



Sustainability

is the challenge to live
the progress in an

**ethical
way**

Who we are

We are students of a third class of **Liceo Scientifico Attilio Bertolucci** in Parma who have decided to work together on the concept of *sustainability*.

Our focus is especially on the consequences of a technology intensive use.

Daily life is based on modern devices and our connection with the technology begins just at our school, which is dedicated to the first generation of digital natives.



**the starting point
of our research**

Our school's aim is to transform the traditional idea of school **promoting a new method of learning focused on students.**

We are changing our way «to do school» realizing a cooperative learning space (beyond the physical limits of the building) to allow individualized educational paths, created by teachers and students together.

We use strategies combining the didactic innovation with new models of structural, infrastructural and human resources organisation.



Liceo Attilio Bertolucci is a

Scuola@ 2.0

Sustainability is to meet the needs of the present generation without compromising the opportunity of future generations to meet their own needs

More recent approach has extended the idea of sustainability including social well-being, resilience and adaptation across four domains:



ENVIRONMENTAL

We must create and maintain the conditions under which humans and nature can exist in productive harmony

ECONOMIC

A sustainable economy is one in which our resources are not used up faster than nature renews them and benefits are shared equitably

POLITICAL

International policies should support a sustainable development

SOCIAL

We have an ethical responsibility to do something about human inequality, social injustice, and poverty. The search of progress and wealth cannot lose sight of the social equity.



Our point of view

We have chosen to develop mainly the **social perspective**

TECHNOLOGY

HEALTH PROBLEMS

We can have pathological use of computers and cell phones, techno stress, headaches, risks of cancer, sterility, lacking of physical activity...

1

WASTE AND RECYCLING

Lots of components are dangerous and must be managed carefully or there will be environmental consequences.

2

DISCRIMINATION

Approaching new technologies or not having the opportunity to do this can produce social discriminations

3

RISKS

Information technology is first of all knowledge but it can also be hacking, swindles, girls roped in on the Internet...

4



Technology is engaging
but it means also...

Television → acceleration of the biological clock, extra production of melatonin

Mobile phone → there are studies of the correlations between an intensive use of them and the brain cancer.

Other tests are investigating on an increasing sterility among phone users

WiFi → headache, nausea, vertigo, heart diseases

Microwave → Risks of cancer for the exposure to the electromagnetic waves

Furthermore **all electronic devices limit the physical activity** → back pain, overweight, postural consequences, ...



1



HEALTH PROBLEMS
due to the most common devices

Waste from electronic equipment includes chemicals. When we dispose of gadgets and devices improperly, these dangerous materials have a high risk of polluting the air and contaminating soil and water sources.



Today only 13% of electronic waste is disposed of and recycled properly.

Reusing is better than recycling for several reasons: if your devices are still working, you can reduce e-waste pollution and share technology with people who otherwise wouldn't have access to it.

2

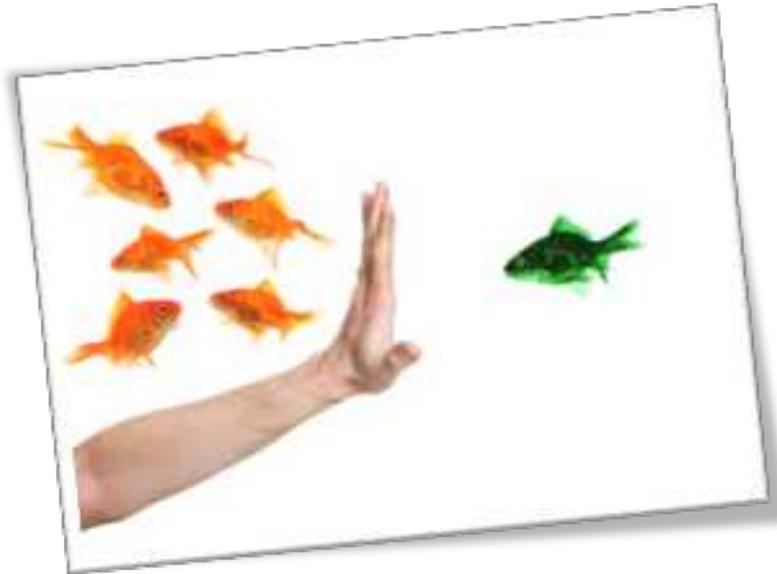


WASTE, RECYCLING and REUSING

Feeling that they are part of a group is very important for young people... and not being on a social network can be a source of discrimination

But also wealth and in general the possession of fashionable goods can create **social discrimination**.

Technology has a main role in producing a long list of **objects «you must have»** but also a parallel list of **people defined «out»** because they cannot have them.



3



DISCRIMINATION

The low cost and the quick **sharing of ideas, knowledge, and skills** produced by technology and by the use of the Internet must be considered essentially a positive aspect:

- It is a fantastic way to learn
- it often promotes collaboration
- it allows people to keep in touch

On the other hand everyday we face with **several kind of risks**

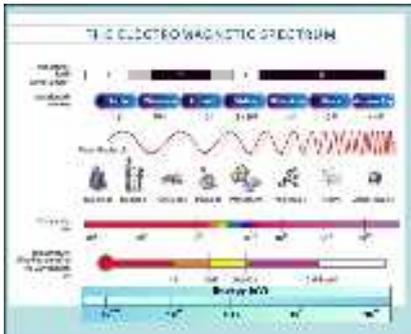
- Spread of false or wrong news
 - Identity theft
 - Swindles
 - Psychological violence
 - Cyberbullying



4



BENEFITS vs. RISKS



Through a **laboratory experience** we will test different kind of **electromagnetic waves** looking for dangers evidence produced by mobile phones and other common devices

We will try to **know** some more details about **manufacturing and waste disposal plants of electronic items**. Since this school year we have had a dedicated box for exhausted devices!

The **school psychologist** will explain how technology can produce **discrimination** and **cyberbullying** among young people. We want to stop it!

A **university teacher** will tell us about the **Coltan** and its social, economic, environmental and political implications



Our experience at school: four steps toward a **deeper awareness** and a **sustainable use** of technology





We will post the results
of this activity on

<http://seeds4education.org>

to share our experience
with other students

Thanks for you attention!

Class 3A
Liceo Attilio Bertolucci

