



LEPOLE

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.



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Definition of Edtechs



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



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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 application 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 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.



Edmodo



MENTOR MIND



Graduway



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

memrise



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.



Whaller



NEWSCHOOL



rymm
education



satchel:



unibuddy



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



Whaller



DegreeAnalytics



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.





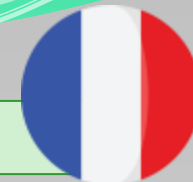
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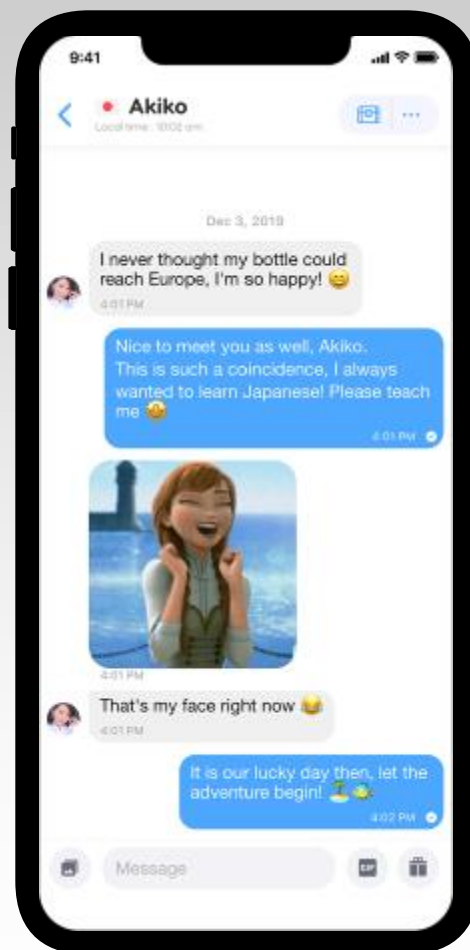
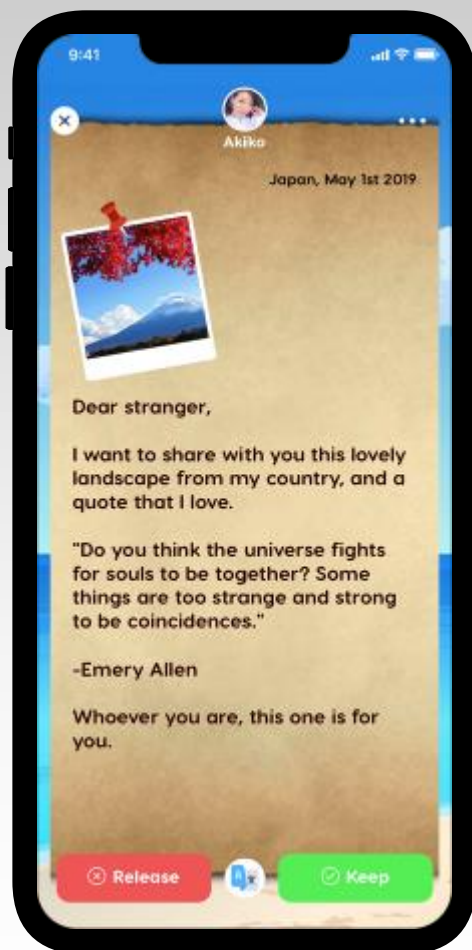


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Bottled: Finding a pen pal by throwing a bottle into the sea

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.

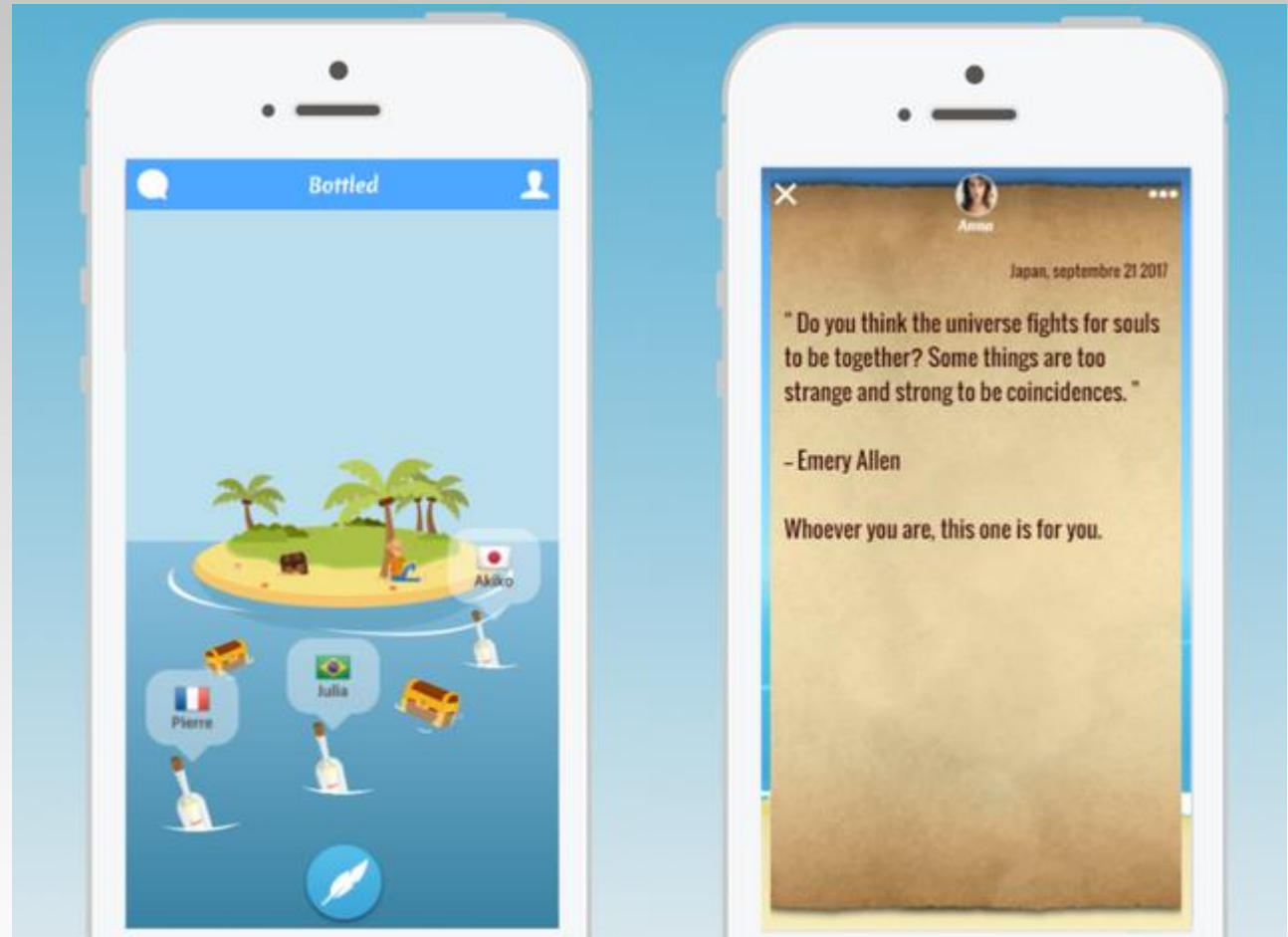
Link <http://bottledapp.com/>



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

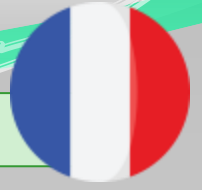
Advantages

- 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	★	Primary School	★★★
Secondary 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.

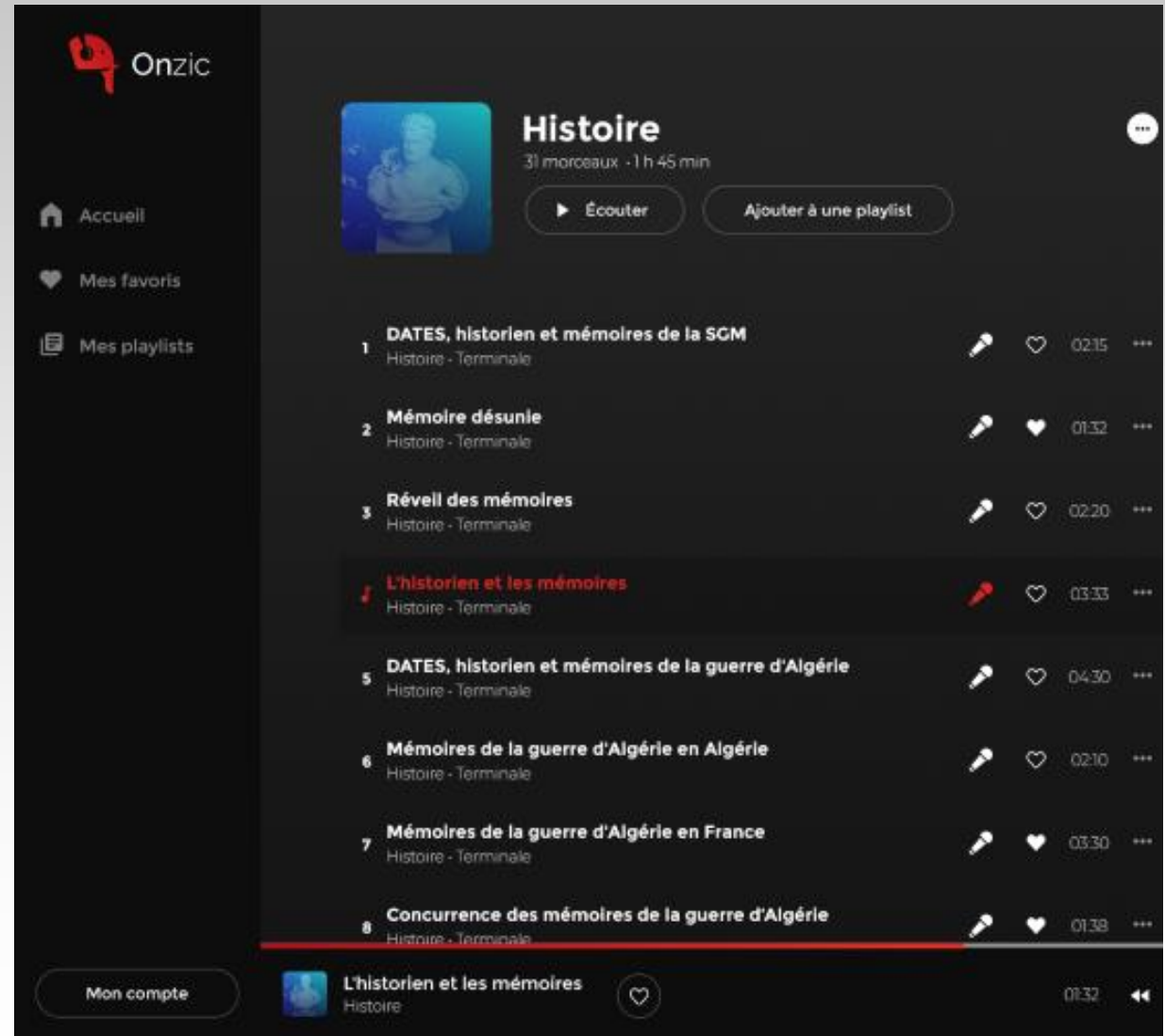
Users

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/>





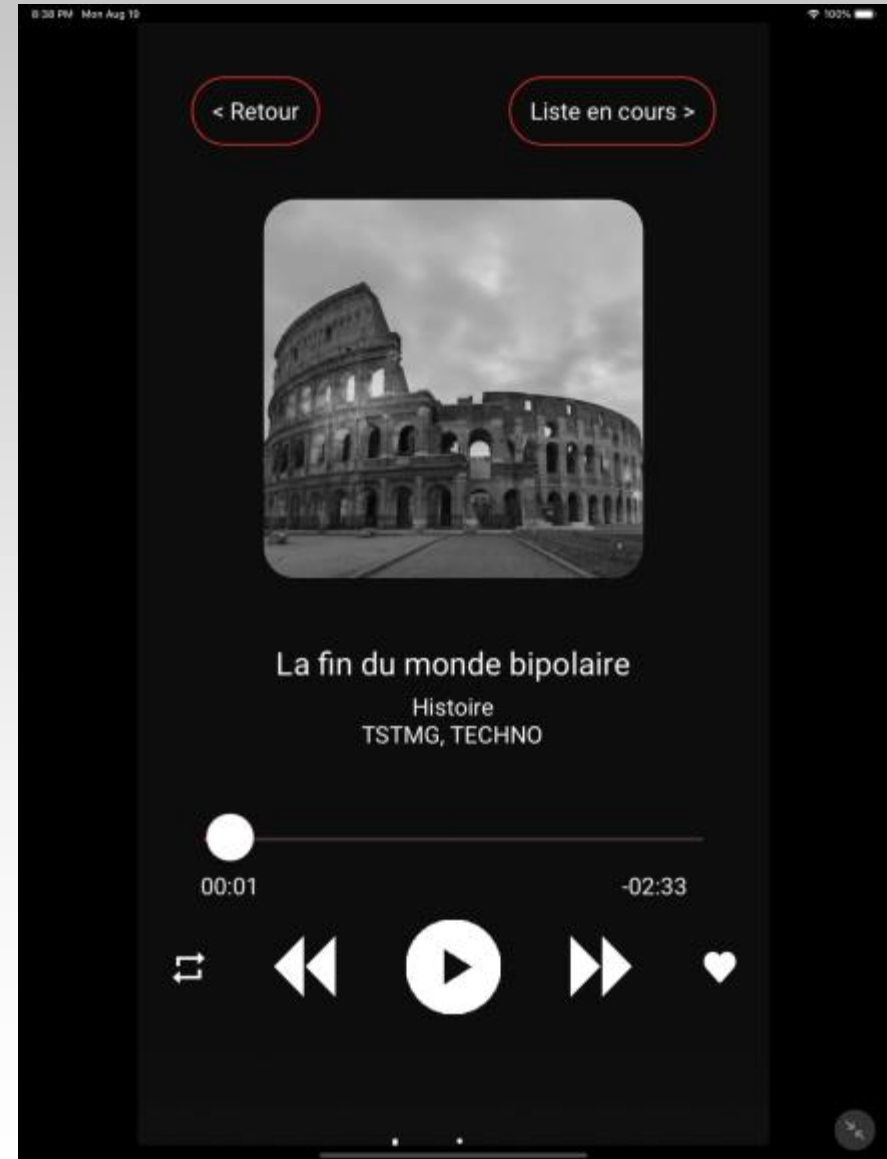
Onzic : Cramming is rapping

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

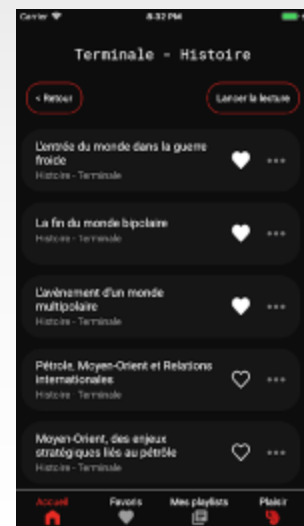
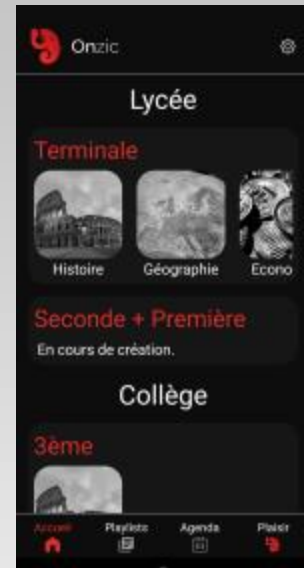
Onzic was born from the experience of its founders, who had "enormous difficulty" in revising and retaining their lessons while they were able to retain the lyrics of their favourite music without any difficulty. Faced with this situation, the inventors developed Onzic, a solution that puts revision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

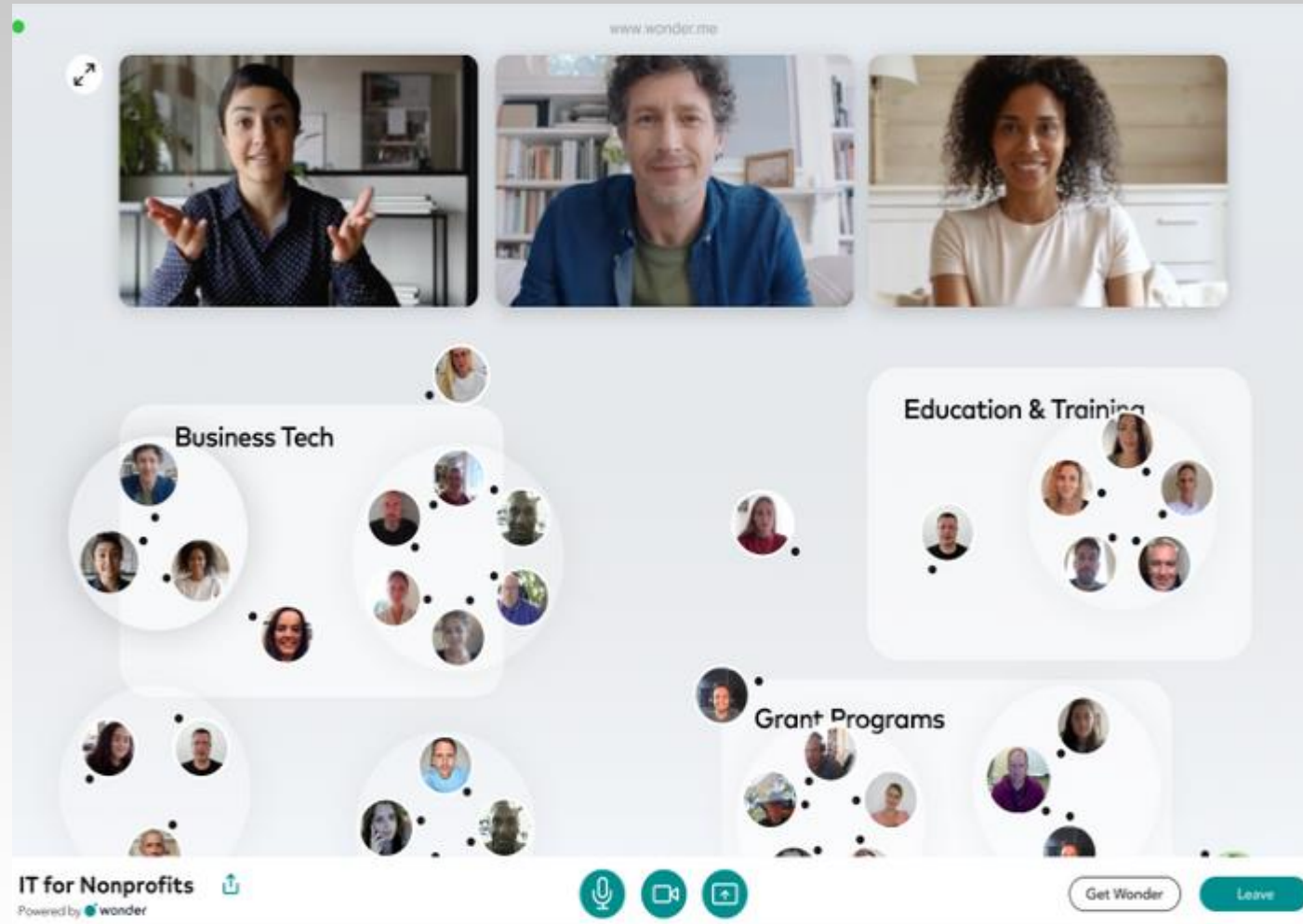
Users

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/>





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

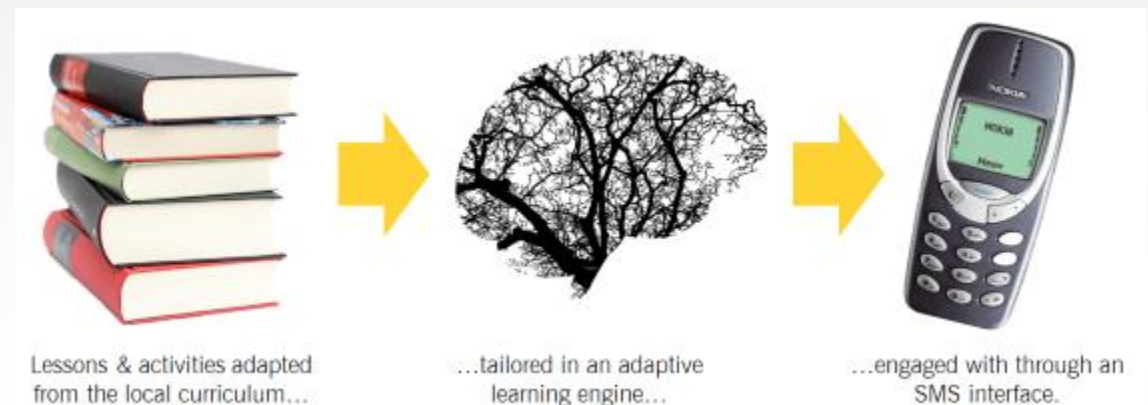
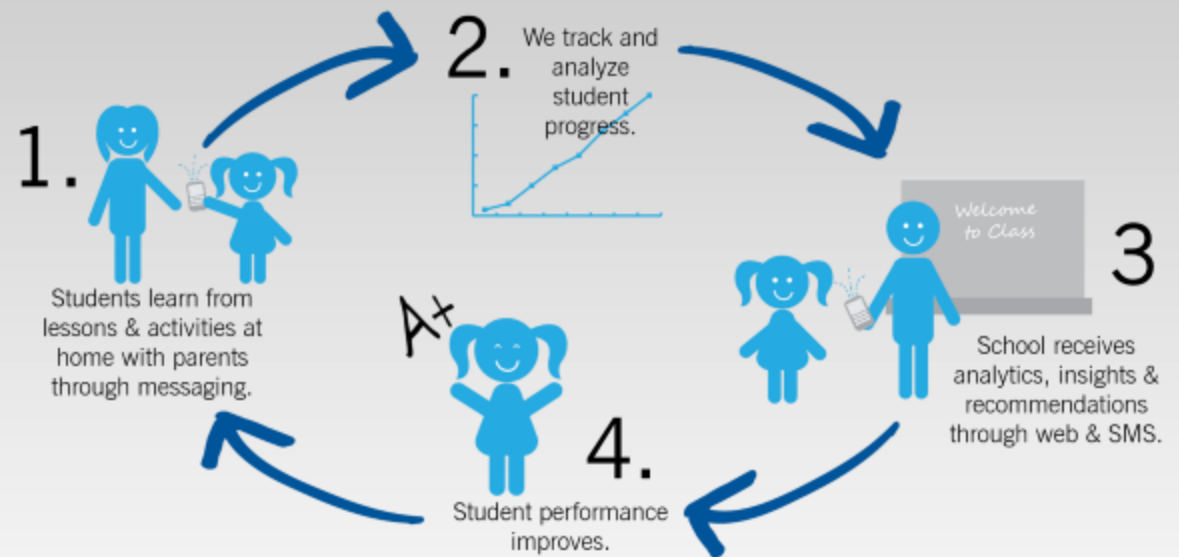
M-Shule was established in January 2016 in Nairobi, Kenya. The creators realized a financing round among friends and family to design and finally build the pilot product.

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.

Link <https://m-shule.com/#>

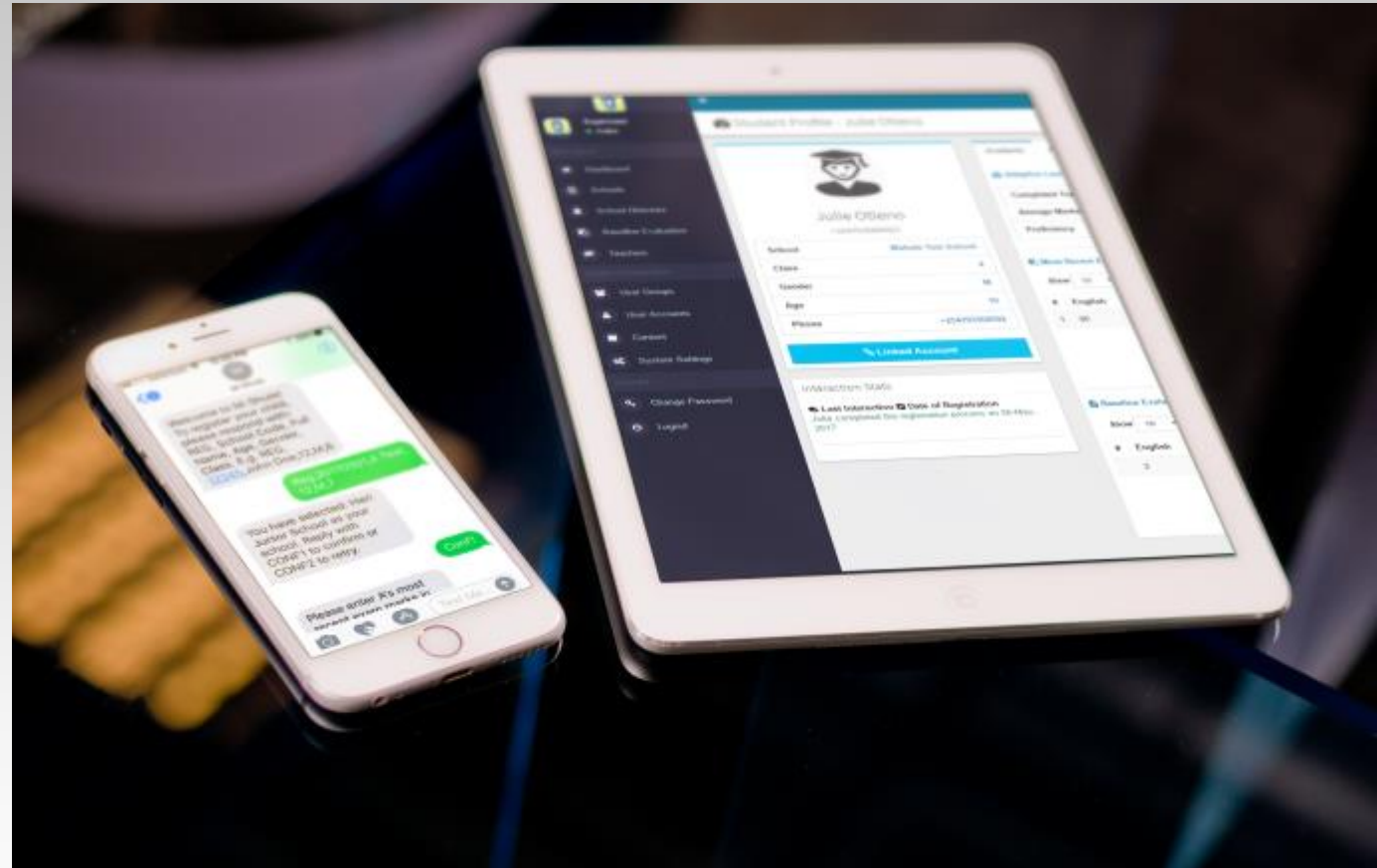
How does it work ?



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

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.

