EVOLUTION OF EDTECH BUSINESS MODELS

Prospective monitoring
June 2025

Summary of the June 2025 edition

Definition of Edtechs

Methodology

Trends Analysis

PrepAI is an intelligent platform based on artificial intelligence, designed to automatically create questions and answers and make exam preparation easier.

Frontline Education is a software suite dedicated to managing school life and administrative tasks, offering a range of statistics to facilitate decision-making.

Top Hat is an online platform that makes courses more interactive and less vertical, offering a range of tools to encourage exchanges between teachers and learners.

Thymio is an open-source educational robot designed by researchers at EPFL, whose mission is to offer complete and engaging STEAM courses to learners of all ages.

Aktiv Chemistry is a complete online platform dedicated to learning chemistry, offering a structured pathway from lessons to homework, including interactive quizzes.

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 as an alternative to physical attendance. 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 courses. 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 revolutionizes teaching, making it possible to **design a personalized 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. This 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 it needs to be constantly aware of changes in its market, 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.
- Analyze and compare this information with the organization'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.

DISCOVER OUR EDTECH TRENDS ANALYSIS

Edtech trend analysis

Main technological trends

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

- Gamification
- Artificial intelligence
- Big Data
- Virtual Reality (VR)

Publication of the report "2025 State of EdTech District Leadership''

The 2025 State of EdTech District Leadership Report (12th edition) provides important benchmarks on emerging AI technologies and evolving cybersecurity measures. It also provides valuable information that can inform the decisions of other education stakeholders (superintendents, school boards and administrative leaders) on priorities and budgets.

Notable developments

*Edtech Everybody Counts is **raising GBP 500,000 (CHF 548,092)** to develop its AI-based mathematical platform.*

*Illumine, a fast-growing start-up transforming early childhood education, has raised **USD 2.5 million (CHF 2.05 million).***

*Danish EdTech start-up Alice raises **EUR 4.2 million (CHF 3.94 million)** for a personalized learning and study platform*

*SchoolAI, a leading AI platform for teaching and learning, has announced the closing of a **USD 25 million (CHF 20.45 million)** financing round.*

PrepAI : Hassle-free Q and A

PrepAI is an intelligent platform based on artificial intelligence, designed to automatically create questions and answers, and to facilitate exam preparation and the generation of online assessment topics.

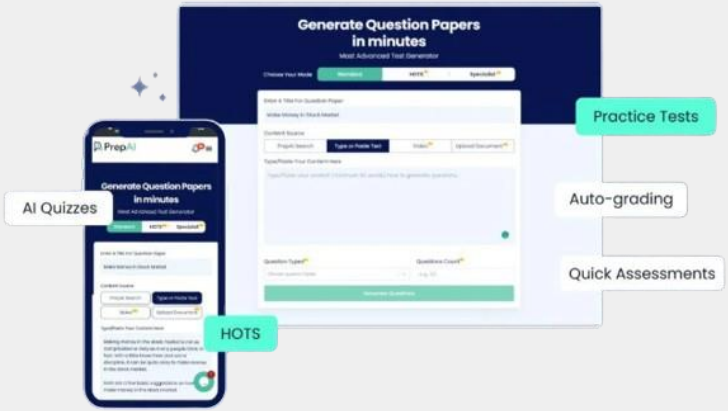
Type
Generative question platform.

Competitive advantage
The tool allows you to create questions in just a few minutes from an existing text.

Price
The solution offers different subscriptions. Firstly, there is a lifetime package, which is the most comprehensive, costing EUR 599 (CHF 562), with no limit on the number of quizzes per month. A second, less comprehensive offer is available, with a variable fee depending on the number of quizzes per month. The offer starts at EUR 199 (CHF 186) per year for 100 quizzes per month, and goes up to EUR 299 (CHF 280) for 450 quizzes per month.

Number of users
Little relevant information has been found on this subject.

Level of development
Founded in 2022 and based in Mohali (Punjab, India), PrepAI employs between 2 and 10 people, according to LinkedIn, and has an international reach through partnerships in New York and Mongolia. The solution presented seems well thought-out and innovative, but the small size of the team and the lack of public feedback make it difficult to objectively assess its level of maturity.



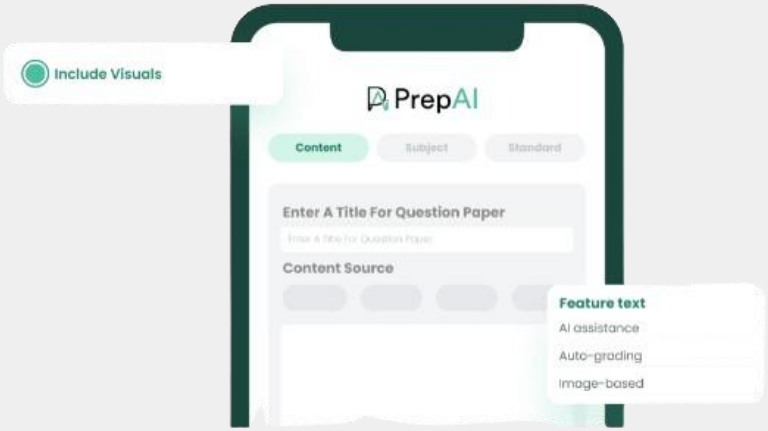
How does it work?
First, the user logs on to the platform and uploads documents, which the tool analyses to generate different types of quizzes. The teacher can then examine and adjust them by modifying the questions, difficulty levels or formats. Once the quizzes have been completed, the tool automatically corrects the answers, provides evaluation feedback and allows the teacher to consult the results to monitor the learners' progress.

Lien https://www.prepai.io/eu/

PrepAI : Hassle-free Q and A

Features:

- The solution uses artificial intelligence (AI) to rapidly **generate tests and quizzes by first analysing** the documents provided by the teacher.
- The platform offers a number of assessment methods to suit **different learning needs.** The first is the most basic, consisting of questions in the form of **MCQs**. The second mode uses Bloom's taxonomy to structure the questions according to different learning objectives: it covers the memorization of knowledge at the elementary level and then moves on to higher-level **skills such as analysis,** synthesis and evaluation. Finally, the third mode is dedicated to scientific assessments, with the option of integrating equations and formats specific to each discipline.
- The questions have **three levels of difficulty,** from easy to difficult.
- Images can be included to make the quiz more visual, and PrepAi will then **create questions based on the images.**
- Assessments can be carried out **individually or in groups.**
- Thanks to an adaptive design, assessments can be done **on different devices:** computers, tablets and smartphones.
- The solution **provides an interface** for tracking results.



Kindergarten ★★★	High School ★★★
Elementary School ★★★	University & school ★★★

PrepAI : Hassle-free Q and A

It is becoming increasingly difficult for teachers to design and manage assessments in the age of artificial intelligence: it requires a considerable investment of time, both for writing the exams and for administering and marking them in class. As a result, teachers run the risk of organizing only one or two assessments per term or semester, concentrating a very heavy workload at specific times, which also places a burden on students. PrepAi aims to lighten the workload for teachers in preparing homework, while offering other interesting features.

- The most obvious benefit is the considerable **time saved for teachers,** who can concentrate on supervising tests without having to recreate them repeatedly. This freed-up time can be devoted to tasks with greater added value. Preparing for a test is time-consuming for teachers, who tend to reduce the frequency of tests and organize large-scale assessments at frequent intervals. This limits understanding of what the whole class has learnt and puts a great deal of pressure on students, who are forced to pass a limited number of tests. More regular assessments make it possible to diversify formats, monitor students' progress and knowledge levels more closely, and **quickly identify concepts that have not been acquired so that they can be revisited.** This also helps to reduce stress among learners.

- The solution offers several types of quizzes: fill-in-the-blanks, MCQs, true/false. In addition, it is possible to adjust the difficulty according to the level of the class and progress in the program. However, it would be interesting to know how the algorithm selects this level of difficulty, as it is a fairly abstract concept. In addition, Bloom's taxonomy is a good way of getting a **better idea of the students' understanding.** Finally, it's great that the solution supports the integration of mathematical equations as well as diagrams or figures for science subjects. In this way, it can be **useful for a large number of teachers in the same school.**

- By centralizing all assessments within a single interface, the platform makes it possible to create statistically rich dashboards. These tools make it **easier to analyze changes in pupils' results** over time and quickly identify those who are experiencing difficulties. This information helps teachers to **consider the underlying issues** and to put in place **appropriate educational measures.**

- The platform supports a wide range of media that do **not necessarily require additional investment by schools.**

However, this solution can be optimized:

- The tool is an undeniable time-saver for teachers, but it needs to be supplemented by other, **more elaborate assessment methods,** such as argumentative essays or oral examinations. In a context where digital technology is playing an increasingly important role, **interpersonal skills will undoubtedly become essential,** as this is what distinguishes humans from machines capable of handling written tasks. While a solid knowledge base is essential for understanding reasoning, other skills and qualities are just as decisive.

Frontline Education is a software suite dedicated to managing school life and administrative tasks, offering a range of statistics to facilitate decision-making.

Type
School life management tool.

Competitive advantage
The solution makes it possible to digitize a large part of school life as well as certain administrative tasks, enabling data to be supplied.

Price
No relevant information was found in open sources. The price will depend on the size of the establishment and the number of features selected.

Number of users
Frontline Education's software solutions support more than 4.1 million education users every day in the United States and abroad.

Level of development
Frontline Education is one of the leading players in the market, particularly in the United States, where it has a vast portfolio of customers. According to its LinkedIn page, the company, which was founded in 1998, has between 500 and 1'000 employees, and 1,101 people currently list themselves as working there. So it's a mature company with a mature software solution.

How does it work?
The platform is aimed at two types of user: students, for tracking absences, grades and medical problems, and teachers, with a module for recording absences as well as functions for managing recruitment and replacements. In both cases, the aim is to limit the administrative burden and centralize all the data.

Link https://www.frontlineeducation.com/

Features:

- The tool **digitizes most of the processes involved in school life,** in particular tracking absences from lessons, managing sickness and recording grades.
- The data generated by the tool, once deployed within the school, makes it possible to **produce in-depth statistics and analyses:** early identification of pupils in difficulty, monitoring of performance and absenteeism trends, year-on-year comparisons of pupil numbers to anticipate budgetary needs, and **production of personalized reports** for management and teaching teams.
- The platform includes a module dedicated to teachers, designed to lighten the workload for human resources and teachers: thanks to the centralization of data, it is easy to **notify the school in the event of absence** and to quickly organize a replacement. All administrative documents can also be **accessed and completed online directly from the platform.**
- As with student monitoring, the solution identifies employees likely to be unhappy at work and **anticipates the need for replacements** or the risk of staff shortages by analyzing absenteeism trends.
- The tool also takes care of all the financial aspects, so you **can better understand and control costs.**

Kindergarten	★★★	High School	★★★
Elementary School	★★★	University & school	★★★

Frontline Education: Streamlining for greater efficiency

Schools are often reluctant to go digital: fear of change or opposition from some staff, budgetary constraints or simply the feeling that current methods are sufficient. However, digitizing not only the processes linked to school life (monitoring absences, managing grades, medical records, etc.) but also those linked to human resources (recruitment, replacement, monitoring absenteeism, etc.) generates significant efficiency gains and enables valuable indicators to be produced. By centralizing this data, we improve transparency, save time on administrative tasks and facilitate the strategic management of the establishment. It is precisely through this approach that Frontline Education intends to support and enrich decision-making within schools.

- Digitizing school life **saves a considerable amount of time for everyone involved in the school:** on the one hand, it eliminates the need to go back and forth between classrooms and the secretariat, and on the other, it enables parents to be informed immediately if a pupil is absent, thanks to automated notifications. By centralizing all data such as grades, lateness, absences and medical records within a single platform, the tool provides comprehensive dashboards and statistical reports that make it **easier to monitor performance and take decisions.** These indicators, compared from one term to the next or from one year to the next, help to measure the effectiveness of educational initiatives and to adjust internal policies in real time. The integration of an algorithm also identifies the students most vulnerable to dropping out, enabling preventive intervention before a problem becomes critical. By **providing greater visibility and responsiveness,** the solution reassures parents about the quality of the monitoring of their children and enhances the attractiveness of the school, which is likely to see an increase in the number of students.

- The platform also handles the management of staff absences, offering online notification as soon as a teacher is ill or unavailable, with all supporting documents (medical certificates, HR forms, etc.) sent automatically and securely, **eliminating the risk of lost documents and time-consuming paper-based round trips.** Thanks to this automation, human resources departments have real-time visibility of staff availability, which greatly **simplifies the planning of replacements** and reduces response times. The platform also provides managers with dashboards and statistical reports. A dedicated module manages the entire recruitment workflow: advertising vacancies, monitoring applications, scheduling interviews and integrating new employees, all centralized to ensure consistency and traceability. By bringing together all the administrative and human resources processes on a single interface, **the tool helps to pool costs for the establishment.**

However, there are two points to bear in mind:

- The introduction of this tool **can give rise to resistance:** some employees, who are not very comfortable with digital technology, dread the change, while others fear a feeling of intrusion or infantilization linked to overly meticulous monitoring of absences and illnesses. To overcome these obstacles, **it is essential to adopt an educational approach** and explain the benefits for everyone.

- The institution may become **entirely dependent on the platform:** a breakdown or dispute with the service provider could seriously disrupt its operations, and any data leakage would compromise the security and confidentiality of the information.

Top Hat: More collaboration for better education

Top Hat is an online platform that makes courses more interactive and less vertical, offering a range of tools to encourage exchanges between teachers and learners.

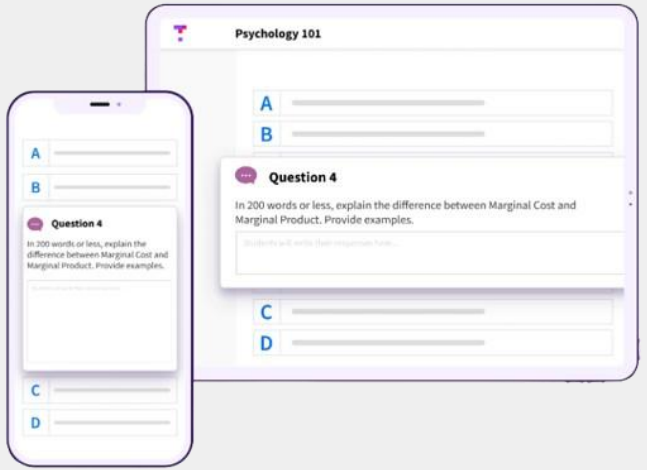
Type
Educational platform.

Competitive advantage
The solution offers diverse functionality to make lessons more interactive and engaging.

Price
The fees for a school are quoted on the basis of an estimate and depend on the number of students. It is also possible to charge the student directly (a fairly common procedure in the United States): USD 33 (CHF 27) for a term, USD 53 (CHF 43) for a year and USD 96 (CHF 78) for four years.

Number of users
According to the official LinkedIn page, the platform is used by more than 3 million students at 750 of the top 1,000 colleges and universities in North America.

Level of development
Top Hat was founded in 2009 and is headquartered in Toronto, Canada. According to LinkedIn, the company has between 200 and 500 employees (more than 400 according to its website), including around 480 associate members. Its solution is used by more than 900 establishments, including some major institutions. To date, Top Hat claims to have raised over USD 225 million (CHF 182 million) in funding. This demonstrates a significant level of growth and development.



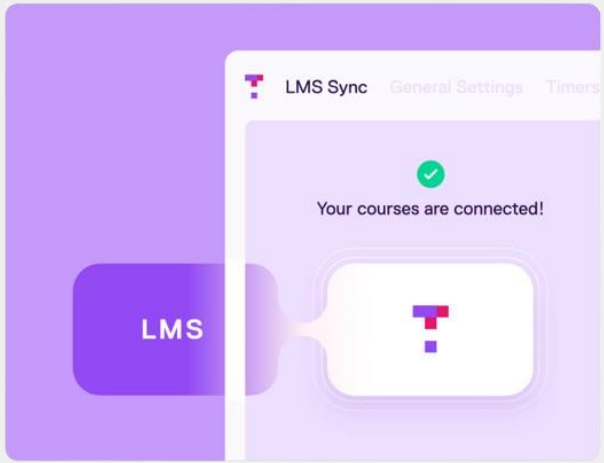
How does it work?
The teacher connects to the platform and creates a virtual classroom. Using an access code and a computer or smartphone, students can join this room, making the course more interactive by taking quizzes, asking questions and much more.

Link https://tophat.com

Top Hat: More collaboration for better education

TOP HAT

- The solution incorporates artificial intelligence called Ace, designed to **provide learners with relevant answers** contextualized according to the content being studied. It also allows teachers to **automatically generate questions** from the teaching materials they provide.
- Teachers can create **chat rooms** and integrate videos, images or text. Students can respond via text message or express their ideas more creatively, using emojis or drawings, for example. Student responses can be **sent anonymously.**
- The tool allows you to **create quizzes and surveys** with a choice of 14 question types. Students' answers are sent in real time to the teacher, who then receives **detailed statistics,** such as the percentage of correct answers, automatic correction, and other assessment indicators.
- Students can take tests directly in class with the option of integrating **content with multimedia and interactive questions.** It is possible to **obtain reports on cheating behaviour** and automatic correction.
- The platform allows **student attendance to be recorded** either via the app or by text message at the start of the class. For face-to-face classes, it uses geolocation to **check which students are actually present or absent.**
- Top **Hat integrates easily with many LMSs, including** Moodle, Blackboard, Canvas, Sakai, and more.



Kindergarten ★★★	High School ★★★
Elementary School ★★★	University & school ★★★

Top Hat: More collaboration for better education

In many universities, teaching is still largely based on a vertical model: teachers imparting knowledge in a one-way manner during lectures. Although this format allows a large amount of content to be covered, it has the major disadvantage of limiting student engagement. In response to this, Top Hat offers an innovative digital solution designed to transform the learning experience. The solution's many features make it possible to make lessons more engaging.

- Lecture hall classes allow teachers to address a large number of students, sometimes more than 500 at a time. However, this format has limitations in terms of interactivity. If every student wanted to ask a question, the flow of the class would quickly be disrupted, making it difficult to cover all of the planned content. In addition, many students are reluctant to speak in public for fear of being judged or looked down upon by others, which hinders their understanding and participation. The Top Hat platform provides a concrete solution to this problem. It allows students to ask questions online, in writing and anonymously, directly during the class. **This approach removes many barriers: it is often easier and less intimidating to write down a question than to say it out loud in front of a lecture theatre.** Thanks to this system, teachers can better identify sticking points or misunderstandings in real time. Anonymity also encourages the silent majority, who are often left out in traditional formats, **to express themselves**, allowing more students to actively participate in the class.

- The artificial intelligence provided by the platform benefits both teachers and learners. For teachers, it greatly **facilitates the creation of questions:** they simply provide the course materials, and the AI automatically generates relevant questions related to the content. This approach makes it possible to quickly assess **understanding of the concepts covered in class, while saving valuable time.** It also offers great flexibility, making it easy to move from one topic to another without lengthy preparation. For students, AI acts as a teaching assistant by instantly answering their questions. Powered by course materials, it can provide accurate and contextualized answers. This significantly reduces the frustration associated with waiting for a busy teacher and encourages greater autonomy in learning.

- The assessment mode is a major advantage of the platform. It allows **assignments to be enriched with various content** (images, text, etc.) and offers automatic and instant correction. Detailed statistics (grades, success rates, response times) help analyze results. Monitoring software detects suspicious behavior. These assessments are not graded and can be used regularly to **track students' understanding and prepare them effectively for exams.**

- Automatic attendance recording saves **valuable time for teachers.** In addition, compatibility with leading LMSs facilitates integration of the tool into institutions, while **reducing costs and simplifying its use.**

That said, particular attention is still required:

- This type of solution represents a significant investment. In the United States, students generally bear the cost themselves, while in Europe, the financial burden is more often borne by universities or educational institutions. **It is therefore essential to ensure that the tool will actually be used by teachers** in order to guarantee a good return on investment and real added value for learners.

Thymio is an open-source educational robot designed by researchers at EPFL, whose mission is to offer complete and engaging STEAM courses to learners of all ages.

Type
Educational robot.

Competitive advantage
Thymio offers concrete actions, through the use of its robot, to make learning and STEAM courses more attractive and engaging.

Price
The price of Thymio varies depending on the country, the version of the robot and the accessories chosen. The product is distributed online by various companies. For example, on the website bischoff-ag, the wireless Thymio 2 is available for £199. The licence to access new activities costs CHF 65, while activities/challenges are available for CHF 50. The price can therefore vary considerably depending on the model and additional items selected.

Number of users
No information is provided regarding sales figures, which can be partly explained by the fact that Mobysa, the producer of Thymio, is a non-profit organisation.

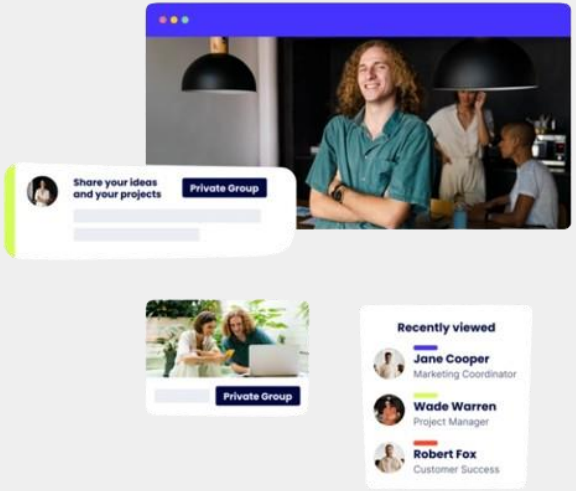
Level of development
Thymio is an open-source educational robot developed by researchers at EPFL, in collaboration with ECAL, and produced by Mobsya, a non-profit organisation whose mission is to offer comprehensive and engaging STEAM courses for learners of all ages. Backed by renowned institutions, the project enjoys solid credibility and a high level of reliability.

How does it work?
The teacher makes the robot available to the students and prepares the lesson based on the chosen activity. Once the instructions have been given, the students can operate the robot themselves to carry out the activity, which promotes active and practical learning.

Link https://www.thymio.org/fr/

Features:

- The Thymio robot has **six predefined basic behaviours:** a friendly mode that follows the hand, an explorer mode that can avoid obstacles, a fearful mode that runs away when surrounded, an attentive mode that changes colour and reacts to clapping, an inspector mode that follows a black line, and finally an obedient mode that responds to commands via buttons or a remote control.
- Thanks to the Thymio VPL and VPL3 interfaces, it is possible to program the **robot intuitively using visual blocks.** By associating events with actions, users can easily modify Thymio's behaviour in just a few clicks.
- Scratch and Blockly **offer widely recognised and proven block-based programming systems,** which allow complex behaviours to be created without having to worry about code entry or syntax constraints.
- **A Python interface allows you to take things to the next level** with Thymio. University-level experiments can be carried out, programmed in Python or Aseba, thanks to the comprehensive Aseba framework and Python module.
- The tool offers **software accompanied by specific activities** designed to help users better understand how **artificial intelligence** works through ThymioAI. Programming is done without code.
- **Several accessories are available** to enrich the learning experience with Thymio, such as playing cards, discovery circuits, new game modes and many other items to diversify educational activities.



Kindergarten ★★★	High School ★★★
Elementary School ★★★	University & school ★★★

Scientific fields, grouped under the acronym STEAM (Science, Technology, Engineering, Arts and Mathematics), remain predominantly male-dominated today, particularly in engineering, where women account for only around 30% of the workforce. To change this situation, it is essential to raise awareness among children from an early age that these career paths are open to everyone, regardless of gender. However, stereotypes persist in these disciplines, hindering diversity. With this in mind, the Thymio robot offers a fun and interactive approach to learning STEAM. By making these subjects more attractive, concrete and accessible, Thymio helps democratize these fields and encourages greater inclusion, particularly among often under-represented groups.

- Thymio's main objective is to make STEAM subjects accessible and appealing to everyone. In this context, particular emphasis is placed on engineering and technology, since the central tool is a robot. Designed for a young audience, particularly pupils under the age of ten, Thymio offers basic playful and interactive behaviors. The robot reacts to its environment, which **allows for the design of concrete and engaging activities:** for example, following a black line drawn on the floor or avoiding obstacles in explorer mode. These features allow teachers to set up dynamic sessions where **play becomes a vehicle for learning.** This makes lessons more practical and allows scientific concepts to be introduced intuitively. By exposing students to this type of activity from an early age, Thymio can help **awaken their curiosity and inspire careers in science and technology.**

- Beyond its interactive aspect, Thymio also incorporates a theoretical dimension related to learning code. The first approach is based on the Thymio VPL and VPL3 interfaces, which allow the robot's behavior to be modified in a very intuitive way, with just a few clicks. A second method, which is slightly more technical but still accessible, uses the Scratch and Blockly environments, which offer block-based programming without the need to master code syntax. For more advanced students, particularly those in secondary or higher education, it is possible to program Thymio directly in Python or Aseba, thanks to the comprehensive Aseba framework and dedicated Python module. This progressive approach **makes the tool suitable for a wide range of school levels, from primary school children to university students,** making it a particularly versatile educational solution.

- The solution includes an AI-powered module designed to help students discover and understand the Thymio robot. This module, which is completely code-free, is designed for younger learners, allowing them to interact with the robot intuitively, without the technical barriers associated with traditional programming. In addition to promoting a better understanding of the concepts covered, this approach allows teachers to **structure their lessons more effectively.** It also saves time by facilitating the implementation of activities and automating certain educational aspects.

Despite the advantages listed above, there is one point to note:

- This tool is a major asset for teaching, while also contributing to the reputation of the institutions that adopt it. **The basic price seems very reasonable** given the features offered, especially since it is offered by a non-profit organisation, which makes it potentially very competitive. However, to access all the modules beyond the six basic behaviors, **it is necessary to purchase additional items** such as wireless keys, software or extensions. If an institution wishes to purchase a complete kit, the costs can quickly add up. In addition, as Thymio is often used in small groups, it is generally recommended to have several robots per class, as well as computers or tablets to program them. **All this equipment represents a significant investment, which may be a barrier to implementation in some schools.**

Aktiv: Chemistry in the digital age

Aktiv Chemistry is a complete online platform dedicated to learning chemistry, offering a structured pathway from lessons to homework, including interactive quizzes.

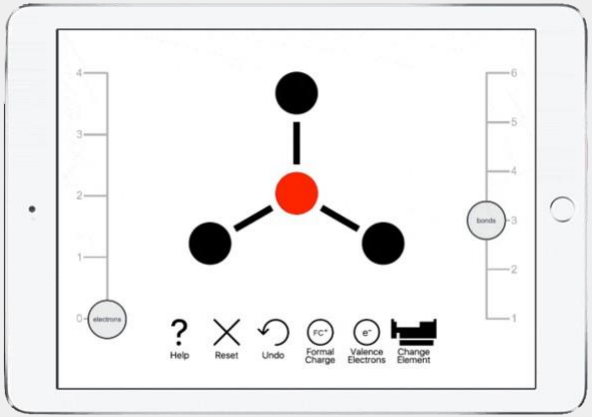
Type
Chemistry learning platform.

Competitive advantage
The platform enables the digitization of chemistry-related content, making it more interactive.

Price
No information is provided regarding the price, which is calculated based on the number of students.

Number of users
The exact number of users is not specified on the website, but the solution is deployed in over 700 higher education institutions, including several renowned universities such as the University of Florida, Central Michigan University, etc.

Level of development
Aktiv Chemistry, founded in 2016, has between 50 and 200 employees and is headquartered in New York, United States. It is part of the Top Hat Group, a major player in the EdTech sector. The company collaborates with numerous universities across several countries, mainly in the English-speaking world. Its solution, clearly geared towards higher education, demonstrates a certain degree of maturity and expertise in the field.



How does it work?
The teacher and students have personal logins that allow them to access the platform. Once logged in, students can take courses, participate in learning classes, complete exercises, and take quizzes, all under the supervision of their teachers.

Link https://aktiv.com/

Aktiv: Chemistry in the digital age

Features:

- The tool **identifies each student's** gap in maths and chemistry by assessing their prior knowledge. It then automatically suggests **personalized remedial work,** tailored to each student's specific needs.
- It is possible to conduct **interactive surveys directly in class,** allowing you to collect students' responses in real time and stimulate educational exchange.
- Aktiv Chemistry offers an **extensive library of questions for chemistry courses,** such as general chemistry, introductory chemistry, organic chemistry, and complex chemistry. **Teachers can also modify exercises and create new ones.**
- The tool offers **automatic correction** with a variety of **customizable grading policies** depending on the type of assignment. Settings include points per question, participation credits, penalties for late submissions, variable attempts per question, penalties for incorrect attempts, and much more. For added security, it is possible to **remotely monitor exams** using another software called Proctorio.
- The solution can be used on **several types of devices:** tablets, smartphones, and computers.
- Aktiv Chemistry's gradebook is **synchronically with most LMSs,** such as Canvas, Blackboard, Moodle, and D2L.

Kindergarten ★★★	High School ★★★
Elementary School ★★★	University & school ★★★

Aktiv: Chemistry in the digital age

The majority of courses are now delivered in digital format, particularly in higher education. However, some subjects remain more difficult to digitize than others. This paradox can be explained by the fact that the subjects best suited to the benefits of digital technology, particularly thanks to its potential for interactivity and adaptability, are sometimes the most complex to digitize. This is particularly true of sciences such as geometry and physics and chemistry. Aktiv is striving to meet this challenge by offering a digital version of chemistry, with the aim of making learning livelier and engaging.

- A major advantage of this solution is its ability **to make chemistry lessons interactive,** particularly through the use of animations, graphics and different types of exercises. A concrete example is the ability to reconstruct the structure of atoms by visually connecting their components, **making these concepts more concrete and accessible.** Visualizing and manipulating abstract concepts greatly facilitates the understanding of chemical theories and makes lessons more engaging. In this context, it is likelier that students will improve their exam results. In addition, the platform already offers a set of ready-to-use lessons and exercises, which **saves teachers considerable time.** Teachers can still modify the exercises if they wish.

- Automatic skills assessment is an asset for both students and teachers. Not only does it identify gaps, but it also **suggests tailored exercises to reinforce knowledge in a personalized way.** Teachers save valuable time, which they can spend on individual support for students, while students feel more guided and **reassured about their progress.** This support is all the more important given that the transition from secondary school to university involves a significant change in autonomy, which can often be difficult to manage. Thanks to these tools, the classroom becomes a real space for exchange, where discussion and interaction are prioritized over simply correcting homework. The platform also includes features such as guided discussions and quizzes integrated into the course, **facilitating interaction and strengthening student engagement.**

- The tool enables automatic correction of papers, while offering a wide variety of customizable grading policies depending on the type of assignment. This gives teachers complete control over grading, while automating repetitive tasks. The significant time savings allow teachers to focus on other educational tasks and, in the case of teacher-researchers, **to devote more time to their research work.** In addition, the option of integrating cheating detection software during exams is an attractive feature, ensuring the integrity of assessments while reducing the need for manual supervision.

- The integration of the tool into LMSs, or digital learning environments, makes it much easier for educational institutions to adopt. It **reduces implementation costs and facilitates adoption,** particularly among users who are most resistant to change, by fitting into an already familiar digital framework. In addition, the tool is accessible on various types of devices, such as tablets, smartphones and computers. This allows students to access it easily, without the need to invest in new equipment, **which enhances its accessibility and flexibility of use.**

However, this solution can have a negative effect:

- With the rise of digitalization, both within schools and more broadly across society, it is essential to **not widen the digital divide.** Although this inequality is tending to decrease as generations become more familiar with digital tools, some students may still encounter difficulties. This is particularly true for exchange students from countries where access to technology remains limited. **It is therefore important to support this digital transition** in an inclusive manner, so that no one is left behind.