GENEVA INTELLIGENCE
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MONTES ALTI
EDUCATIONAL FOUNDATION
SWITZERLAND

EVOLUTION OF EDTECH BUSINESS MODELS

Prospective Monitoring
September 2021
by Geneva Intelligence

Summary of the September 2021 Edition

Definition of Edtechs

Methodology

Trend analysis

EvidenceB is a tool that adapts the learning experience to the user's learning methods through the use of algorithms.

Foondamate is a tool for obtaining learning resources (Wikipedia articles, course materials, word definitions, solving equations, etc.) via the WhatsApp application.

Meg Languages is a solution for introducing a Chinese and Spanish language learning programme via video conferencing into a classroom.

Immersive VR Education is a virtual reality communication platform created by the start-up Immersive VR Education. Its aim is to facilitate creation, learning and collaboration in virtual reality.

Artcentrica is a platform for viewing artworks from a distance. The added value of this solution is the quality of the image offered.

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 METHODOLOGY

Prospective monitoring - definition

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

Edtech Trends Analysis

Main technological trends

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

- **Artificial intelligence**
- **Learning analysis**
- **Big Data**
- **Voice recognition**

News highlights

Microsoft

acquires the company

takelessons

The terms of the acquisition were not disclosed

*Confirms Microsoft's interest in **entering the education market***

The start-up

GoStudent

Raises **EUR205 millions**

*Valuing the young Austrian company at **EUR1.4 billion***

*It becomes the first **European EdTech unicorn*.***

Byju's

Preparing an **IPO°**

*To raise between **USD400** and **USD600 million***

*The company could soon be worth **USD21 billion***

Unacademy

Raises **USD440 millions**

In its recent investment round in Asia

*The start-up is now worth **USD3 billion***

pwc

The Australian branch of **PWC** has published an analysis suggesting that education institutions should **collaborate** rather than compete with Edtechs

To **rebound** from COVID, analysts advise institutions to ask themselves **three questions:**

1. What is our **mission** and **value proposition?**
2. How does our **mission** determine our **future activities** and our size and shape?
3. How will we develop our **key success factors** in this new reality?

DISCOVER EDTECH TRENDS ANALYSIS

** Start-up valued at over USD1 billion* *° Initial public offering*

EvidenceB: AI for learning

EvidenceB is an Edtech offering adaptive educational tool systems. The technologies proposed by EvidenceB are based on 3 pillars: cognitive science, artificial intelligence and UX interface (global user experience).

Type

A tool that promotes learning by adapting the educational experience to the user's learning methods.

Competitive advantage

The solution can offer a differentiating factor by improving the personalisation and playfulness of learning.

Prices

No information on the commercial price of the solution is currently available.

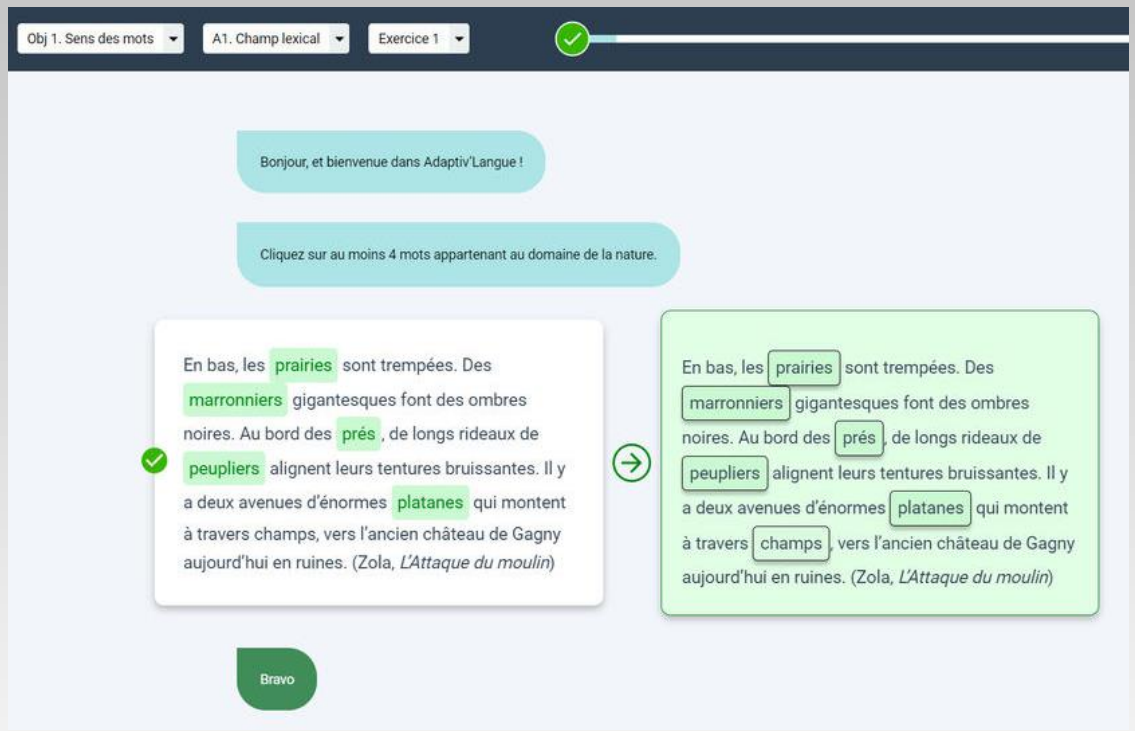
Number of users

No precise information on this subject could be identified. The company has gained the confidence of the French National Education System, which has purchased five maths modules for the 2.2 million pupils in cycle 2 (primary school) for four years.

Stage of development

The start-up was created in 2017 in Lille. It now has around 30 employees and its turnover triples every year. EvidenceB raised EUR 2 million in 2019 and is preparing a second round of funding for 2022. It has also entered into a partnership with Pearson, the world's leading publisher of school education, and obtained a contract with the French National Education.

Link https://www.evidenceb.com/



How does it work?

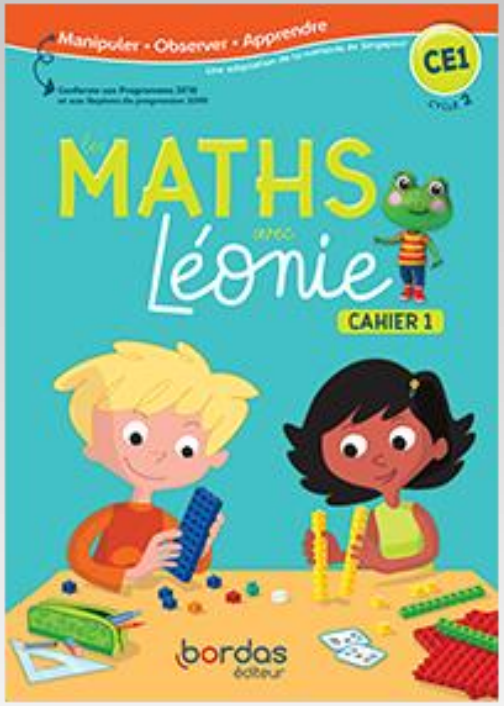
The learning modules are linked together by an artificial intelligence engine. This is a personalisation algorithm that identifies not only whether the answer given by the student is right or wrong, but also whether the student has called on help or avoided a question.

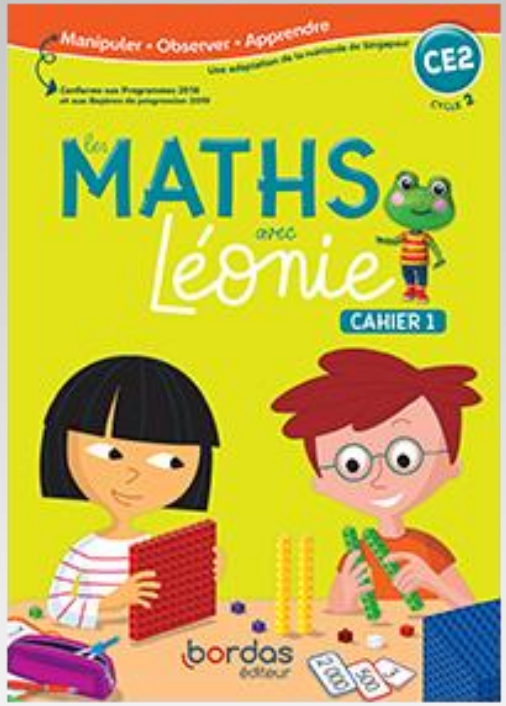
Based on such parameters, the solution will form clusters of students with a similar learning profile in order to offer them adapted exercise modules. All the modules begin with a profiling exercise consisting of about fifteen questions relating to the notion that the teacher is trying to convey. It provides the starting point and the algorithm takes over to propose exercises adapted to the student who can then work independently.

EvidenceB: AI for learning

Advantages

- Adaptability and customisation of learning by taking into account the needs and working methods of learners.
- Development team composed of experts in engineering and data analysis.
- Using knowledge from cognitive science to offer learning methods that maintain the attention and curiosity of learners. The platform offers exercises in the form of videos, chat-bots or games.
- Provision of a dashboard for monitoring student learning that can be used as a decision support tool for teachers.
- Closely followed and supported by the French Ministry of Education, Sport and Youth, which is investing heavily in this young company.
- Working with major textbook publishers to develop their courses programmes.





Suitable for:

Kindergarten ★★★ Primary school ★★★★

Secondary School ★★★★ University ★★★

EvidenceB: AI for learning

EvidenceB is a solution that allows educational institutions to optimise the learning experience of their students by providing them with personalised exercises and learning materials.

There are three reasons why the use of EvidenceB can enhance the attractiveness and effectiveness of the training and teaching provided by the educational institution:

- The use of **cognitive science methods**, **artificial intelligence** and **UX optimization techniques** can offer real added value to the quality of learning. These have a great impact on the **personalisation of the learning path**. In addition, they **support** and **complement** the **work of the teacher.**

- The company has decided to diversify its learning methods by offering **playful exercises** (videos, chat bot, games, etc.) based on the expertise of cognitive scientists to **activate** and **maintain** the **curiosity of students** and serve the educational purpose.

- The solution offers teachers a **monitoring tool** that allows them **to follow the progress and challenges** of each student. Teachers will be able to **intervene and offer support** to students in the subjects/modules where they need it. This can represent a significant efficiency gain for teachers.

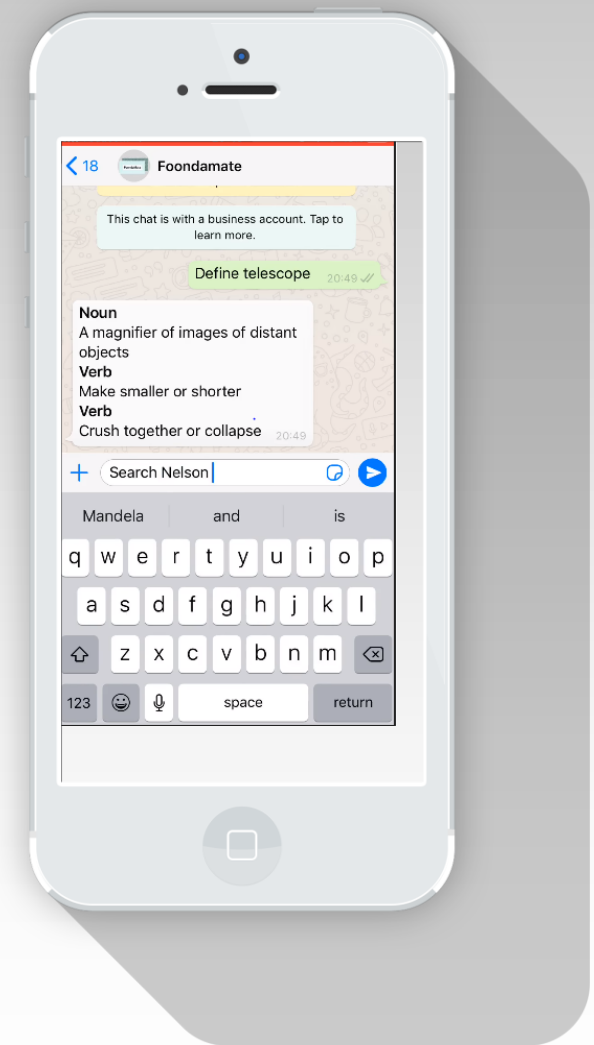
However, the solution has several limitations:

- The use of databases and algorithms does have its limitations. Indeed, the quality of the decisions taken with the help of data analysis depends primarily on the **quality of the data.** This data is collected during the first so-called "parameterisation" exercises and could be **distorted in several ways.**

- The algorithm decides on the parameters of the exercises on the basis of a profiling exercise proposed in the introduction to each module. Taking into account the variation in **behaviour, needs and desires of individuals,** linked to mood, motivation level, energy level, etc., would then be an element that **would improve the quality of the solution** and the pedagogical adaptation.

FOONDAMATE

FoondaMate: Receiving learning materials on WhatsApp



FoondaMate is a chatbot-like tool to obtain learning resources through the WhatsApp application. The platform includes Wikipedia articles, word definitions, course materials and solutions to mathematical equations.

Type

Tool to facilitate access to educational resources

Competitive advantage

To provide students without access to a high-speed internet network with the possibility to obtain their educational resources.

Price

Free of charge

Number of users

More than 140,000 users have already used the solution.

Stage of development

FoondaMate was launched in August 2020 in South Africa. The idea for its creation came from the realisation that a large proportion of South African students had no access to education due to schools being closed during the pandemic. The tool is regularly updated/improved.

How does it work ?

The learner connects to the application (a WhatsApp conversation) Foondamate through the company's website or by sending "Hello" to +2760 070 3213 on WhatsApp. The learner can then ask various questions or queries to the chatbot, which will very quickly provide an answer, a Wikipedia article or a document to be downloaded to his or her smartphone.

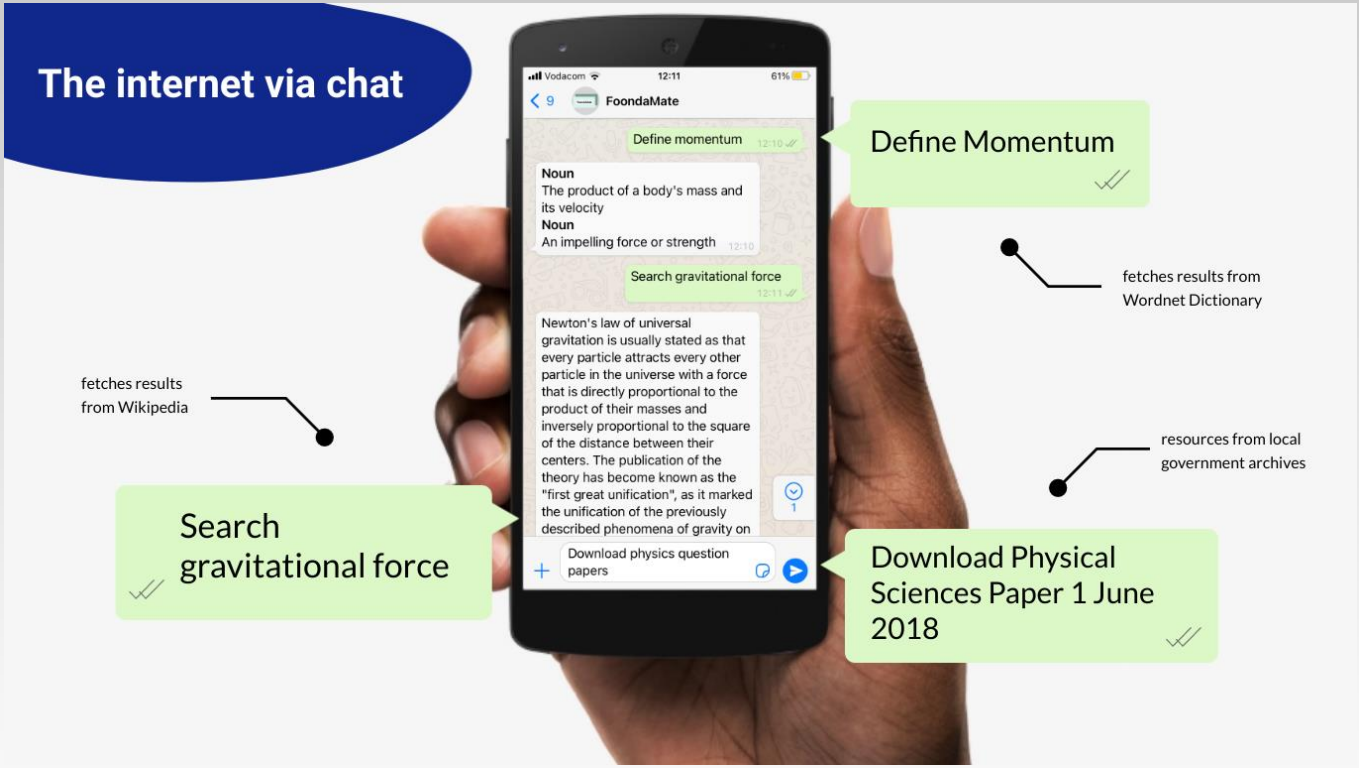
Link https://foondamate.com/

FOONDAMATE

FoondaMate: Receiving learning materials on WhatsApp

Advantages

- Allows students to access educational resources with little or no mobile data and without the need for a computer.
- Easy to use and linked to the popular WhatsApp messaging application, which is often pre-installed in phones and for which mobile internet providers offer deals allowing use without mobile data charges.
- Already available in more than 10 languages, willing to develop internationaly and add more languages in the near future (including Hindi, Portuguese and Spanish)
- Encourages and teaches students to seek information voluntarily and independently.
- Possibility of setting assignments and deadlines for teachers.
- Answers and documentation are provided very quickly.



Suitable for :

Kindergarten	★	Primary school	★★
Secondary school	★★★★	University	★★★★

FOONDAMATE

FoondaMate: Receiving learning materials on WhatsApp

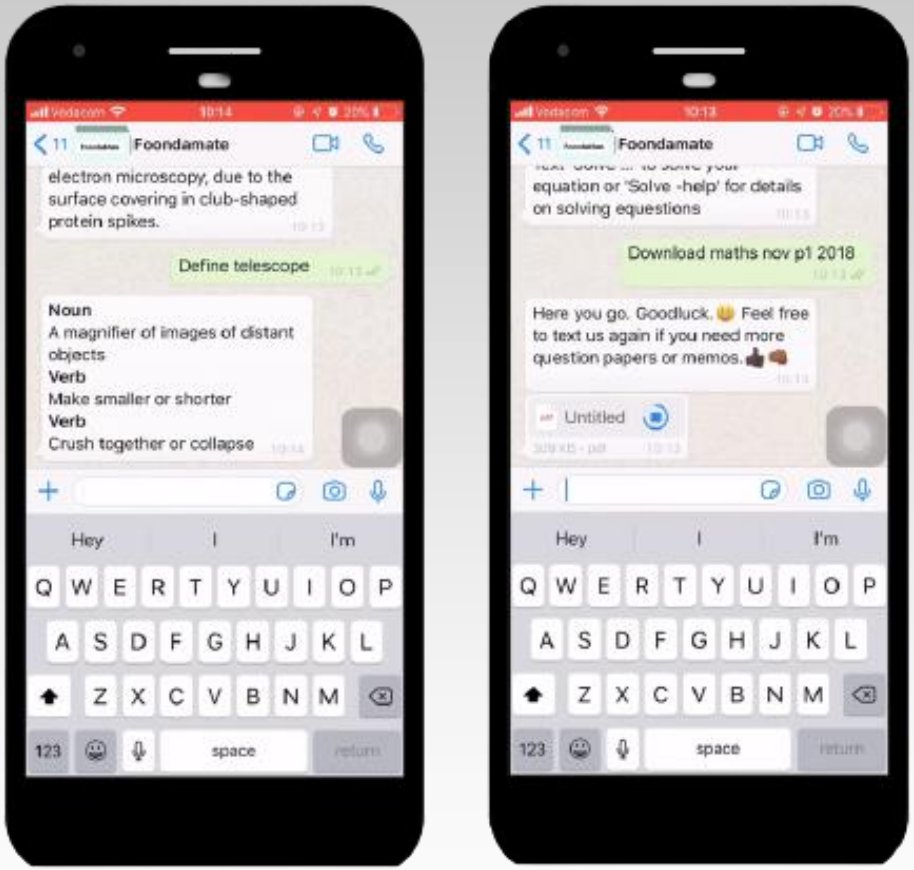
FoondaMate is a tool for obtaining learning resources through the WhatsApp application.

This application has certain advantages for a school:

- FoondaMate helps **reduce inequalities** between students by offering a solution to those with **limited access to computers** or a **wifi connection.**
- The solution is **free and easy to use**. It can become an **alternative to an intranet** for institutions that do not already have such a system and thus represent financial savings.
- The solution allows teachers to transmit **deadlines and assignments quickly and easily** via the WhatsApp application, which can be an organisational and pedagogical advantage.

However, this tool can be improved in several aspects :

- Answers to questions asked by the learner are delivered in the form of a WhatsApp message by a chatbot. As these messages are not always easily formatted, **ease of reading** and therefore learning can be impacted.
- The almost systematic use of the Wikipedia website limits the **reliability** and **diversity** of sources used to answer users' queries.
- The application **may not be very useful** in geographical areas where the internet connection is generally available and unlimited. The same applies to areas where internet service providers **do not offer the data used by Whatsapp.**
- May **increase inequalities** ; if the solution is used systematically by a teacher, students without a smartphone may be penalised.



Meg Languages: Remotely learn mandarin and spanish

Meg Languages is a solution for introducing a Chinese and Spanish language learning programme via video conferencing into a classroom. Students are connected to a team of teachers based in China who conduct live interactive lessons.

Type

Service for learning a foreign language (currently Mandarin and Spanish) via video-conferencing.

Competitive advantage

Provides Mandarin lessons without investing in the recruitment of a person with this skill

Stage of development

The company was founded in 2012 under the name "My Chinese Tutor" in Beijing by two American expats. Meg now teaches in over 200 schools and is present in 4 countries. The company has recently launched its Spanish courses and is looking to expand its language offerings.

Number of users

The company claims to teach Mandarin and Spanish to approximately 40,000 students per week.

Price

The fees depend on the size of the classes and the duration of the course. The company offers the possibility of a free trial lesson.

Link https://meglanguages.com/

How does it work ?

The students are connected to a teacher based in China and follow an interactive online course through a screen/beamer. The « official » class teacher is invited to stay in the room and will also participate in the class and learn Mandarin. Students and teachers also have access to a platform where they can access exercises to do at home or during a group work session.

Meg Languages: Remotely learn mandarin and spanish

Advantages

- Meg Languages provides Mandarin and Spanish courses through video-conference and course materials. This saves resources for institutions and teachers.
- The solution offers learning solutions for students but also for teachers. Students and teachers learning at the same time can offer an unusual and unique experience by breaking down hierarchies.
- Most institutions in developed countries are already equiped to provide these courses (computers, projectors, internet connection, etc.).
- Access to homework and exercises outside of scheduled lessons.
- Planning of fixed courses according to the needs of the training institution (daily, weekly, monthly).
- This change of pedagogical support allows the student to leave their comfort zone and can represent a good basis for education on the major trends in the world of work (digitalisation, hybrid work, etc.)

Suitable for :

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

Meg.

Meg Languages: Remotely learn mandarin and spanish

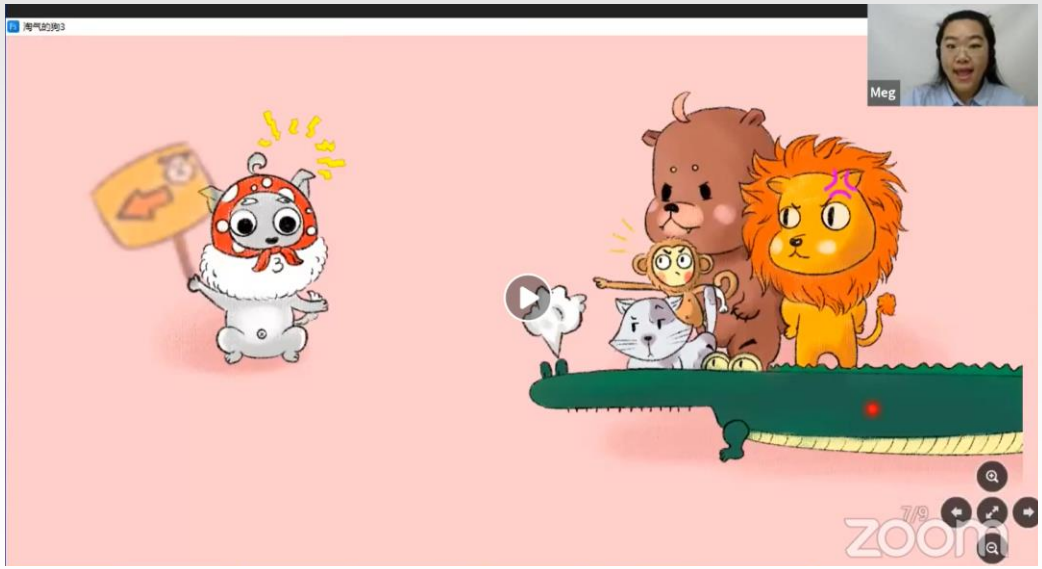
Meg is a solution for introducing a Mandarin and Spanish language learning programme via video conferencing used in classrooms.

The solution has significant advantages for a school:

- Meg Languages is a **all-in-one** easy to implement learning programme which **doesn't require** the need to **hire a skilled in-person teacher.**
- Opportunity to provide a rich educational experience for the institution's teachers and thus **develop in-house skills.**
- Possibility of **expanding the range of courses** on offer and increasing the attractiveness of the institution through a more varied teaching programme.
- Possibility of **amortizing investments in IT equipment** (computers, overhead projectors, tablets, etc.) by increasing their use.

However, the solution has some disadvantages :

- The fact that courses are given by video-conference with a teacher several thousand kilometres away can **greatly reduce student student's engagement in learning.**
- The physical distance also makes it difficult to **create links** between the teacher and the learners. These links can be a motivating factor in learning for students.
- There are many potential **computer, network or hardware quality issues** that can **affect the quality of the course.** Sound, internet connection or image problems could occur at any time and reduce the quality of the learning.



EngageVR: Meetings via virtual reality

EngageVR is a virtual reality communication platform created by the start-up Immersive VR Education. Its aim is to facilitate creativity, learning and collaboration in virtual reality.

Type

Tool for organising meetings using virtual reality technologies

Competitive advantage

Improved immersion of the user in distance learning or meeting situations.

Price

3 types of subscription:
Free : Maximum 3 users, limited room access, 1 host per session
Plus: 5€ per month, room hosting up to 20 users, unlimited room access
Companies and institutions: Customised offer

Number of users

The company has over 100 institutional clients including Abbot Laboratories, Facebook, KPMG, MongoDB and the US State Department.

Stage of development

The platform was launched in 2018 and it has continued to grow. It has been used as one of the core applications in HTC's "Vive XR" suite. On 22 June 2021, the company announced its intention to develop a new metaverse (fictional virtual world) following a EUR 9 million fundraising.

Link https://engagevr.io

How does it work ?

The user connects to the application on his device with their login details. They can then personalise their avatar.

Finally, they can join a room create an event or create their own. During a meeting, users can perform a multitude of actions: move around the room, speak into the microphone, draw, manipulate objects, broadcast presentations or Youtube videos, etc.

EngageVR: Meetings via virtual reality

Advantages

- Easy to use, the user is guided through the introduction to the platform and a large number of explanatory resources are made available on the internet.
- Good virtual reality experience facilitating user immersion according to feedback.
- Can be an interesting alternative to traditional meetings but especially to video-conferences.
- Large number of possibilities for creating 3D content (objects, rooms, equipment) via the editor. Many tutorials are available to help you get started with the editor.
- Solution compatible with both VR and non-VR devices
- Features include the possibility to write on boards, to create diagrams and collaborative drawings, to manipulate 3D objects, to broadcast slides and to broadcast Youtube videos.
- Accessible in terms of price, a "Plus" subscription costs EUR 5 per month.

Suitable for :

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

EngageVR: Meetings via virtual reality

EngageVR is a virtual reality communication platform to organise meetings and events.

The solution has many advantages for teachers and academic institutions like:

- Educational institutions can organise **more immersive and interactive** distance learning courses and **improve student attention and participation.** There are several interesting features. Student can for example draw diagrams for more engaging conversations. By offering **adaptability** and **creativity,** this solution can **enhance distance learning** and **make it more effective.**
- With the help of EngageVR, training institutions can **carry out practical demonstrations without having to invest** in **physical logistics.** Indeed, the editor offers the freedom to create 3D objects that can then be used on the platform. Through extentions, complex objects also be created such as engines or small aircraft for example.

However, the solution has certain limitations :

- The use of virtual reality requires **investments including very expensive hardware**, like in VR headsets but also computers/tablets.
- Although it is easy to imagine that students are enthusiastic about taking a course in virtual reality, it is difficult to know whether they will enjoy the experience in the **long term.**
- Reality and virtual encounters can **hardly replace the pleasure of a physical meeting** and the creation of links that result from it. In a course whose philosophy is to generates social links, **such a solution is complementary but cannot be substituted.**
- The **editor** tools is relatively **complicated**. It is likely that academic **institutions** will have to **invest in resources** and that **teachers** will have to **invest time** if they wish to **adapt** the virtual classrooms to their specific needs.

ARTCENTRICA

ArtCentrica: High quality masterpieces

Artcentrica is a digital platform to view works of art from a device. The added value of this solution is the quality of the image offered in the classroom in high definition (400 MegaPixels to 10 GigaPixels).

Type

Knowledge-acquisition platform for observing works of art from a distance.

Competitive advantage

Access a database of works of art in very high quality and at a distance.

Stage of development

The platform currently offers more than 1500 works of art exhibited in 7 museums around the world, including the MET, Brera and the Istituto Grafica.

Number of users

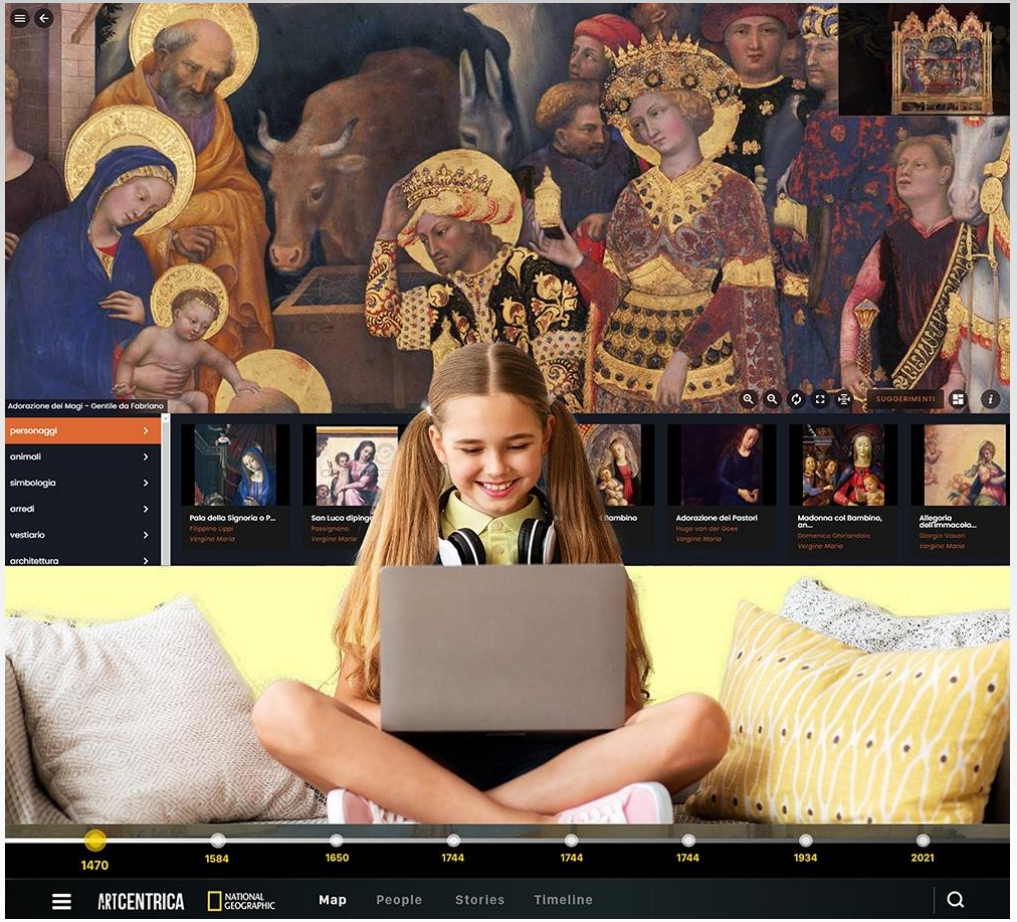
No relevant information could be identified in this respect.

Price

3 subscriptions:
School and university: EUR 1,350 per years
Research package: from EUR 80 per years
Collections / create your package: from EUR 80 per years

How does it work ?

Users have access to a platform where they choose the museum whose works they want to see and then the works they want to see in high quality. Users also have the possibility to "compare" two works of art or to search the works thematically (body part, character, clothes, etc.). Learners can also obtain information on the symbolism of the major works presented.



Link https://www.artcentrica.com/

ARTCENTRICA

ArtCentrica: High quality masterpieces

Advantages

- Access to an extensive catalogue of artworks and various museums around the world.
- Intuitive and ergonomic platform, possibility to search for works by artist, historical period, museum or by theme.
- Use of outstanding photographic technologies offering very high image quality and impressive zoom capability.
-
- Access to information on the symbolism of the works and the major trends presented. This information is divided by age category (Primary school / Secondary school - High school / Universities)
- Possibility to compare several paintings and other works of art
- Enables users to view works of art without travelling and without the logistics associated with such an activity

Suitable for :

Secondary School ★★★★ Kindergarten ★★

University ★★★★ Primary school ★★★

ARTCENTRICA

ArtCentrica: High quality masterpieces

Artcentrica is a platform for viewing artworks at distance.

The solution has significant advantages :

- With the help of this tool, educational institutions can **introduce** their students to artworks by great masters at a **medium cost** and **without travelling.** In addition, the **information** and **explanations** provided on the platform offer **students** and **teachers** the opportunity to **enrich their knowledge** of the history and symbolism of art.

- Due to its **intuitive** and **playful** interface, students **can freely and proactively navigate through the platform** and thus **develop their knowledge** of the artists, symbols or themes that interest them particularly. In this situation, the teacher has more time to **explain** and **guide** the students.

- The content is **regularly updated.** ArtCentrica could potentially offer an extremely **complete** and **interesting** catalogue. This regular enrichment of the content would allow teachers to use this platform as a **course in the long term.**

However, the platform has several disadvantages:

- The **subscription fees** can be a significant obstacle to the use of the solution for training institutions. Indeed, they will have to pay the **sum of €1,350** for a one-year subscription. This amount, although relatively high, **remains minimal** compared to the potential costs related to museum visits.

- Can one really fully **appreciate** an artwork by a great master through a **computer or tablet screen**? It is **unlikely** that using this platform will **replace a visit to a museum** and evoke the same emotions as admiring a work of art in front of you.