**Practice 4. DyP Course 2020 - 2021**

**Sessions:**

9 and 10

**Development of the practice:**

We will use in this occasion, a small case with support video, of which you have a guide for its visualization in the annex. After him, we will have a brief debate where we will relate the seen with our reality.

After the brief debate in each group (30 minutes), you should locate the UNE 14001 standard (if you use the polibuscador it is very easy) and, simply with the index and its first pages, **create with your colleagues points to add to the ethical code of a Medium or small sized company that makes reference to the correct elimination of e-waste**.

In addition, you must locate with the AENOR search engine (database paid by the UPV) and the BOE / Aranzadi the UNE-ISO standards and most relevant laws on waste electrical and electromagnetic devices. For instance UNE 14.001:2015 is uploaded in Spanish version (Practice 4).

You must keep the findings you make, **classify them and indicate the origin of them, as well as the reason for their relevance to this case.**

**Both things (points for code of ethics and search results) will go to a document that will be the one that you should UPLOAD.**

**Weight and assessment:**

1 point.

The document (Word, open office or pdf) is delivered UNTIL **THURSDAY 10TH OF JUNE** by means of a task created expressly for that purpose on the poliformat platform (or by e-mail, if you have any problem).

For exceptions (for health reasons, etc.) consult with the lecturer.

**Annex**

**The present case is based on the viewing of the episode 6x03 of the Futurama series, entitled "The Attack of the Assassins of the App" (with an original duration of 20 minutes and 45 seconds).**

[**https://www.dailymotion.com/video/x7pj6ia**](https://www.dailymotion.com/video/x7pj6ia)

**The recommended fragment to use in the classroom is the one from 0:16 to 4:00**. The main characters of Futurama, members of the Planet Express company dedicated to space transport, base their popularity on their ironic caricature of our behavior, in a future stage where humans live with aliens and robots.

Under the references to classic science fiction resides its true motor, which has caused its success: the steely criticism that Matt Groening and his team make of our contemporary society and, in particular, their encounter with technology, sometimes painful.

**Key words.**

e-waste, electronic waste, landfills, recycling, reuse

**The e-waste of the future**

Every day we use more technology. It's a good thing, because it makes our lives more comfortable, but we generate tons and tons of waste.

Think, for example, of reading. From the clay tables to the papyrus, from the papyrus to the book, there was practically no change in the environmental degradation. It is true that with the book appear mechanisms, first rudimentary and then increasingly sophisticated (although the real revolution in the sector appears with the emergence of computer in the process of editing and printing), but the final product was completely innocuous with the environment: how worst solution, could burn in a fireplace on a hard winter night, but that gave us heat in exchange for an amount of ash comparable to the wood that gave rise. Today, when 22% of the books published in Spain are not "physical", but digital (Observatory of Reading and the Book, 2015) and book readers, both those specifically prepared for that purpose and other elements with other functionalities (from "e-readers to tablets or mobile phones) begin to stop being a novelty and are replaced by models with better performance or by simple breakdown, we already have the specific problems posed by Waste Electrical Appliances or Electronic, better known as e-waste or waste (which we define as "a type of waste, consisting of any broken or unwanted electrical or electronic device".

Indeed huge mountains of waste that, against the criteria of the European Union, go to third world countries. Something like that happens in the video that we see.

**Primicio Chan (journalist):** Are those e-waste dangerous?

**Mayor of New-New York**: Not at all, Primicio. Not when they are transferred to the third world by a dispensable team of poor salaried workers.

**Professor Farnsworth**: Good news, poor fellows.

The real problem is that when the e-waste arrives at the final point, far from a correct treatment looking for reuse and recycling, we find one of the worst ways to eliminate remains: with supposedly controlled fires.

**Worker**: Burning e-waste we recycle many metals, safely releasing toxins to the atmosphere and drinking water.

**An exaggeration**? Recall the Guan study, which tells us how the recycling of printed circuit boards in Guiyu, China, emits a significant amount of heavy metals into the local environment. Particularly, lead (Pb) and copper (Cu) that can pose a risk to health. According to that study, the concentrations in fish and shellfish of the Nayang and Lianjiang rivers (around the Guiyu landfill) are 15,000 times higher than the reported concentrations of other regions, and about 200 to 600 times higher than the levels in sediments. Collected from the same rivers in other areas. It is estimated that more than 60% reaches the sea. (Guan, Kang, Fan, Chen, & Qu, 2009)

It remains to find a solution.

**Turangaleela**: It's true, we discovered very positive things about recycling. But a better solution would be to use more time the electronic devices instead of throwing them at half use.

However, we are devastated when, when discovering a new device that supposedly improves the benefits of the one that has (or that she thinks will overcome them) decides to get rid of the current one, throwing it into a normal wastebasket, to acquire a new one.

**Bibliografic references**

Guan, H., Kang, D., Fan, M., Chen, Z., & Qu, L. (February de 2009). Over expression of a new putative membrane protein gene AtMRB1 results in organ size enlargement in Arabidopsis. Journal of Integrative Plant Biology, Volume 51, Issue 2, 130- 39.

Observatorio de la lectura y el libro. (2015). El sector del libro en España 2013-2015. Madrid: Ministerio de Educación, Cultura y Deporte.

Sandoval, S. (Director). (2010). Futurama 6x03. The attack of the assassins of the App.