



# EVOLUTION OF EDTECH BUSINESS MODELS

Prospective monitoring  
March 2020  
by Geneva Intelligence



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## Summary of the March 2020 edition



Edtech  
definition



Monitoring  
Methodology



Analysis of  
trends



**Marmelade** is a micro learning application that allows you to acquire knowledge by answering a question displayed on the home screen of your mobile phone.



**Kipoya** is a tutoring application that remotely locks "recreational" applications (social networks and video games) on students' mobile phones and tablets by sending a series of exercises adapted to their grade level.

### Kahoot!

**Kahoot** is a game-based platform that offers a fun and social learning environment by generating interactive quizzes.

### satchel:

**Satchel One** is a digital platform designed to optimise the time spent by teachers and school staff on classroom management.



studytracks®

**Studytracks** is an application that allows students to study while singing.



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# Example of Prospective Monitoring



## Definition of Edtechs :

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 training instead of physically attending classrooms. The "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 the possibility of offering a complete course. There are also educational robots that accompany young people in their learning by capturing their attention.

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

Teachers and schools in general also benefit from these technologies to facilitate the transmission 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](#)



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# Definition of Prospective Monitoring



## Overview

Prospective monitoring consists of implementing a systematic monitoring process of the environment in order to identify weak and mature signals which are indicators of change. It is a question of collecting strategic information to be able to anticipate changes in the ecosystem in order to respond as soon as possible and adequately. Prospective monitoring provides support for the implementation of a commercial and technological strategy.

## Methodology

An effective method is to conduct products 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 technologies
- Identification of Edtech trends and innovations. Trends represent market characteristics and developments.

## Objectives

A company or an educational institution which wants to be sustainably competitive must constantly be aware of changes in its market in order to limit risks or benefit from these changes.

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

DISCOVER EDTECH TRENDS ANALYSIS





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# Edtech Trends Analysis



The **canton of Geneva**, in consultation with the Federal Council, introduced from **16 March to 19 April**, the stay-at-home order for all pupils compulsory school, upper secondary education and persons pursuing higher education in order to **limit the spread of the coronavirus**. However, kindergartens, primary schools and special education facilities provide **very limited care** for the **children of parents working in a field related to the management of the pandemic**.

However, **the Covid-19 crisis** represents **great opportunities for certain sectors of the economy**, such as the **Edtechs** sector. Indeed, the containment measures have made schools aware of the need to have a **continuity plan for education** based mainly on **distance learning made possible by Edtech solutions**. This sector has perfectly seized this **opportunity** and most of its actors **make their tools and technologies available to schools during the containment period**. As an example, the **Edtech France association** which federates more than 250 companies offers free and unconditional digital resources and tools for schools, teachers, parents and students.

What are the needs to be met by these solutions during a period of containment?

- **Interaction between students and teachers should be maintained through distance education.** This is what the start-up **Kahoot** allows in part through a playful and social learning environment allowing the emission of interactive quizzes that can be done **at a distance**.
- **The acquisition of knowledge by students must also continue.** The **Marmelade** application promotes **micro learning** by displaying a question on the home screen of students' mobile phones. **The answer to the question**, whether correct or incorrect, **allows the student to unlock their phone** and access its content. In a similar vein, **Kipoya** allows the **remote locking of "recreational" applications** (social networking and video games) on students' mobile phones and tablets by sending a series of exercises adapted to their grade level. **Completing these exercises is the key to unlocking these applications**. In a lighter tone, **Studytracks** allows students to revise their lessons through music and singing.
- **The administrative management of classes and interactions with parents**, although less important, **should not be neglected** in order to ensure a **resumption of normal activity as soon as possible**. This is what the **Satchel One** solution offers by **optimising the time teachers spend on this task**.

The Covid-19 crisis therefore represents a **significant and undeniable economic springboard** for **Edtech companies** facing an exponential increase in demand. However, this demand **must be put into perspective** with regard to the **potential crisis in public finances** that will follow the **protective economic announcements** made by the Swiss authorities.

DISCOVER EDTECH TRENDS



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# Edtech Trends



## Collaborative course learning platform and soft skills

Online platforms allow information to be transmitted and facilitate access and learning processes.

- The accessibility of knowledge is the main advantage of these technologies for teaching across different media. They enable remote learning at the appropriate time for the individual.
- These platforms foster collaborative relationships between teachers and students. They facilitate group activities and communication.
- They enable the monitoring of the evolution of learning and the implementation of pedagogical procedures.



## Artificial Intelligence and adaptive learning

Artificial intelligence (AI) in Edtech facilitates learning which is personalized. Edtechs learn themselves how to teach students better.

- AI helps to understand the individual's reasoning, to take into account his/her knowledge and the best ways for him/her to learn.
- This technology facilitates understanding by using the most appropriate techniques at the right moment.
- Teachers can use the analysis made by these tools to better understand students and their processes.





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# Edtech Trends



## Experiential learning platform

Edtechs link internship offers with teachers and students.

- These services provide a better understanding of the labor market and its opportunities.
- Students receive hands-on training with mentoring from experts.
- Companies can discover new talents whereas students can discover the job market.



## Tools for creating, marking and evaluating exams, as well as reviewing papers with an anti-cheat system.

These Edtechs provide access to a secure platform in order to set up an evaluation procedure.

- They allow the creation of exams (MCQ, gap text, essay, graphs...) in all subjects, including tools for marking and grading.
- These platforms facilitate the monitoring of student results to visualise changes in grades per student and per class. These technologies are secure and prevent any cheating.



BCDiploma

TOP HAT

Revisely

testwe



## Game-based learning

By using fun and educational tools, Edtechs are using games as a way to facilitate learning and attract the attention of students of all ages.

- These technologies make it possible to reinvent learning methods by using neuroscience.
- They value collective interaction and intelligence as well as group experience and creativity.



elever

Kinems  
LEARNING GAMES

PLAY2SPEAK



merrrise



## Language learning

Language learning is easier and faster.

- Edtechs measure the individual's pace of learning and calculate the appropriate timing of teaching and adapt course content based on knowledge.
- These technologies are permanently accessible and enable more effective learning processes.



merrrise



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# Edtech Trends



## Life at school in community

Edtechs promote the school community and the smooth running and functioning of the school.

- These technologies promote communication between teachers, students and parents.
- They facilitate administrative procedures such as tracking school records or absences, for example.
- They highlight new pedagogical techniques to support students, for example, with awards.



Whaller



NEWSCHOOL



unibuddy



Tools or solutions to directly or indirectly improve the physical and psychological well-being of students and/or teachers.

These have a significant impact on academic performance, teaching quality, pedagogical excellence and the school's reputation.

- These technologies allow the teacher's administrative work to be reduced as much as possible so that he can concentrate on teaching and on student's well being.
- These platforms aim to guarantee the physical and psychological integrity of the students.

## PocketCampus



equity maps®

idruide  
éducation

UNICHECK



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DegreeAnalytics





## Marmelade: micro learning at your fingertips

Marmelade is a micro learning application that allows you to gain new knowledge by answering a question displayed on the home screen of your mobile phone. The answer to the question, whether correct or incorrect, allows you to unlock your phone and access its content.



### Type

A tool to promote the acquisition of knowledge.

### Competitive advantage

Turning a mobile phone into an educational tool and a daily gesture into a continuous learning process.

### Price

No information is currently available on this subject.

### Number of users

Since 2019, the application claims about 20 customers using its solution for about 13'000 users.

### Stage of development

Founded in 2017, Marmelade launched its application for French students in 2018 and then opened its product for companies.

The start-up raised EUR 500,000 in 2018. Marmelade also launched a new fundraising campaign in February 2020.

**Link** <https://marmelade-app.fr/>



## Marmelade: micro learning at your fingertips

### Advantages

- The solution promotes learning with locked questions at the mobile phone's home screen unlocking step (as seen in the screenshot here).
- The start-up provides schools with a catalogue of questions and training courses. However, schools are free to propose their own questions.
- The application allows you to set the desired number of questions per day as well as the time slots during which the questions will be asked.
- Depending on the proposed answer, Marmelade's artificial intelligence can be used to generate a short explanatory sheet supplementing the answer with additional information.
- Student progress and knowledge acquisition are measured by Marmelade.
- Phone functions are not impaired. For example, a phone call will have priority and will not require the question to be answered to answer the caller.
- Marmelade is available on iOS and Android, the two most popular operating systems in the world.

### Suitable for :

Kindergarten	★	Primary School	★★
Secondary School	★★★	University	★







## Marmelade: micro learning at your fingertips

### Analysis of the offer

Marmelade is an application that allows students **to gain knowledge by unlocking their phone's home screen.**

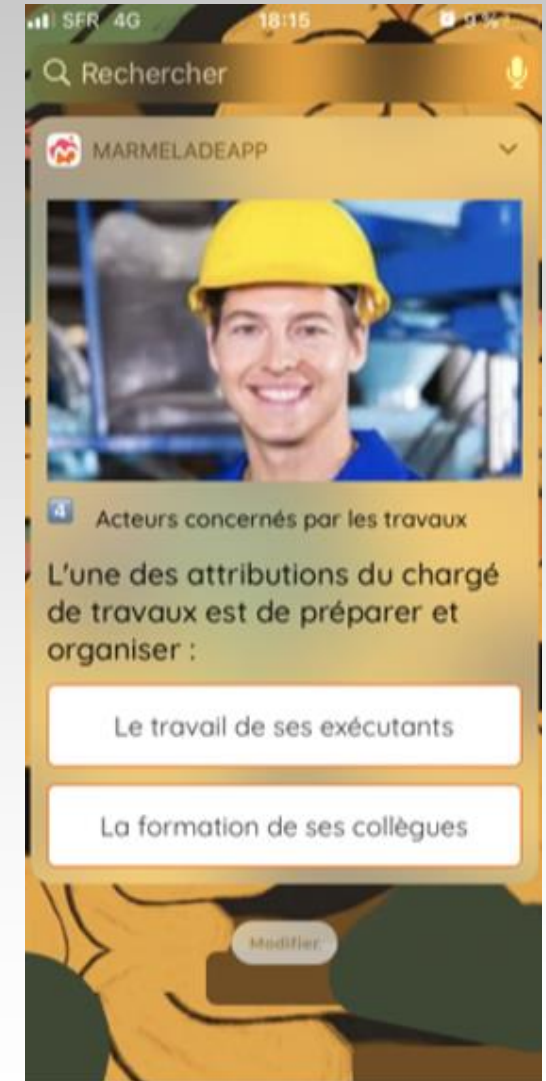
In an identical way to the Wooclap solution (presented in the June 2019 edition available here) Marmelade transforms the mobile phone, traditionally considered as an **obstacle to learning**, into an **opportunity to acquire knowledge** through a daily gesture made many times by students. Indeed, an average user consults his or her mobile phone between **150 and 220 times a day**, which suggests the **educational potential of the application**. In this respect, Marmelade claims that on average **23 interactions** are carried out per user and per day at its customers.

A teacher can thus **program questions on the knowledge transmitted** during a lesson and check that the students assimilate them in the following days. It should also be noted that the **content of the questions** is **completely customizable** and can be proposed for different courses.

School directors will also be able to use this tool **to carry out awareness-raising campaigns**. For example, at a time when pupils are confined to their homes in the face of the spread of **Covid-19**, questions relating to **social distancing behaviour** can be asked in order to determine whether the health and safety message of the school or the authorities has indeed been assimilated by the pupils.

However, this application has some limitations. First of all, its tool promotes the acquisition of knowledge but **does not focus on the development of critical thinking or analytical skills**. Indeed, the answers to unlock the phone are only binary. In this respect, Marmelade should be seen as a **learning complement**.

On the other hand, **not all students own a smartphone for economic reasons**. Some parents also wish not to entrust a mobile phone to their children **for educational and cultural reasons**. By choosing to offer Marmelade to its students, a school may cause some form of **social and economic inequality** in the **acquisition of knowledge** among its students. School remains an important factor in **social upliftment**, although many intellectuals such as the sociologist Pierre Bourdieu have highlighted **social reproduction** and the **inequalities** inherent in its functioning. Therefore, the adoption of such an application could lead to **counterproductive results** in this respect.





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## Kipoya: lock mobile phones to learn better

Kipoya is a tutoring application that remotely locks "recreational" applications (social networks and video games) on students' mobile phones and tablets by sending a series of exercises adapted to their grade level. Completing these exercises is the key to unlocking these devices.

### Type

A tool to promote the acquisition of knowledge and the practice of school exercises.

### Competitive advantage

Promote student learning while reducing conflicts between parents and students around mobile phones.

### Price

Kipoya offers 14 days to test the solution. A monthly flat rate of EUR 4.99 is available without any commitment, while the solution can be purchased for one year for EUR 3.99 per month. The start-up offers its service free of charge during the period of coronavirus spread until the Easter holidays.

### Stage of development

The start-up was created in July 2018. The product was made available to the general public in January 2020.

### Suitable for :

Kindergarten



Primary School



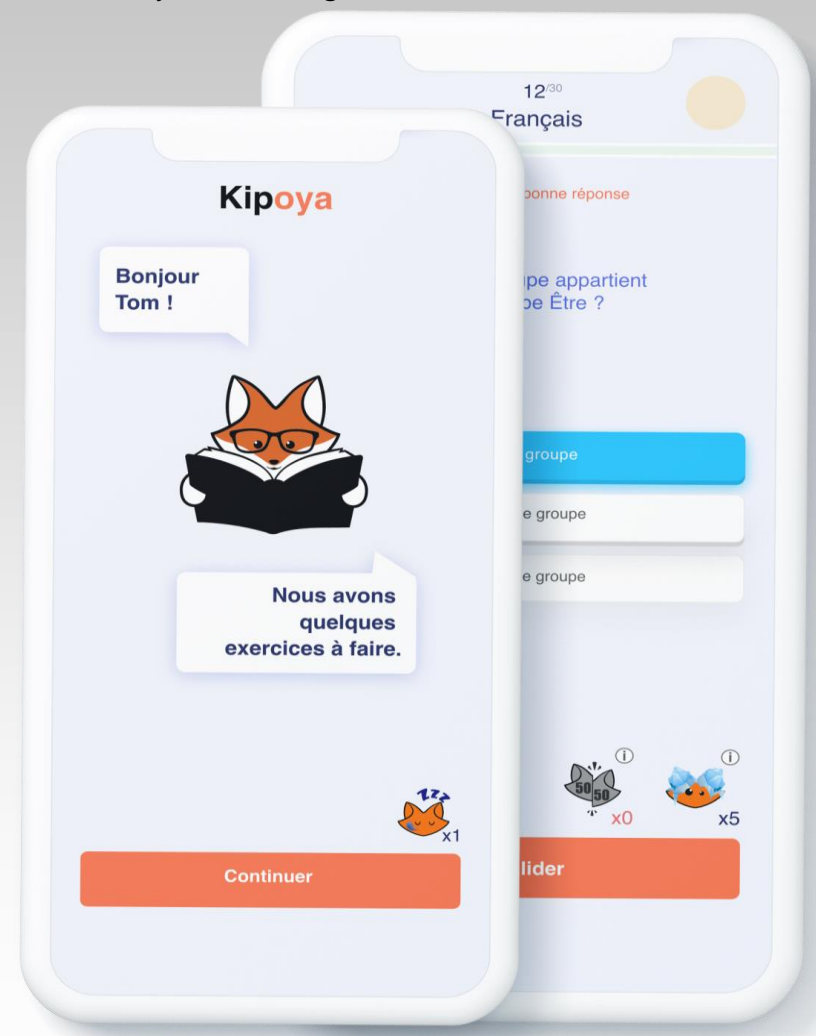
Secondary School



University



**Link** <https://kipoya.com/>







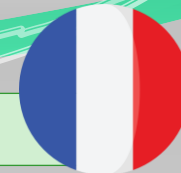
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## Kipoya: lock mobile phones to learn better

### Advantages

- The exercises consist of evaluations in the form of quizzes allowing the memorization of the courses and the anchoring of knowledge.
- The exercises focus on French and mathematics lessons for students between 11 and 14 years old.
- Different levels of difficulty related to the exercises exist according to the age and class of the student.
- A personalized interface allows parents to follow the student's results and progress.
- The exercises are short, between 10 and 20 minutes, which allows maximum concentration of the student.
- Parents will be able to set a time slot to activate the device lock.
- Setting up the application is simple and intuitive and can be done in less than a minute.
- Essential phone functions such as calls and messages are not locked voluntarily for security reasons.
- The solution undertakes to scrupulously respect an ethical charter with regard to data protection.





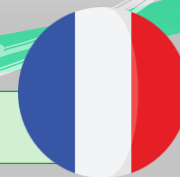
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## Kipoya: lock mobile phones to learn better

### Analysis of the offer

Kipoya is an application that **blocks social networks and video games on students' laptops and tablets**. By completing exercises, **recreational applications can be unblocked**. The application is primarily **intended for the students' parents** to encourage their children to study. Nevertheless, this solution can be **recommended by schools** for parents, especially in this **period of confinement due to the spread of Covid-19**, where distractions are legion at home.

**90% of schoolchildren are equipped with a smartphone** and spend an average of **2h40 per day on social networks**. Kipoya seeks to capture **a tiny part of this time**, between 10 and 20 minutes, by proposing exercises to be carried out **to unlock social network and video game applications**.

Kipoya is an interesting solution for parents and their children's interactions with mobile phones. This **object is often at the centre of conflicts between them**. Traditionally, technological objects such as telephones and video game consoles were confiscated, hidden until homework and exercises were completed and induced tensions. Kipoya avoids this type of situation by **restoring some control to parents over their children's mobile phones, not over the object itself but over the content they can access**, which may seem potentially **less invasive and repressive** to children than taking possession of their phones.

However, this solution has a number of drawbacks. A first **technical limitation** inherent to the application concerns the **elements that it is able to block, namely online applications**. For example, video games that do not require an Internet connection, which are becoming increasingly rare, will escape blocking.

A second disadvantage concerns **the content of the proposed exercises**. At present, they **focus** only on **mathematics and French lessons**, which partly limits the attractiveness of the solution for some parents who would not see the point of such an application if their child has good marks in these lessons.

The **main limitation** of this service would be the **immediate retributive nature of the solution in response to the completion of the exercises**. Indeed, the adoption of such a solution introduces a "reward", i.e. access to social networks and video games, whereas **the completion of exercises to reinforce its knowledge must be assimilated by the child as necessary** in order to continue his or her studies. The risk is to **internalize in the student an expectation of immediate reward in reaction to an effort made**. The fruit of the efforts made is not always visible and available in such a short period of time, which could potentially discourage a student in the continuation of his studies and his professional life.

Furthermore, the **principles of student empowerment and responsibility** are not favoured by the designers of the solution with regard to its management of digital tools. Nevertheless, the application seems to be a relevant tool in a logic of transition towards a more moderate use of social networks and the Internet by pupils.





## Kahoot: play at the service of learning

Kahoot is a game-based platform that offers a fun and social learning environment by generating interactive quizzes.

### Type

A tool to promote student learning.

### Competitive advantage

Kahoot focuses its product on gamification using the mechanisms of play to promote the acquisition and assimilation of knowledge by students.

### Number of users

Kahoot claims more than a billion players a year in over 200 countries. More than 50% of American teachers use the solution.

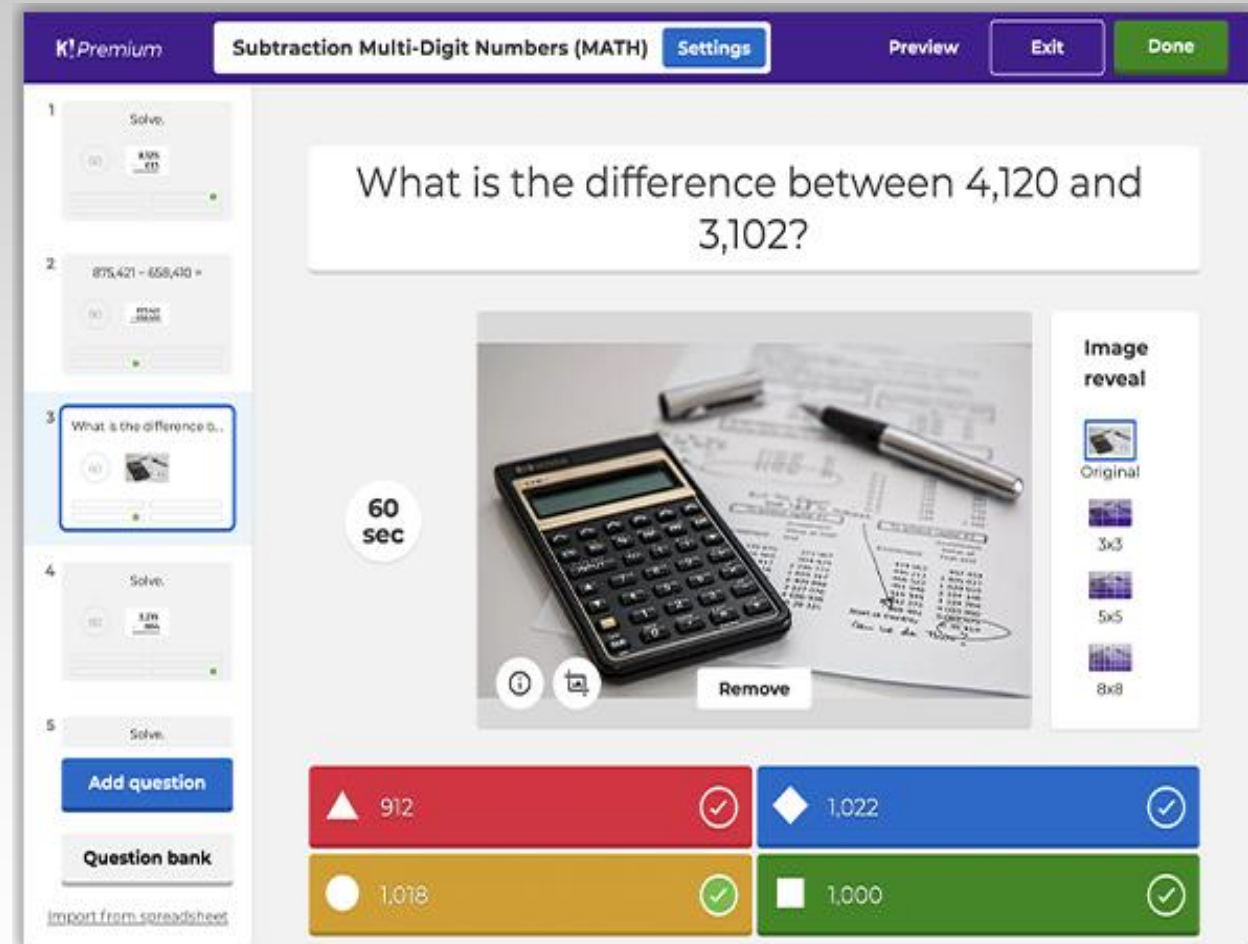
### Price

Kahoot is a freemium solution. A free version is available but is however limited in the functionalities it offers. A professional version can be purchased for EUR 3 per teacher per month. The premium version, which offers all the platform's functionalities, can be purchased for EUR 6 per month per teacher.

### How does it work ?

- The teacher creates a Kahoot (interactive quiz) on the platform.
- The quiz is broadcast online or conducted in class. Questions and answers are displayed on a large screen while students answer on their own devices.
- An analytical report is issued with regard to the students' answers, making it possible to measure, for example, the integration of knowledge in a simple and instantaneous way.

**Link** <https://kahoot.com/>





## Kahoot: play at the service of learning

### Advantages

- The creation of the game (quiz) is quick and takes only a few minutes.
- The questions the teacher wishes to ask can be imported from an Excel file.
- A database of 500 million questions is available to teachers.
- Additional supports can be added within the quiz, such as Youtube videos.
- The quiz can be spread on an overhead projector or remotely via a video conferencing service.
- Students can answer the questions individually or in teams.
- Surveys can collect student feedback and comments instantly.
- Detailed reports listing student responses can be produced by the platform, allowing the monitoring of student progress.
- These reports are easily shared between teachers and school administrators allowing a comprehensive and global following of the student.

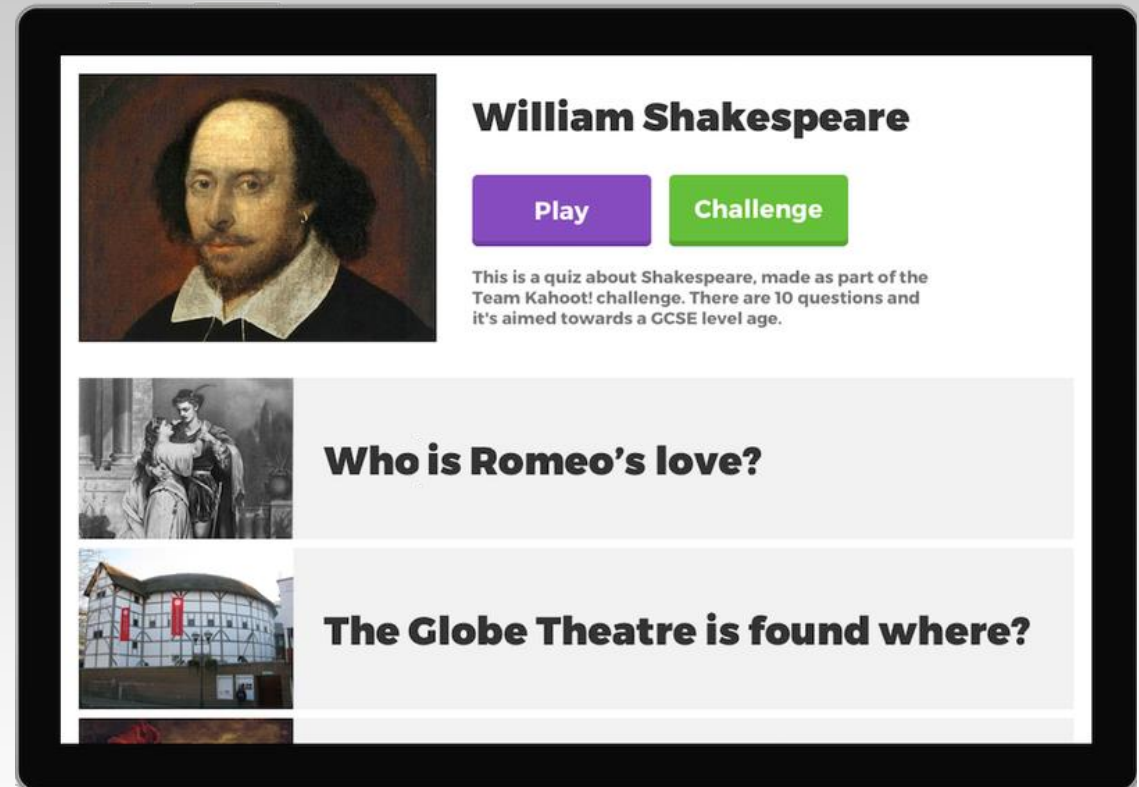
### Suitable for :

Kindergarten ★

Primary School ★★★★★

Secondary School ★★★★★

University ★





## Kahoot: play at the service of learning

### Analysis of the interest

Kahoot is a tool for creating **interactive quizzes to encourage student participation and engagement**.

The solution may first allow teachers to **introduce new topics** by assessing students' prior knowledge. Because of the universal format of the multiple-choice questions, Kahoot seems to be adaptable **to any courses and subjects taught**.

In the same logic, this tool can also be used **to identify knowledge that would not have been assimilated by the students** after a lesson. The solution makes it possible to record the pupils' answers at the end of each question session in order to determine what information have been retained. The teacher can come back in the next lesson on the concepts that would not have been well understood, thus facilitating the good understanding of all and better results. **A personalized and adapted follow-up of each pupil** can then be carried out by the school, which can **reinforce its pedagogical excellence**.

More anecdotally, but nevertheless importantly, Kahoot displays answers on the screen visible to all students but does not indicate which students made a mistake in formulating their answers. This ensures that even **the most shy students are not discouraged by encouraging them to participate** by guaranteeing the anonymity of the answers.

Being able to respond to a Kahoot in teams of several students is particularly interesting. This can potentially **accustom students to working in groups, motivating and arguing their choices**. This encourages a student's ability to work in a team from an early age and can only help him/her in future work with other students in the pursuit of his/her studies.

The ability to **use Kahoot both face-to-face and online** also enhances the attractiveness of the solution by **allowing for distance learning** or allowing students to **complete their homework** via this application. In a period of containment due to the spread of Covid-19, **Kahoot can be a timely tool that schools and teachers can offer**.

However, this **solution has some disadvantages**. Firstly, students have **to answer via their own mobile phones or tablets**. This requires that each of them has such tools. The school can acquire such technological means, but this will **require a significant investment**. The format of the questions is also somewhat limited. Only multiple choice questions or quizzes are available, which will **not allow the school to go beyond the simple pedagogical objective of acquiring knowledge**.







## Satchel One: a tailor-made classroom management platform

Satchel One is a digital platform designed to optimise the time spent by teachers and school staff on classroom management. The tool centralizes in one place various applications useful for the supervision of students.

### Type

Class management tool.

### Competitive advantage

The solution reduces the amount of time that teachers spend on administrative tasks related to classroom management.

### Price

No public information is currently available on the price of this technology. However, the price will vary depending on the applications chosen.

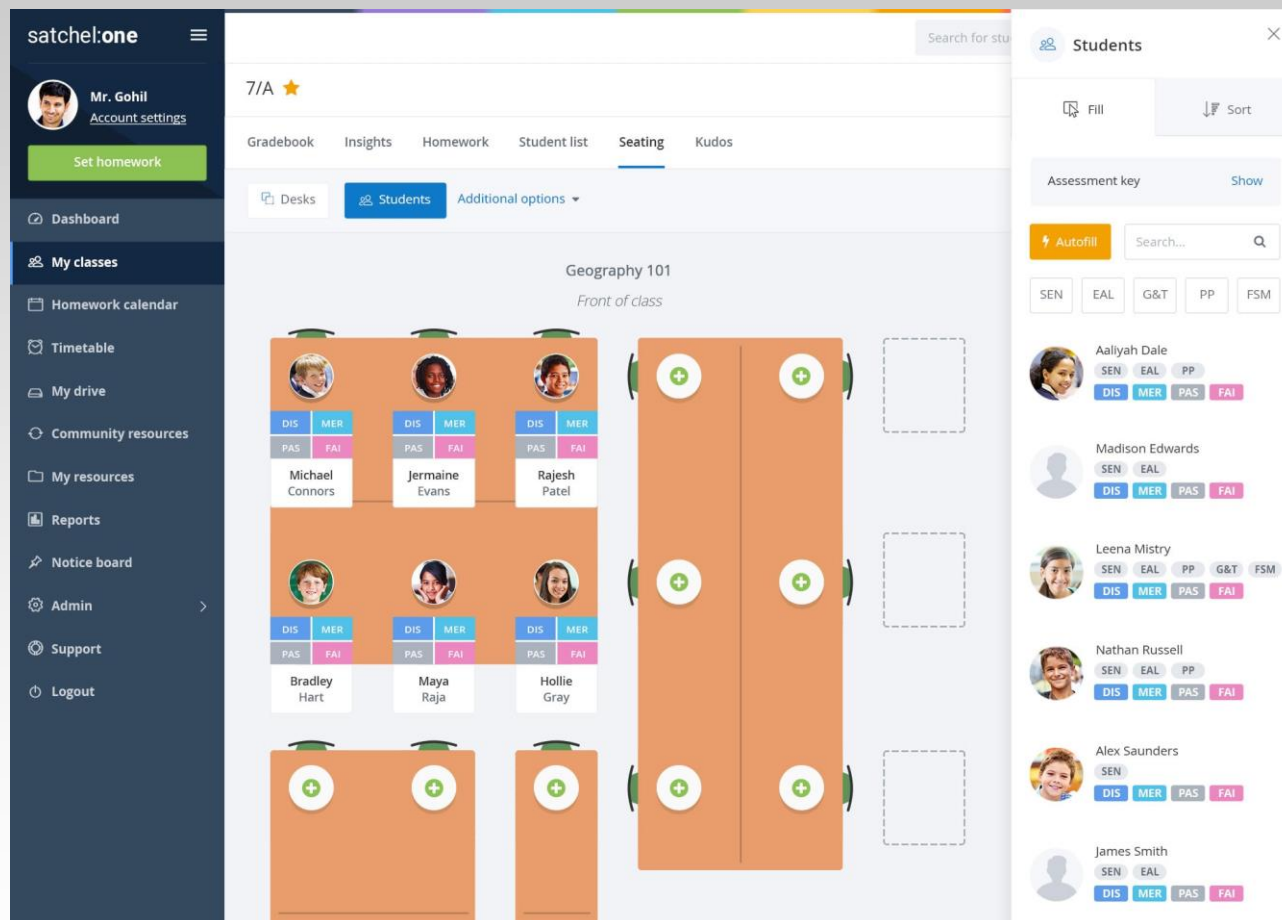
### Number of users

The start-up claims more than 1'600 users for its various applications. 1/3 of British Secondary Schools have acquired its flagship product *Show my homework*, an aid for planning, managing and carrying out homework.

**Suitable for :** Primary and Secondary School ★★★★★

This solution seems adequate only in the context of primary and secondary school studies. The various applications proposed relate to the management of a class that does not concern higher education, since teachers working in these structures are partly exempted from this type of task.

**Link** <https://www.teamsatchel.com/>





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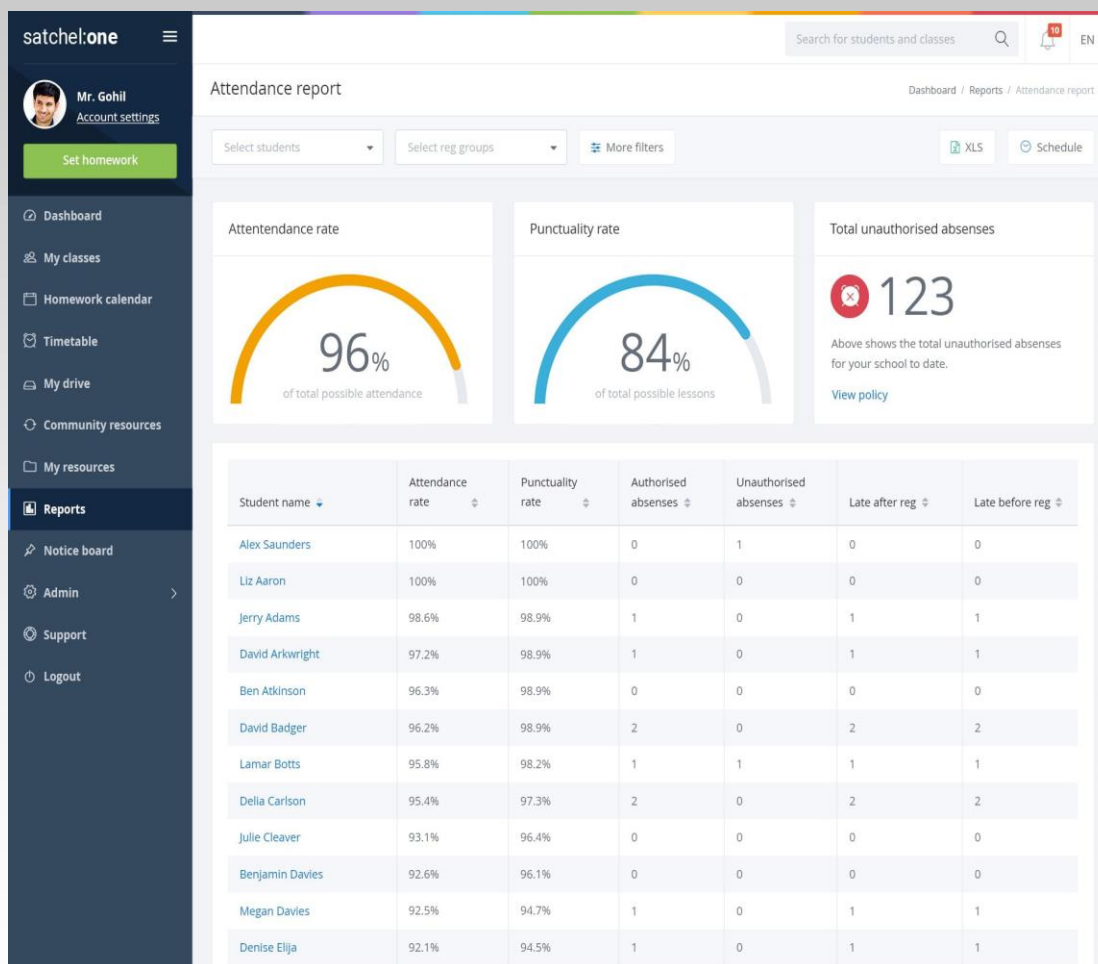
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satchel:

## Satchel One: a tailor-made classroom management platform



### Advantages

- The solution allows teachers to plan the assignments and ensure that they are completed correctly and for the students to submit them online through the platform. The teacher can also customize the assignments according to the students' level. Parents are also integrated into the process and notified of their child's work.
- The solution makes it possible to create class plans and optimize the placement of students in the classroom.
- The presence of students in class, attendance and punctuality are managed from the platform. Statistics are issued at the level of the students and the institution.
- Schedules can be built on the platform. Updates of times and locations are automatically communicated to students.
- A follow-up of the students' behaviour is possible through the online distribution of good and bad points. The system makes it easy to identify students who should be followed up more closely by the school.
- The tool can be used to manage "bad school behaviour". Student detention for bad behaviour can be planned from the solution. Both the student and his/her parents are immediately notified of such a measure.
- Satchel One also offers pedagogical content for teachers to facilitate the transmission of knowledge.



## Satchel One: a tailor-made classroom management platform

### Analysis of the offer

Satchel One provides teachers and schools with a tool for **optimized classroom management**. Through various applications, teachers are able to **reduce the time spent managing homework, schedules, class attendance, class plans and disciplinary actions**.

A significant advantage of the solution is the **centralization of all these functionalities in one platform**. Many solutions exist for each functionality on the Edtech market. **Satchel does not innovate radically by offering these services but it brings all of these into one single platform.**

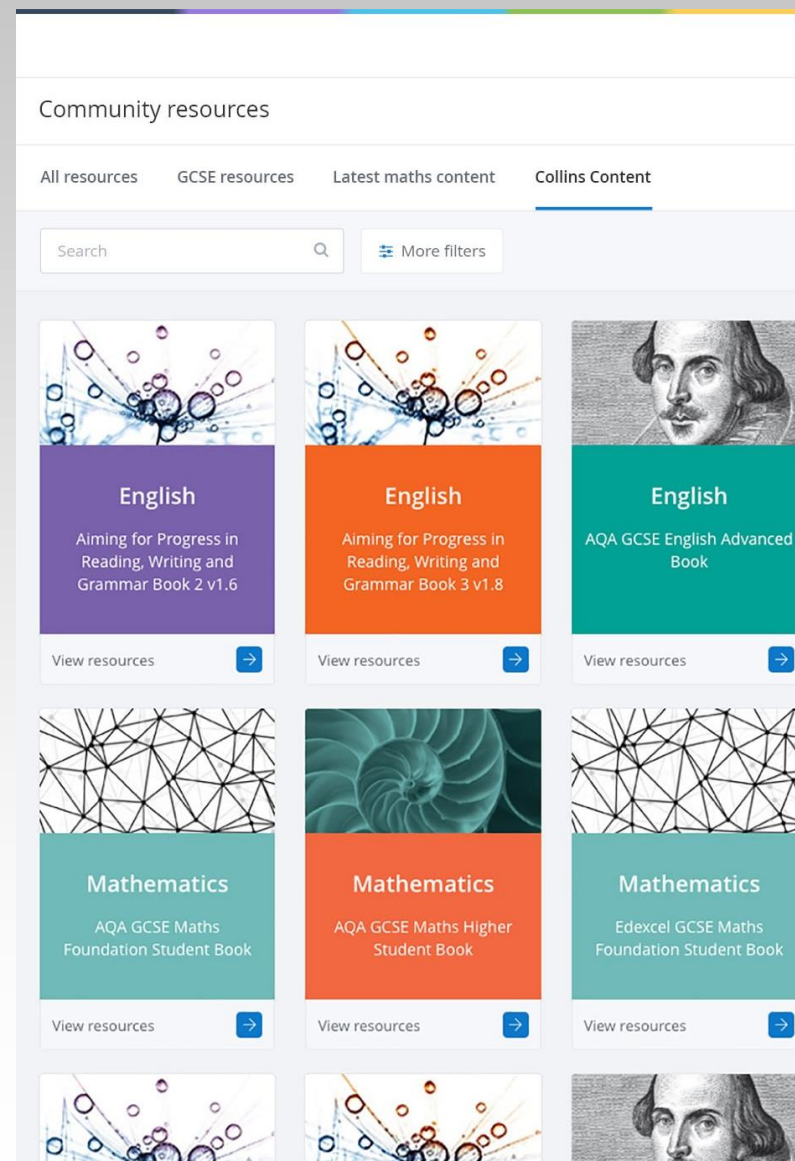
The solution avoids the multiplication of service providers used, requiring different connections relatively time-consuming and therefore allows teachers **to drastically reduce the time spent on these tasks**.

In another logic, a particularly attractive element of the solution is that **the different applications do not work in silos but communicate with each other**. As an example, an unjustified absence detected by the attendance application will, if the school sets it up in this way, result in a detention measure being made and a notification being sent to the parents. This makes it possible to carry out an **effective follow-up of the pupil** and to **propose an accompaniment by the school** if the need is felt.

Moreover, Satchel One **does not impose all the functionalities** in its commercial offer. Schools can choose from the different applications those that best suit their needs, which is **advantageous from an economic and functional point of view**.

However, the start-up's product has certain limitations. Firstly, the solution may appear potentially **repressive** to students if all the functionalities are adopted by an educational institution. All events and actions taking place within a school are **reported, measured and analyzed**, which can induce a feeling of **generalized surveillance** and be **counterproductive** to an **educational and reputational level** of the institution.

Furthermore, although Satchel offers the possibility to choose only certain applications among those available, the start-up only offers its own products, which does not give the school any choice in the selection of the provider. A teacher will potentially be more inclined to choose Satchel One for **the centralization of the services** the company offers rather than for the **relevance of its products**.







## Studytracks: learning in song

Studytracks is an application that allows students to study while singing. Teachers make revision sheets while producers, musicians and performers put them into song.

### Type

Tool to help memorization and acquisition of knowledge.

### Competitive advantage

The main advantage of this tool lies in its ability to encourage students to learn through a medium they are particularly fond of: music.

### Price

The solution for students without the accompaniment of one of their teachers is available for EUR 4.99 per month. Teachers can make the solution available to their students for EUR 10 per month with an unlimited number of identifiers.

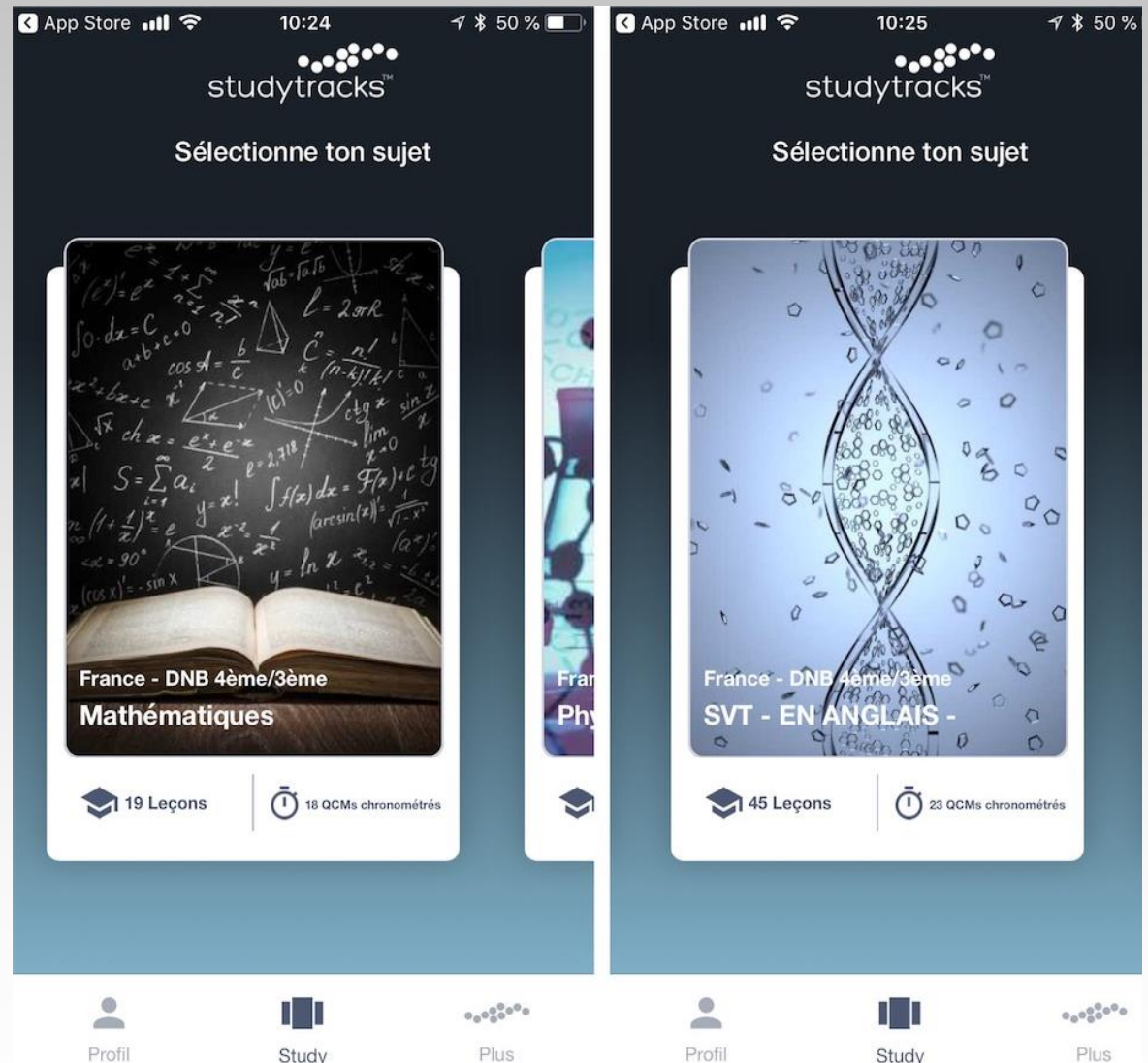
### Number of users

The Studytracks application has been downloaded more than 500,000 times worldwide and more than 200,000 times in France. The high use of the application in France is explained by the collaboration of the start-up with famous French artists.

### Stage of development

The start-up was founded in 2015. The application is available in the UK and the US since 2016 and 2018 in France. The start-up raised EUR 1 million in September 2019.

**Link** <http://www.studytracks.fr/>





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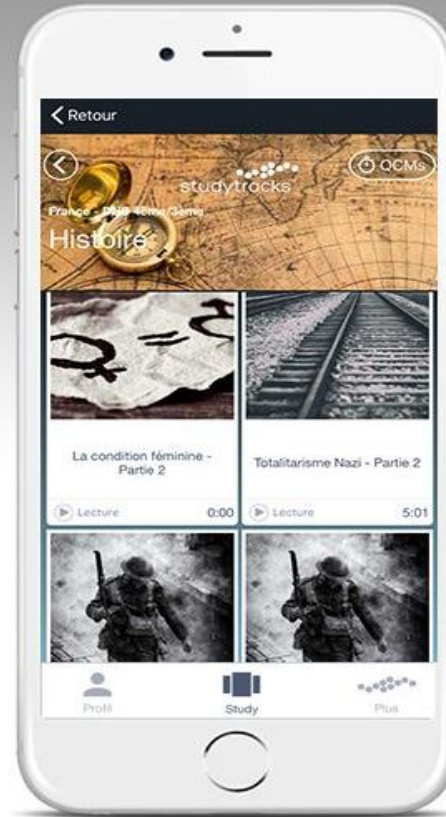


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## Studytracks: learning in song

STUDYTRACKS  
Fiches de révision en musique



### Suitable for:

Ecole maternelle



Ecole primaire



Ecole secondaire



Etudes supérieures



### Advantages

- Revision sheets are made by teachers, structured by cognitive science specialists to maximize information retention, and put into song by artists.
- Many styles of music are used in order to guarantee the interest of all students (Hi-pop, Rap, pop, techno, rock...).
- At the end of the song, a quiz is available in order to guarantee the good understanding of knowledge.
- Many subjects and teachings are covered by the solution (mathematics, science, economics, history, geography, philosophy...).
- A platform is available for teachers to create playlists of songs and assign them to specific students, making it easy to customize homework assignments.
- Studytracks allows teachers to visualize on the platform the songs listened to by the students as well as their quizzes test results.
- The solution is digitised, making it easier for students to listen to the revision sheets in their daily lives (transport, recreation, etc.) through multiple media (telephones, tablets, computers, etc.).



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## Studytracks: learning in song

### Analysis of the offer

Studytracks is an application that allows students to **assimilate revision sheets** written by teachers and put into song by artists.

Young people between the ages of 13 and 18 particularly enjoy listening to music. They spend **more than an hour a day listening to songs**. Studytracks started from this observation to encourage young people to revise their lessons **by reducing the mental load associated with music**. This assumption, which at first glance might seem crazy, seems to have a scientific and pedagogical basis validated by various studies. Thus, 75% of the students studied were able to retain all the information from the first listening. The auditory memory of some people is particularly developed and favours the retention of information.

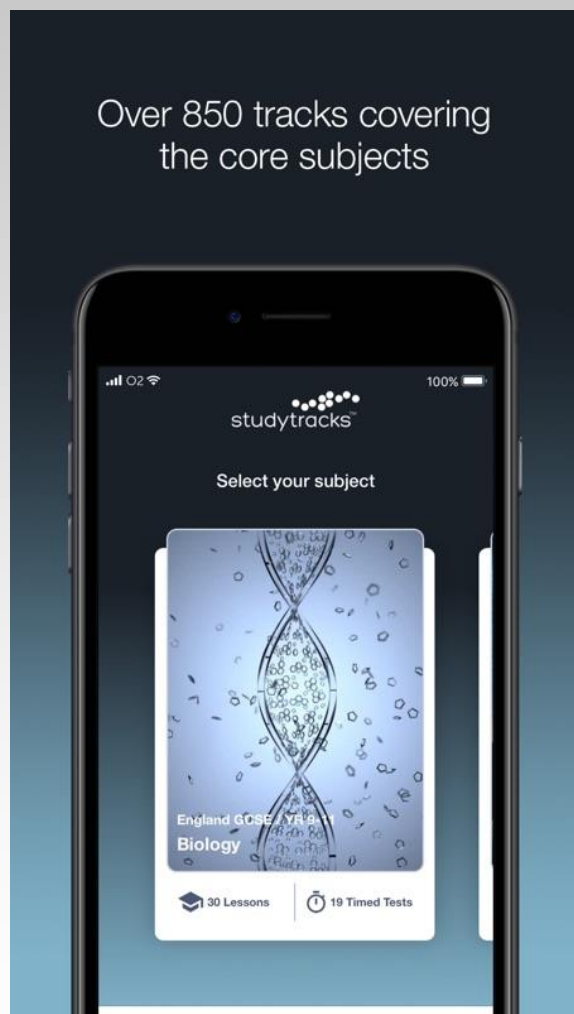
Studytracks thus seems to be a **complementary tool** available to teachers to encourage students to revise or improve the effectiveness of their lessons, while the solution can also be used by teachers for students who are **failing or dropping out of school** in order to give them a new taste for school work thanks to the playful aspect of the solution.

In addition, Studytracks can be an innovative initiative available to schools to demonstrate **their concern to take into account all modalities** that favour the transmission of knowledge among pupils. This can only contribute to strengthening their **pedagogical excellence and reputation**.

There are, however, a number of limitations to the solution. First of all, teachers have **no control over the pedagogical content and the information transmitted** through the songs, although the revision sheets are made by certified teachers.

A potential risk also lies in the fact that **students do not appreciate the types of music offered**, although the platform ensures that the various musical tastes of the students are taken into account.

Moreover, some **resistance could potentially come from the parents of the students**, who would see music more as a factor of deconcentration and diversion of students' attention than as a facilitator of knowledge assimilation.





# EVOLUTION OF EDTECH BUSINESS MODELS

Prospective monitoring  
June 2020  
by Geneva Intelligence



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## Summary of the June 2020 edition



**Edtech  
definition**



**Monitoring  
Methodology**



**Analysis of  
trends**

### Tech-AdaptiKa

**Tech-Adaptika** has developed a virtual campus where students can evolve in an immersive world. The main objective is to fight against the feeling of isolation that distance learning sometimes implies.



**Mirage Make** de-dusted the paper document by transforming it into a true multi-format educational resource thanks to augmented reality.



**Labster** is a virtual laboratory where students can perform experiments that would never have been possible in a real laboratory for safety and financial reasons.



**Proctorio** turns the student's computer into a supervisor. With this solution it is possible to carry out exams remotely and cheating is (almost) impossible.



**Humanroads** provides educational institutions with a detailed knowledge of the professional and academic background of their alumni.





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# Example of Prospective Monitoring



## Definition of Edtechs:

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 training instead of physically attending classrooms. The "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 the possibility of offering a complete course. There are also educational robots that accompany young people in their learning by capturing their attention.

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

Teachers and schools in general also benefit from these technologies to facilitate the transmission 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**



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# Definition of Prospective Monitoring



## Overview

Prospective monitoring consists of implementing a systematic monitoring process of the environment in order to identify weak and mature signals which are indicators of change. It is a question of collecting strategic information to be able to anticipate changes in the ecosystem in order to respond as soon as possible and adequately. Prospective monitoring provides support for the implementation of a commercial and technological strategy.

## Methodology

An effective method is to conduct products 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 technologies
- Identification of Edtech trends and innovations. Trends represent market characteristics and developments.

## Objectives

A company or an educational institution which wants to be sustainably competitive must constantly be aware of changes in its market in order to limit risks or benefit from these changes.

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

**DISCOVER EDTECH TRENDS ANALYSIS**



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# Edtech Trends Analysis



More than **1.5 billion students** in **190 countries**, from **kindergarten to university**, did not physically attend school **during the Covid-19 crisis**. **40%** of them would not even have had **access to distance education or learning tools**, according to Sobhi Tawil, head of Unesco's programme of educational research and forecasting. Faced with the spread of the pandemic, governments have **closed schools** and set up a "**continuity of education**" based mainly on "**distance learning**" to combat potential mass school drop-outs. The use of many Edtechs solutions to **guarantee or improve distance learning** or otherwise **limit its disadvantages** has been carried out at the initiative of governments, schools or teachers.

One of the **major difficulties** of distance learning is the **lack of interaction** between students and between students and their teachers, which can lead to a **feeling of isolation** among learners. **Tech-Adaptika** has addressed this problem by developing an **immersive virtual campus** where students go to classes, participate in lectures and group work, and interact with each other virtually. The solution is designed to **maximize exchanges** between students in order to **maintain a social link** and a **near-normal sociability**.

**A certain fatigue** can set in students when faced with distance learning and **virtual classes**, according to the teachers and their feedback. **New teaching experiences** can be offered to students to **maintain their interest and commitment** to learning. **Labster** offers a **virtual laboratory** where students will be able to **conduct experiments that they would not otherwise be able to do, mainly for financial and safety reasons**. Thanks to the mechanisms of **gamification** and **virtual reality**, the student will, for example, be able to solve a crime in the skin of a forensic scientist, have access to the inside of laboratory equipment or visualize cells at a microscopic scale. The Covid-19 pandemic and the massive use of distance education in some countries has particularly highlighted this issue, which nevertheless remains relevant in normal times for any distance education.

**The digital and social divide** is also a **major concern** for distance education. **Socio-economic inequalities** in terms of students' computer equipment exist and call into question the **equality of students**. The **Mirage Make** solution **partly attempts to respond to this issue** by offering the possibility of **integrating different formats** such as audio, video and even 3D objects into a paper document thanks to **augmented reality**. While offering a new experience to students in their learning, the solution keeps paper as the **main teaching medium** with further content accessible by mobile phone and PC.

The **processing of personal data** remains however a predominant issue in distance learning. In order to **improve the user experience** through greater personalization, or simply to guarantee the functioning of their products, Edtechs solutions **collect and analyze user data**. **Proctorio** is a **powerful solution** for educational institutions to enable **remote testing** and prevent cheating. By scanning the environment at **360 degrees**, through **video and audio captures** of the student during the exam, the solution is able to guarantee the **integrity of the exam** and thus, by extension, the **credibility of the diploma issued**. However, the use of Proctorio in Canada and France, for example, has led to **major controversies**, particularly regarding the **facial recognition and detection technology** used by the solution. It is considered **too intrusive and disproportionate** to the objective sought: the fight against cheating.

On another level, **Humanroads** offers an **interesting solution** for schools by **exploiting data on the professional and academic backgrounds of alumni to guide new students** in their choice of study and career. Collecting and analyzing such data seems less problematic in view of the objective: better guidance and support for students.

DISCOVER EDTECH TRENDS





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# Edtech Trends



## Collaborative course learning platform and soft skills

Online platforms allow information to be transmitted and facilitate access and learning processes.

- The accessibility of knowledge is the main advantage of these technologies for teaching across different media. They enable remote learning at the appropriate time for the individual.
- These platforms foster collaborative relationships between teachers and students. They facilitate group activities and communication.
- They enable the monitoring of the evolution of learning and the implementation of pedagogical procedures.



## Artificial Intelligence and adaptive learning

Artificial intelligence (AI) in Edtech facilitates learning which is personalized. Edtechs learn themselves how to teach students better.

- AI helps to understand the individual's reasoning, to take into account his/her knowledge and the best ways for him/her to learn.
- This technology facilitates understanding by using the most appropriate techniques at the right moment.
- Teachers can use the analysis made by these tools to better understand students and their processes.





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# Edtech Trends



## Experiential learning platform

Edtechs link internship offers with teachers and students.

- These services provide a better understanding of the labor market and its opportunities.
- Students receive hands-on training with mentoring from experts.
- Companies can discover new talents whereas students can discover the job market.



## Tools for creating, marking and evaluating exams, as well as reviewing papers with an anti-cheat system.

These Edtechs provide access to a secure platform in order to set up an evaluation procedure.

- They allow the creation of exams (MCQ, gap text, essay, graphs...) in all subjects, including tools for marking and grading.
- These platforms facilitate the monitoring of student results to visualise changes in grades per student and per class. These technologies are secure and prevent any cheating.



BCDiploma

TOP HAT

Revisely

testwe



## Game-based learning

By using fun and educational tools, Edtechs are using games as a way to facilitate learning and attract the attention of students of all ages.

- These technologies make it possible to reinvent learning methods by using neuroscience.
- They value collective interaction and intelligence as well as group experience and creativity.



PLAY2SPEAK

elever



Kahoot!

Kinems



memrise



## Language learning

Language learning is easier and faster.

- Edtechs measure the individual's pace of learning and calculate the appropriate timing of teaching and adapt course content based on knowledge.
- These technologies are permanently accessible and enable more effective learning processes.



memrise



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# Edtech Trends



## Life at school in community

Edtechs promote the school community and the smooth running and functioning of the school.

- These technologies promote communication between teachers, students and parents.
- They facilitate administrative procedures such as tracking school records or absences, for example.
- They highlight new pedagogical techniques to support students, for example, with awards.



Whaller



NEWSCHOOL

rymm  
education

unibuddy

# satchel:



Tools or solutions to directly or indirectly improve the physical and psychological well-being of students and/or teachers.

These have a significant impact on academic performance, teaching quality, pedagogical excellence and the school's reputation.

- These technologies allow the teacher's administrative work to be reduced as much as possible so that he can concentrate on teaching and on student's well being.
- These platforms aim to guarantee the physical and psychological integrity of the students.

## PocketCampus



equity maps®

idruide  
Authenticité

UNICHECK



Whaller



DegreeAnalytics





## Tech-Adaptika: The Sims of Education through a Virtual Campus

Start-up Tech-Adaptika has developed a virtual «Sims-like» campus allowing students to interact in an immersive online environment. Students are able to participate in courses and conferences, exchange with each other and with their professors and work in groups, among other things. The main objective of this solution is to fight the "feeling" of isolation that traditional distance learning tools can create among learners.



### Type

A tool for the acquisition of knowledge.

### Competitive advantage

To foster human interaction in distance education through a fully immersive experience that maintains a high level of student engagement in learning.

### Price

No information is currently available on this subject.

### Number of users

The company states that it has been solicited by hundreds of organizations including schools, universities and even institutions such as the United Nations and the African Development Bank.

### Stage of development

Tech-Adaptika is three months old and has been founded in March 2020. However, the start-up benefits from its founder's Hosni Zaoualis, years of experience in launching several other edtechs. The company has benefited from very strong media coverage in Canada and France for such a young structure. The spread of the coronavirus and the resulting closure of schools explain in part such an early notoriety with regard to the company's level of development.

**Link** <https://adaptika.tech/>





## Tech-Adaptika: The Sims of Education through a Virtual Campus

### Advantages

- The solution provides a complete immersive experience for teachers and students. For example, students can pilot their avatars on campus to go "virtually" to an amphitheatre or to participate in tutorials.
- The virtual campus is fully customizable both at the level of the student and his avatar (appearance, etc.) and of the institution hosting the students (university buildings, logo...).
- The platform hosts synchronous learning times (events broadcast in real time for the benefit of all participants) like for example virtual classes and asynchronous learning times (each participant can follow the events whenever he wishes) such as conferences or recorded courses.
- The interaction formats offered by the platform are many and varied, whether through virtual classes, meetings, group work, public discussions or private interviews.
- In addition to a virtual campus, the start-up also offers a classic learning management system (management of timetables, homework and corrections, etc.). Moreover, Tech-Adaptika does not impose its learning management system and allows the integration of other class management solutions within its virtual campus.

### Suitable for:

Kindergarten	★	Primary School	★
Secondary School	★★★★	University	★★★★★



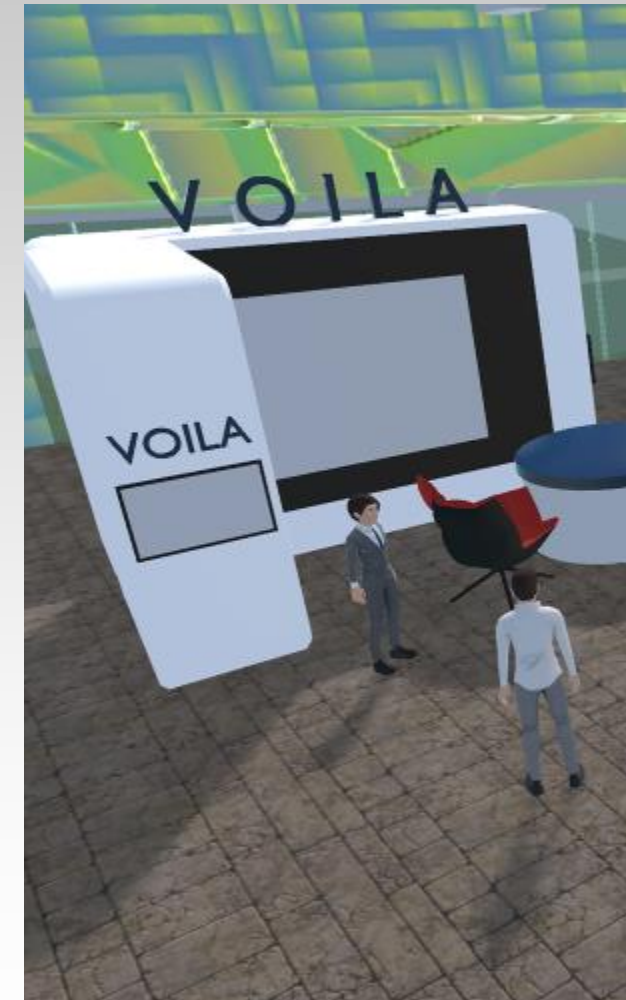


## Tech-Adaptika: The Sims of Education through a Virtual Campus

### Analysis of the offer

One of the criticisms of distance education is virtual characters. Tech-Adaptika takes the opposite view, stating that, on the contrary, distance learning is not virtual enough. The start-up has developed a **fully immersive experience** where students are able to **participate in courses, conferences, interact with each other and with their professors in a virtual campus**.

- The solution meets a **fundamental need** that traditional distance education tools cannot fully meet or fulfill: **maintaining social ties**. Videoconference systems make it possible to guarantee the "**pedagogical continuity**" desired by governments during the closure of schools following the Covid-19 pandemic. However, it is somewhat tricky to use these tools to promote interaction between all the pupils represented by black squares in a virtual classroom. The start-up, thanks to its **virtual campus** and the **numerous interactions** allowed, offers schools an interesting tool on the social level.
- **Many interactions** will also help to **maintain a high level of student participation** in **connecting to the platform** and **browsing the virtual campus** where courses are given. However, the solution will not mechanically promote better student engagement during the course or a virtual classroom and thus student learning. One of the "**shortcomings**" widely highlighted in the literature is that **distance learning is perceived as a simple digitization of educational content and resources**, or in other words a **transposition by mimetic effect** of a face-to-face classroom in an online one. The **interactions** permitted on the virtual campus **could be annihilated** if the **course offered in a virtual classroom** does not also **promote student interaction**. Teachers need to (re)think their course not in terms of content but in terms of interactivity. The tool proposes many formats of interaction (lesson, tutorial, group work, private discussions) to achieve this, but it is up to the teacher to grasp them and to articulate his or her lesson in them.
- Moreover, the solution will not be able to overcome **one of the major limitations of distance education**, namely the **digital divide**. Not all students are equal in the **possession and mastery of computer and electronic tools**. However, in order to go to the virtual campus, a student needs a **computer and a suitable Internet connection**. Moreover, one of the platform's strengths, the number of available interactions, is also one of its weaknesses. It may be relatively complicated for an individual, who is not digitally-savvy to exploit all the platform's functionalities quickly.
- A last drawback, secondary at first glance but nevertheless important, concerns the **graphics** of the virtual campus. At a time when the graphics of video games have a striking and sometimes **confusing finesse** with reality, Tech-Adaptika could focus more strongly on this dimension. Indeed, the current graphics **could put off some students**, particularly those who love video games. **Beautiful graphics** could only **strengthen their desire to visit the virtual campus**.







## Labster: A million-franc lab, one click away

Labster is a solution that allows students to safely conduct experiments in a virtual laboratory using interactive simulations made possible by virtual reality.

### Type

A tool for the acquisition of scientific knowledge and laboratory handling skills.

### Competitive advantage

Distance learning in biology, physics and chemistry laboratories are possible as well as access to very advanced and expensive equipment.

### Price

Many criteria will influence the price of the Labster license such as the number of simulations, the acquisition of licenses for the entire educational institution or just for a class or the nature of the institution (university or high school). Prices for access to the solution for a semester range from CHF 1 per student to CHF 100.

### Number of users

150 universities in more than 25 countries with more than 200,000 students using the solution. Some of the most prestigious institutions such as Harvard, Stanford, MIT and Trinity College Dublin use Labster to train their students.

### Stage of development

The start-up was founded in 2011. Labster was able to raise USD 10 million in 2017 and USD 21 million in 2019 to develop its product and strengthen its sales teams. The company has offices in Denmark, Switzerland, the United States and Indonesia.

**Link** <https://www.labster.com/>





## Labster: a million-franc lab, one click away

### Advantages

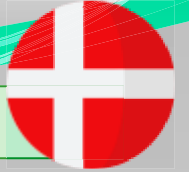
- Courses in physics, chemistry and natural sciences practised in a laboratory can be taught and carried out by distance learning.
- Students and teachers can have and use tools that can amount to hundreds of thousands or even millions of Swiss francs in reality without fear of breakaging, accidents or other damage.
- Labster allows for safe scientific learning. All laboratory accidents are prevented.
- Student engagement is reinforced through the mechanisms of gamification. For example, through engaging 3D animations, students can explore life sciences at the molecular level and observe inside the machines they use.
- The acquisition of knowledge is reinforced. The student can complete the work at his or her own pace. Students can also, if a manipulation is not perfectly assimilated, go backwards, which would be impossible in a real experiment unless the whole procedure is repeated.
- Labster can be linked to the school's learning management system, allowing optimized management of grades, assignments and tests.
- Virtual reality headsets can be used to enhance the immersive nature of the experience.

### Suitable for:

Secondary School ★★★★★ University ★★★★★







## Labster: a million-franc lab, one click away

### Analysis of the offer

Labster believed that if airplane pilots could learn to fly in flight simulators, then scientists can learn to **conduct experiments in virtual laboratories**.

Labster's main attraction is to offer students a **high level of scientific education** through experiments that could not be carried out in a real **laboratory**.

- The **safety of students** in **handling hazardous materials or components** is guaranteed in a virtual laboratory. For example, the study of **virology**, bacteriology or immunology through the **handling of viral agents** would be **unthinkable** for safety reasons in a school laboratory.
- The **price** of some of the tools available in the Labster solution can reach **hundreds of thousands or even millions of francs**. A virtual laboratory is interesting for a school because students can **benefit from and use such tools at a relatively affordable price**.
- **Some experiments require time to obtain results**, for example, in a chemical reaction, while there are **limited timetables and schedules for scientific subjects**. Labster also overcomes this problem by enabling faster results.

For the **three reasons** mentioned (security, cost of materials, time), some **laboratories or experiments are closed to students**. The virtual laboratory proposed by Labster thus makes it possible to **partially make high-level science education accesible to all**. However, the solution has a number of potential limitations.

- Labster allows about 140 experiments to be simulated. Although this is a significant number, **the risk for schools** is that they will **not find the experiments** they need to carry out **in the proposed catalogue**.
- The absence at first glance of a **collaborative dimension** in the realization of the experiments within the virtual laboratory may be a limitation. In real laboratories at universities and secondary schools, **experiments are often carried out in pairs**. This allows an **exchange, dialogue and argumentation** regarding the manipulations to be carried out, while bearing in mind that **group work** is also **done for reasons of economy and limited resources**.
- The **investment required** by an educational institution, beyond the acquisition of licences, in **computer equipment** can be problematic. Indeed, the solution requires a computer in order to function. The use of **virtual reality headsets** to make the **experience even more immersive** can also quickly add to the cost. **But Labster will still be cheaper than a real lab**.





## Proctorio: a computer supervisor that does not let anything get by

Proctorio is a comprehensive digital platform that ensures the integrity of student learning. The solution provides remote exam monitoring, identity verification and anti-plagiarism. The student's computer becomes the supervisor of his exam.

### Type

Tools to create exams, grade, evaluate, correct documents with an anti-cheating system.

### Competitive advantage

Proctorio stands out from its peers by offering a technology based on facial detection and recognition and more specifically on eye-ball tracking, which can interpret students' eye movements.

### Number of users

The company claims to collaborate with more than 400 institutions including major U.S. universities, companies such as Amazon, and governments.

### Price

No information is available on the price of the solution under normal circumstances. In the context of the spread of Covid-19 and the closure of schools, Proctorio in its simplified version is free of charge and its basic functionalities cost of CHF 5 per supervised examination.

### Suitable for:

University ★★★★★  
Secondary School ★★★★★

Link <https://proctorio.com/>





## Proctorio: a computer supervisor that does not let anything get by

### What is controlled by the solution during an examination?

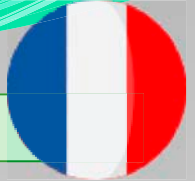
- The identity of the student through the scan of his ID.
- The place of the exam through the scan of the room where the student is going to take the exam to prove the absence of cheat sheet.
- The visual and sound environment of the room is recorded using the computer's microphone and webcam.
- The location of the student thanks to his computer.
- Internet traffic and applications used on the computer during the exam.
- Movements of the face and especially of the eyes and mouth to detect unusual behaviour..

### Advantages

- The installation of the solution is almost immediate. The student simply has to install an extension in his Google Chrome web browser.
- Proctorio can be integrated into the institution's learning management system.
- The monitoring of examinations is automated. When the artificial intelligence detects an anomaly, the teachers are alerted.
- The encryption of the collected data is of a very high level.
- The modalities for supervising an exam are defined by the teachers. Depending on the type of exam, not all the supervision measures will be used.







## Proctorio: a computer supervisor that does not let anything get by

In this period of Covid-19 and in the face of the confinement of more than half of the world's population, all schools from primary education to universities have been looking for **ways to guarantee the conduct of their examinations** and, above all, their **integrity** in order to **maintain the credibility of the diploma awarded**.

Proctorio offers a **relatively powerful solution for remote exam monitoring** by providing 360-degree control of the environment in which the student will take the exam. **The proctor is the student's computer**. Proctorio will be able to monitor the behaviour of the individual during the exam through the **webcam** and the **microphone** of their computer.

- The **main factor differentiating** Proctorio from its counterparts is the **detection and facial recognition technology** on which the solution is based. When the student completes the exam, artificial intelligence will study and analyze the micro-movements of their mouth and eyes in order to **detect unusual behaviour that may be similar to cheating**. If this is the case, a teacher is alerted to investigate the case.
- The **students rebellions** from Concordia University in Canada and HEC in France, accused the **"intrusive" nature** of this solution, in the media. Facial detection and **eye tracking** are considered **excessive** in relation to the objective of **combating cheating**. Moreover, in our opinion, in a context where **facial recognition technology is perceived by the population as a threat to individual liberties**, as a control of authoritarian or even totalitarian regimes over their populations, **the use of this kind of technology cannot be accepted for educational purposes**.
- In a similar logic, in **some countries**, educational establishments and more particularly universities are considered to be **bastions of freedom** (of expression, conscience, religion...). **Any element that may threaten these freedoms, whether technological or human** is culturally difficult to accept because of its intrusive or repressive nature. In France, for example, this takes the form of a **"university franchise"** which explicitly prohibits access to universities by law enforcement officials. Only the president of the university, with a few exceptions, can request and endorse the intervention of law enforcement within the university. Thus, **the adoption of technologies associated with repression and control** within educational institutions may in some cases be **culturally and historically complicated**.
- However, in order to **avoid this type of controversy**, schools could **offer Proctorio on a voluntary basis**. The disputes arose mainly because the students had no alternative to this examination procedure. Although they agreed to give their data, their choice was not free and informed. If they refused to use Proctorio, **they were being struck off the examination session**.
- Moreover, this type of solution can be used **if the most sensitive elements, i.e. audio and video capture, are abandoned**. Proctorio makes this possible by giving the teacher the choice to **select the control sensors that will be activated during the exam**. In addition, **less "intrusive" solutions** that do not have this type of functionality exist, such as **Testwe**, a platform that was studied in a previous report (January 2019).
- Finally, the **format of the exams** may be something to consider in order to **avoid resorting to these solutions**. **Open-book exams** can be an example. **Grading will focus more on the student's thinking than on their ability to acquire knowledge**. Although an open-book exam can also measure an individual's acquisition of knowledge, since a student who is not familiar with their courses will waste a lot of time searching for information without having the guarantee that they will reused in an intelligible manner.



## Mirage Make: Augmented reality in paper documents

Mirage Make is an application for creating and viewing paper documents in augmented reality. The student or teacher simply has to scan a QR code printed on a paper work document with their mobile phone camera so that the augmented reality object appears.

### Type

A tool to support learning and knowledge acquisition.

### Competitive advantage

The solution makes it possible to enrich paper documents with different content such as images, videos, audio and 3D objects to engage students in their learning.

### Price

Mirage Make is based on a freemium economic model. The freemium version allows you to create documents in augmented reality while the advanced features can be obtained for CHF 40 per year for a single license, CHF 150 for a school (with no QR code distribution restrictions) and CHF 400 for a university.

### Number of users

Founded in 2018, Mirage Make claims to work with more than 300 French primary, secondary and university schools. Partnerships have also been signed with educational institutions in Hong Kong, Bangkok and Haiti. The application is downloaded on average 350 times a day.

### Suitable for:

Secondary School  
University



**Link** <https://mirage.ticedu.fr/>





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## Mirage Make: Augmented reality in paper documents



### Advantages

- The solution allows to edit paper documents enriched with augmented reality. Video, images, sounds, MCQ and 3D objects can be added to the paper document via QR code.
- Mirage Make offers, via Mirage App, a dozen turnkey applications. Each of them deal with a subject taught at school. The Architecture application proposed below for a test is one of them. It allows a better understanding of the differences between Gothic and Romanesque architecture than with simple photos through the discovery of cathedrals in 3D.
- The tool can be used for a variety of purposes, whether as a reading aid for dyslexic or visually impaired people, for making dictations, creating escape games or repeating a lesson.
- Most uses of the solution do not require an Internet connection.

### Test this ! Gothic and Romanesque architecture in augmented reality in less than two minutes

- Print the markers / QR codes available here : <https://urlz.fr/dnBi>
- Download the application «Architecture» developed by Mirage Make here : <https://urlz.fr/dnBr>
- Launch the application, tap start, then tap discover mode.
- Point your phone at the markers and explore Gothic and Romanesque architecture in augmented reality.



# Mirage Make: Augmented reality in paper documents

## Analysis of the offer

Who said the paper was dead? **Mirage Make** gives back to this most **traditional and ancestral medium** its nobleness by enriching it with more **contemporary media** such as 3D objects, videos, audio or images.

- The **main attraction** of this solution is to **integrate all channels promoting greater student engagement** and by extension **their ability to acquire knowledge** into a paper document. History, philosophy, foreign languages, plastic arts, mathematics, physics and even physical and sports education! **All subjects, disciplines and teachers** can take advantage of this tool to **energize and enrich their courses with additional content**.
- Within a discipline, **this solution can be used for multiple effects** such as practical and group works, course revisions, homeworks. The designers of the solution propose uses for their tools but invite teachers to find their own.
- The solution is **intuitive and user friendly**. The creation of an enriched paper document with augmented reality is very accessible. All you have to do is **load the resources** (videos, photos, audio clips...) that you wish to share via paper within the platform, which will **transform them into QR codes**. Once created, the QR codes can be **downloaded and integrated** into a Word or PowerPoint document for example. **Once printed**, students will only have to scan the QR code after downloading the Mirage Make application with their mobile phone camera to benefit from the additional content offered.

However, Mirage Make has a **number of limitations**.

- Firstly, the solution requires a mobile phone or computer for optimal use, which **does not solve the problem of the digital divide**. However, the teacher can partially **circumvent this problem by using a computer for the whole class** but the experiment will run the risk of **falling back into a classic presentation**.
- Furthermore, **not all the channels offered by the solution can be used in the classroom**, especially the video and audio format. If all students are using their mobile phones at the same time, a **general cacophony** will happen. However, the different formats offered can potentially make homework and revision at home **more attractive**.
- In addition, the **Mirage Make designers** could potentially have integrated **word processor software** into the platform. This would have made the creation of enriched documents with augmented reality **even faster**. Indeed, if many resources must be integrated into the paper document, numerous copy-paste or downloads and then insertions will be necessary from the platform to the final document.





## Humanroads: the GPS for educational and professional orientation

The start-up Humanroads has developed two tools for student career guidance and training. Humanroads Analytics is aimed at educational institutions by collecting data on the training and career paths of their graduates in order to exploit them for attracting new students. Then, there is the «GPS des carrières» or Career GPS that targets students and more or less experienced workers by making it possible to visualize in the form of a road map the educational and professional trajectories of students who have followed the same training as them. These two products each have their own targets but remain complementary.

### Type

A tool supporting school and career guidance.

### Competitive advantage

The advantage of this tool is to offer educational institutions precise information and statistics on the professional and educational background of their alumni to attract new students.

### Price

No information was found on this subject. The company does not appear to communicate openly on costs.

### Number of users

Humanroads is mainly anchored in the French market and claims to work with more than 70 schools.

### Stage of development

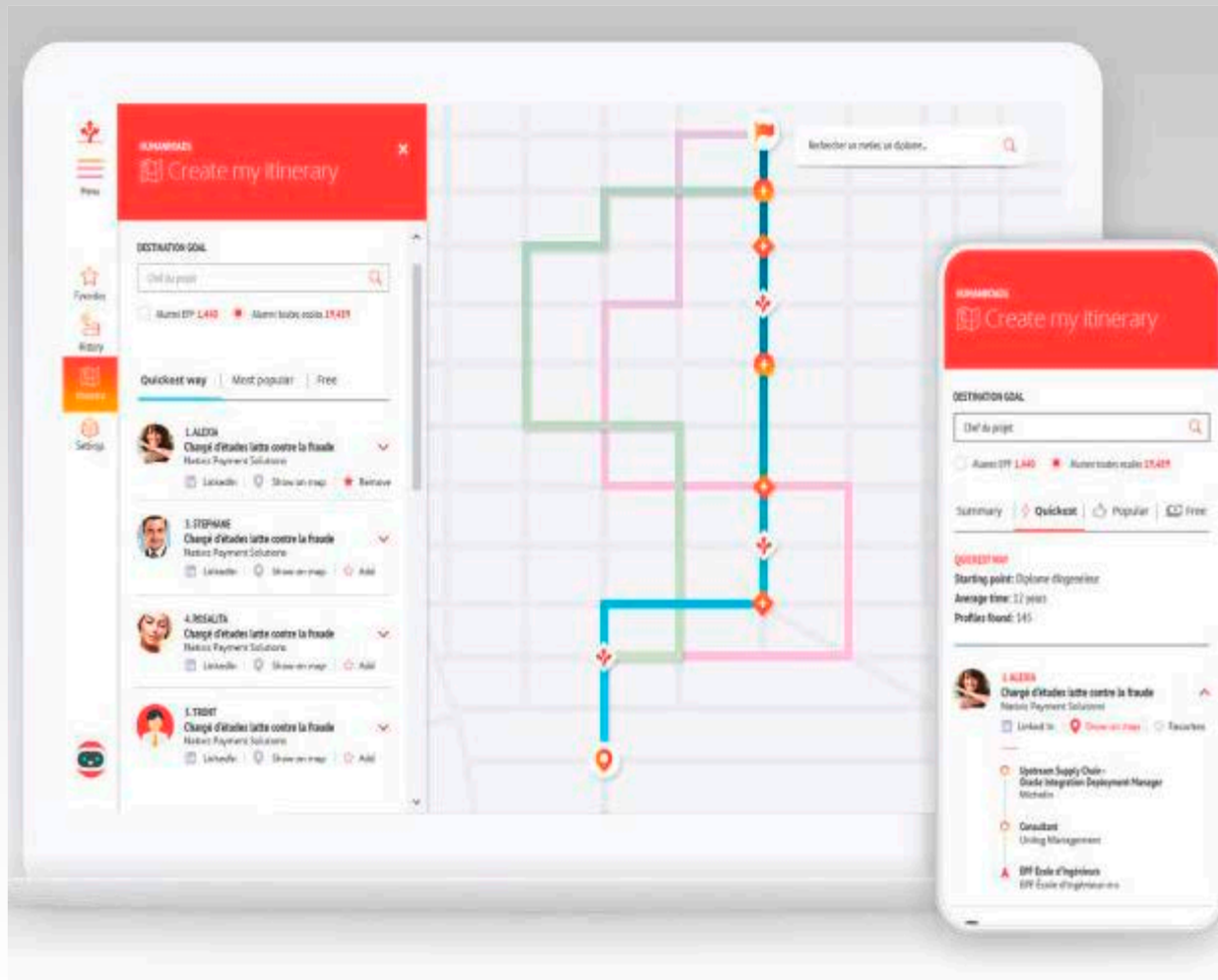
The start-up was founded in 2015. It raised CHF 2 million in December 2019 and aims to accelerate its technical and commercial development with a view to doubling its customer portfolio within 1 to 2 years. Humanroads employs 15 people and achieves revenues of CHF 531,000 and expects revenues of CHF 2 million and a team of 20 employees by 2021.

### Suitable for:

Secondary School  
University



Link <https://www.humanroads.com/>





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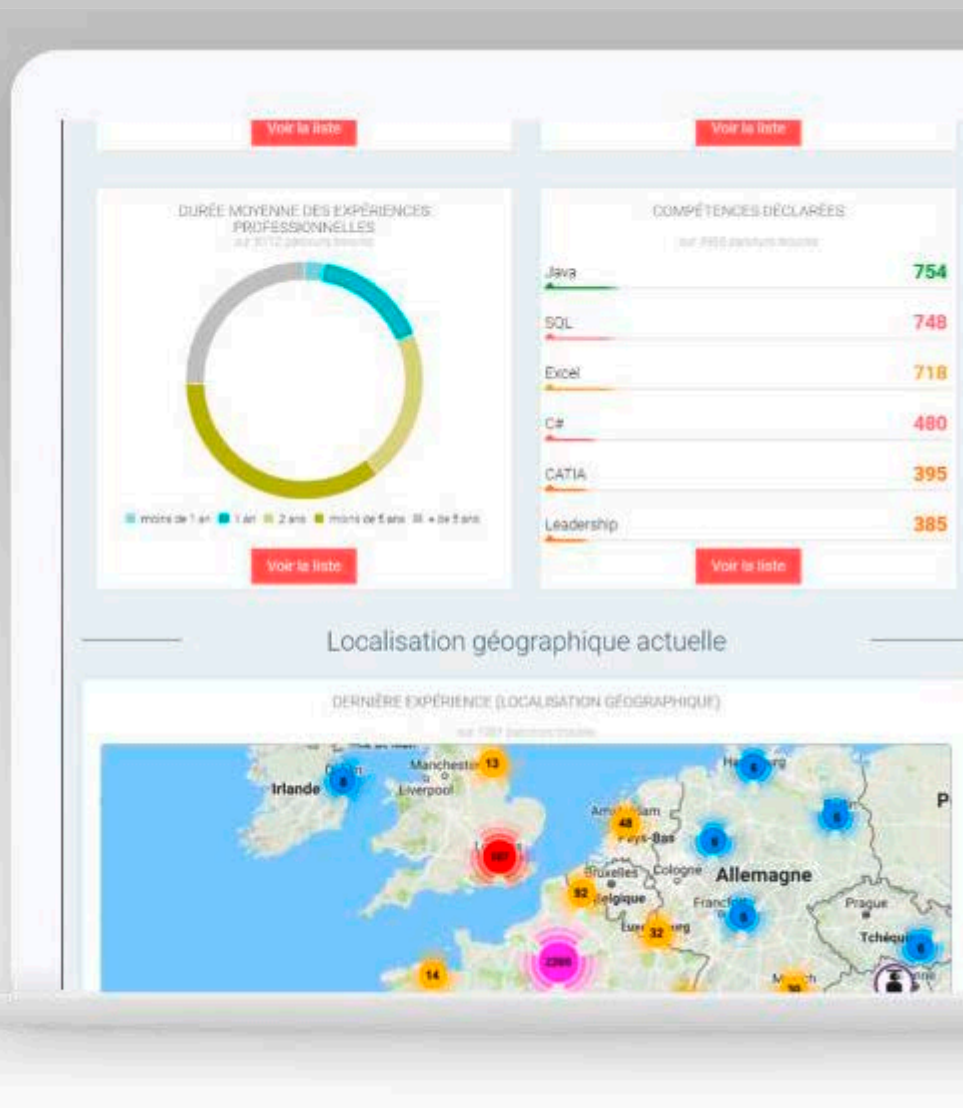
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## Humanroads: the GPS for educational and professional orientation



### Humanroads Analytics Advantages (educational institutions)

- The solution collects data of alumni's academic and professional careers.
- 40 key indicators make it possible to reconstitute the data collected by the solution (training followed after the passage of the institution, first job, geographical location, etc.).
- An internal search engine makes it possible to identify the best profiles according to the project.
- The data can be exported (excel, table, graph, pie chart...) in different formats in order to support the analysis of the collected data and to guarantee its intelligibility.

### «GPS des carrières» Advantages (étudiants et actifs)

- The solution collects data on the academic background of individuals who have followed the same training as a student.
- The «GPS des carrières» solution allows you to identify options for further studies, dual curriculum, continuing education, internships or work-study programs.
- Students can get in touch with the proposed profiles in a logic of networking, exchange of experiences and mentoring.
- The visualization of the collected data in the form of cartography has a real added value by facilitating their intelligibility and understanding by the student.



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# Humanroads: the GPS for educational and professional orientation

## Analysis of the offer

**Use data** on the **professional and academic backgrounds** of **alumni** to **guide and orient new students**. This is precisely what the start-up Humanroads offers through its two products **Humanroads Analytics** for educational institutions and the «GPS des carrières» for students and those active in the job market. Although the two products are aimed at **different targets**, **acquiring them both will enable an educational institution to strengthen its attractiveness in recruiting new students** for several reasons.

- **Humanroads Analytics**, which consists of obtaining statistical information on the professional and academic background of a school's alumni, will first of all make it possible to **provide precise and detailed studies and statistics** on the **opportunities offered by a training programme**, thus increasing its **attractiveness**. Traditionally, training presentations are limited to a **quick and broad description of the various professions or sectors most represented among alumni**. The use of Humanroads Analytics will make it possible to strengthen the recruitment of new students by, for example, highlighting the most outstanding successes of alumni or by mobilizing alumni working abroad to become ambassadors for the school.
- The creation of a **database of companies** in which the alumni of an institution have worked will make it possible to contact them for various reasons such as **partnerships**, **fundraising** for certain projects or the **funding of academic chairs**, or to provide current students with **internship, work-study or job offers**.
- The second solution, the «**GPS des carrières**», will enable educational institutions to **strengthen their services in the area of vocational and academic guidance of their students**, while facilitating the work of guidance counsellors. Students will be able to easily obtain information on the career paths of alumni who have completed their training. **Student-alumni mentoring** will also be possible via this platform and will strengthen the **attractiveness of an institution accompanying its students towards graduation and integration into the job market**.

Although the solution is attractive for schools for the reasons mentioned above, some limitations should be mentioned.

- A potential risk is the **standardization of student pathways and trajectories**, which can be **harmful to an educational institution**. The multiplication of academic backgrounds, profiles, specialities and expertise is often richer for multidisciplinary training. The **labour market** is also characterized by the **emergence of such a trend** where companies, faced with the current hyper-specialization of professions and functions, are **increasingly looking for generalist, multidisciplinary profiles** capable of adapting to a changing environment where certain professions will disappear while others do not yet exist.
- In this same logic of **homogenization of trajectories**, Humanroads solutions could potentially **curb the desires of students** in their professional and academic orientations by **strongly conditioning their choice by providing them with the alumni's background**. The student could possibly base his choice on the current function of an alumni without paradoxically taking into account his needs, desires and abilities. **This limit could be overcome by the action of the guidance counsellor** who could break the conditioning of the student's choice thanks to a personalized dialogue.





# EVOLUTION OF EDTECH BUSINESS MODELS

Prospective monitoring  
Septembre 2020  
by Geneva Intelligence





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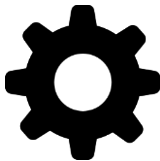
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## Summary of the September 2020 edition



Définition of  
Edtechs



Methodology



Trends Analysis



**BlaBla**, also known as the Tik Tok of Education, is a software application for teaching English using short and fun videos.



The **SMART Board** is an interactive digital board for projecting the content of a teacher's computer onto a board, making multiple interactions with the board possible.



**Arist** is a platform for creating and sending short lessons in a SMS format.



**Flipgrid** is a digital platform offering teachers the possibility to ask questions to pupils who will be able to answer through recorded videos.



**ISA** is a software that simplifies the organisation and management of school entrance exams.





## Definition of Edtechs:

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 training instead of physically attending classrooms. The "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 the possibility of offering a complete course. There are also educational robots that capture the attention of young people and accompany them in their learning.

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

Teachers and schools in general also benefit from these technologies that facilitate the transmission 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

# Definition of Prospective Monitoring



## Overview

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

## Methodology

An effective method is to conduct products 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 an educational institution to be 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 the business and technological trends.

**DISCOVER EDTECH TRENDS ANALYSIS**



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# Edtech Trends Analysis



According to a study by the International Telecommunication Union (ITU), the **Covid-19 pandemic interrupted classroom learning** for at least **9 out of 10 students** worldwide, representing more than **1.5 billion students in 191 countries**.

Schools have resorted to some forcibly the solutions and technologies proposed by Edtechs in order to **guarantee pedagogical continuity** and thus **maintain the transmission of knowledge and skills to students**.

One of the **underlying issues** of pedagogical continuity, and **one of the major concerns of teachers** during lockdowns, was to **maintain the same level of attention and commitment of the pupils as in the classroom**. The **diversification of teaching materials** was a way for the teaching staff to maintain their motivation by providing them with new educational "experiences".

The **FlipGrid** digital platform for example is part of this logic. It allows **teachers to ask questions online and pupils will answer them through home recorded video**. This application **stimulates students' creativity**, while **strengthening their critical thinking skills** and their **ability to argue and persuade**.

The **Blabla** application also offers a new educational experience for students by allowing them to **reinforce their English learning skills through the viewing of short, fun and entertaining videos** made by **native English speakers**. By placing students in **everyday situation**, this **Tik Tok of education** encourages students to perfect and work on their English.

In another logic, the **SMART Board**, an interactive digital board, also promotes student interest by **projecting the content of the teacher's computer onto a board**. However, this device requires the presence of the pupils in class.

With institutions now using Edtechs as an answer to the impact of the pandemic, these technologies are helpless when people do not have equal access to computers, computer competency or an Internet connexion. Globally **50% of students do not have a computer at home**, while **43% have no access to the Internet**. For those who do have a computer and the Internet, some of them do not have **exclusive use of it and have to share it with family members**.

For example, the Edtech **Arist** has tried to **partly address this issue** by allowing teachers to **send micro-courses by SMS directly to the students' or parents' mobile phones**. **56 million students** out of 1.5 billion **yet cannot use mobile phones to access information** because they are not served by mobile phone networks.

The **ISA** solution for its part **facilitates the organisation of oral exams** for a school by centralising in a single software all the information necessary for their smooth runnings. Again, this technology however does not offer alternatives for students who do not have access to the Internet or a smartphone.

Thus, the Covid-19 pandemic and the ensuing containment was a **large-scale experiment in digital solutions for educational purposes**. It highlighted the **strengths of such tools** in terms of **pedagogical continuity and maintaining the commitment of pupils**, while **pointing to their main limitation: the existence of a digital divide between students**. Taking this issue into account will be a **sine qua non condition** to guarantee the **sustainability of the integration and pedagogical use of Edtech solutions** by schools.

[Découvrir les tendances Edtech](#)



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# Edtech Trends



## Collaborative course learning platform and soft skills

Online platforms allow information to be transmitted and facilitate access and learning processes.

- The accessibility of knowledge is the main advantage of these technologies for teaching across different media. They enable remote learning at the appropriate time for the individual.
- These platforms foster collaborative relationships between teachers and students. They facilitate group activities and communication.
- They enable the monitoring of the evolution of learning and the implementation of pedagogical procedures.



## Artificial Intelligence and adaptive learning

Artificial intelligence (AI) in Edtech facilitates personalized learning. AI Edtechs learn themselves how to teach students better.

- AI helps to understand the individual's reasoning, to take into account his/her knowledge and the best ways for him/her to learn.
- This technology facilitates understanding by using the most appropriate techniques at the right moment.
- Teachers can use the analysis made by these tools to better understand students and their processes.





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# Edtech Trends



## Experiential learning platform

Edtechs link internship offers with teachers and students.

- These services provide a better understanding of the labor market and its opportunities.
- Students receive hands-on training and mentoring from experts.
- Companies can discover new talents. Students can discover the job market.



## Tools for creating, marking and evaluating exams, as well as reviewing papers with an anti-cheat system.

These Edtechs provide access to a secure platform in order to set up an evaluation procedure.

- They allow the creation of exams (MCQ, gap text, essay, graphs...) in all subjects, including tools for marking and grading.
- These platforms facilitate the monitoring of student results to visualise changes in grades per student and per class. These technologies are secure and prevent any cheating.



BCDiploma

TOP HAT

Revisely

testwe



## Game-based learning

By using fun and educational tools, Edtechs are using games as a way to facilitate learning and attract the attention of students of all ages.

- These technologies make it possible to reinvent learning methods by using neuroscience.
- They value collective interaction and intelligence as well as group experience and creativity.



elever

Kahoot!



PLAY2SPEAK



Kinems

SMART

merrise



## Language learning

Language learning is easier and faster.

- Edtechs measure the individual's pace of learning and adapt course content based on knowledge.
- These technologies are permanently accessible and enable more effective learning processes.



merrrise



BlaBla





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# Edtech Trends



## School Community Life

Edtechs promote the school community and the smooth running and functioning of the school.

- These technologies promote communication between teachers, students and parents.
- They facilitate administrative procedures such as tracking school records or absences.
- They highlight new pedagogical techniques to support students, for example, with awards.



Whaller



NEWSCHOOL



# satchel:



## Tools or solutions to improve the physical and psychological well-being of students and teachers.

These Edtechs have a significant impact on academic performance, teaching quality, pedagogical excellence and the school's overall reputation.

- These technologies allow the teacher's administrative work to be reduced as much as possible so that they can concentrate on teaching and on student's well being.
- These platforms aim to guarantee the physical and psychological integrity of the students.

## PocketCampus



equity maps®

idruide  
education

UNICHECK

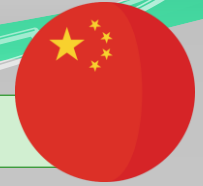


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DegreeAnalytics





## The Tik Tok of Education

Blabla is a Chinese application for teaching English using short and fun videos. The solution is compared to a «Tik Tok of education» by using the format of videos hosted on the social network, which is particularly appreciated by young people.

### Type

Tool promoting the acquisition of English language skills.

### Competitive advantage

The solution promotes an immersive learning experience by placing students in everyday situations through short, fun videos made by native English speakers.

### Price

The solution is based on a freemium model. Videos up to one minute are free of charge while video courses can be accessed for a price between USD 20 and USD 100.

### Users

No information is currently available on this subject. However, it should be noted that this software is intended for Chinese students and young adults (12 to 35 years old) wishing to improve their English. The company wishes to expand in 2021 in South Korea and other countries without mentioning them specifically.

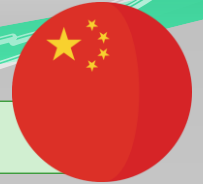
### Stage of development

The start-up was founded in 2019 by Angelo Huang who worked at Yahoo in the United States and launched several start-ups at the same time. Blabla has offices and research and development centres in China, the United States and Canada. The CEO says that without engaging in marketing campaigns, the company's growth rate is between 20 and 30%.

### Link

<https://www.blabla.app/>





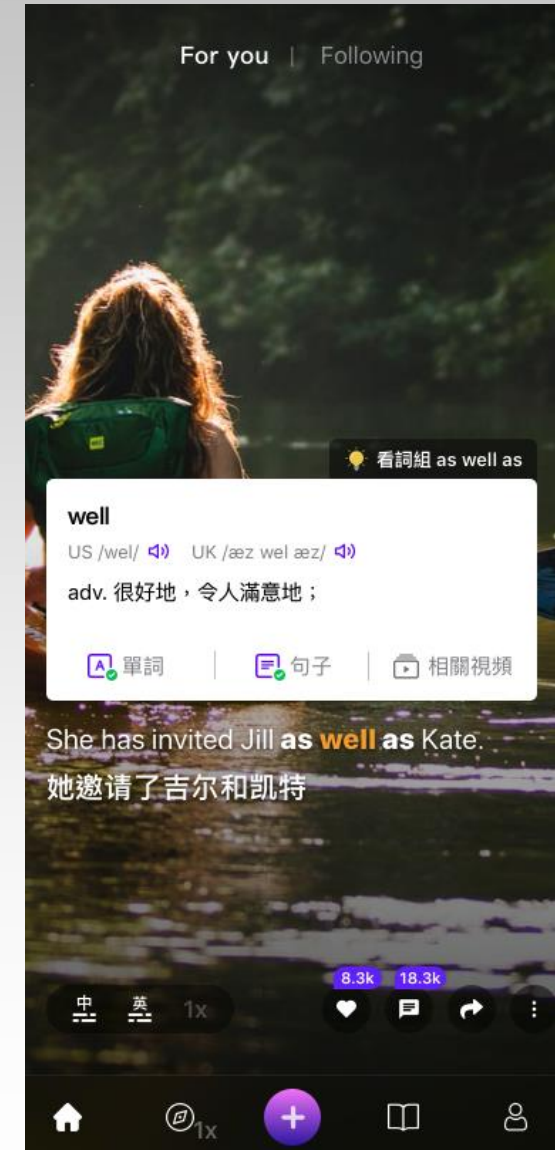
## The Tik Tok of Education

### Advantages

- The short and fun videos encourage student interest and engagement.
- Students are placed in normal everyday situations to encourage better learning of the English language and development of the lexical register.
- The videos are made by native English speakers from different countries to promote a good understanding of different accents and pronunciations (UK, USA, Australia, Canada...).
- 70% of the video makers are teachers or have professional experience in teaching.
- Teachers or video makers are paid for each viewing of their videos.
- The solution, thanks to an artificial intelligence module, is able to analyse the student's pronunciation, the fluency of his speech as well as the exhaustiveness of his vocabulary. A grading system allows the progress of the students.
- Artificial intelligence recommends videos according to the student's level of interest and progress, thus allowing a personalised learning.

### Suitable for:

Kindergarten	★	Primary School	★
Secondary School	★★★★	University	★★★★★





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SUIVANT



BlaBla



## The Tik Tok of Education

### Analysis of the offer

**52 minutes.** This is the **average time spent per day** by a user on **Tik Tok application** around the world. This was the insight that sparked Angelo Huang to develop a **platform aimed at young Chinese adults** who want to **improve their English** through **short and fun videos** using the same format that has made Tik Tok so successful.

### The solution has undeniable advantages:

- Blabla can be an **additional asset** in the teacher's toolbox of **teaching materials**. **Keeping the students' attention and commitment** is a **constant concern** for teachers and **diversifying the materials** can be one of the ways to achieve this. For example, Blabla can be beneficial for evening homework, where the student, after a day's study, will naturally be more inclined to **watch short and fun videos** than to analyse more complex materials.
- Blabla can also **transform the mobile phone**, traditionally seen as a **veritable scourge** for student learning, into a **powerful ally for teaching**. A school that uses this technology to promote learning **can be attractive and pedagogically innovative**.

### However, this solution has certain limitations:

- The main limitation is that Blabla does not offer students the **opportunity to make their own videos**. One of the determining factors in the success of Tik Tok is the possibility of creating videos. Blabla does not currently follow this approach and simply provides students with ready-made videos by native English speakers.
- Furthermore, an **excessively digitalisation** of teaching materials can be **badly perceived by some parents** who have been used to a **different teaching method**.
- Similarly, a teenager spends an average of **4.4 hours a day in front of a screen** (television, video games, computer, mobile phone). The **overexposure** of teenagers and children to **screens** is tending to become a **major public health issue** (addiction, vision problems, sleep disorders, etc.). Blabla will only make teenagers' daily screen time longer and could impact their health. Moreover parents will not be able to object to their children spending time on Blabla if the application is used at the request of the teacher or school.







## Arist: A course with character

Arist is a platform for creating and sending lessons in a reduced format of 1,200 characters to students' phones via SMS, What'sApp or Facebook Messenger..

### Type

Tool for creating courses and pedagogical content via messaging

### Competitive advantage

The solution allows teachers to create and deliver lessons in a concise format to students' mobile phones.

### Users

The start-up does not provide information about its users. However, it claims that *"some organisations and teachers are studying the platform in the United States"*.

Arist claims to work with some Fortune 500 companies such as DuPont or General Electric, training and personal development companies, NGOs and state structures such as the State of California.

### Price

Arist is based on a freemium model. The solution is free with reduced functionality for 10 students. Any additional student registration will cost USD 3 per student.

The full functionality is available for USD 99 per month. The registration of an additional student will then cost USD 1,5 per student.

Link <https://www.arist.co/>







## Arist: A course with character

### Advantages

- A web platform that allows a teacher to quickly and easily create a lesson limited to 1,200 characters (about 1/3 of a Microsoft Word page) which will be sent to students on their mobile phones.
- GIFs, images and short videos can be integrated into the course.
- Questions and multiple choice questions can be inserted at the end of the course to evaluate student understanding.
- A hyperlink can also direct students to additional online resources.
- Analytics are proposed to analyse the follow-up of the learner and the assimilation of the lessons sent.
- Students can choose the platform on which they wish to receive the course, i.e. What'sApp, Facebook Messenger or SMS.
- Arist provides teachers with a database of pre-existing courses.
- The start-up offers its tool as a white label. Arist can be integrated into the institution's learning management system.
- Data protection is a major concern for the company, which ensures compliance with the GDPR.



### Suitable for:

University



Secondary School





## Arist: A course with character

### Analysis of the offer

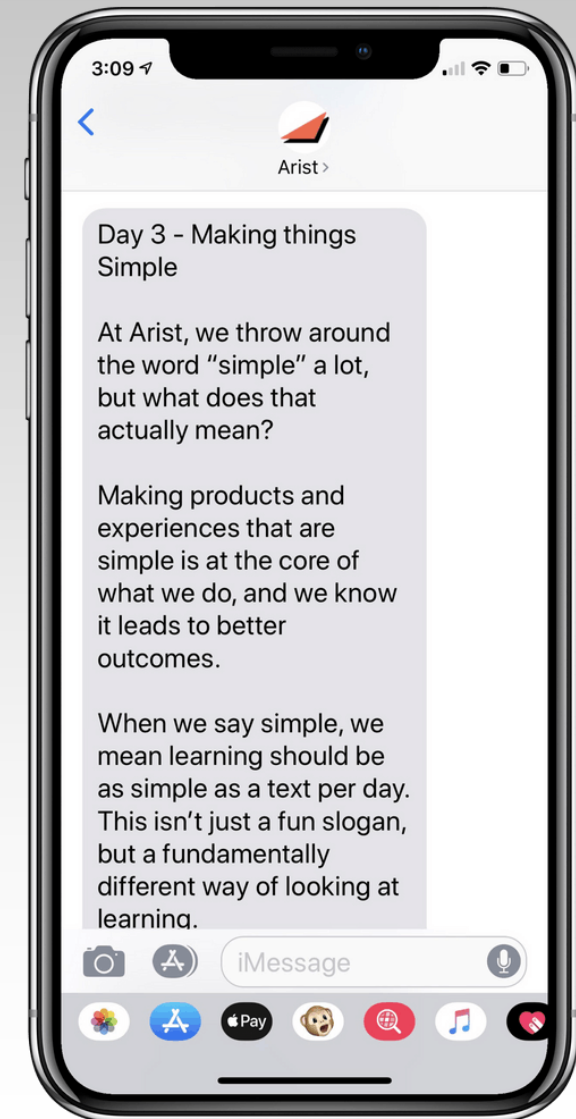
Arist is a software that allows teachers to **send micro-courses** directly to **students' mobile phones** via SMS, WhatsApp or Facebook Messenger.

#### The solution has undeniable advantages:

- Micro-courses sent directly to students' mobile phones via SMS or instant messaging **promote student interest, engagement and learning**. The fact that students find it easy to access a course and only take a few minutes to read it is particularly popular with them.
- The solution helps to **partially reduce the digital divide** inherent in every Edtech technology. According to the estimates of various studies, **2/3 of humanity has access to SMS**. In comparison, **over half of the world's has access to the Internet** (50%).
- Although its purpose is to send lessons by SMS, Arist can be **used for multiple other purposes** by a school and the teaching staff. **All important communications** can be carried out by this means, for example to achieve awareness campaigns, to broadcast safety alerts or to notify students of an event organised by the school.

#### However, this solution has certain limitations:

- The **main advantage of this solution**, sending lessons by SMS, **is also its main limitation**. Complex concepts and knowledge will be difficult to transmit by this means. Complex teaching cannot be taught via SMS. However, **campaigns of several text messages spread over several days** can be programmed to overcome this disadvantage.
- Because of its format, Arist is, in our opinion, more of a **solution intended to refresh the pedagogical content previously acquired by the student** rather than a **tool favouring the acquisition of new knowledge** by the student.
- As mentioned before, **the digital divide issue** is **partly solved by** sending lessons by SMS. However, given the **concise format** of 1,200 characters, the **teacher will be strongly inclined to propose additional resources via hyperlinks or to multiply messages**. The provision of such online resources de facto **re-establishes a digital divide and inequality** between **pupils with a good Internet connection** and advanced electronic and computer equipment and those for whom this is not the case.





## Flipgrid: Convincing on video

Flipgrid is a digital platform offered by Microsoft that allows students to answer teachers' questions by sending recorded videos. Each student can view and answer the videos posted by their peers.

### Type

Communication support tool.

### Competitive advantage

The main advantage of this solution, beyond being free, is that it stimulates students' creativity, while strengthening their critical thinking skills and their ability to argue and persuade.

### Stage of development

Flipgrid was founded in 2015 in Minneapolis, USA. The solution was acquired by Microsoft in 2018 for an amount that has not been made public.

### Users

At the time of the takeover by the American IT giant, Flipgrid had more than 20 million users worldwide.

### Price

Microsoft has completely overturned the platform's business model by offering it free of charge to its users. Before the acquisition, the solution could cost up to USD 1,000 per school per year.

**Link** <https://info.flipgrid.com/>





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Flipgrid



## Flipgrid: Convincing on video

### Advantages

- Flipgrid does not limit quantitatively the questions or topics asked to students, as well as their answers on video.
- Teachers can, if they wish, approve students' videos before sharing them and moderate their comments.
- A feedback option allows the teacher to privately offer students comments or suggestions regarding their performance.
- Several teachers can be appointed as administrators, to moderate debates.
- Students can like the videos of their classmates.
- Filters and stickers are offered by the platform if students do not wish to show their faces.
- External attachments can be posted with the video.
- Students do not need to create an account to access this service. A simple code given by the teacher allows access to the platform.
- The application is available on all major operating systems including iOS, Android and Windows 10 allowing students to register from most devices with a camera.



### Suitable for:

Kindergarten



Primary School



Secondary School



University







## Flipgrid: Convincing on video

### Analysis of the offer

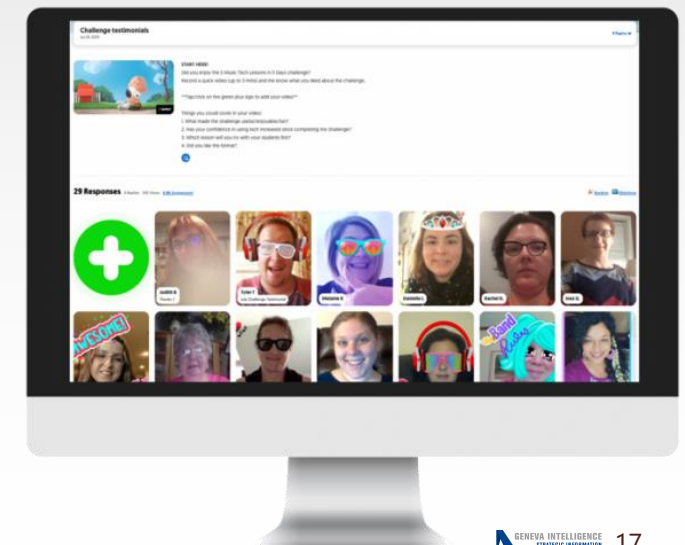
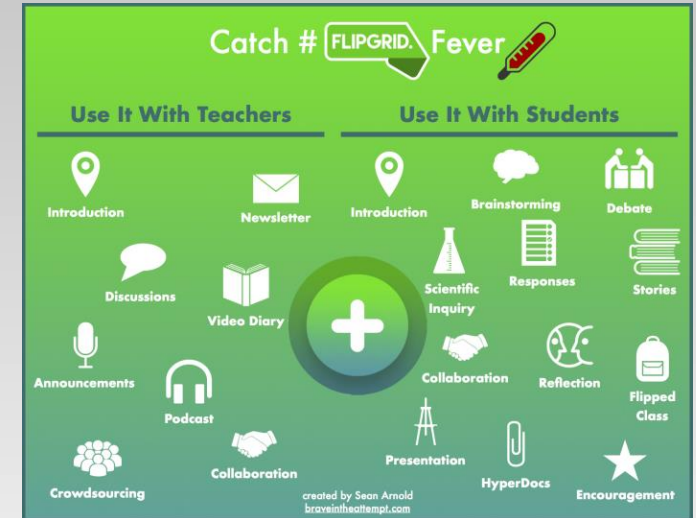
Flipgrid is a **digital platform** that allows students and teachers **to exchange and debate via short videos** on educational topics.

#### The solution has undeniable advantages:

- Flipgrid develops students' **communication skills** that will be essential for their further studies and professional life. This include critical thinking, the **ability to develop and structure an argument**, the use of **rhetorical techniques** to convince or persuade fellow students on a subject.
- The platform was mainly designed to share and debate ideas. However, **many teachers use it for other purposes**. Help with homework, communication with parents, class cohesion, presentations, poetry recitations, **this solution can be used for many different activities**.
- The solution also encourages students who are **shy or uncomfortable speaking in public to express themselves**. By making videos from **a secure environment at home**, these students will find it easier to speak out. However, the format and recording of videos can block some people. The developer of the tool has provided for this purpose numerous **filters and pictures** that students can put on their face in order to hide it videos.
- In addition, students can involve their parents in their learning by sharing with them their videos.

#### However, the solution has certain limitations:

- Flipgrid **does not help to bridge the digital divide**. Not all learners have the same electronic equipment and similar cameras, which can have a **significant impact on the quality of videos** and therefore ultimately on the **well reception by peers of the transmitted message**.
- **Communicating in front of a camera versus in front of people are radically different**. Flipgrid will allow students to acquire communication skills which must however be put into practice through speaking exercises in the presence of real interlocutors.
- In order to **maintain a serene and pedagogical environment within the platform**, teachers must be able to **moderate comments and videos posted** on Flipgrid. This moderation can be relatively **time-consuming** even if the solution allows the **presence of several teachers to administer and manage** the debates taking place.







## SMART Board: End of playtime for the blackboard

The SMART Board is an interactive digital board (also known as an interactive whiteboard or interactive teaching board) that allows teachers to project content from their computer on a board, thus making it possible to interact with the board in multiple ways.

### Type

Tool designed to promote the acquisition of knowledge.

### Competitive advantage

The tool is designed to encourage interactivity between the teacher and students in order to maintain their attention and commitment.

### Price

Different types of SMART Boards exist with related budgets. For the purposes of this study, the SMART Board 7000 series was chosen. Depending on the options retained, this interactive board varies between CHF 8'000 and CHF 13'000.

### Users

The SMART Board was designed by SMART, a company specialising in learning technologies. The company claims to equip more than 3 million classrooms worldwide with its products.

### Stage of development

SMART was founded in 1987 and marketed its first SMART Board in 1991.

The company has a market share of over 30% in the education market and 75% in the corporate market, making it the world leader in interactive and collaborative solutions.

Over the last 5 years, the company has received more than 20 awards worldwide for its various technologies.

Link <https://www.smarttech.com/>





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SMART®



## SMART Board: End of playtime for the blackboard

### Advantages

- 16 interactions are available on the board (write, move, change colour, underline, frame...).
- The SMART Ink software offered with the board allows teachers to annotate videos, websites, PDF files and any Microsoft Office file.
- The content projected on the board can be edited using pens, eraser or even by hand.
- Several students can work on the board at the same time.
- Any content created and edited can be saved and shared with all students.
- Devices with Mac, Windows and Android operating systems can be connected to the interactive whiteboard without installing software or connecting cables to project content (via Wifi or Bluetooth).
- The digital image format used by the board is 4K, allowing ultra high definition images and videos to be displayed.
- According to the manufacturer, the life of the LED lamps is estimated at 50,000 hours, thus guaranteeing a long product life.



### Suitable for:

Kindergarten



Primary School



Secondary School



University





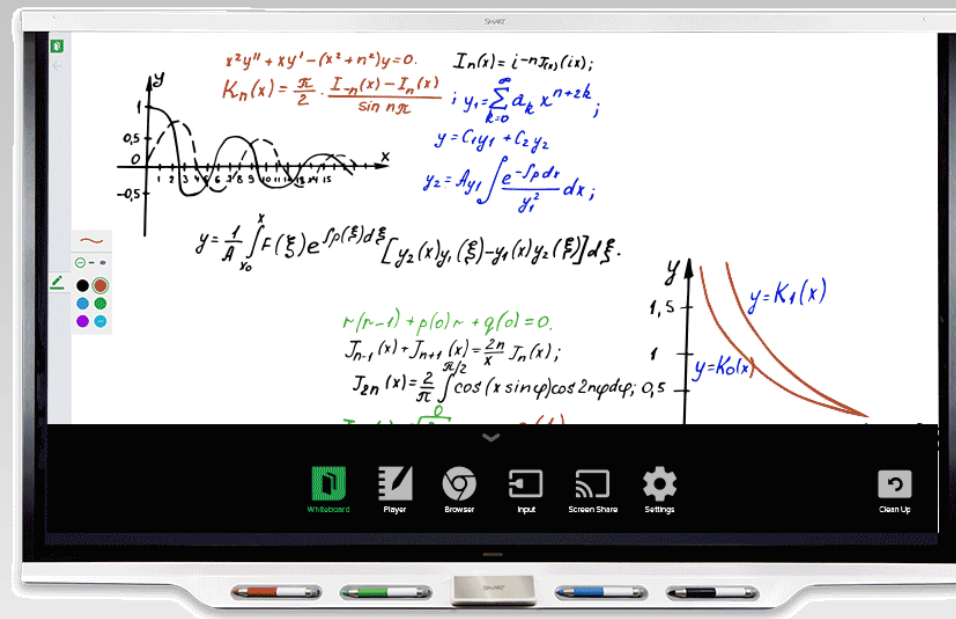
## SMART Board: End of playtime for the blackboard

### Analysis of the offer

SMART Board is the evolution of the old blackboard. The SMART Board solution allows teachers to project content from their computer onto a digital board for annotation during class.

This solution has undeniable advantages:

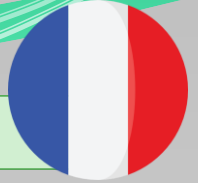
- The main advantage of this solution is that **it simplifies and bridges content between the board and the teachers computers.**
- The **multiplication of teaching materials** offered by the solution is also attractive, particularly with regard to **the resources available on the Internet**. Teachers will be able to use the **Internet** as a teaching tool, for example by commenting, correcting and annotating live a Wikipedia page presenting erroneous or false information.
- The digital board will also allow teachers to **optimise their teaching period**. For example, waiting for all students to turn to the correct page during a lesson is valuable time wasted.
- The **collaborative and collective dimension** offered by the digital board is also interesting. Several learners can **work simultaneously on the board**, making it easier to organise group work.
- The digital board also makes it possible to **store and record all the annotations made on the materials**. This feature is particularly practical compared to a traditional board. The pupils had to copy the board or take pictures of it in order to be able to keep the information. The digital board now makes it possible to **save all the written and annotated materials and to share it with the whole class if necessary**. In this respect, it can act as a **"memory" for the class** and allow **those who are late or absent** to easily catch up on their lessons.
- The SMART Board also makes it possible to make students **aware of the new information and communication technologies from a very early age** and to **initiate their computer learning** through the various manipulations and interactions offered by this type of board.



However, the SMART Board has a number of limitations.

- As mentioned before, the solution **saves time for teachers once the solution is installed and implemented**. The implementation of such a system requires **rethinking and restructuring lessons** in order to encourage student interactivity and to optimise the pedagogical use of this tool. In the same logic, teachers and students must **take ownership and master the tool**, which requires a **significant investment on their part** before the board can be used in the best possible way.
- As stated in the Edtech Blabla study, **increased exposure of students to screens is not necessarily beneficial to their health**. Furthermore, **too intensive use of the digital board** would lead to a **loss of attraction and curiosity** among students due to its **trivialisation**. In this respect, the digital board can be used as a **complement to traditional materials** such as photocopying, textbooks, traditional boards or even a simple rear projector.





## ISA: smooth oral exams

Innovative Student Admission (ISA) is a solution that simplifies the organisation and management of school entrance exams. Within a single app, the organisation of the examiners schedule, room reservations, reception of candidates and management of marks are all carried out. The platform thus saves time in the planning, running and management of oral exams.



### Type

Tool facilitating the organisation of oral exams.

### Competitive advantage

The solution saves time in the management of oral exams.

### Price

No information is currently available on this subject.

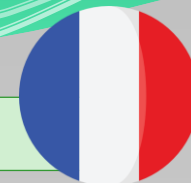
### Users

The company claims to have as clients the Montpellier Business School, where its product has been developed, the EM Normandie Business School and the Strasbourg School of Management. The ISA solution thus appears to be calibrated primarily for business schools, although the company claims that its solution is adaptable to any academic structure.

### Stage of development

ISA is a solution developed by Avizzeo, a consulting and IT services company based in Montpellier, France, specialised in business intelligence and data analysis. The company has 16 employees, 7 of them are actively involved in the development of the ISA product.

**Link** <https://www.isadmission.com/>



## ISA: smooth oral exams

### Advantages

- The solution is designed and adapted for each party involved in an oral exam, i.e. examiners, professors, candidates and examination managers.
- Each type of user has access to its own interface within the platform.
- The different users can enter their availability for the examination.
- Logistical requirements can be specified (accommodation, transport, video projector, digital screen...).
- Statistics and analytics are available for teachers and juries (grades, number of exams carried out...).
- The teachers can fill in the marks for candidates to view them.
- Examination supervisors can manage the exams from the application (type of competition, timetables, languages, rooms, tests, coefficients, marking grid...).
- The data entered in the platform can be easily exported.
- The data collected is secure and easily accessible by the institution.
- The platform is available on computer, tablet and smartphone.

Accueil / Choix des dates

Bonjour,

Je vous remercie de votre participation pour nous aider à recruter la promotion 2019.  
Je vous invite à sélectionner ci-dessous toutes les dates auxquelles vous serez disponible.

Dans l'attente du plaisir de vous accueillir pour ce moment particulier d'échange avec les futurs jeunes managers et les équipes de ISA Business School.

Bien cordialement,  
L'équipe Admission

Rechercher :

<input type="checkbox"/> Date	Centre oral	Jury pour	Langue	Matin	Repas	Après-midi
<input type="checkbox"/> Tous	<input type="checkbox"/> Tous	<input type="checkbox"/> Tous	<input type="checkbox"/> Tous			
<input type="checkbox"/> lundi 27 mai 2019	Montpellier	Passerelle 2019	Anglais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> mardi 28 mai 2019	Montpellier	Passerelle 2019	Anglais	<input type="checkbox"/>	<input type="checkbox"/>	non ouvert
<input type="checkbox"/> mercredi 29 mai 2019	Montpellier	Passerelle 2019	Anglais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> vendredi 31 mai 2019	Montpellier	Passerelle 2019	Anglais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> samedi 1 juin 2019	Montpellier	Passerelle 2019	Anglais	<input type="checkbox"/>	<input type="checkbox"/>	non ouvert

Enregistrer mes dates

### Suitable for:

Kindergarten



Primary School



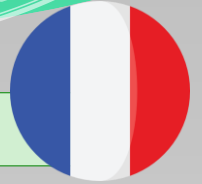
Secondary School



University







## ISA: smooth oral exams

### Analysis of the offer

The ISA solution has been designed to **facilitate the organisation and management of oral exams** by centralising all the information necessary for their smooth running in a single app.

#### This solution has undeniable advantages:

- The **dematerialisation of the administrative tasks** assigned to teachers and jury members (filling in notes manually, reading the candidate's file...) saves them a **considerable amount of time**, allowing them to **devote more time to evaluating candidates**.
- ISA, by promoting a good organisation and management of exams, enables schools to **improve the quality of the welcome reserved for students taking an examination**. Before their exams, candidates are under a lot of pressure. Any initiative that **reduces this pressure or does not reinforce it through administrative concerns** (place, time, examination room...) will be positively received by the students. Taking into account the needs of the student will **strengthen the reputation of the school that takes care of its candidates**. An establishment neglecting its candidates during the competition will neglect its students once they have been integrated into the students' minds.
- The **dematerialisation of administrative tasks** is a **direct source of paper savings**. The school can integrate this into **its corporate social responsibility policy (CSR)** in a context where this **kind of initiative is particularly valued**.

#### However, this app has certain limitations:

- First of all, the app **does not host a videoconferencing system** or allow the integration of such a solution. In the Covid-19 period, **this absence is problematic** since a third party solution must be adopted to ensure an examination. This **questions the main attraction of ISA, which is a unique platform** for managing exams.
- Furthermore, the app can facilitate a **digital divide**, creating a de facto **potential inequality** among pupils who can easily connect to the Internet and benefit from school information and those for **whom connecting to the Internet is more complicated**.
- Finally, some teachers and jurors are **reluctant to use digital tools and adopt such technology** despite ISA's efforts to provide an **intuitive and easy-to-use platform**. It should be noted, however, that the IT service provider states on its corporate website that the solution must be deployed "**well in advance of the exams in order to carry out the settings serenely and take the time to familiarise with the new tool**".





# EVOLUTION OF EDTECH BUSINESS MODELS

Prospective monitoring  
December 2020  
by Geneva Intelligence



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## Summary of the December 2020 edition



### Definition of Edtechs



### Methodology



### Trends Analysis



**Tandem** is an application for linguistic and cultural exchange between members of a community teaching their mother tongue.



**Onzic** is an application that allows students to revise their exams by listening to rap music. The solution transforms the traditional revision sheets into songs.



**Wonder** is a videoconferencing tool for creating and customising a virtual conference room for interactive presentations in plenary or small groups.



**Bottled** is an application that allows students to broaden their social circle and network while developing their foreign language skills by throwing a bottle into the sea.



**M-Shule** is a platform that uses artificial intelligence to create personalised learning programmes to be sent to students via text messages.



## Definition of Edtechs:

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 training instead of physically attending classrooms. The "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 the possibility of offering a complete course. There are also educational robots that capture the attention of young people and accompany them in their learning.

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

Teachers and schools in general also benefit from these technologies that facilitate the transmission 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



# Definition of Prospective Monitoring



## Overview

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

## Methodology

An effective method is to conduct products 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 an educational institution to be 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 the business and technological trends.

**DISCOVER EDTECH TRENDS ANALYSIS**





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# Edtech Trends Analysis



Lausanne train station, on a cold winter day. Léon quickly climbs into the overheated Inter Regio 90 train at 07:47 am, which is to take him to Geneva, where his school is located, for his last day of school in 2020.

While the train is slow to start and the few passengers grumble while frantically consulting their watches, Léon, AirPods fitted in his ears, revises his lessons through rap songs. Thanks to the **Onzic** application, which puts his revision sheets into rap songs, young Léon rediscovers the key dates of the Cold War, notably Stalin's death in 1953 and the subsequent « Détente », on a devastating flow of an independent rapper. While humming, Léon recalls his teacher, Albus, telling his class that using rhymes and choruses in song was a good mnemonic technique to retain information.

The lake and the Western Switzerland's towns parading before his eyes, Renens, Morges, Allaman, Rolle, Léon remembers how special this year 2020 was. The Coronavirus, or the Covid-19 (you could say both), had a significant impact on his much-loved daily routine. Closure of the secondary school in March 2020 and home schooling. A verdict that cannot be appealed. No more special moments with his friends between classes.

Léon's school has not remained idle and has done everything possible to maintain pedagogical continuity during the multiple confinements. Alternative solutions thanks to Edtechs, the technological innovations in teaching, have been proposed by the establishment in order to maintain distance and collaborative teaching between teachers and students. The school's measures also aimed to ensure Léon and his classmates stayed committed in their, at the risk of losing interest because of too many Zoom video calls or the distraction of a video game console like a PS5 for the lucky ones.

For example, Léon particularly appreciated a recommendation from Albus who invited his class to practise a foreign language thanks to the **Tandem** application which connects individuals wishing to discuss and learn with native speakers. He thus had the opportunity to exchange with John, a music lover like himself, from Houston, Texas, and improve his level of English while discovering beautiful country songs and song writers, such as Sheryl Crow.

DISCOVER EDTECH TRENDS ANALYSIS



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# Edtech Trends Analysis



Léon was sceptical at the beginning, however, when another of his teachers, Minerva, explained to him the principle of **Bottled**, an application that digitises the timeless practice of throwing a bottle into the sea in order to be able to exchange with an unknown correspondent. Léon nevertheless applied himself to Minerva's work by writing a message inviting a stranger of the same age to exchange with him via this application, after registration and identity verification. That's how he got the chance to exchange in English with Matilda, a Dutch girl who particularly loves chocolate, watches and other Swiss specialities. Matilda told him everything about the Dutch monarchy and its illustrious representative, the king Willem Alexander, another of Léon's passions, which he keeps, it is true, hidden from his classmates.

Léon recalls with delight when he had to present to the whole class the exchanges he had on Tandem and Bottled with John and Matilda. To do this, teachers Albus and Minerva had used the Wonder app as a tool for the pupils to present. Unlike traditional videoconferencing software, Wonder offers the opportunity to create a virtual conference room designed to host interactive presentations in small groups. Léon thus moved from presentation to presentation within the same virtual meeting structured by the teachers on 3 themes: "Feedback in English of his experience on Tandem", "Help on writing your letter on Bottled", and "How to stay engaged with school during confinement".

Léon was therefore able to explain to his classmates on **Wonder** some insight he gained from speaking to Matilda on schooling during the Covid-19 period. Matilda reminded him that the digital divide and the inequality of students in terms of computer equipment were a major obstacle to the relevance and deployment of digital solutions in the classroom. According to her, a potential hypothesis to overcome this problem would be to adopt low-tech technologies which are simple, practical, economical and popular. She took as an example the **M-Shule** solution which uses artificial intelligence to create personalised learning programmes sent to pupils by text messages, which are more easily accessible without an Internet connection.

Thanks to Wonder, Léon is very proud to have dared to engage with classmates. It is easier for him to overcome his shyness from a distance and in small groups. Since then, it seems that teachers Albus and Minerva have been considering this application to improve their pedagogical efforts and the academic results of all the students.

The voice of the SBB controller, announcing the arrival of the train at Cornavin station, on track 3, with the descent to the left in the direction of travel, drew Léon out of this sweet memory to bring him back very quickly into the grey and biting cold of Geneva. As he left the station platform, Léon was delighted to discover what innovations Albus and Minerva found to create new educational experiences and make the school day even more fun and interactive!

**DISCOVER EDTECH TRENDS**



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# Edtech Trends



## Collaborative course learning platform and soft skills

Online platforms allow information to be transmitted and facilitate access and learning processes.

- The accessibility of knowledge is the main advantage of these technologies for teaching across different media. They enable remote learning at the appropriate time for the individual.
- These platforms foster collaborative relationships between teachers and students. They facilitate group activities and communication.
- They enable the monitoring of the evolution of learning and the implementation of pedagogical procedures.



## Artificial Intelligence and adaptative learning

Artificial intelligence (AI) in Edtech facilitates personalized learning. AI Edtechs learn themselves how to teach students better.

- AI helps to understand the individual's reasoning, to take into account his/her knowledge and the best ways for him/her to learn.
- This technology facilitates understanding by using the most appropriate techniques at the right moment.
- Teachers can use the analysis made by these tools to better understand students and their processes.





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# Edtech Trends



## Experiential learning platform

Edtechs link internship offers with teachers and students.

- These services provide a better understanding of the labor market and its opportunities.
- Students receive hands-on training and mentoring from experts.
- Companies can discover new talents. Students can discover the job market.



Edmodo



STEF BERNARD



Graduway



## Game-based learning

By using fun and educational tools, Edtechs are using games as a way to facilitate learning and attract the attention of students of all ages.

- These technologies make it possible to reinvent learning methods by using neuroscience.
- They value collective interaction and intelligence as well as group experience and creativity.



elever

Kahoot!



Kinems

SMART

PLAY2SPEAK



memrise



## Tools for creating, marking and evaluating exams, as well as reviewing papers with an anti-cheat system.

These Edtechs provide access to a secure platform in order to set up an evaluation procedure.

- They allow the creation of exams (MCQ, gap text, essay, graphs...) in all subjects, including tools for marking and grading.
- These platforms facilitate the monitoring of student results to visualise changes in grades per student and per class. These technologies are secure and prevent any cheating.



BCDiploma

TOP HAT

Revisely

testwe



## Language learning

Language learning is easier and faster.

- Edtechs measure the individual's pace of learning and adapt course content based on knowledge.
- These technologies are permanently accessible and enable more effective learning processes.



memrise



BlaBla



tandem





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# Edtech Trends



## School Community Life

Edtechs promote the school community and the smooth running and functioning of the school.

- These technologies promote communication between teachers, students and parents.
- They facilitate administrative procedures such as tracking school records or absences.
- They highlight new pedagogical techniques to support students, for example, with awards.



# satchel:



## Tools or solutions to improve the physical and psychological well-being of students and teachers.

These Edtechs have a significant impact on academic performance, teaching quality, pedagogical excellence and the school's overall reputation.

- These technologies allow the teacher's administrative work to be reduced as much as possible so that they can concentrate on teaching and on student's well being.
- These platforms aim to guarantee the physical and psychological integrity of the students.

## PocketCampus



## Flipgrid





## Tandem: learning a language by chatting

Tandem is an application that connects individuals who wish to learn a foreign language. Community members form partnerships to teach each other their mother tongue through text, audio or video content.

### Type

Tool promoting the acquisition and mastery of foreign languages.

### Competitive advantage

The solution promotes language learning through linguistic and cultural exchanges between members of a community teaching their mother tongue.

### Price

The solution is based on a freemium model. The main functionalities are available free of charge. Taking advantage of all of them requires a monthly fee of between CHF 4.59 and CHF 11, depending on the duration of the subscription.

### Users

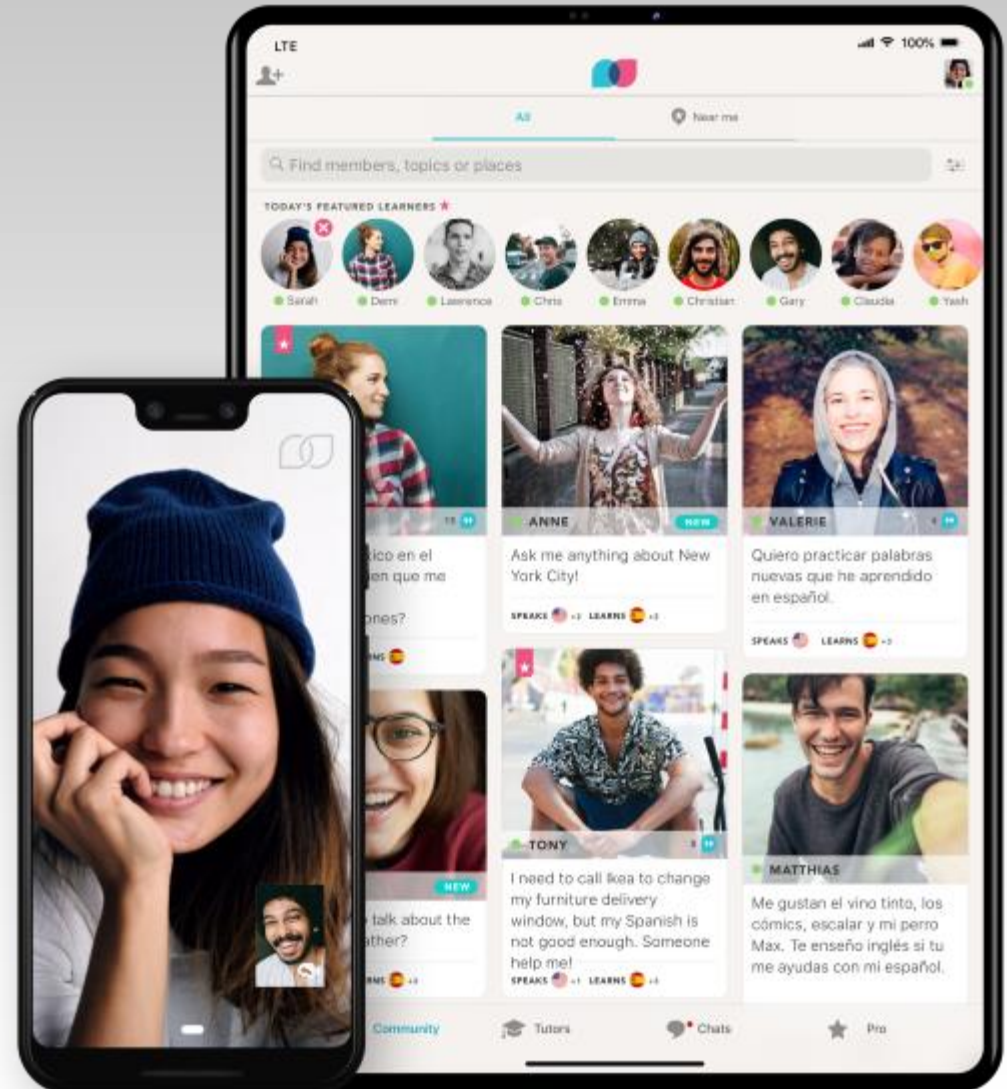
The start-up claims more than 10 million users in 180 countries. 300 languages are available, including 20 different sign languages, 20 indigenous languages, 6 fictional languages such as Mandalorian (Star Wars) and 5 constructed languages such as Esperanto.

80% of the users are aged between 17 and 35 years old and 60% of the members are women.

### Stage of development

The start-up, based in Berlin, Germany, was founded in 2015. Tandem has 24 employees speaking a total of more than 20 languages. At the beginning of 2017, Tandem's main markets were the USA, China, Brazil, Italy and Mexico

**Link** <https://www.tandem.net/fr>





## Tandem: learning a language by chatting

### Advantages

- Tandem members can exchange with native speakers.
- Various filters are used to identify the ideal language partner (language to be spoken, level of practice, topics of discussion, geographical location, age, gender...). Please note that all filters are not available in the free version.
- Users can exchange written, audio and video messages.
- More than 300 languages are available on the application.
- A great deal of effort is made by the solution's designers to create a secure environment for language learning. As such, members can receive referrals from their counterparts.
- Any misconduct by a user (insult, flirting, spam...) will result in banishment from the community.
- A correction module within the platform makes it possible to correct messages sent between language partners.
- An automatic translation module is also available within Tandem but is limited to a certain number of translations in the free version.
- Certified language tutors and instructors offer personalised video-conferencing courses for a fee. The platform receives a commission on these courses but lets members set the price.

### Suitable for:

Kindergarten	★	Primary School	★
Secondary School	★★★★	University	★★★★★





# Tandem: learning a language by chatting

## Analysis of the offer

The Tandem application aims to **connect and match strangers so that they can practice languages they wish to learn**. The solution digitises traditional language tandems, making it easier to practice a language with native speakers all over the world.

### The solution has undeniable advantages:

- The use of Tandem will enable students to discuss with native speakers and assimilate the idiomatic expressions specific to certain languages as well as adopting a less academic or even slang language, useful in everyday life. In this respect, Tandem represents an **additional tool for teachers**, together with the traditional films, series and dictionaries of everyday life to make students aware of the nuances of the language in terms of grammar, syntax, vocabulary and pronunciation.
- Using this solution will also allow teachers to develop the intercultural sensitivity of students. Exchanging on a daily basis with a person from a different culture is a **practical way for teachers to help students develop their ability to understand different cultures**, a skill that is increasingly sought after on the job market. Although theoretical knowledge is important, the application of intercultural management knowledge represents a real added value in teaching students.
- Tandem also enables teachers to **strengthen the autonomy of students in their learning and thus their commitment to the acquisition of a foreign language**. It is relatively difficult for students to practise a foreign language without speaking directly with a fluent speaker. Practising a foreign language is traditionally done in pairs during class and in a nameless cacophony. By recommending Tandem, teachers are able to offer their students the opportunity to practise a foreign language from home and to optimise the time of oral practice of the language during classes.
- Advising Tandem to their pupils will enable teachers to provide them with a **safe and protective environment for language learning**. Any inappropriate behaviour leads to banishment from the community. Registration to the platform is not automatic and joining the community can take up to 7 days, with the profiles of new entrants being checked. Moreover, students can practise a foreign language without fear of being judged by their peers during classes.

### However, the solution has certain limitations:

- Recommending Tandem to students would potentially **prevent the creation of a tandem in real life and restrict the possibility for them to develop their social circle**. Similar to social networks, if students have the opportunity to have several digital tandems, they will not be inclined to build linguistic relationships in real life, which can be damaging.
- **The platform's safety remains relative**. Indeed, it is possible to speed up registration, which becomes automatic, and the possibility to access the solution if a paying subscription is taken out. Teachers must be able to make students aware of the potential dangers of meeting people, even on the Internet. In addition, teachers are strongly advised to provide a procedure in case of inappropriate exchanges and to encourage parents to supervise their children's exchanges.







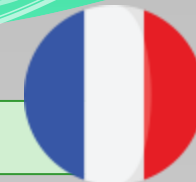
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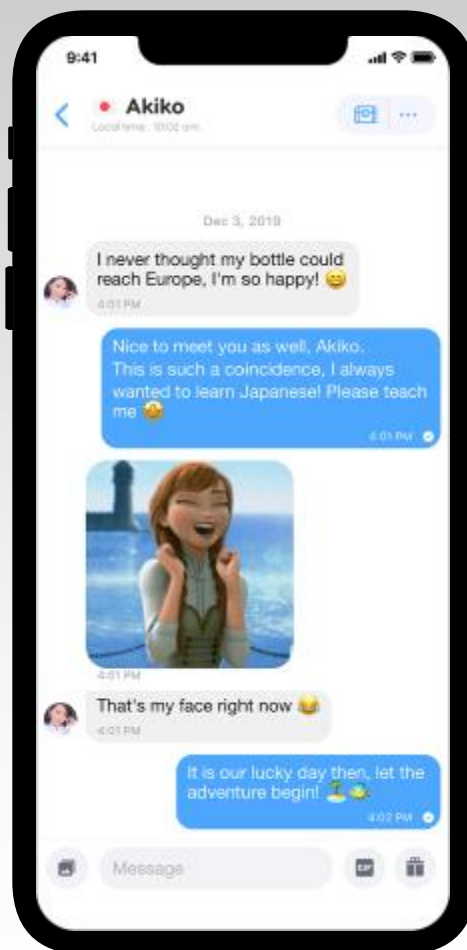
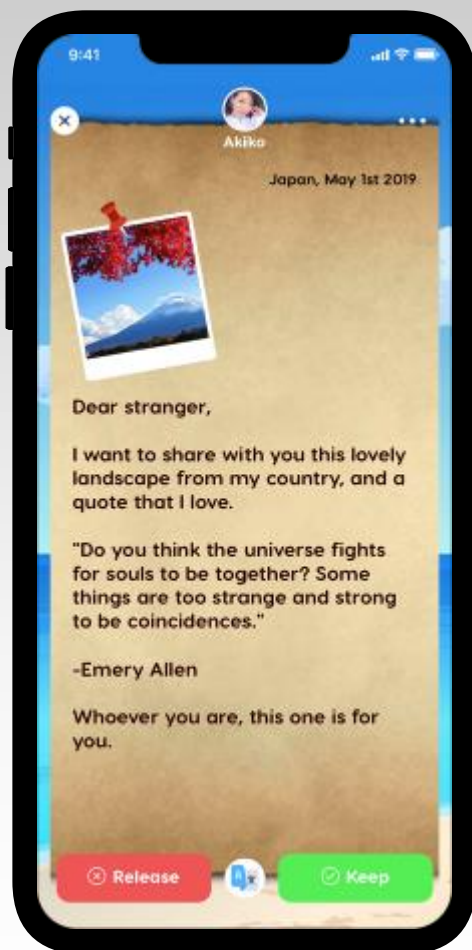


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## Bottled: Finding a pen pal by throwing a bottle into the sea

Bottled is an application that digitizes the timeless practice of throwing a message in a bottle into the sea. The application allows students to discover new people, identify their school correspondent, improve their language level or simply share their ideas by exchanging with strangers from all over the world.



### Type

Tool facilitating the acquisition and mastery of a foreign language and another culture.

### Competitive advantage

To widen the pupils' social circle and network while developing their command of foreign languages.

### Price

The application is based on a freemium model. Most features are available free of charge. Built-in purchases to enhance the user experience are available between CHF 0.99 and CHF 60.

### Users

The application has been downloaded more than 1 million times.

### Stage of development

The solution was developed by Honi Inc, founded in 2016 by Pierre Delannoy. The start-up has around a dozen employees.

### How does it work ?

After creating the profile containing some standard information, students have to write a message, a letter that will be read by another person. The message must be persuasive enough and arouse the curiosity of the stranger who receives the virtual bottle containing the message to want to start the conversation.

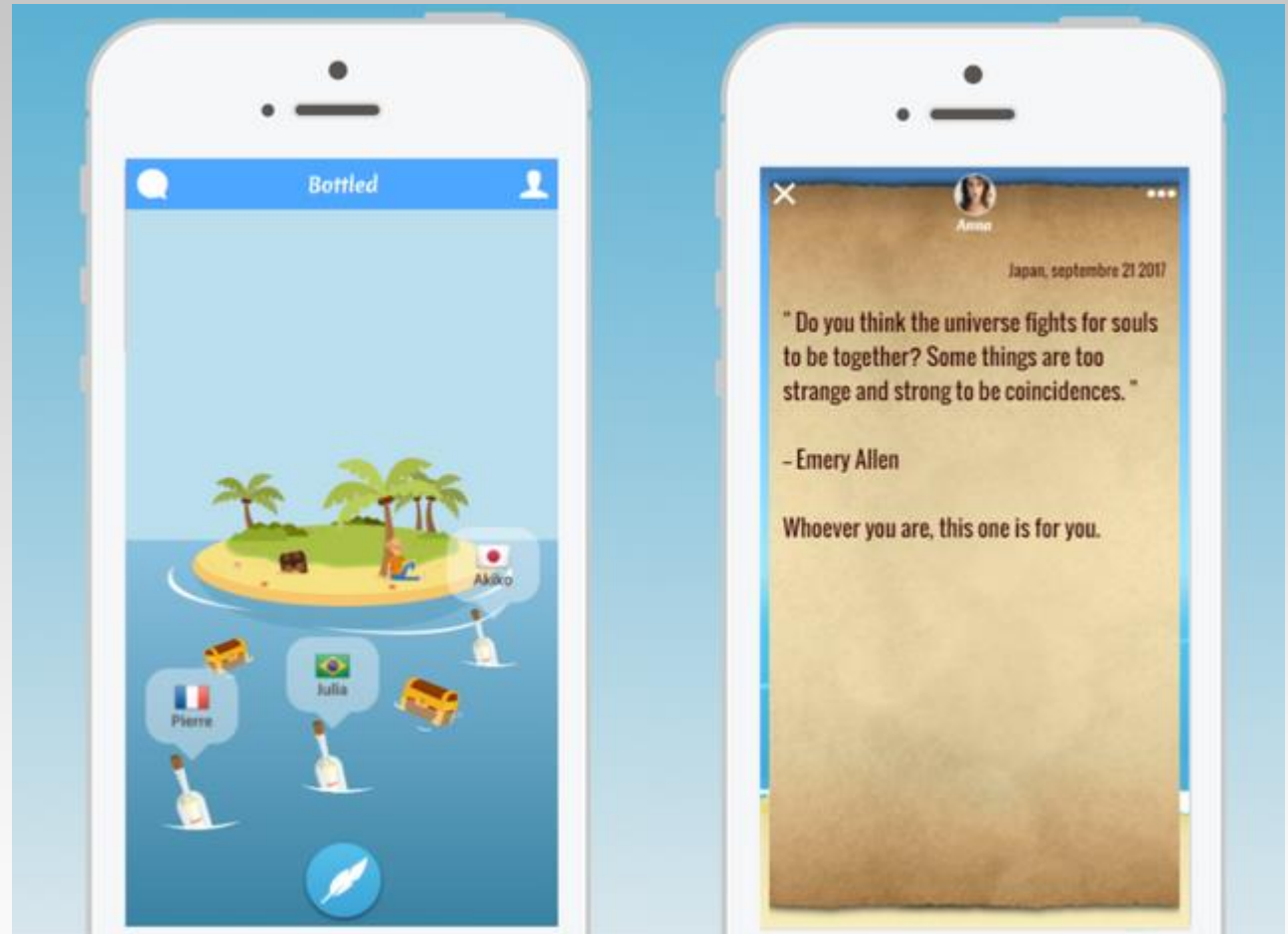
**Link** <http://bottledapp.com/>



## Bottled: Finding a pen pal by throwing a bottle into the sea

### Advantages

- When registering, users have the opportunity to indicate their motivations for joining the platform (friendship, love or leisure time...).
- To capture the interlocutor's attention receiving their bottle, students must be creative and original in writing their message.
- If the interlocutor does not appreciate the message and does not wish to engage in conversation, the bottle is put back into the sea until another user agrees to exchange.
- Any user from any part of the world can receive a student's bottle and engage in conversation with him.
- The creators of Bottled give priority to quality over quantity in the interactions between users. On average, students can receive 2 to 3 bottles per day and thus propose exchanges.
- A reputation scoring system makes it possible to score the people sending bottles.
- Any misbehaviour in the messages or pictures transmitted will result in a ban from the platform and the community.
- Users specify their age when registering on the platform. Be careful, after some tests of the platform, some inappropriate messages have been received.
- The application's designers have now integrated voice messages to interact between users.



### Suitable for:

Kindergarten



Secondary School



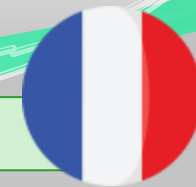
Primary School



University







## Bottled: Finding a pen pal by throwing a bottle into the sea

### Analysis of the offer

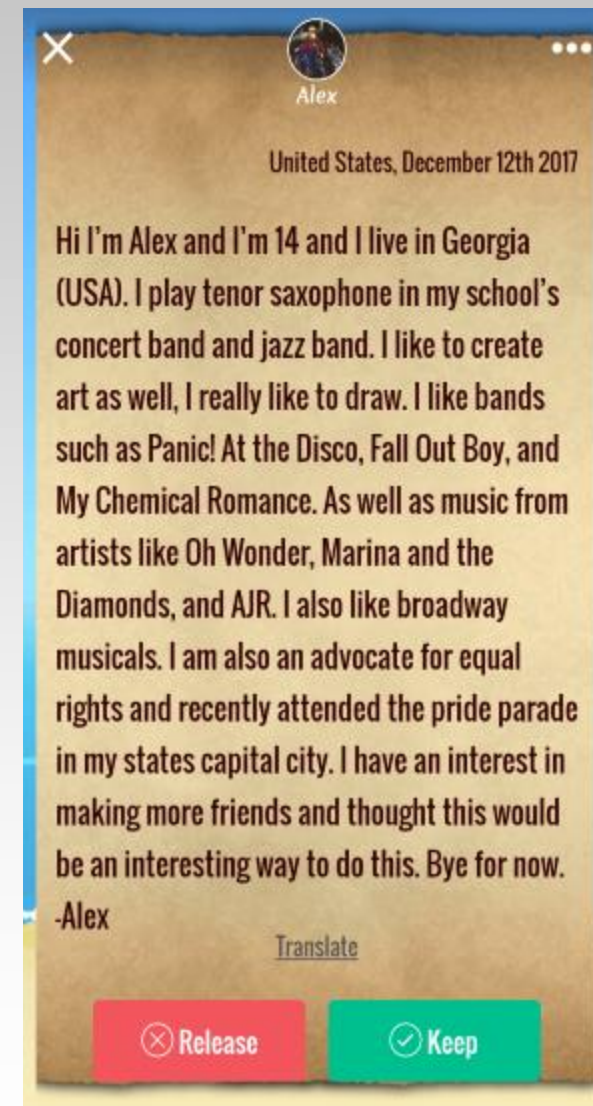
Bottled is an application for exchanging with strangers from all over the world by "throwing into the sea", i.e. the Internet, a bottle containing a message intended to initiate an exchange between interlocutors from different geographical areas and cultures.

#### The solution has undeniable advantages:

- Bottled is a tool that enables teachers to **involve their students in the search for a school correspondent** in a foreign language practice logic. Traditionally, schools are content to propose a list of pen-pals. By favouring an active stance on the part of students in the search for their pen pal, the chances of maintaining an exchange between them are greater than if pen pals have been identified and imposed by teachers or schools.
- Teachers can also develop their students' **originality, creativity, autonomy and openness to others** through this solution. Students must write a letter or message that will arouse the curiosity of the interlocutors who will receive their bottles and thus initiate an exchange. The use of this tool can be one of many ways for teachers to develop these skills.
- More anecdotally, the use of Bottled is also an opportunity for teachers to teach to their students the **epistolary codes and canons of handwritten letters**. Bottled advocated adopting this style to increase the likelihood of getting an exchange with strangers, at a time when email and its own writing became the norm.

#### However, the solution has certain limitations:

- Student safety is the main issue.** Users of the application provide their age and are therefore theoretically only able to communicate with people of the same age. However, no verification of the age of the users is carried out by the application's designers. It cannot be ruled out that students may receive inappropriate messages, which, like Tandem, requires teachers to set up a procedure and make students aware of the dangers of the Internet.
- Furthermore, it should be mentioned that not all students will receive the same number of bottles and not all will have the same probability of initiating an exchange with pen pals. The use of the application may thus indirectly lead to a certain form of **exclusion of some students**. Teachers or schools should therefore have certain potential pen pals in their contacts in order to overcome this problem.
- As with any application, a certain **weariness may develop among students** as a result of its frequent and repeated use. Joint online projects, exchanges of experience, meetings by videoconference, any element that can break the routine of a handwritten exchange will have to be planned and coordinated by the teacher to maintain student's commitment and their pen pals.



## Onzic : Cramming is rapping

Onzic is an application that allows secondary school students to revise their exams by listening to rap music. The solution transforms the traditional revision sheets into songs to facilitate memorisation and ultimately lessons' learning.

### Type

Tool to promote the acquisition of knowledge.

### Competitive advantage

The solution offers secondary school students a playful tool to prepare for their exams.

### Stage of development

The start-up was created in 2018. Nearly 200 titles or courses are available on the application. Onzic has benefited from relatively significant media coverage, which partly explains its success and notoriety. The creators now wish to extend their concept to other musical genres. The solution won the MGEN Edtech awards in 2019, a prize that allows them to finance the development of their application.

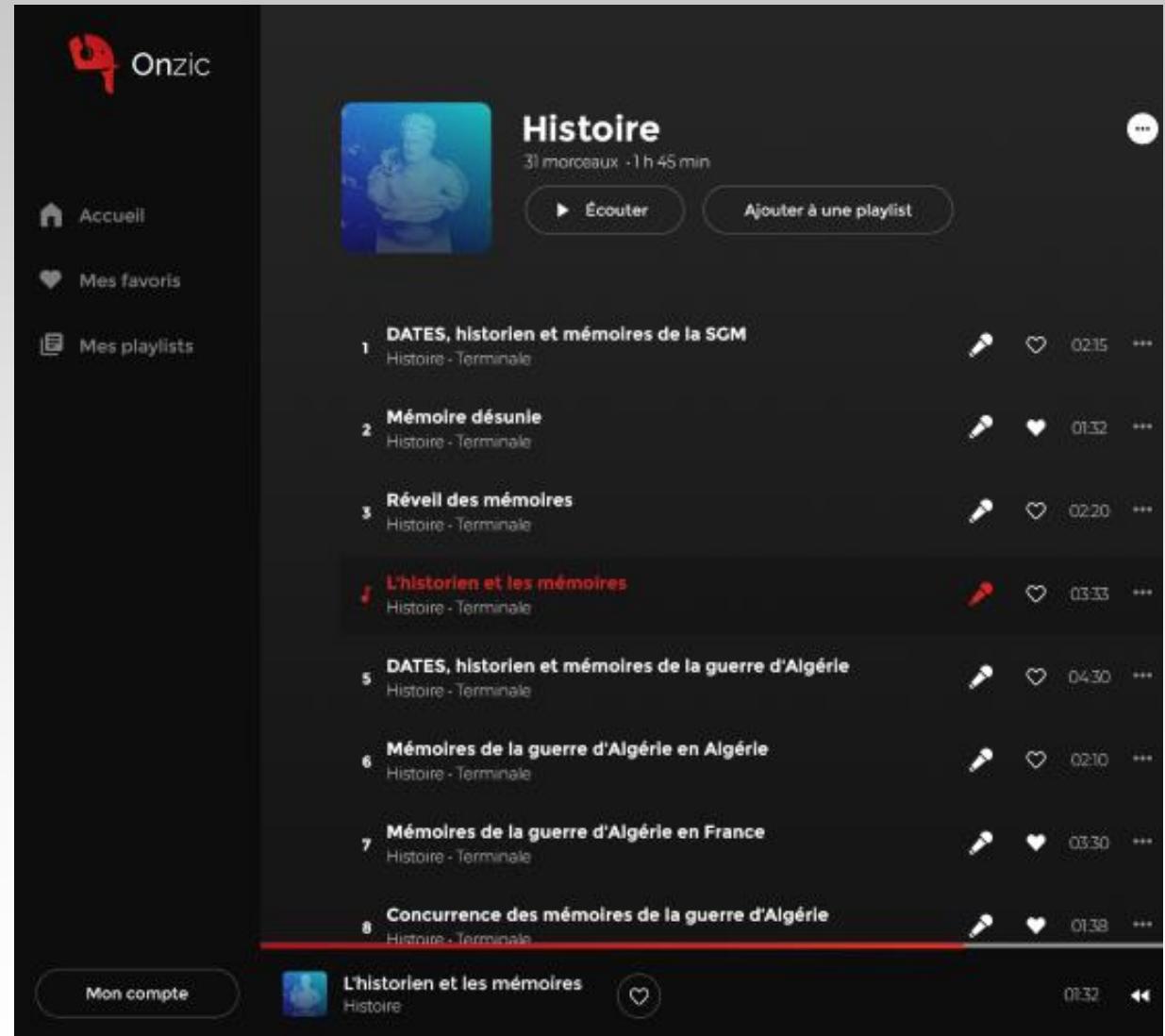
### Users

The start-up claims more than 3 million listeners and 100,000 users in June 2019. 98% of Onzic's users passed their exam the same year. 63% with honours.

### Price

Onzic is based on a freemium model. Approximately 40% of the titles or revision sheets are free of charge. The paid version that costs CHF 11 per month allows students to unlock all the courses and download them to their phones.

**Link** <https://www.onzic.com/>



## Onzic : Cramming is rapping

### Advantages

- The platform allows students to revise and memorise their lessons in a playful way.
- Certified teachers provide course summaries in the form of revision sheets to producers.
- Revision sheets are set to music by young rappers.
- The application's creators seek to collaborate with more renowned artists in order to strengthen its attractiveness and student's commitment in their revision.
- Newly created songs are checked by some teachers to ensure their accuracy and pedagogical relevance.
- A wide range of teachings and courses is available, such as history, geography, economics, sociology, law, philosophy and life and earth sciences. Mathematics, physics and chemistry are in the process of being integrated within the app.
- Onzic is available as an app. Students can listen to the music and study wherever they want, for example on public transport on their way to school. The application is available on the App Store and Google Play.
- Course playlists can be created so that they can be easily found and replayed.

### Suitable for:

Kindergarten



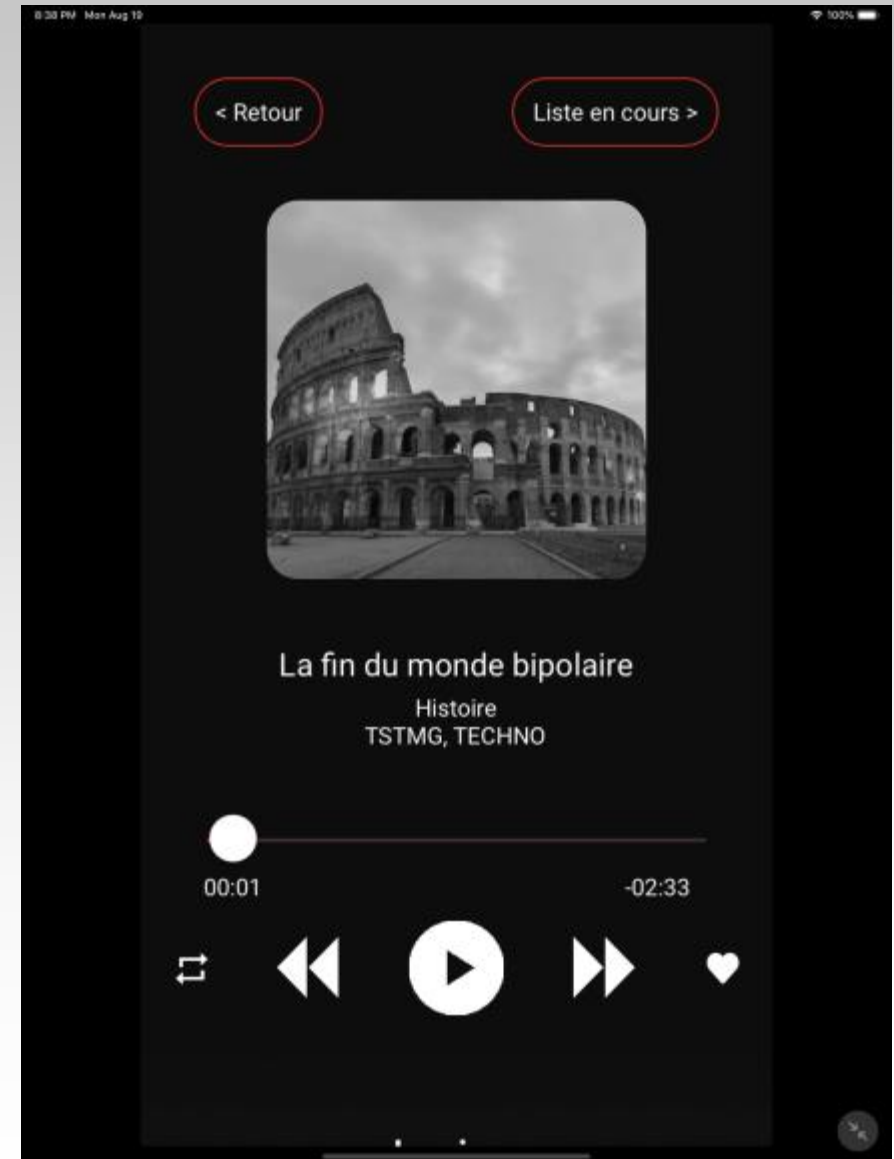
Primary School



Secondary School



University



# Onzic : Cramming is rapping

## Analysis of the offer

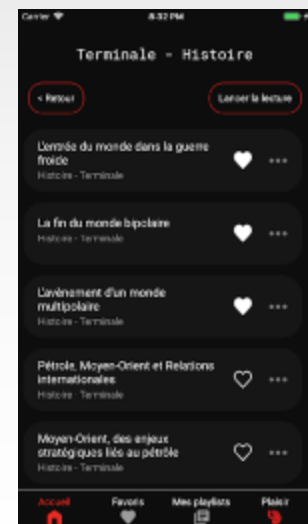
Onzic was born from the experience of its founders, who had "enormous difficulty" in revising and retaining their lessons while they were able to retain the lyrics of their favourite music without any difficulty. Faced with this situation, the inventors developed Onzic, a solution that puts revision sheets to music to allow students to revise in an alternative way.

### The solution has undeniable advantages:

- The use of this solution allows teachers to **offer their students an alternative and playful way to effectively review and memorise their lessons**. The rhymes and chorus present within the songs are relevant mnemonics to retain key information and concepts. The use of music and listening to it also offers a complementary learning path for those who have difficulty with traditional learning methods.
- An inherent problem with revision periods is the **monotony** that this implies for students. Onzic can partly overcome this problem by breaking the usual rhythm of revision. Teachers could assign their students three or four songs to listen to per week, depending on the school programme and the songs available, and organise sessions for restitution and validation of the assimilated notions. This format breaks the traditional rhythm of revision periods, the monotony of exam preparation and potentially maintains students commitment and therefore their results
- In addition, revisions through listening to the songs can be done in a group and encourage the emergence of a positive collective dynamic and a cohesion between students during their revision. In extenso, the use of Onzic can also **reduce the distance between students and teachers** by offering them a theme and a universe of respective exchanges, namely music and rap, which differ from traditional interactions focusing on school elements.

### However, the solution has certain limitations:

- Onzic, despite all the advantages presented, is only a complementary solution to the existing traditional means of revising lessons. **Complex notions requiring development cannot be synthesized in a 3-minute song**. Teachers will have to make an effort to communicate the pedagogical relevance of using Onzic to parents, who may be surprised by the alternative nature of the solution.
- A potential risk for students is **to listen to the music offered by Onzic without concentrating on the lyrics to revise their lessons**. Listening to the lyrics of a song requires an active approach which can contrast with passive listening to music made in a context of rest or leisure. Nevertheless, the acquisition of knowledge can be achieved unconsciously through passive listening and this can help students.
- The only musical genre currently on offer, namely rap, **may deter a number of students who do not enjoy this type of music**, although the the platform's creators are currently working to diversify the musical genres. Other music applications and song-based revision sheets in various musical genres can be used by teachers like Studytracks to overcome this problem.







## Wonder: Interact by videoconference

Wonder is a videoconferencing tool for creating and customising a virtual conference room for interactive presentations in plenary or small groups. Each participant can move from one group to another at will.

### Type

Communication support tool.

### Competitive advantage

The main advantage of this solution is to encourage interaction and exchanges within a videoconference with many participants.

### Stage of development

Wonder (formerly Yotribe) was founded in Berlin in 2020 and raised EUR 11 million in the same year to continue the technical development of its platform.

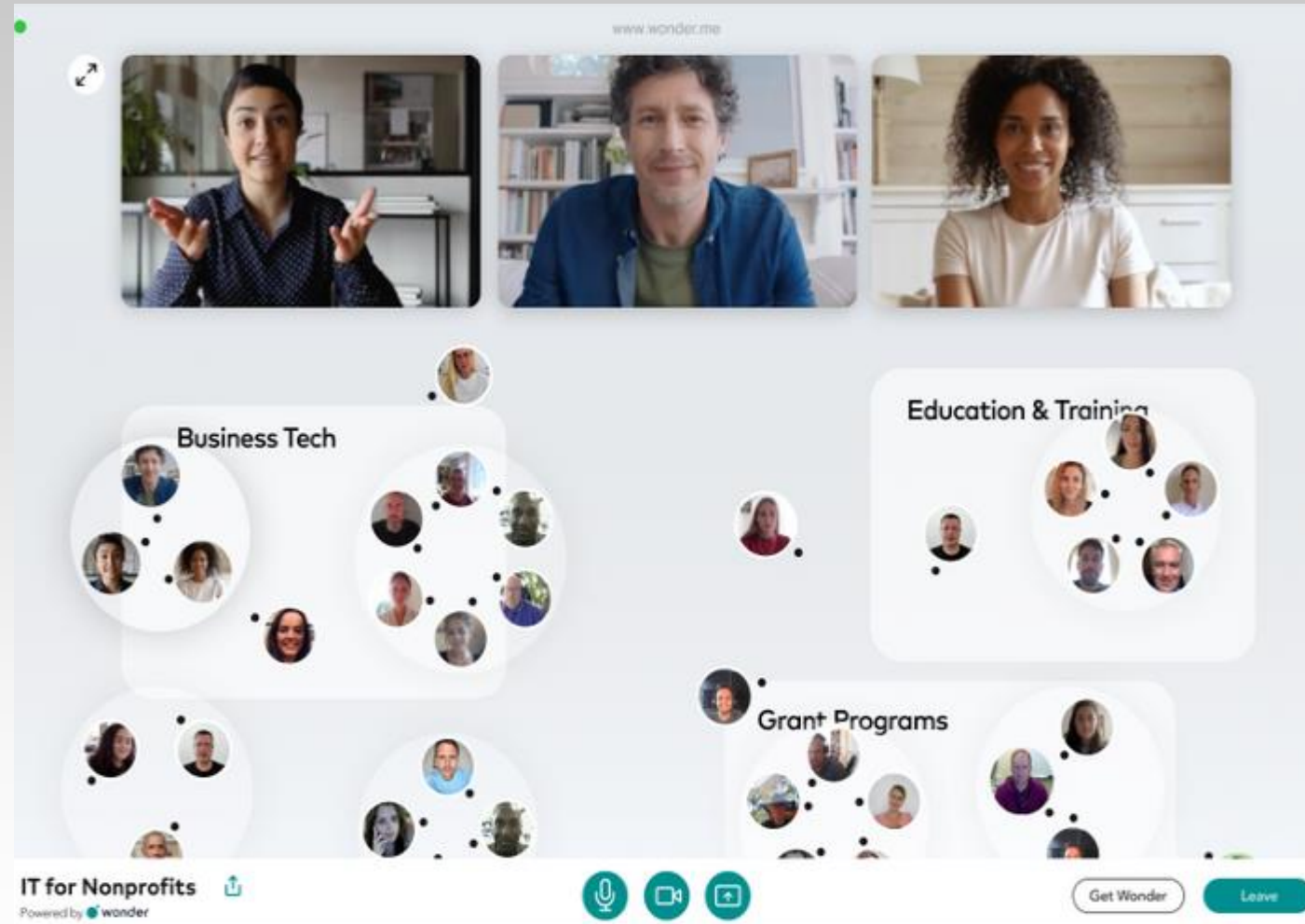
### Users

In December 2020, Wonder claimed 200'000 active users per month and a 30% weekly growth since the launch of its beta version in April 2020. The start-up is said to have won over NASA, SAP, Deloitte, Harvard University and Amazon, among others.

### Price

The platform is for the time being entirely free of charge but could switch to a paid formula in mid-2021 according to various concordant sources.

**Link** <https://www.wonder.me/>







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SUIVANT



## Wonder: Interact by videoconference

### Advantages

- Possibility to customise a virtual conference room for up to 1,500 guests at a time.
- Up to 15 workshops can be created in the conference room.
- Participants can talk to each other directly or join the workshop of their choice.
- A module allows organisers to address all participants directly and suspend interactions held within the workshops.
- Ice-breaker questions can be set for each workshop and answered by all participants in it, thus promoting interaction within the group.
- A unique URL address provides access to the virtual conference room.
- The virtual meeting is open 24/7 even when organisers are not present.
- Anyone with a URL link can enter the meeting. An additional password can be added for each workshop.
- Wonder does not require any registration for participants and is accessible from any browser.
- The platform is currently completely free of charge.
- Very high platform ergonomics.



### Suitable for:

Kindergarten



Primary School



Secondary School



University





## Wonder: Interact by videoconference

### Analysis of the offer

Wonder is an application to create a customisable virtual conference room where up to 1,500 participants can attend and participate in workshops.

#### The solution has undeniable advantages:

- Wonder can help teachers combat the **main disadvantage of traditional video conferencing tools, namely the lack of interactivity between students in virtual classrooms**. Traditionally students are in a passive posture listening to their teacher with their microphone and camera turned off. By using Wonder teachers will be able to create up to 15 workshops within a virtual classroom, allowing students to divide themselves up within these workshops or the teacher to choose those where they will attend.
- However, this students' division requires **some of them to be entrusted with the running of the workshops**. Presentations, briefings, feedbacks or even tutorials can be given by students to their classmates. This enables teachers to give them more responsibility and to encourage their autonomy by entrusting them with workshop's management.
- Alternatively, schools or teachers could **use the Wonder technology at any other school event**. A conference on academic or job direction by inviting different parents to present their respective professions could be an example. In this way, students would be oriented towards the workshops and trades they are interested in rather than having to attend a traditional and time-consuming presentation of all jobs and academical courses.

#### However, the solution has certain limitations:

- The use of Wonder requires teachers **to give their students a very high degree of responsibility** for the workshops' animation because they cannot be present in all 15 workshops at the same time to control the interactions that take place there. However, they can at any time take over with a plenary session and suspend group activities and interactions.
- Another risk is that one or two student-led workshops may be particularly attractive to other students for a variety of reasons (friendships, themes...) **and that the rest of the presentations do not attract participants**. Wonder would then indirectly promote the phenomenon it is trying to combat, namely the lack of interaction during a virtual conference due to the excessive number of participants. This problem can be circumvented by forcing students to participate in all the workshops, which would, however, go against the spirit of Wonder, who wishes above all to give students freedom of action in their choice of workshops in order to prevent any passive posture during virtual classes.



#### Nathan Samuels

What is the hottest topic about space at the moment?

Sustainable space tourism

Message

Invite to circle

## M-Shule: a low-tech personalised learning

M-Shule, meaning "mobile school" in Swahili, is a platform, specifically designed for primary school students in sub-Saharan Africa, that uses artificial intelligence to create personalised learning programmes to be sent to students via text messages.

### Type

Tool designed to promote the acquisition of knowledge.

### Competitive advantage

The tool uses artificial intelligence to analyse children's knowledge and provide educational resources through text messages, based on learning profile, curriculum standards and educational needs.

### Price

To benefit from the solution, parents will have to pay the sum of 90 Kenyan shillings per month, i.e. CHF 0.72.

### Users

In 2017, M-Shule conducted a six-month pilot project with 400 students from 15 schools in Nairobi (Kenya). Between 2018 and 2020, the start-up launched its comprehensive learning and information platform in the Nairobi market and counted up to 10,000 students.

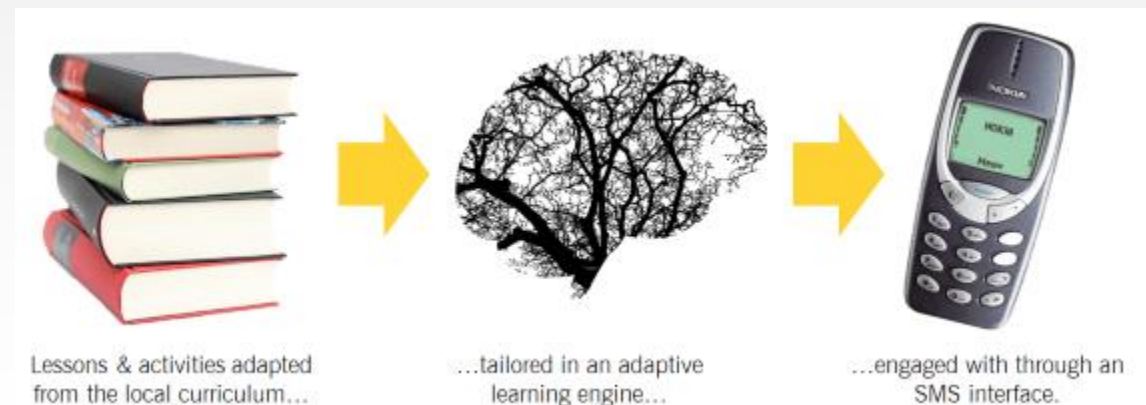
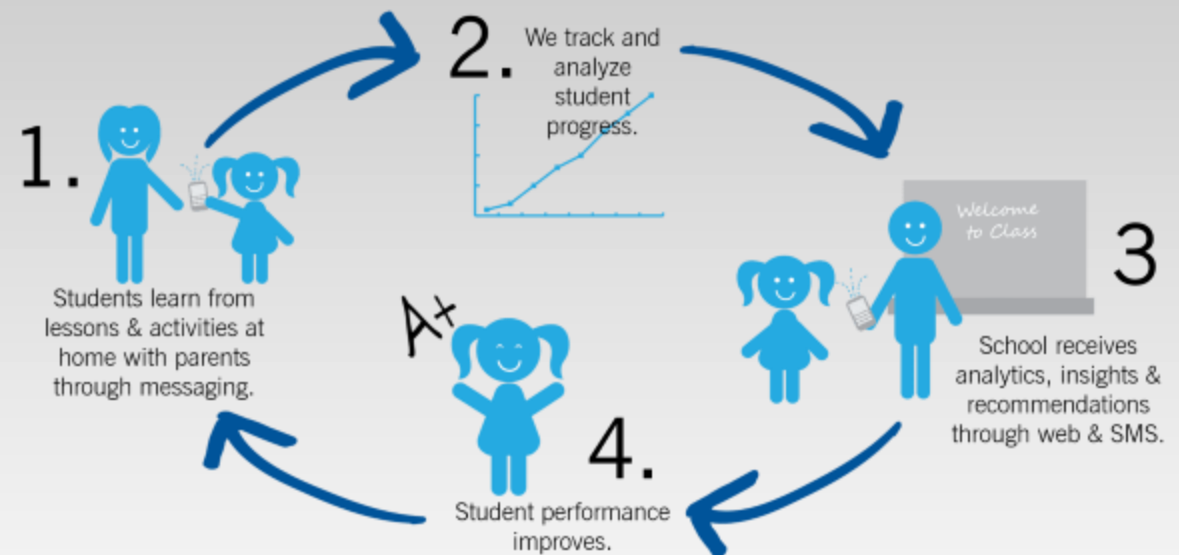
### Stage of development

M-Shule was established in January 2016 in Nairobi, Kenya. The creators realized a financing round among friends and family to design and finally build the pilot product.

M-Shule was subsequently supported financially by Engineers Without Borders Canada and EWB Ventures, an incubator.

The start-up is now composed of 10 professionals from education, technology and business. Mainly anchored in the Nairobi district, the M-Shule aims to expand throughout Kenya and then to the entire African continent.

### How does it work ?



## M-Shule: a low-tech personalised learning

### Advantages

- Artificial Intelligence assesses students' levels of competence in a specific subject, then creates a unique learner profile and offers guided training sessions and SMS assessments.
- Sending teaching materials and evaluations by SMS greatly reduces the digital divide issue in learning. Students can read materials on their parents' mobile phones.
- M-Shule works on all mobile phones. Having a smartphone is not a requirement.
- M-Shule is a potential additional way to involve parents in their children's education.
- The solution is able to collect data resulting from assessments in order to monitor student progress.
- M-Shule is currently available for Maths and English subjects.
- The service is affordable in terms of price and has a pricing policy in line with the country's standard of living.
- M-Shule can also be used as a communication tool for awareness-raising purposes. The platform sent out awareness campaigns on barrier and hygienic gestures during the Covid-19 crisis.



### Suitable for:

Kindergarten



Secondary School



Primary School



University







ACCEUIL



PRECEDENT



## M-Shule: a low-tech personalised learning

### Analysis of the offer

Less than 7% of students on the African continent can read properly at the end of primary school, while only 14% have the required level of mathematical knowledge. It is from this observation that M-Shule was designed. This tutoring platform offers primary school pupils mathematics and English content, adapted to their learning level, via SMS.

### The solution has undeniable advantages:

- The main limitation to the Edtech technologies' adoption is the digital divide among students. **Teachers can overcome this limit by adopting low-tech solutions such as M-Shule.** Low-tech is not a pejorative term, but rather a term for simple, practical, economical and popular techniques or technologies. By broadcasting content in mathematics and English on their parents' mobile phones, pupils are able to benefit from learning materials that they would not have been able to access if an Internet connection was required. Such solutions can help teachers who teach pupils who are not able to have a reliable Internet connection.
- M-Shule can also support teachers through the personalisation of pedagogical material transmitted to students.** Artificial intelligence analyses students' level and in return provides personalised problems and learning advices. Pupils' progress is also recorded in order to constantly adapt the teaching materials' level and assessments provided. Teachers have the data to focus their efforts on the most problematic areas of school programmes and on the students who need it most.
- On the other hand, the learning platform, by providing learning advice, can also **strengthen parents' involvement in the education of their children** who may sometimes be deprived and not know how to support them in their schooling.

### However, the solution has certain limitations:

- M-Shule success is highly dependent on the mobile phone penetration of a geographical area and its mobile connectivity.** For example, mobile penetration in Kenya is over 90% and connectivity is good almost everywhere. The solution's development in countries with lower mobile penetration rates and poorer connectivity would reduce its relevance, its implementation and its low-tech character.
- Moreover, **some studies claim that reading a lot of information on a more or less small telephone screen reduces attention and commitment of students** and, in extenso their ability to acquire and assimilate new knowledge. M-Shule overcomes this limitation by stating that in practice students' desire to learn and their desire to succeed far outweigh this disadvantage. Although the argument is admissible, the issue of small screen sizes must be retained and explored on a case-by-case basis by teachers according to their students.
- To a lesser extent, the solution only concerns mathematics and English language teaching.** Expanding the subjects on M-Shule would encourage student engagement with the solution.

