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STATISTICAL ANALYSIS OF THE CULTURE OF CELLULAR TELEPHONE USE AND DISUSE IN THE STATE OF TLAXCALA

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Abstract: The habits of disuse that are generated once the useful life of a mobile device ends, are associated with the lifestyles of different segments of the population, in Mexico cell phone penetration is 86.2%, which is equivalent to a collection of 102.3 million cell phones in use. This implies large volumes of telephone waste, according to statistics and studies from countries developed with a long history of recycling programs indicating that less than 3% of users recycle their cell phones. These low recycling rates promote a concern because most of these telephone waste ends up in inappropriate places, which is why it is important to know the practices of use and disuse that occur in university communities within the state of Tlaxcala.
Keywords: Telephone waste, statistics, university communities.

INTRODUCTION

Telephone waste is found within the catalog of products considered as an electronic base, this type of base generates a problem for humanity because of the relatively fast changing processes that involve technologies, and the generation of obsolete products that finally become a base is inevitable., this investigation addresses the problem regarding telephone waste that is generated in the university community of the ``*Instituto Tecnológico de Apizaco*``, and the Polytechnic University of the state of Tlaxcala, as well as the practices that occur with this device. Some of the most contaminants contained in telephone waste are heavy metals such as cadmium, lead, mercury and brominated plastics, which during their useful life, these components are harmless, as they are contained in boards, circuits, connectors or cables, but must be removed. they react with the contact of water and organic matter, releasing toxic substances into the soil and groundwater sources. Due to its non-biodegradable nature, these residues become dangerous; attacking the environment and the health of living beings. In this sense, it must be considered that the generation of waste is increasing considerably. Statistics indicate that currently 90% are ending up in poor health or basic health care without any type of treatment.

JUSTIFICATION OF THE STUDY

Mexico generates around 350 thousand tons of electrical and electronic waste each year. Within this waste, you will find cell phones that have reached the end of their useful life and are considered waste. According to the National Institute of Ecology and Climate Change (INECC); decentralized body of the Secretariat of Environment and Natural Resources (Semarnat), in 2006 the country generated 257 thousand tons of electrical and electronic waste; in 2010, 300 thousand; and in 2014 358 thousand tons were reached.

This tells us that "there is an annual increase of between 5 and 7 per cent. The increase in the production and use of electronic equipment, combined with the reduction in the lifespan of certain products, increases each year the volume of obsolete devices that are being disposed of or stored in storage.

In the state of Tlaxcala, there are no cultural statistics that university students have when the useful life of their cell phone has ended, which is why it is important to know hard data that allows us to have a real overview of the use, values and habits that in the university community, as well as analyzing strategies used by cell phone providers so that the remaining telephone waste has a good final disposal.

RANGE

The scope of this project is to understand and investigate the current situation in which the generation of telephone waste is found in university communities. The impact of this study aims to have a presence in two areas:

Environmental impact: The statistical analysis of the data allows us to have a clear vision of the amount of waste that is generated in university institutions and once knowing this information is intended to be an incentive to create waste management strategies that reduce the damage on average environment.

Social impact: It is intended to generate impact in the presentation of information obtained in the analysis of data, to provide a level of knowledge and environmental awareness both in the different entities operated and in other sectors involved with this topic.

DOCUMENT ANALYSIS

In the European Union, since 2002, legislatively introduced new responsibilities for producers and distributors, who must be responsible for products at the end of their useful life and seeking to minimize the environmental impacts of a product throughout its life cycle and on the soil since that it will be wasted again. This way, producers were also encouraged to develop products with longer life spans and that used less resources and dangerous materials, thus generating less waste and being safer and easier to recycle (DOF of the European Union).

It is worth noting that among the electronic equipment with the highest consumption in the Mexican market are mobile communication devices, personal computers and televisions. According to information from the Secretariat of Communications and Transport (SCT, 2009). Thus, the number of subscribers to mobile telephone services in 2009 was 83.5 million, and in 2013, 98% of the economically active population in Mexico had a mobile communication device (BMI, 2009).

Cell phones contain heavy metals and persistent toxic chemical substances that contaminate the environment and affect health, especially informal stoves that manipulate them without adequate protection; Furthermore, many of its components contain materials that are very valuable and can be recovered instead of being disposed of in sanitary drains or in basements in open air. One of the elements with the greatest potential for contamination are rechargeable batteries (Greenpeace, 2011). On the other hand, cell phone companies Telcel, Iusacell and Movistar operate temporary support campaigns in their customer service centers. Also in the country there are massive collection programs for electronic waste organized by representatives of state or municipal governments, as well as by representatives of SEMARNAT (Secretary of Environment and Natural Resources), who in turn collaborate with recycling companies to be able to Give a good final disposition to the copied materials.

METHODOLOGICAL CRITERIA APPLIED TO THE THEME

The methodology is exploratory given that the objective of this investigation is to analyze a poorly studied problem such as telephone waste in university communities, a particular case: ``*Instituto Tecnológico de Apizaco*`` and Universidad Politécnica del Estado de Tlaxcala. In turn, it also poses a descriptive part as it seeks to represent how the phenomenon manifests itself, specifying important properties.

This investigation will be carried out with young university students from the Instituto Tecnológico de Apizaco and the Universidad Politécnica (located in the State of Tlaxcala), through the application of surveys, with the

purpose of identifying data such as:

Consumption practices

Usage habits

Management practices

Among other elements that can generate statistics on the use and design of cell phones.

It is important to take into account that this investigation will also include data relating to equipment that is collected by distribution centers, as well as information on programs that have been implemented by secretariats, government agencies, etc., which will give us an overview how the use and use of cell phones is controlled within the State of Tlaxcala and mainly among university students.

FINAL COMMENTS

The amount of telephone waste worldwide is a worrying situation, however, in this regard there are factors, social, technological, cultural and geographical that define how users behave with their obsolete device, and that is to say, how to store the availability of their equipment. Telephone waste depends in turn on factors that allow it to be collected and traded. To understand these behavioral factors, a field study was carried out in different university entities, it is worth highlighting that due to the nature of the project there is little documentary information about the recycling and collection processes of this type of waste, as well as statistics in the state that Give us a reference guide for this study.

CONCLUSIONS

Analyzed studies demonstrate that both producers, providers/dispatchers and consumers show irresponsibility in the management of these wastes. Producers, who benefit from the sale of their products, do not assume responsibility for these costs until the end of their useful life, leaving users with very little information about waste telephone recovery processes carried out by producers/ distributors.

These residues require appropriate management in their final disposal, however, it is concluded with the information that demonstrates the statistical analysis that the chain of people involved in this process has not managed to articulate the strategies so that these can be successful and actually be achieved. damage to health and the environment.

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