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Investing in education for a changing world

21ST CENTURY SKILLS AND READINESS FOR THE WORLD

Jerónimo Silva
Regional Sales Manager, jp.ik

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TRANSFORMING
EDUCATION through
TECHNOLOGY

TRANSFORMING
the WORLD through
EDUCATION

The world’s largest corporate sustainability initiative

A cal to companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

United Nations
Global Compact

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Nº 1 IN THE WORLD IN IMPLEMENTING LARGE SCALE PROJECTS IN EDUCATION

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IMPACT - students and teachers reached

the jp.ik project sustainable approach

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THE GLOBAL GOALS
For Sustainable Development

Education 2030

ALIANÇA OBJETIVOS DE DESENVOLVIMENTO SUSTENTÁVEL PORTUGAL

EDUCATIONAL IMPACT

"Transforming Education" around the world.
Creation of talented and trained professionals.

SOCIAL IMPACT

Development towards a new global society.
Increase the number of qualified professionals that stimulate the national economy.

ECONOMIC IMPACT

Maintenance of already existing companies and new upcoming opportunities.

SUSTAINABLE IMPACT

Stimulate action over the next 15 years in the Five Ps of critical importance: People, Planet, Prosperity, Peace and Partnership.

jp.ik questions on EdTech integration for 21st century skills development

How far is **development** really addressed in Educational Technology projects?

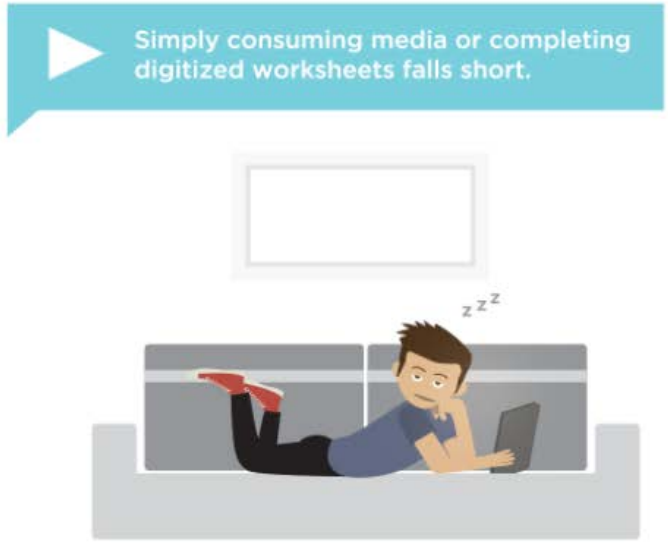
How should education be addressed when **virtual and digital environments** enter the classroom space?

Do they create opportunities to intentionally enhance **exploration and learning**?

And how can **educational agents** be guided to systematically get the benefits that Educational Technology may bring?

Engaging and Empowering Learning Through Technology

Learners need a deeper understanding how to apply technology and innovation in order to achieve desired results. Education systems, meanwhile, need to ensure technology curricula are kept up-to-date, while teachers need to have the opportunity to refresh their own skills and knowledge in order to keep pace with external developments.



PASSIVE USE

ACTIVE USE

The use of technology should be embedded across the educational experience, to mirror the ways in which technology is now relevant to all sectors and careers.

Source: https://tech.ed.gov/netp/learning/

Portugal: Education Technological Plan

Vision

Political Climate
- Government initiative;
- ICT highly valued by the Government.

Goals
- Approach the national educational policies to the European best practices;
- Create the "physical conditions that enable the students' academic success";
- Promote the access to the information society, info-inclusion and equality of opportunities;
- Assure one computer with learning contents per student starting at primary school level;
- Develop basic ICT skills in the Portuguese citizens, generalizing computer and Internet use;
- Enhance competitiveness.

Indicators of Success
- International benchmarking;
- Size of distribution;
- ICT national use, e.g., accessing Internet;
- School procedures now technologically mediated;
- Academic results in national examination.

Planning

Geographical Scale
- All national primary school students, from both public and private schools. In 2011/2012 the distribution has been interrupted.

Technological Setting
- E-escolinhas was part of a major national technological plan;
- Schools were provided with internet connection and one desk computer for each classroom;
- Some local stakeholders equipped classrooms with video projectors and smart-boards.

Program Operations and Oversight
- Top-down political decision and instruction;
- Training was not specifically target designed and follow up was not planned;
- The initiative was not planned in the long term.

Strategies for Stakeholders Engagement
- Stakeholders (e.g., local MoE structures, Municipalities) and field actors had a minimal participation in the process.

Mechanism for Communicating among Stakeholders
- Operational gaps in the articulation among stakeholders as several stakeholders are responsible for the Primary school.

Implementation

Rollout of Elements
- Magellan were delivered from zero cost to a maximum of 50 euros to Primary students from 2008 to 2011 (décalage in the delivery rollout);
- Parents requested the computers through the schools/teachers.

Ownership
- Ownership of Magellan to students and parents (not a school responsibility);
- Students kept their computers at home, sometimes bringing them to school and using them in the classroom.

Training and Support
- Training has been provided to teachers by several stakeholders (Intel, Microsoft, JPSáCouto, MoE, Municipalities and other local stakeholders);
- General feeling of lack of support and follow-up;
- ICT coordinators assisted the Primary schools differently (in terms of nature and intensity of support).

Monitoring & Evaluation

Progress to Success Indicators
- Access to computer in school and home for the primary school students and their parents – children played the role of gatekeepers of ICT at homes;
- Asymmetries on the technological modernization of schools and on the Magellan use as an educational tool.

Monitoring
- A heterogeneous panorama: different level-stages of integration;
- Education as a natural set for ICT;
- Teachers and parents as ICT integration interlocutors;
- Magellan: from a technological to an ecological vision.

Distal Stakeholders Recommendations
- Vendors: Strategic alliance through practice;
- MoE: To value ICT skilled and innovative teachers in career progression; To inform curricula with ICT integrated activities; To promote digital contents.
- Municipalities: To include ICT in Municipality Educational Charter, defining specific goals towards community media and digital literacy; To design training that articulates the different available school resources with pedagogy wider outcomes.

Transversal Outcomes
Better **academic performance**
Higher **social participation**
Increased **employability**

plano tecnológico educação

Kenya: DigiSchool Programme

Training of Master Trainers, ICTA Champions & Teachers

Training 70 Moi Master Trainers

From April 2016

Training ICTA Champions

From the beginning of 2017

Training 6.872 Teachers

from August 2016

Kenya: Assessment phase

Absenteeism| **"The children are motivated (...) the children are very excited, they want to manipulate the gadgets every time they come to school, so absenteeism has actually reduced".**

School Director, Kwashee School

Lifelong Learning| **"It's fast and it's fun (...) the time is near for our retirement but I am feeling I want to stay (...) it keeps you and you pray it will continue and we pray you will bring to us more and more things".**

Teacher, Sparki School

EdTech projects' effectiveness on 21st Century Skills depends upon

- a **clear preliminary assessment** of needs and opportunities and a critical stakeholders alignment for **project design**
- an **integrated training approach** – entwining Pedagogy and Technology
- a **comprehensive framework** of prerequisites for Master Trainers selection and training – skills in Technology, Pedagogy and mentoring
- an **adjusted training duration** to the targeted content and expected outcomes
- a clear definition of **impact assessment domains** to understand the outcomes and learn how to improve and go further

EdTech projects' New challenges

- a **Digital Borns approach** start earlier to not transform in high dependent consumers **project design based on assessment**
- **Teacher and community empowerment** – entwining Pedagogy and Technology
- a **challenge** don't create user's or consumer's **create thinker's and producer's**
- Get and accept **Results ….**

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main projects and milestones

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Magellan,
First education project
n **PORTUGAL**

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Canaima Educativo,
in **VENEZUELA**

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Netketabi,
in **PALESTINE**

Plan Ceibal,
in **URUGUAY**

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Conectar Igualdad,
in **ARGENTINA**

Pilot project,
in **MOROCCO,**
teacher training
at the "Maison de
l' Enfant"

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Popup School,
First deployment

Meu Kamba,
in **ANGOLA**

Project Escuela 2.0,
in **GALICIA**

Project Balboa,
in **PANAMA**

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Project Quipus,
in **BOLIVIA**

Police Security Forces project, in **UK**, in partnership with TETRATAB

Lempitas Project,
in **EL SALVADOR**

Pilot project,
in **COLOMBIA,**
teachers
professional
development

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mymaga brand as a global brand for Education

Meu Kamba,
in **ANGOLA**

Amigo Project,
in **BRAZIL**

Pilot project,
in **TIMOR,**
installation of
4 classrooms
and one
teacher's
room

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Education project driven by the Public Education Secretariat, in **MEXICO**

Education Project,
in **ECUADOR**

Ibirapitá project,
in **URUGUAY**

Industrial unit
Inauguration,
in **BOLIVIA**

Una Niña, un Niño,
Una computadora, in
EL SALVADOR

Pilot project,
in **JORDAN,**
teacher
training
focused on the
Professional
Development
of Women

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Digital Literacy Programme, in **KENYA**

Engineering project, in **SOUTH AFRICA** that integrates a SKD Assembly Line

Engineering project, in **BOTSWANA** dedicated to the installation of a SKD Final Assembly

Engineering project, in **SENEGAL** that integrates a SKD and SMT Assembly and Product Management

Industrial unit inauguration, in **EL SALVADOR**

Inspiring Knowledge Education Software (ikES) launch

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