

= GIOGIA =

VIRTUAL TEACHER

GIOACCHINO MOSCATO

EDUCATION



Among the emergencies in our world, one of the main problem is the **quality instruction for children**, and this is a problem that involves a lot of countries.

- More than 120 milion children who are denied the fundamental right to basic education
- In a country with low incomes and high rates of population growth, the new generations represent the most important wealth and the best hope of breaking the chain that links ignorance, poverty, exploitation and underdevelopment
- Children represent the workforce for the future growth of countries

EDUCATION



120,000,000

Children in the world who do not receive the basic education



ADVANTAGES



FUTURE GROWTH



SOCIAL



NEW SOLUTIONS

ARTIFICIAL INTELLIGENCE features

GIOGIA VIRTUAL TEACHER born from the union of two technologies based on AI.

=GIOGIA=



VOICE CHAT BOT

- » Through **NLP** it converts unstructured human language in structured data that the computer can interpret and manage.
- » It gives the possibility to have an **ACTIVE COMMUNICATION** with the user.

DIGITAL HUMAN

- » Having human appearance, can capture the attention of the children **INVOLVING THEM MORE IN THE EXPERIENCE**

SOLUTION CONCEPT



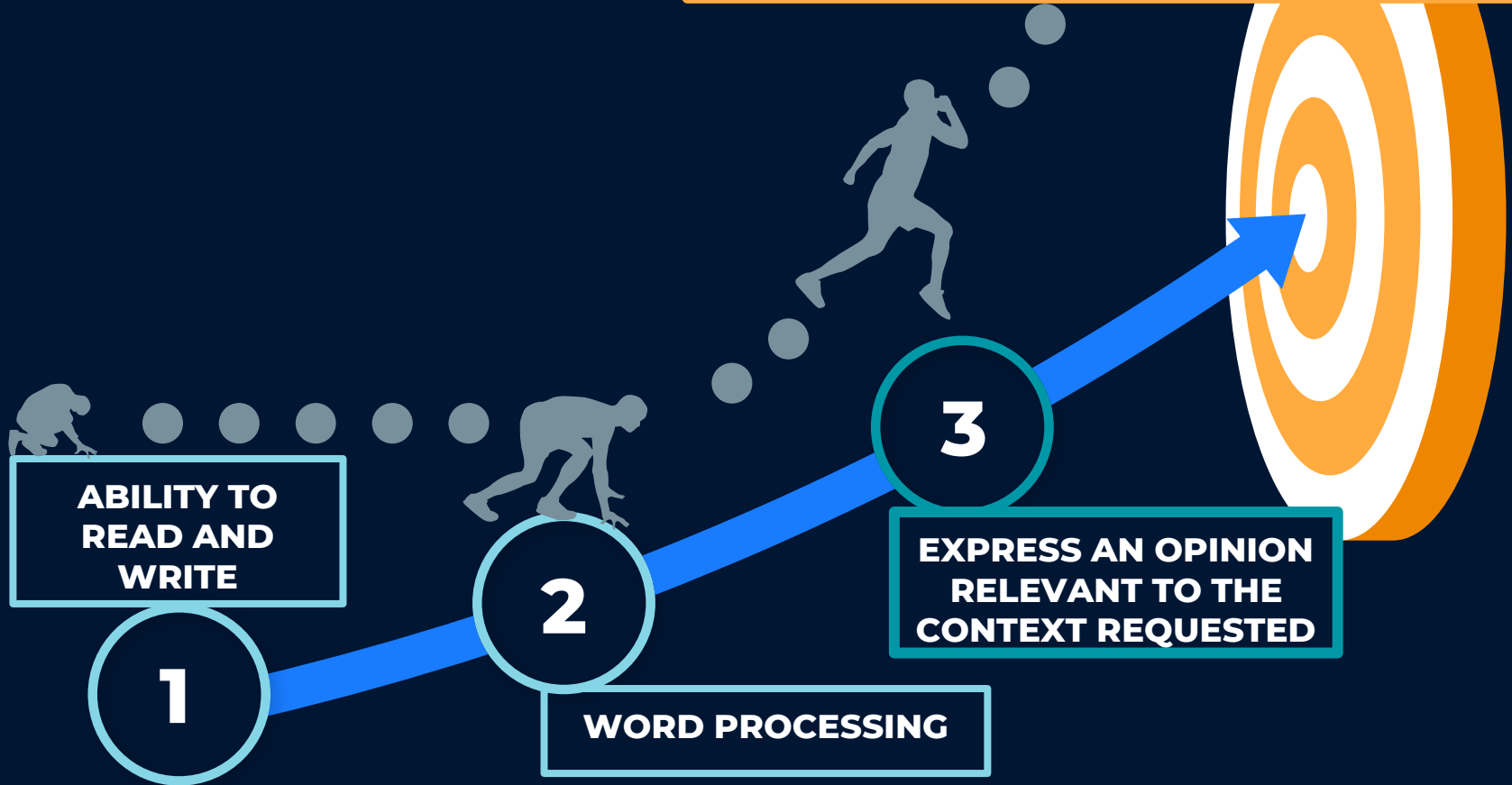
VIRTUAL TEACHER APPLICATION



Possibility to easily give
INTERACTIVE LESSONS

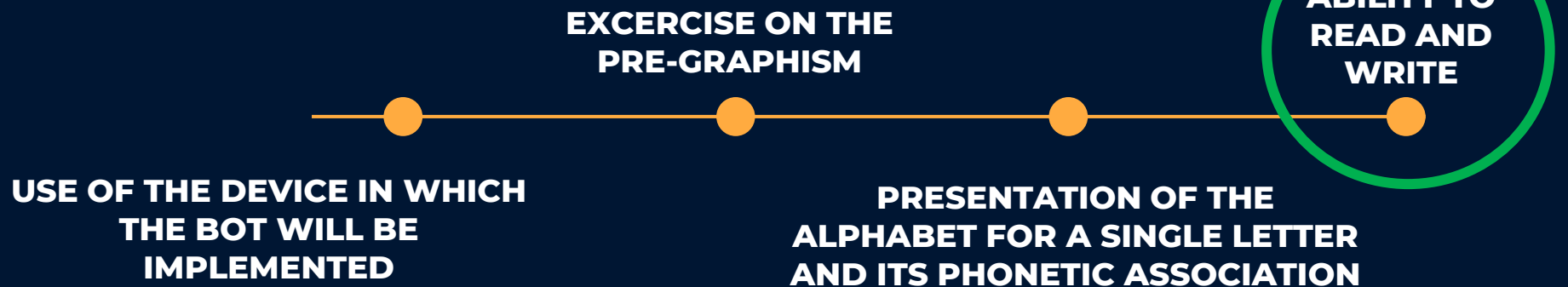
LEARNING PATH

UNDERSTANDING AND ADDRESSING PROBLEMS WITH CRITICAL APPROACH



1

1° CHILD WORKFLOW



2

LEARNING PATH

STUDY OF SOME **POSSIBLE SUBJECTS**

FOR EXAMPLE

- Native Language
- Math
- Second language
- History
- Geography
- Science



FINAL GOAL

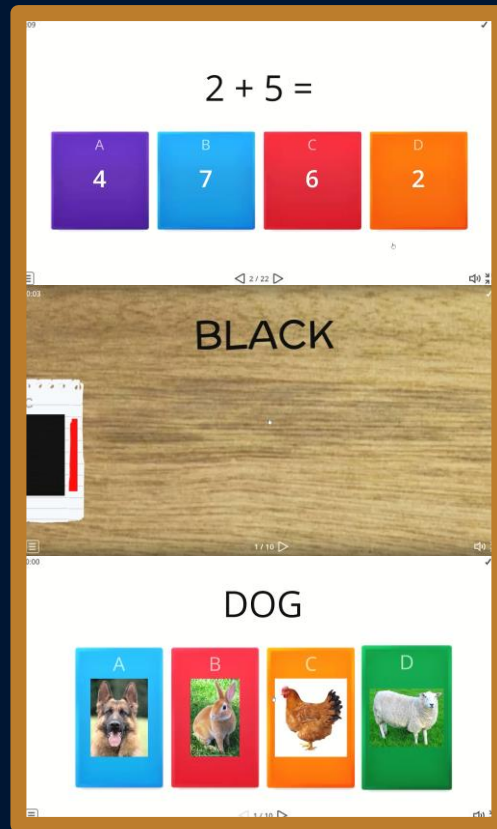
TEACHING



HOW?

LEARNING THROUGH PLAY

*provide commands with exercises
aimed at basic learning*



VIRTUAL TEACHER SET UP



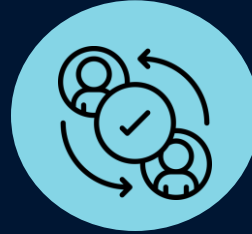
THEORETICAL LESSONS

Preset theoretical lessons easy to access, according to a well defined learning path that children will follow



PRACTICAL LESSONS

Implement exercises session to check and control the progress of learning



ACTIVE INTERACTION

Setup an active interaction, through the chatbot technology, to enable the communication with the user for doubts and questions



DATA ACQUISITION

Continuous data acquisition for feedback and for improving the bot, through new AI technologies

DEVICE BUILD

MULTI-TOUCH SCREEN

compatible with a **Pencil**
For writing applications



PORTABLE SOLAR PANEL

12 V able to charge
this kind of device



ACCESSORIES

Microphones, speakers and every kind of device usefull for the experience

ADAPTABILITY

Thanks to the **LEARNING THROUGH PLAY** the application can be developed for any kind of language, social context or type of study

LANGUAGE



SOCIAL CONTEXT

TYPE OF STUDY



= GIOGIA =



REQUIREMENTS FOR
LEARNING

Thanks to the **VOICE CHATBOT TECHNOLOGY** and AI technologies the application can be developed strictly in line with all the requirements for learning

EDUCATION



EDUCATION DATA

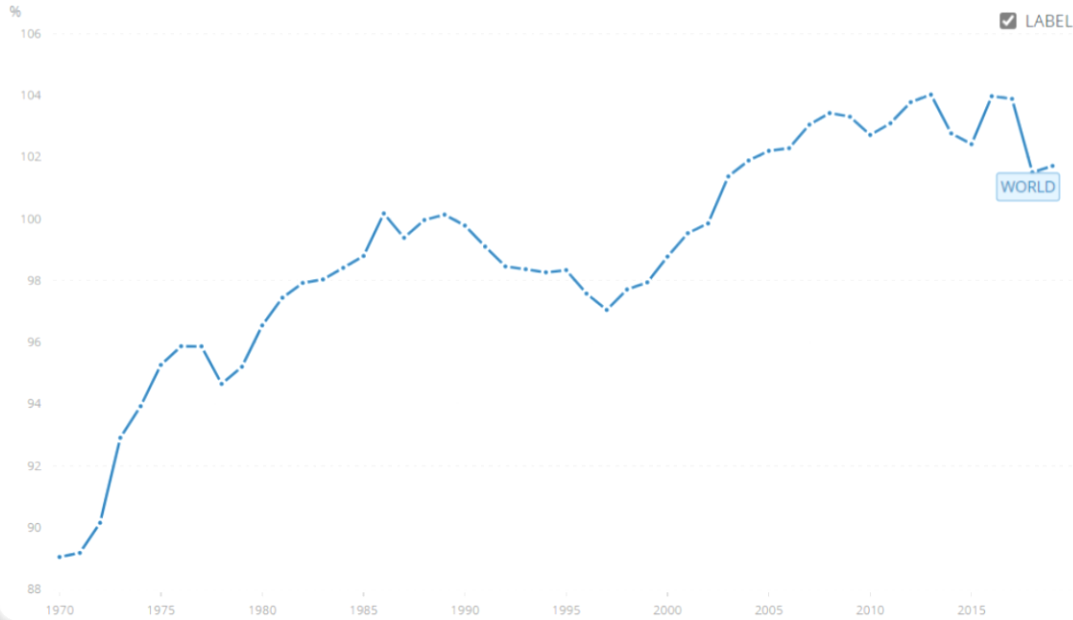


THE WORLD BANK
IBRD · IDA

School enrollment, primary (% gross)

Share Details

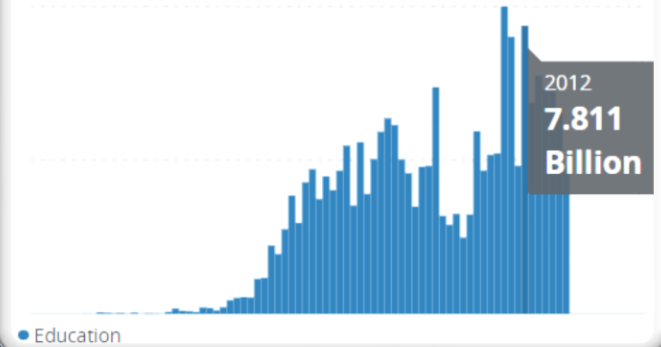
LABEL



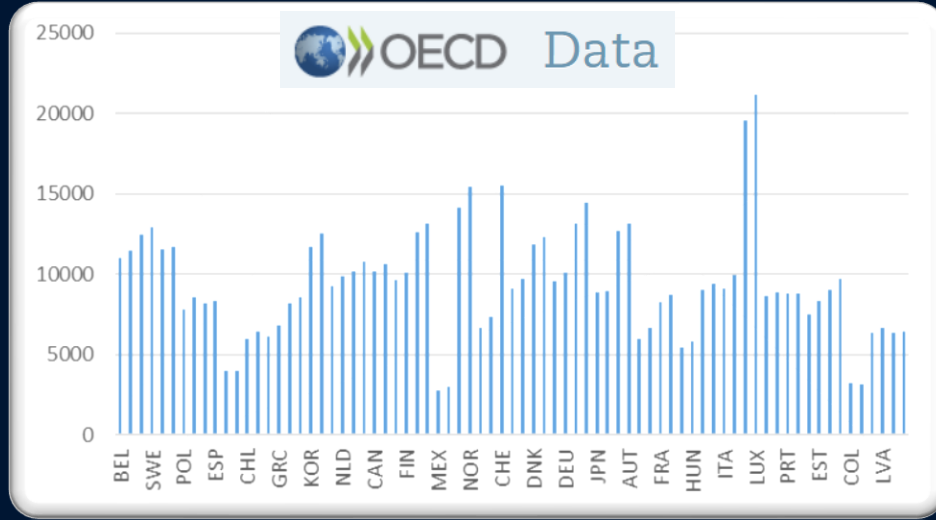
IBRD/IDA Operations Approved by Fiscal Year

\$3.95 billion

FY2018

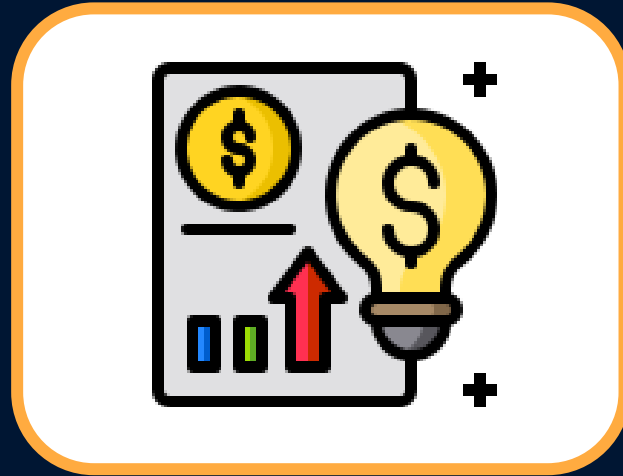


PRIMARY EDUCATION EXPENDITURE



9000 \$/Ch

BUSINESS PLAN



COST AREAS

APPLICATION



TRANSPORT
&
MANTAINANCE



DEVICE



APPLICATION

TEACHING SUPPORT FOR SOFTWARE DEVELOPMENT

50 \$/h
5 Workers
30 h/week
24 week

180.000 \$

**6 MONTHS
DEVELOPMENT
APPLICATION**

DIGITAL HUMAN DEVELOPMENT COSTS

150 \$/h
2 Workers
30 h/week
24 week

216.000 \$

TRANSPORT & MANTAINANCE

TRANSPORT



LOGISTICS



SUPPLY CHAIN



MANTAINANCE



SERVICE COSTS



SUPPORT IN LOCO



HARDWARE & ACCESSORIES

PROCESSOR

- Compatible with the **SOFTWARE**

POWER

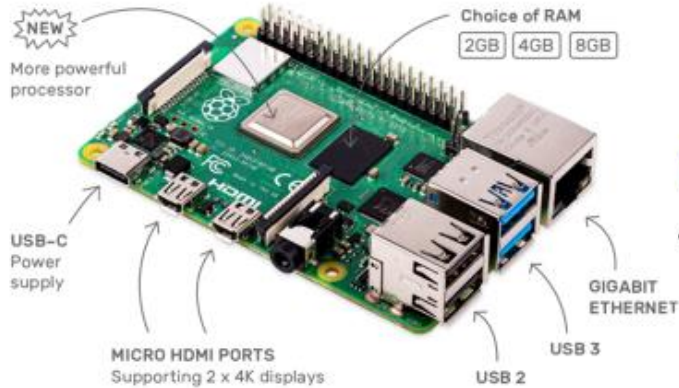
- Connection with **Portable solar panel**

Multi-Touch Screen Display

- Accessible for **writing operations**

Raspberry Pi 4

From \$35



MEMORY

- To support the **Application** and save **data**

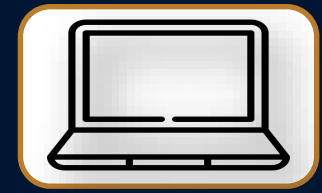
INTERNET

- Enable **internet connection**

SUPPORT DEVICES

- According to the **Requirements for learning**

PRODUCTION



MANUFACTURING

3D Printing with ABS

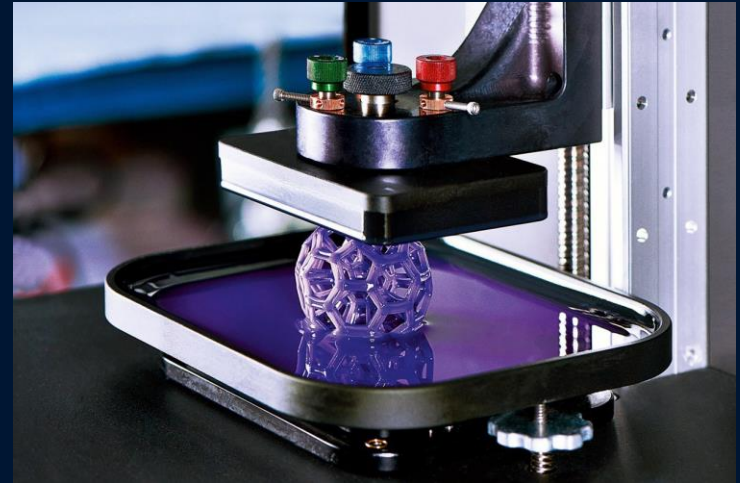
Mechanical
properties



Costs



Durability



PACKAGING



Sustainable options

COST DRIVER

DEMAND



TEACHING

Teaching costs will increase because of the necessity to have more supporting teachers on the application development

SOFTWARE

Software costs are defined according to the licence price with Uneed

TR & MANT

Estimated costs, that will increase with the more complex management

HARDWARE & DEVICE

This cost area is affected by the technological evolution of the device, the price will initially increases with the complexity of the system, and then will decrease with the saturation of the evolution

TEST & PROTOTYPE

This cost area considers all the cost related to the product development, that will increase with the demand, due to a more detailed analysis before putting the product on the market.

TECHNOLOGY FORECASTING

Digital learning is the quickest growing market in the education industry, with a whopping **900%** growth since 2000.

KPMG



By **2026**, the global e-learning industry is projected to reach **\$336.98 billion**.

Research & Markets



Mobile learning (m-learning) is one of the fastest growing markets in e-learning, with an annual growth of **23%**.

Technavio

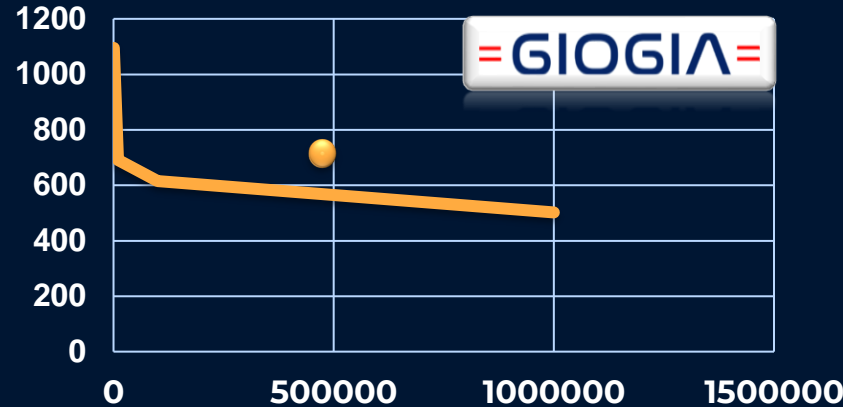


By **2022**, the global e-learning industry is projected to surpass **\$243 billion**.

Statista



COST (\$)



DEMAND (Children)

Augmented Reality and Virtual Reality technologies will be one of the biggest innovators of the industry during this decade.

Research & Markets





VIRTUAL TEACHER

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