





**Foxar** is a platform for creating interactive content in augmented reality or 3D.

## **POWERZ**

**PowerZ** is a free educational video game of adventure and exploration, focusing on the learning of various school subjects.

## halfonse

**Halfonse** is a learning platform that bridges the gap between education and the professional world, making it easier for students to follow their progress in the workplace.

# pi-top

**Pi-top** is a teaching system comprising a curriculum, a learning platform and the equipment needed to learn computer science and home automation.

## **b**loomz

**Bloomz** is a platform that unifies different means of communication, making it easier for all stakeholders to interact.



# **Analyse des tendances Edtech**



## **Main technological trends**

Represent **opportunities or threats** for the various players in the sector



Gamification



Artificial intelligence



Big Data







Publication of the report "Future of EdTech Report" | 2023

Founders Forum Group has published a report in partnership with the Institut auf dem Rosenberg. The aim of the report is to bring together the world's leading edtech founders to reveal the key trends shaping the future of education, as well as the greatest opportunities and challenges ahead. Numerous interviews are available, as well as various research studies.

## **Nouvelles marquantes**

## Clayful

Clayful, a startup that helps students connect with mental health experts in 60 seconds, raises **USD 7 million (CHF 6.1 million).** 



Interactive Cares, an educational technology startup based in Dhaka, has raised **USD 100,000 (CHF 87,440)** in a round of financina.



EduFi , a fintech startup headquartered in Singapore, has raised **USD 6.1 million (CHF 5.6 million)** in a pre-seed financing round.



NOLEJ raises **EUR 3 million (CHF 2.6 million)** to make artificial intelligence available to teachers.



## Foxar: Visualize to better understand



**Foxar** is a platform for creating interactive content in augmented reality or 3D using a smartphone or tablet.

## Type

A tool to aid learning and the acquisition of knowledge.

## **Competitive advantage**

Foxar relies on visualization to make courses more engaging and understandable for learners.

### **Price**

The solution is based on a freemium approach, with a free version offering a certain number of models, and a paid version called "Foxar+", which is only available to schools on request. This version includes all the models, explanatory videos, exercises and new models every week. However, there is also a "Foxar+" offer for private customers at EUR 6.99 per month (CHF 6.62) or EUR 69.99 per year (CHF 66.30).

### **Number of users**

According to an article by <u>Frenchlot</u>, as of May 2022, the Beta version of Foxar has been downloaded over 50,000 times and has more than 2,000 registered teachers.

### **Level of development**

The start-up was founded in 2020 by Louis Jeannin and Nicolas Caligiuri. It is a 2020 and 2021 winner of the French IoT competition, a Réseau Entreprendre Bourgogne prizewinner, and has also won other awards. Its development is fairly recent, but the technology seems mature.



### How does it work?

Simply open the application with a tablet or smartphone to display a library of augmented reality (VR) models. Foxar can also be opened directly with a web browser for 3D rendering.







- Foxar offers models in augmented reality or 3D when the environment is inadequate (not enough light, a surface with too many elements to make objects appear, etc.).
- The solution is available on a variety of supports: computers, tablets
  and smartphones. The augmented reality mode is only available on
  devices with a front-facing camera, i.e. tablets and smartphones in
  general.
- The **models are interactive**, whether with the dashboard or via the module elements. It is therefore possible to play with time, distance and object size to observe the effects on projections.
- Customized content can be requested to produce specific models, particularly for professional use. From the example on the website, it seems that a simple 2D design can be transformed into 3D content and augmented reality.
- A wide range of subjects and themes are on offer, including astronomy, art, geography, history, mathematics and more.



Kindergarten  $\bigstar \bigstar \bigstar$  High School  $\bigstar \bigstar \bigstar$  Elementary School  $\bigstar \bigstar \bigstar$  University & school  $\bigstar \bigstar \bigstar$ 



## **Foxar: Visualize to better understand**



How receptive learners are depends on the type of medium. Indeed, it can be difficult to retain notions when they are abstract. That's why Foxar's visualization mode helps students who need more concrete methods.

- The strength of this tool lies in its ability to offer models in augmented reality or 3D. The aim is twofold: firstly, it allows you to visualize different notions that may be complicated to explain in writing or with a two-dimensional diagram. This will make it easier for the whole class to understand. The second objective is to be able to offer a new type of support, in order to stimulate the students and consequently increase the involvement of all learners. This increase in involvement should have a knock-on effect on academic results, and according to the website, this new form of illustration reduces the gap in understanding within groups.
- The solution is multi-purpose, with one part focused on general culture, called "education", and a second part focused on professional trades, called "formation Pro". In addition, it is possible to request the creation of specific mock-ups according to the needs of teachers, particularly for more professionally-oriented courses. The number of subjects on offer with models already available is fairly exhaustive, ranging from astronomy to geography and earth sciences. The diversity of the models on offer means that a large number of teachers can use the solution. Similarly, if the school was reluctant to invest in digital equipment, this tool can be used in several fields.
- Foxar's intuitive nature and ease of use make it **easy to get to grips with**, whether for students who don't make much use of digital tools, or teachers who have difficulty with computers. All you have to do is use the application, select the theme, then choose the model.

### However, there is still room for improvement:

- For the tool to be as immersive as possible, and so that students can take full advantage of the augmented reality mode, the digital tool needs to have a front-facing camera. For this reason, a tablet or smartphone is the ideal device. However, not all students, particularly younger ones, have this type of device, which can **increase the digital divide.** The school can purchase the necessary equipment, but this **represents a significant cost.**
- Foxar will tend to get students moving around in augmented reality mode, which creates a dynamic atmosphere, but **can quickly make the class noisy** and difficult for the teacher to channel. One tablet per group of 2-3 students could be a solution to this.







**Halfonse** is a learning platform that makes it easier for students to follow their studies on the job, to ensure greater continuity between school and working life.

## **Type**

Pedagogical follow-up platform.

## **Competitive advantage**

The tool takes the form of an ergonomic platform to better follow learners in the professional world, notably by simplifying stakeholder communication.

### **Price**

No relevant information was found. It seems that this tool is only available on request.

### Number of users

No relevant information was found. The website features partners such as École Énergie Tech and INSEEC.

## **Level of development**

Halfonse is a start-up co-founded in Lyon in 2021 by Maud Houssai and Cécile Poch. The company is a winner of the Demo Days 2023 competition and also receives support from the Lyon metropolitan area. INSEEC is also one of France's leading business schools. All these factors demonstrate the company's advanced level of development.



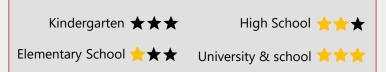
### How does it work?

The tool takes the form of an online platform where students, the school and the company have their own functionalities and means of communication. The aim is to guarantee the satisfaction of each stakeholder and facilitate exchanges between them.



- The solution provides a calendar with course weeks and company weeks. This
  schedule is available to all stakeholders, whether the school, the student or the
  organization.
- By tracking students and tutors, Halfonse measures the well-being of learners. In the event of a problem being detected, an alert is sent to the school so that it can contact the student.
- Various follow-up questionnaires are set up for students and tutors to monitor progress. The questionnaires are already set up by the solution, but can be customized by teachers.
- The tool allows students to self-assess at key moments during the work placement, and to compare progress over time.
- If the learner needs help, he or she can contact the teaching team directly.
- Halfonse enables companies to gain a better understanding of the trainee's profile, with key information such as his or her curriculum, the next time the learner is with the company, his or her career path, and so on.
- The solution also serves as a third-party platform for secure document transfer between the various stakeholders









An internship is often the first experience in the professional world for many students, and it's a complete change from the academic experience, especially in terms of freedom and autonomy. This can be confusing for many learners, especially if the relationship with the company is not going well. Halfonse is a solution that facilitates communication between stakeholders to increase trust and a sense of security for learners:

- Halfonse sets up alerts that measure the well-being of students and sends a notification if they are in difficulty. This system not only limits the number of
  dropouts, but also enables us to be much more reactive in the event of a problem. Indeed, in many cases, learners don't dare ask for help, and the situation
  deteriorates until it's no longer bearable. This feature not only reassures students, but also their parents, enabling schools to differentiate themselves and
  potentially increase enrolment.
- One of the strengths of the tool is that it provides a single calendar for all stakeholders. The alternation between in-company and academic weeks is much easier to visualise, both for the company and for the students, which makes organization easier for the company members, and especially for the "internship supervisor".
- The ability to contact each of the participants directly **facilitates communication**. Halfonse helps to reassure trainees, who in the event of difficulties improve communication with the educational team. This is also true for companies, who can feel a greater sense of involvement on the part of the trainee or the school. This can **make it easier to secure an internship**, which is becoming increasingly difficult to find.
- The various evaluation points proposed at key moments during the student's work experience enable them to assess their own performance, but above all **to see how far they have progressed** from one evaluation to the next. This not only **boosts motivation**, but also enhances the value of professional experience, both within the company and for future employment.
- Having a secure third-party platform for important papers greatly simplifies the task for all involved, and saves considerable time. It prevents documents
  from being lost or returned late, which can lead to administrative problems.

However, we must remain vigilant on one point:

• As we've just seen, Halfonse has a number of advantages, enabling us to provide better support for both students and companies. This type of tool can be seen as a guarantee of greater involvement, but can also be seen as an additional constraint for employers. This solution could be an obstacle to finding an internship. Indeed, if a supervisor has little knowledge of IT, he or she won't want to use the platform. For this reason, it seems appropriate to leave the choice to companies and potentially keep the platform solely between the school and the learner, even if the solution loses efficiency.

## **PowerZ: Fun and learning**



PowerZ is a free educational video game of adventure and exploration featuring different school subjects to help students learn.

## **Type**

Educational video game.

## **Competitive advantage**

The solution uses gamification (serious game) as a means of increasing learner involvement.

### **Price**

The tool is free, but a premium subscription called PowerZ+ is available for EUR 7.99 per month (CHF 7.69). This provides a tracking application for parents and also gems, which represent virtual currency for the game. The latter can be used to purchase cosmetic items.

### **Number of users**

According to a September 2021 article in <u>Ouest France</u>, the platform claims to have nearly 30,000 regular players. And according to an article in <u>Le Journal du Dimanche</u>, the goal is to reach 100 million users.

### **Level of development**

PowerZ was developed by Emmanuel Freund following the Covid-19 confinement. Its creation date is September 15, 2020, and the game was released on February 15, 2021. The company raised EUR 7 million in July 2021 (CHF 6,731,550), enabling it to expand rapidly, notably by offering an English version. Today, the company has between 11 and 50 employees, demonstrating a strong level of development.



#### How does it work?

PowerZ is played like a conventional game: first download the software, then log on. The player then takes on the role of a character in an open world, with the aim of completing the various quests available.

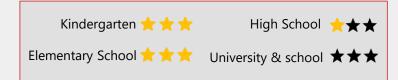




- Offers an educational game that takes up all the codes of a classic video game, with a system of quests, movement, story, etc.
- It's possible to **customise the game character** by changing hairstyle, gender, outfit, etc.
- Numerous quests/exercises are available for different subjects, including mathematics, geography and more. PowerZ also offers exercises for learning foreign languages and even sign language.
- The solution is available on different platforms: computers, smartphones and tablets.
- The game can be accompanied by an application that tracks the learner's progress, with different subject statistics and progress curves. It is also possible to view play time and plan usage with a parental control system.
- With the help of artificial intelligence, the game adapts to the learner's level. The aim is to keep each learner in his or her zone of proximal development.
- It is possible to play in pairs, but also in competition with the whole class, a mode known as "Olympiads".







# PowerZ: Fun and learning



Young learners tend to have early access to digital tools, especially smartphones, which facilitates access to video games. The problem is that not all types of content are beneficial for young learners' development. PowerZ offers a solution that combines video games with the acquisition and deepening of new knowledge:

- The solution's greatest strength is that it **offers a high-quality video game free of charge.** The paid offer is interesting for parents or teachers who wish to monitor the time spent on the game or their children's progress, but the latter is not an obligation. From watching the various videos, the graphics are very pretty and the story is well developed. Character customization is fairly basic, but is present nonetheless, **giving learners extra motivation to want to play the game.**
- The fact that PowerZ can be offered on several platforms means that the **largest possible number of learners can be included.** It also means lower costs for schools, which don't have to invest in new hardware, but can use students' own computers, tablets or even smartphones to **keep costs down.**
- The introduction of this tool represents real added value for teachers, who will be able to diversify their learning methods. Indeed, **gamification generates greater student involvement**, which should boost the overall level of the class. What's more, artificial intelligence modifies the difficulty of exercises and **adapts to all students**, so that no group gets bored and no group keeps up because the exercises go too fast. It is also possible to work in pairs to develop student cooperation. Similarly, the Olympiad module mobilizes the whole class around a **single activity to develop group cohesion**. These different types of games can be used at the start of the school year to "break the ice" between learners.
- The availability of the "PowerZ Companion" included in the PowerZ+ subscription offers several advantages. It lets **you monitor the time spent on the game,** as well as plan its use to limit learners' exposure to screens, which is beneficial not only for teachers, but above all for parents, who can be reassured that their children are not spending all their time in front of screens. What's more, this subscription **offers progress statistics** so that you can monitor learners' progress over time and detect any difficulties.
- Numerous quests corresponding to different themes are available, and unlike many tools, PowerZ can be **used by all teachers, whatever the subject.**There are also activities such as learning sign language and meditation initiations.
- The solution specifies that data is collected solely with users' consent and will never be sold or rented to third parties, nor used for advertising purposes. This is essential for an application aimed at the very young.

### Nevertheless, we must remain vigilant:

• Although the tool offers "PowerZ Companion" to regulate hours of use, it's not a good idea to leave young pupils in front of screens for too long. For this reason, PowerZ should be used sparingly. It's also a good idea to let parents know how much time is spent in class behind a screen.







**Pi-top** is a teaching system comprising a curriculum, a learning platform and the equipment needed to put computer science and home automation into practice.

## **Type**

Practice-based learning tool.

## **Competitive advantage**

The solution first provides training and digital content to develop IT skills, and then hardware to put theory into practice.

### **Price**

No relevant information was found. It seems that this tool is only available on request. The higher the number of students, the more materials are required. The price will depend on the number of learners in the class.

### **Number of users**

Little relevant information has been found on this subject.

## **Level of development**

Pi-top was co-founded in by Jesse Lozano and Ryan Dunwoody in 2014 with the aim of making computing accessible to everyone. They first succeeded in building the first Rasbperry Pi-based laptop, then continued to develop their business. In 2023, the start-up was named winner of the EdTech Digest Cool Tool Award for the best coding, computing and engineering solution. According to LinkedIn, Pi-top currently employs between 50 and 200 people.



### How does it work?

Curricula and a learning platform are made available to students, but supervised by the school and teachers. At the same time, robotics equipment is provided to put into practice the various notions seen in class as well as those available online on the learning platform.





- A curriculum is available, comprising over 125 hours of interdisciplinary courses, from beginner to advanced levels.
- The tool provides a learning platform with digital content and a classroom management tool called "Further" designed for IT teaching. The latter offers numerous functions, such as student identification with Clever or Google Classroom, as well as the option of requesting different LMSs.
- Teachers can filter program content according to training requirements, and customise courses by adding or deleting different sections. In addition, specific tasks can be included within the programs to assess students' understanding and areas requiring further work.
- Training sessions and guides are available to help teachers use the pi-top ecosystem in their classrooms.
- Several kits are available, depending on needs, to make lessons more practical and interactive. First of all, the Pi-top is the brain of the machine, the interface for entering codes. This can then be used in conjunction with a robotics kit to bring a small robot to life, or an electronics kit to set up lights, sensors and so on.
- The tool lets you **code on a computer** using a "Code Runner", then send it directly to your computer.





Kindergarten ★★★

High School + + +

Elementary School  $\uparrow \uparrow \uparrow \uparrow$ 

University & school +++







Theoretical courses are in the majority in higher education, but this can be a hindrance to students' understanding. With this in mind, and with the desire to pass on computer knowledge, Pi-top proposes to put the concepts learned into practice to make the courses more interactive and concrete:

- The greatest strength of this tool is that it offers different kits that can be used with training courses. This not only enhances understanding of abstract concepts, but also increases learner motivation and involvement, particularly among those who need to practice to progress. This is also true for teachers, who will be able to play with the tool and try to master it, which should increase teacher-student interaction. What's more, the Pi-Top's controllable electronic and robotic kits allow users to specialize in different fields.
- The learning platform named "further" is specialized for IT courses, but can be incorporated into different learning management systems (LMS) such as Clever or Google Classroom. It is also possible to integrate other LMSs if the latter is based on a cloud-based system. In this way, schools don't have to change part of their operation, **which limits costs**.
- The availability of a wide range of training courses means that many subjects can be explored in greater depth, saving teachers a considerable amount of time, which they can devote to more qualitative tasks. The teacher almost becomes the "animator" of the class, making it more dynamic. What's more, the courses offered can be fully modified and customized to develop specific knowledge and skills that can be put to good use in the workplace. Guides and training courses are also available to help teachers get to know the solution better.
- The "Code Runner" code program, which lets you build different code instructions on a computer, is a real advantage. Students can work directly at home, using only their personal computers. **This increases autonomy,** particularly for distance learning classes, and **limits the costs** of using this type of tool, for both learners and the school.

Although it has the advantages listed, it also has some disadvantages :

- Implementing a new tool of this type requires training for the teacher. For this reason, its integration can be very stimulating, or it can meet with strong opposition from teachers who don't want to change the way they teach.
- We haven't found any information on the cost of this solution, but it's logical to assume that the higher **the number of kits required, the higher the price.** As explained above, it's possible to code on your own computer, so you don't have to buy a Pitop for each student. However, a single Pi-top or Kit per class seems to be too little to offer qualitative teaching. This is why the price can rise quite quickly. If the tool has a high set-up cost, then this can be an obstacle for schools.



## **Bloomz: Unified communication channels**





Bloomz is a platform that unifies all means of communication, making it easier for stakeholders to interact and share information more effectively.

### **Type**

Communication platform.

## **Competitive advantage**

The platform brings together all communication channels, resulting in improved exchanges between stakeholders.

#### Price

According to the Bloomz website, the price is based on an annual fee per student, plus a one-off integration fee. The fee depends on the number of students, but also on the number of features incorporated. The price of this tool is given on quotation only.

### Number of users

According to the official website, the solution claims to be used in more than 30.000 establishments and in 2017 more than a million users.

### **Level of development**

Bloomz is a company founded by Chaks Appalabuttula in 2013, there are 9 employees listed on the official website. It has won numerous awards in recent years, including Best Communications Solution 7 years running in various competitions. In addition, the solution is represented as an approved supplier in several consortia and is also present in a large number of educational establishments.



### How does it work?

The platform brings together four main types of communication. Firstly, "district communication", which represents school-related information such as attendance, grades, lunch balances and so on. Next comes "school communication", which considers parent organisations, sports teams, etc. The third type of communication is that of the "classroom", to give information about the course, form groups, etc. The last type of communication is called "PBIS/SEL", which analyzes social behaviors in various dimensions.

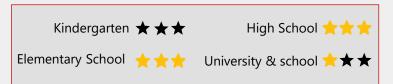






- It is possible to set up announcements as well as alerts, alerts arrive directly and
  can be sent via several media, such as e-mails or notifications on users' phones.
   Different groups can be created to send information to parents, learners, a specific
  class, etc.
- The tool **offers automatic notification** to schedule the transmission of information such as grades, meal balances, etc.
- The platform can integrate a school's various social networks by directly publishing announcements, notifications and alerts.
- To better understand the scope of the information transmitted, the tool offers various statistics such as read confirmation and number of clicks.
- Teachers can notify the school if a pupil is absent, while parents can directly notify
  the school and provide proof of absence.
- The **configuration for receiving notifications on the phone is very advanced.**Stakeholders can mute groups, set the application to "do not disturb" during office hours, disable emails or calls.
- Many types of document can be shared, from a simple message to a photo or a URL link.
- Data on student behavior can be aggregated to create detailed reports.











Schools use many different means of communication, and according to the Bloomz website, the average school district has between 5 and 10 communication applications. The aim is to have a single platform to centralise communication resources. The solution offers a number of advantages:

- The tool offers the possibility of creating multiple groups to send messages or notifications. This feature is very practical for a class or a whole promotion, but **it's also efficient for forming more specific groups** to bring together parents with students, or people with similar interests such as sports clubs, associations, etc.
- By customizing the notification center, you can choose which means of communication the various stakeholders wish to be contacted, whether by e-mail, call, SMS, or directly by the application, which can send notifications to the phone. In addition, it is possible to schedule the times when each user can be contacted; if a parent is at work, he or she can mute the application so as not to be, which leaves more freedom. For the school, scheduling mailings represents a significant time-saver, particularly for information that recurs periodically.
- The main aim of this solution is to **increase exchanges between the various parties involved**, by encouraging more direct interactions, notably within discussion groups. This increase in interaction is designed to **strengthen student engagement**, with particular emphasis on that of parents, who will now be able to communicate directly with teachers and the school. The ability to easily transfer documents, as well as report or justify absences, **saves organisational time** and reduces the risk of documents being lost or delayed.
- Setting up statistics is a valuable asset for schools. They can find out which subjects are of most interest to different groups, and also which times and days are most relevant, so that **the information is read by as many people as possible.**
- Bloomz provides data about student behavior that can be condensed into a report. Each student has a number of points, and the aim is to increase the score, demonstrating good behavior within the school. Points can be awarded by teachers, supervisors and, more generally, by all school staff with the appropriate authorizations. This system can be used to highlight those students who contribute most to the school's good mood, but also to keep an eye on learners who may pose a problem, particularly to prevent bullying behavior.
- The incorporation of social networks on the platform can encourage the development of this aspect, which is often neglected. The
  development of social networks means that establishments can gain greater exposure, which in turn leads to a greater number of
  subscribers.

Nevertheless, this solution can have negative effects:

• Implementing this tool can **put too much pressure on the various parties involved.** For example, teachers and school staff will have to deal with an increased demand from parents, which can be distressing if the pressure is too great. For students, it can be difficult to differentiate between the personal and academic worlds. Parents can also be much more solicited, which can be exhausting. That's why it's essential to set up the notification center properly.

