EVOLUTION OF EDTECH BUSINESS MODELS

PROSPECTIVE MONITORING
September 2018

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.

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DISCOVER EDTECH TRENDS

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GENEVA INTELLIGENCE
STRATEGIC INFORMATION

DEFINITION OF PROSPECTIVE MONITORING

OVERVIEW

Prospective monitoring consists at 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.

To simulate and illustrate the results of such monitoring, several steps were taken:
- 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.

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DISCOVER EDTECH TRENDS

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GENEVA INTELLIGENCE
STRATEGIC INFORMATION

Summary of the September 2018 edition

rymm
education

Rymm is an application that allows teachers to communicate more with students and parents. It promotes working conditions and school life.

memrise

Memrise is a neuroscience and game-based application to facilitate language learning.

m²

Malmath is an application that supports mathematical learning by showing the process and reasoning step by step to improve sudent's understanding.

TOP HAT

Top Hat is an application that aims to support teachers in their work. It provides services to teach, evaluate and conduct courses. It improves the efficiency of teachers.

COPAS
Contrôle Parents Smartphones

Copas is an application for parents. It aims to control and limit children's access to smartphones during defined hours. It could be useful for teachers during classes.

Analysis of trends identified in the Edtech market

This sector of activity is booming. The EdTech market is seeing strong growth with 20% year-on-year growth forecast for the coming years. This market could reach USD 120 billion in 2022. In 2015, USD 8 billion was invested in the sector, twice as much as in 2014. Online training represented USD 260 billion in 2016 worldwide.

More and more schools are using these technologies to improve their performance and satisfy the needs of students and parents. Indeed, Edtechs are a major challenge for schools because they promote both the improvement of their functioning, as well as teaching practices and the school environment for teachers and students.

The observed trends this far are mainly aimed at improving online and distance collaborative work, learning through artificial intelligence or games, and facilitating the operation of the school.

- These trends focus on improving student comprehension skills. Some of **these apps use student smartphones and games to enhance learning and understanding.**

- Edtech also strengthens the dialogue between the school structure, the student and their parents. **These technologies improve teachers' organization, communication and pedagogy.** An online platform allows simplified access to teacher information and group communication. These application thus **promote the functioning of the administration and communication with the outside world as well as internally.**

- Other tools provide teachers and administration with greater **flexibility in teaching, controlling student attendance, or in the assessment system.** Teachers can also compile data on students, such as their performance. Teachers are then allowed to better understand their students. They are therefore more effective and can adapt their pedagogy better to facilitate learning. They can **provide students with better follow-up and support them in moments in difficulty.**

Edtech not only aims to promote the learning of students, but also seek to promote the teaching and to make the work of teachers and administration simpler.

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 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.

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.

MENTOR MIND

STAY AHEAD.
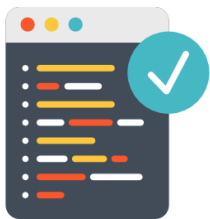
Language learning

Language learning is easier and faster.

- Edtech 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.

learnlight

memrise

Game-based learning

Edtechs use games to facilitate learning. These are fun and educational technological tools which are used to attract the attention of students of all ages.

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

Tool for evaluation, creation of exams, correction and follow-up of copies 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, and the correction of these exams.
- This platform facilitates the monitoring of student results and the visualization of changes in grades per student and per class.
- These technologies are secure and prevent any cheating.

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.

Webcast of the courses

Edtechs make it possible to film a course with several cameras and to put it online for students or a wider audience.

- It is a customized educational tool with a variety of viewing features.
- These technologies promote remote learning at any time in order to adapt to students' conditions.

memrise

Neuroscience and pedagogy in the service of languages

Memrise offers a modern application to make learning a language easier. This method is based on neuroscience with a multitude of learning supports, a ludic and community-based. The platform promotes language learning in an increasingly connected and international environment.

Type

Technological offer to promote learning with a strong scientific and playful dimension.

Competitive advantage

The technological advantage is the integration of neuroscience into learning. It is facilitated by the multitude of teaching methods and supports as well as an interactive approach.
Over 30 million people are already learning a language on Memrise.

Price

FREE	PRO
Over 200 language combinations	Over 200 language combinations
Learn and review	Learn and review
Grammarbot	Grammarbot
Pro chats	Pro chats
Difficult Words Mode	Difficult Words Mode
Speed Review	Speed Review
Listening Skills Mode	Listening Skills Mode
Video Mode	Video Mode
Learning Stats	Learning Stats
Play for free	**Pro from $4.90 (USD) per month**

10

Neuroscience and pedagogy in the service of languages

Advantages

- Offers a wide selection of language courses.
- Offers many subjects and areas of language learning such as architecture, science and literature or design...
- Application developed by scientists. Use of neuroscience to facilitate and improve the learning method.
- Mems can be mnemonics, etymologies, amusing videos, photos, example sentences: anything anything to help connect what has been learned.
- Valorization of the game to learn.
- Creation of an online and multimedia community.
- Language learning through the iOS and Android apps.
- Fun and aesthetic application.
- Presence of a blog for learning.

Memrise Science

Memrise is built on three key scientific principles

Elaborate encoding

Memrise helps you vividly assimilate new knowledge, promoting deep encoding and superior memory.

Learn more

Choreographed testing

Testing strengthens memories in variety of ways.

Learn more

Scheduled reminders

By spacing reminders, learning can be made up to x3 more efficient.

Learn more

We've got you covered

Go from zero to language hero with over 200 courses full of rich content created by expert linguists.

Super smart learning tech

From local accents to conversation and grammar skills, we got you covered with 20,000 native speaker videos and our new chatbots.

Learn anywhere, anytime

A learning adventure that fits in your pocket and translates to useful, real-life language skills. Your superpowers, unlocked.

Link https://www.memrise.com/

Neuroscience and pedagogy in the service of languages

Analysis of the interests of this offer

Memrise is a language learning application that has received many awards. These awards demonstrate the credibility and success of this application and its teaching method.

The exercises are based on neuroscience to facilitate memorization with multiple types of supports and training. In addition, this Edtech highlights the need for fun and community.

It appears that this application thus demonstrates a scientific, pedagogical and entertaining method for teaching the general public. This application could thus be used in schools to strengthen, modernize and diversify language teaching.

Feedbacks from experience

Best App
Google Play Awards 2017
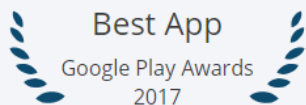
- Top developer badge

- Best of 2016 Self Improvement

- Best apps of 2015

- 4.7 rating on Google Play

Best App
of iPhone & iPad
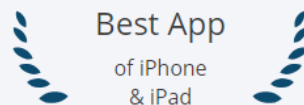
- Runner up: iPhone App of the Year Netherlands

- iPad App of the Year Denmark, Finland, Norway & Sweden
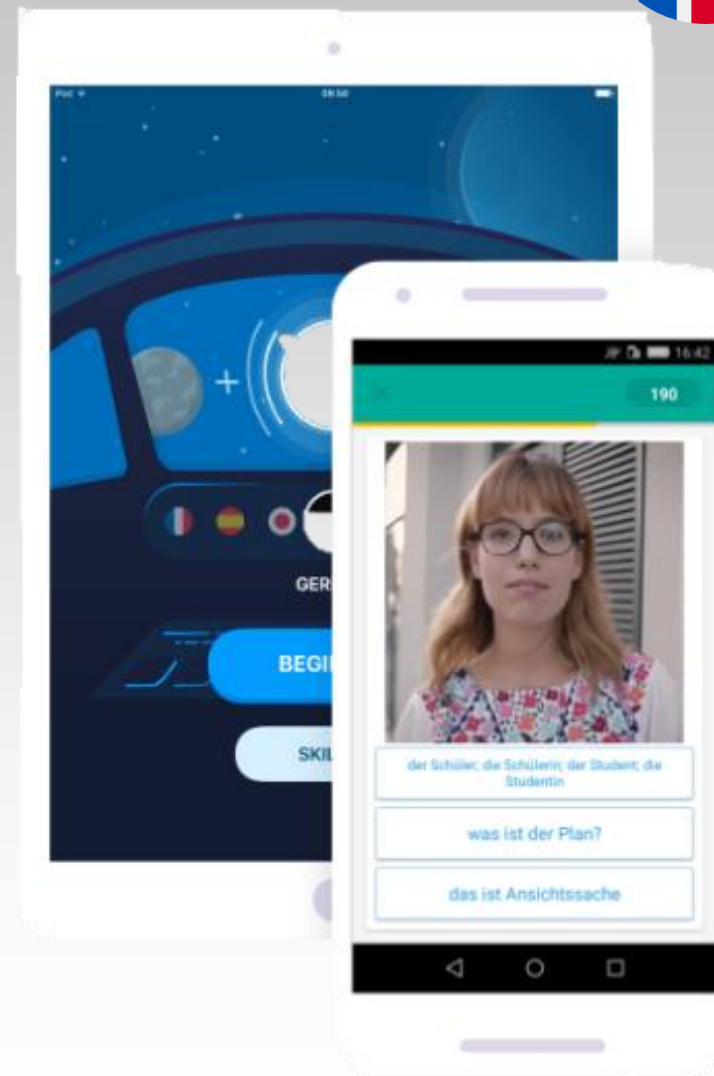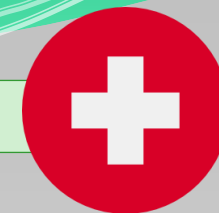
A technological tool to facilitate math learning

MalMath is a math problem solver with step by step description and graph analysis. It is free and solves integrals, derivatives, limits, trigonometry, logarithms, equations, and algebra. It helps students and others who have problems on their homework to understand the solving process. It is helpful for high school and college students, teachers and parents. In an educational context that gives a major importance to mathematics, MalMath seeks to facilitate the learning of this matter through a visual application. It could thus be integrated by educational institutions to help teaching.

Type

Technological application providing support for mathematics.

Feedback from experience

It was ranked among the 10 best Swiss edtech in 2017.

Competitive advantage

Supports the understanding and learning of mathematics.

It helps students but does not change the educational structure.

Price
Free installation and use.

A technological tool to facilitate math learning
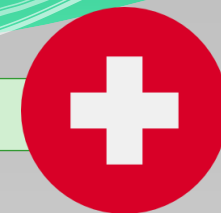
Advantages

- Step by step description with detailed explanation for each step.
- Use highlights to understand steps easier.
- Watch problems being solved via animations.
- Easier to understand steps using highlights.
- Keep a history or view a graph outlining the problems which have been already solved.
- Edit, solve, graph directly from the history.
- Share solutions and graphs with friends.
- Graph equations or functions.
- Problem generator helps practice math.
- Generate random math problems with several categories and difficulty levels.
- Offer easy, intermediate and advanced difficulty levels.
- Solve or graph directly from the generator.
- Save or share solutions and graphs.
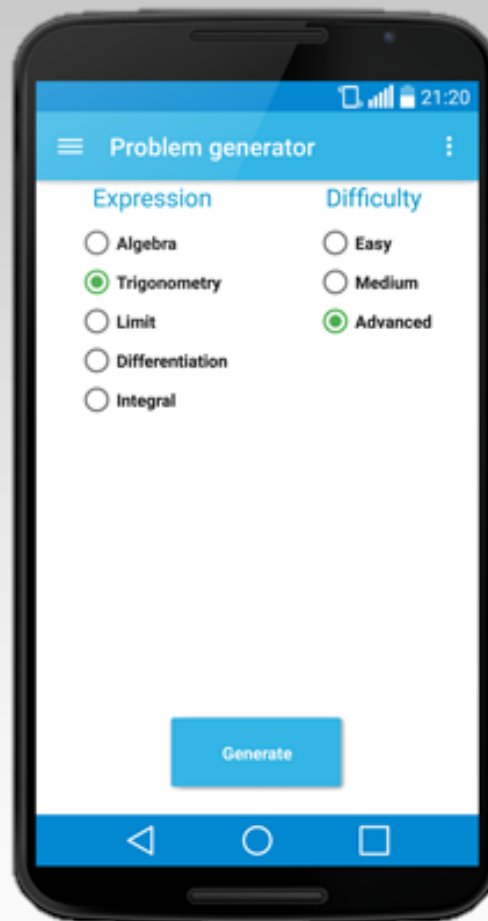
Analysis of the interests of this offer

This application can help students understand and learn mathematics. It provides a visual aid, step by step, allowing students to learn at their own pace.

This solution can be an asset for homework without the help of teachers. It could allow students in difficulty to upgrade their skills. Those who have already understood could access another way of learning and additional exercises.

This application could make it possible to approach maths differently, to decomplexify and thus desacralize this matter.
It brings a ludic aspect to mathematics, a learning at the rhythm of the student and a link between the student and the teacher thanks to technology.

However, this application is solely focused on mathematics and does not take in considerations other subjects.
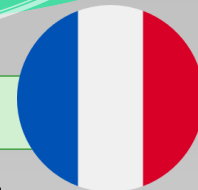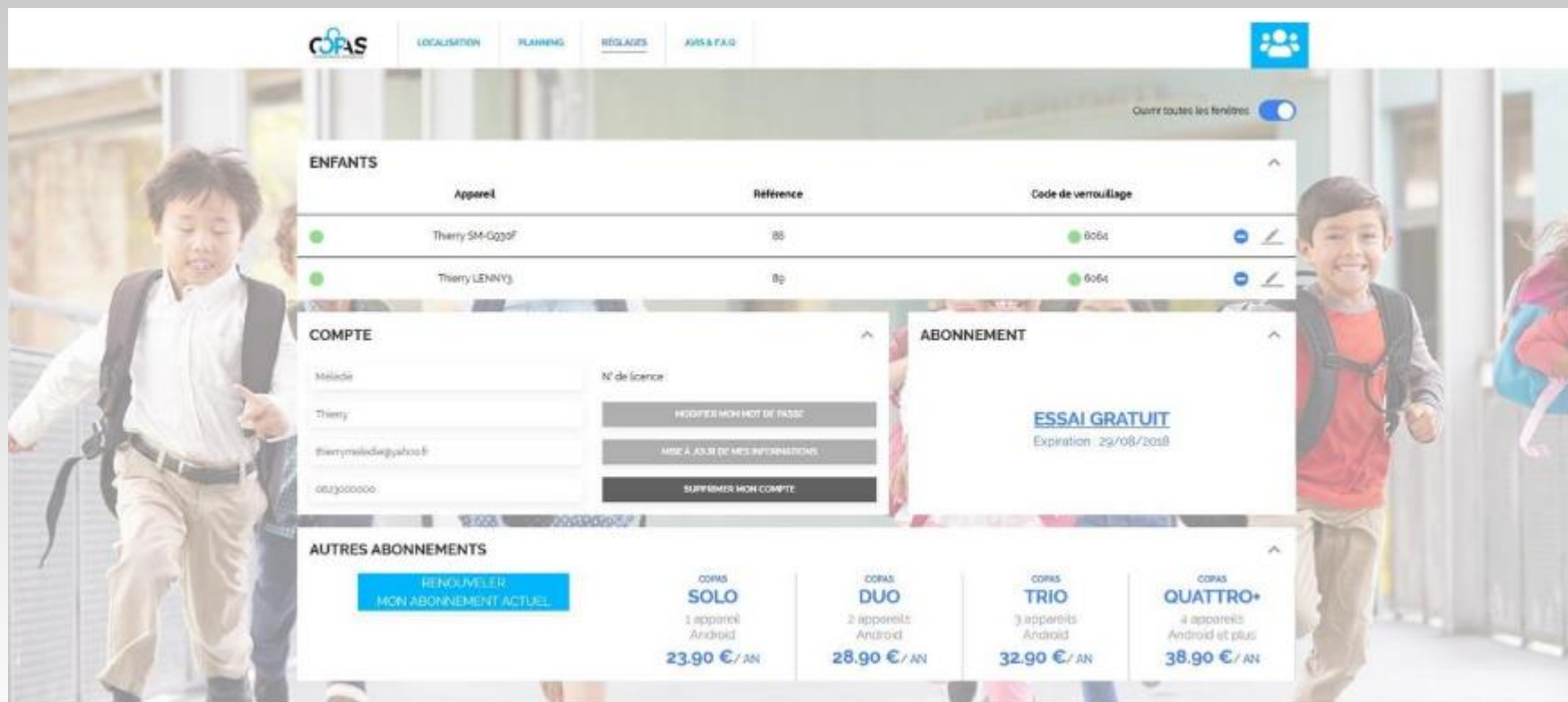
Link
http://www.malmath.com/

Parental control of students' smartphones for educational purposes

Co.Pa.s is a mobile application and website that allows parents to plan the exact times and duration of access to the smartphones & tablets their children own. They can thus totally neutralize the mobile according to the school timetable, homework, meals or bedtime.

Type

Parent-student pedagogy: school and life conditions

Price

From EUR 23.90 for one device and up to EUR 32.90/year (4 devices and more) - Available only on Android, on iOS in the fall 2018.

Competitive advantage

Technological advantage with social consequences on the teaching conditions for teachers and on the relationship between parents and students.

Stage of development

During the summer of 2017, the thinking on the project's business model took place. The technical feasibility review took place throughout January 2018. And finally the company was created in April 2018. In the process, the joint development of the website and the application was launched.

Parental control of students' smartphones for educational purposes

This application aims to limit access to smartphones for children. According to a study by the Agence du numérique et du Credoc in France, it is estimated that 77% of adolescents aged 12 to 14 have a mobile phone (35% among 8-10 year olds), 50% of them admit to being addicted to it. 75% of children sleep near their smartphone and 95% admit to using social networks at night. Co.Pa.S is controlling this trend which could be harmful for children.

Advantages

- This application allows parents to control how their children use smartphones.
- The aim is to allow them to better concentrate in class.
- Enables children to be more concentrated, increased their friendliness and improves their sleep.
- Easy access to the application from Google Play on the smartphones.
- One week free trial period.
- The education website offers a planning interface.
- The application is secure.
- Payment according to the number of children.
- The device can also be geolocated or even blocked remotely in case of theft or loss.

Partnerships

Analysis of the interests of the offer

This application concerns above all the pedagogy and education of parents towards their children. It allows them to limit access to their smartphones in order to reduce the time of use. The goal is to maintain stronger human relationships within the family, value other activities than smartphones and ensure student concentration in the classroom. This tool can therefore be beneficial for families. It can also be for teachers and schools in general since with this restriction of use the teaching will not be disturbed by telephones. Teachers will not have to play the role of "police officer" thanks to this application. Teaching conditions and the relationship between teachers and students could thus be strengthened. It could be used by teachers.
This application also allows students to be geolocated and increases the child's safety conditions.

However, it is relevant to question the biases of this application because it could lead to excessive parental control of children. Outside of school hours, this application could limit the benefits of smartphone. Indeed, through access to the Internet with their smartphones, children have access to knowledge. It may be more appropriate to limit access to certain content only.
On the other hand, the smartphone remains a tool for socializing with other children.
Prohibition is not necessarily the most pedagogical approach. Smartphone education may be more relevant than the imposed restriction. However, this is a question for parents. This application offers, in any case, better teaching conditions for teachers in schools. This application could be recommended to parents.

Link   https://www.copas.education/

An application that promotes the organization and pedagogical communication of teachers

RyMM is a communication application between parents and teachers. It is a pedagogical tool to involve parents in the education of their children and strengthen school life and collaboration. This application supports teachers in their teaching. Several comments from RyMM perfectly illustrate its mission: "Share live feed of students daily classroom activities, homeworks, behaviour and all stuff that matters to you with parents"

This Edtech seeks to promote communication between students, parents and teachers. It improves the monitoring and pedagogy of teaching.

Type
Technological offer promoting pedagogical communication between parents and teachers

Competitive advantage

This application allows teachers to communicate with students and parents. It therefore promotes the support of student instruction through a collaborative and participatory tool between teachers, parents and students.

Price
No information for the moment

Feedback from experience
No information for the moment

Link
http://www.rymm.com/index.php

An application that promotes the organization and pedagogical communication of teachers

Advantages

- Allows teachers to manage classrooms, families and business with a single application.

- Help schools get rid of paperwork by digitizing all school business activities and communications. Enable financial savings by reducing paper consumption.

- Many features to improve communication and pedagogy between parents, students and teachers.

- Facilitates parental participation and collaboration in education and school life.

- Allows students to be monitored, informed and supported.

- Saves time in communicating assignments, exams and other information to parents.

- Use of the application on several devices: telephone, tablet, computer.

- Data garnered by RyMM can be an essential tool for administrators to spot larger trends and tendencies.

- Provides services to teachers to facilitate their work, activities and strengthen their teaching with multiple pedagogical services.

Manage classrooms, observe students, collect tuition, and stay in touch with families

Messaging Parents
Communicate with parents and fellow teachers

Notes
Take notes on students class activities to share with fellow staff and parents

Record Attendance
Take and share student attendance with parents

Homework
Update parents on homeworks from any place

Behavior Management
Mange your students behaviour by giving digital behaviour points

Events
Schedule and update parents on class and school events

Reminders
Remind parents and students about important class activities

Survey
Create survey among parents and have a detail insights

What Am I Teaching Today ?
Update parents of your students on what is being taught in class today.

Meetings
Schedule your meetings with parents and students

Exams
Share Exam syllabus and grades with parents

Staff Collaboration
Communicate and collaborate with fellow staff members
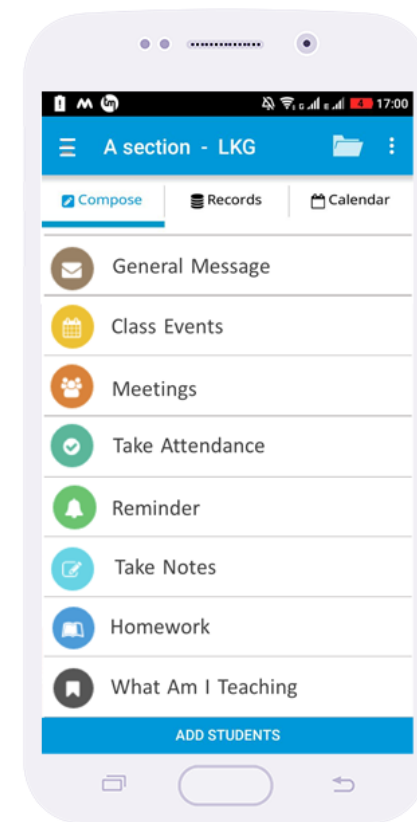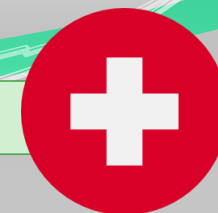
An application that promotes the organization and pedagogical communication of teachers

Analysis of the interests of the offer

RyMM is a company that promotes dialogue and communication between teachers and parents through an online application. Its primary purpose is to send messages to parents, communicate students' grades, share feedback on their behaviour in class and the subjects taught. The idea is to keep parents informed of school activities and strengthen their participation in their children's education. There is therefore a real added value in terms of collaborative communication between parents and teachers to promote the education of children. RyMM is a major educational benefit for parents and a support for teachers.

This application also allows parents to participate more in school life by having access to events that take place within the school.

In addition, teachers can use features to reinforce their teaching. They can notify behaviours to reward or encourage students, inform them and support them in their work. This communication tool can help the student improve himself or herself by involving parents.

RyMM can therefore improve parents' participation in their children's education and school life. It also supports teachers with a communication and pedagogical tool. It therefore seems to be an ideal application for easily incorporating new educational services into a school institution.

However, it is necessary to highlight the potential for excessive communication from teachers to parents about children's behaviour. There is a risk of scoring the behaviour in comparision to other children that could potentially destabilize the student. Not all information is good to share with parents, but teachers can be trusted to avoid this bias.

This application must be carefully reviewed to see if it aligns with the school's philosophy.
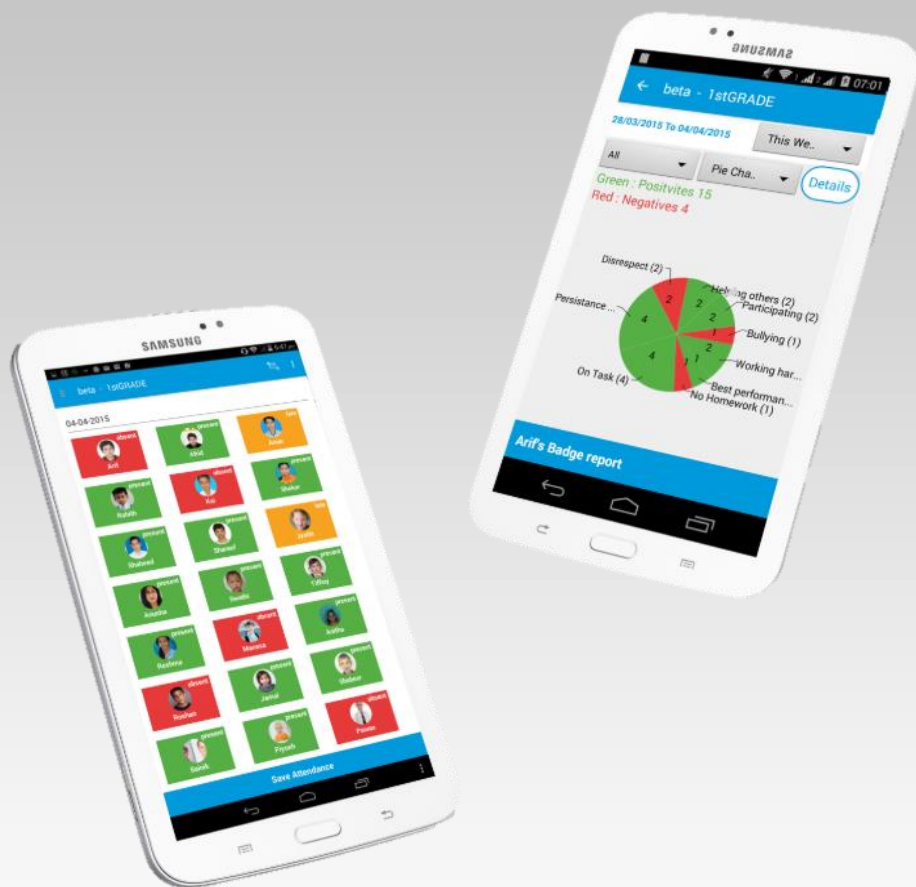
Simplified attendance management system

Visualize live attendance to proactively identify chronically absent students and monitor their progress. Use historical data to identify the weeks or months during which students are most likely to be sick, absent or tardy. Track suspensions over time and by subgroup. Drill down to a student to review their complete attendance history.
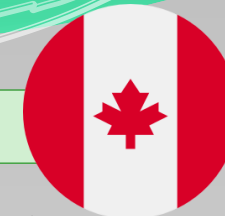
TOP HAT

An innovative application that promotes the organization, work and follow-up of teachers

Top Hat aims to help teachers through new technologies. This application aims to boost student engagement, build comprehension and accelerate student success both inside and outside the classroom. Top Hat is a tool to help teachers do their jobs by providing them with new online services.

Type

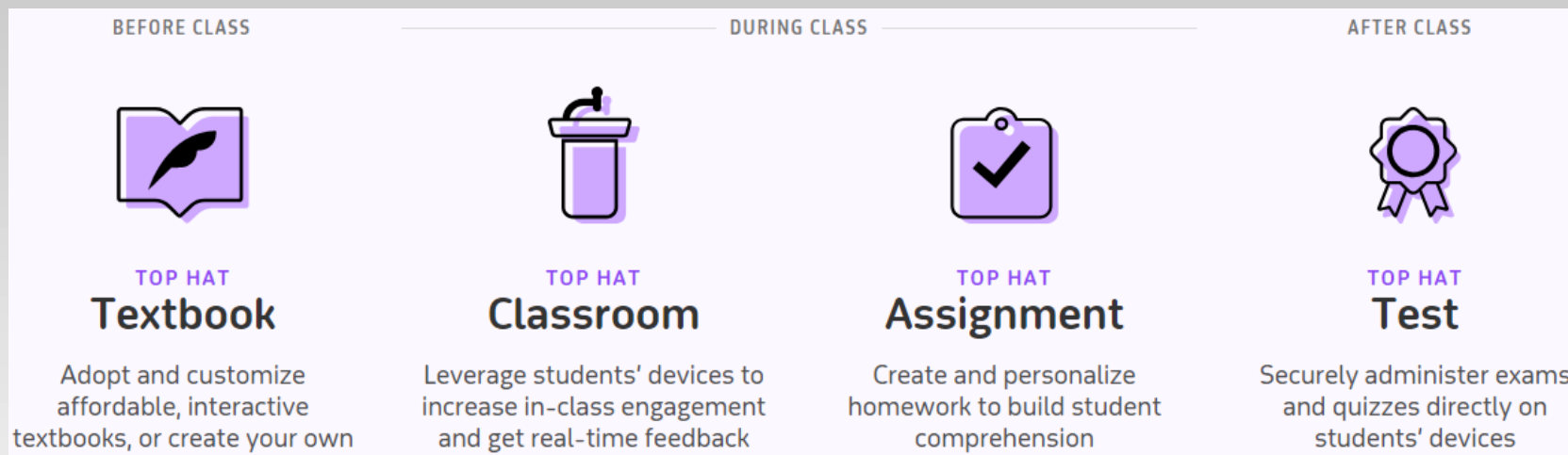Technology offer to support the teaching of teachers.

Competitive advantage

The advantage of this application lies in the facilities provided to teachers. It promotes the organization of their work, learning at school or at home and examinations.
However, this application does not provide enhanced communication with students or the creation of a specific community.

Feedback from experience

Community of 16'000 professors
Mentioned as one of the 10 most promising edtechs in North America

Link   http://www.rymm.com/index.php

BEFORE CLASS	DURING CLASS		AFTER CLASS
TOP HAT Textbook	**TOP HAT Classroom**	**TOP HAT Assignment**	**TOP HAT Test**
Adopt and customize affordable, interactive textbooks, or create your own	Leverage students' devices to increase in-class engagement and get real-time feedback	Create and personalize homework to build student comprehension	Securely administer exams and quizzes directly on students' devices

Price

For courses beginning May 1, 2018 or after, each of your students pays:

	CLASSROOM LEARN MORE	TEXTBOOK LEARN MORE	ASSIGNMENT LEARN MORE	TEST LEARN MORE
One term	$26	Free Or low-cost depending on the course materials you adopt from the Top Hat Marketplace	Free	$10 Top Hat Test is currently only available as a four-month subscription.
Annual	$38			
Four-year	$75			

Special offer for Top Hat Textbook adopters   When you adopt premium content from the Top Hat Marketplace, your students can also get access to Top Hat Classroom for $10—that's a $16 savings.

TOP HAT

An innovative application that promotes the organization, work and follow-up of teachers

Advantages

- Online services to support the work of teachers: creation of textbooks and course materials, motivate the participation in class, organize assignment and test...

- Supports many subjects ranging from biology to economics, psychology and art...

- Provides an educational and fun benefit.

- Transform passive lectures and course materials with active learning.

- Spark discussions, integrate videos and graphics, even customize full interactive textbooks. Motivate students to learn and participate.

- Allows students to be evaluated with online services. From automating attendance to auto-grading tests and assignments. Grade and analyze student performance.

- Course delivery tools that are simple to use and powerful in practice. Easy-to-use interface.

- Offers a support service for the creation of designs that create content that is conducive to teaching.

- Top Hat's all-in-one teaching platform helps faculty and institutions achieve their goals of affordable, quality education for all students.

- Security requirements for online tests.

GENEVA INTELLIGENCE
STRATEGIC INFORMATION

An innovative application that promotes the organization, work and follow-up of teachers

Analysis of the interests of the offer

Top Hat is a particularly interesting Edtech because it supports teachers with multiple online services. It allows them to create courses, assignements and tests more easily. It provides them with a simple platform to better organize themselves, give instructions to students and interest them through more connected and dynamic media.

Top Hat therefore enhances the work of teachers and makes their assignments easier. These tools modernize teaching in order to interest and motivate students to learn. This Edtech thus makes the work of teachers more effective.

Nevertheless, this tool does not seem to enhance the notion of community and bring students and teachers together. There is no objective to improve social relations but above all to support teachers in their work efficiency.

There are also considerations to take into account in regards to auto-grading that might be appropriate for a specific educational style. Teachers must be educated in how to use the tool to optimize their work, not replace it.